The SpiderCloud® OS (SCOS) Data Model Reference Guide, Release 5.1

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Revision History

Revision	Date	Summary of Changes
1	1/6/2016	Initial release for SCOS R5.1

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SCOS NB Data Model Release 5.1

How to read this document

Objects

Each line of the table of contents (TOC) of this document:

- represents an object in the SCOS ServicesNode NB data model
- is a link to more information on that object
- reveals the hierarchy by providing the full path to each object

Clicking on a link in the TOC takes you to that object's description including a table of the direct child parameters of that object.

Parameters

Each item of the following table represents a parameter and includes this information:

- **Parameter** - parameter name
- **Writeable**
  - "**W**" indicates a configuration parameter (read-write)
  - "**-**" indicates an operational state parameter (read-only)
- **Type** - type of data value
  - **regex** - is a string with pattern restrictions on valid values
  - **enum** - is a string with fixed valid values
  - **(min:max)** - **min** <= character length of string <= **max**
  - **[min:max]** - **min** <= integer value <= **max**
  - **{min:max}** - **min** <= number of items in array <= **max**
  - **<min:max>** - **min** <= character length of array as comma separated string <= **max**
  - **(units)** - units of measurement of an integral type
- **Default** - parameter's default value:
  - **val** - **val** is the default value
  - **<Empty>** - **""** is the default value and the **empty** value
  - **Empty(val)** - **val** is the default value and the **empty** value
  - when parameter value is set to the **empty** value, the parameter is ***unspecified*** and will not be presented upon **show** in the CLI
  - **Mandatory(val)** - **val** indicates the default value of a **mandatory** parameter
  - the **Description** of a **mandatory** parameter explains when the value of the parameter must be changed to something other than **val**
- **Description** - parameter description

Parameter	W	Type	Default	Description
StandardParameterA	W	enum	WRR	*StandardParameterA* is a configuration parameter as indicated by "**W**". This parameter and its value will be presented when a CLI user executes **show configuration** or **show status OpState**. **enum** indicates this is a string parameter whose possible values are listed below. Enumeration of: • *WFQ* (Weighted Fair Queueing) • *WRR* (Weighted Round Robin) • *SP* (Strict Priority)
StandardParameterB	-	IPAddress	Empty(0.0.0.0)	*StandardParameterB* is an operational state (read-only) parameter as indicated by "**-**". This parameter and its value will be presented when a CLI user executes **show status OpState**. If the parameter value is **0.0.0.0**, this indicates that the parameter is unspecified and the parameter will *not* be presented when the CLI user executes **show status OpState**.
ExtensionParameter	W	unsignedInt[65535]{1:8}<50>	-	*ExtensionParameter* is a configuration parameter ("**W**") that is also a SCW TR extension: 1. extensions are highlighted by this reddish background color 2. extensions will be presented to an ACS with the appropriate prefix: *X_002448_ExtensionParameter* Default "**-**" indicates there is no default value and that the parameter is ***mandatory***. Parent objects can not exist unless the CLI user provides a value for all mandatory child parameters. The possible range of values for each array item is >= 0 and <= 65535. Array (maximum length as string 50) of *unsignedInt* items (minimum number of items 1, maximum number of items 8).

Top level parameters.

Parameter	W	Type	Default	Description
LANDeviceNumberOfEntries	-	unsignedInt	-	Number of instances of *LANDevice*.
ManagementDeviceNumberOfEntries	-	unsignedInt	-	Number of configured services node ManagementDevices.
TrunkDeviceNumberOfEntries	-	unsignedInt	-	Number of configured services node TrunkDevices.
TunnelDeviceNumberOfEntries	-	unsignedInt	-	Number of configured services node TunnelDevices.
SessionNumberOfEntries	-	unsignedInt	-	Indicates the number of UE session records for which information is available. Includes historic as well as current UE sessions.

NumberOfActiveSessions	-	unsignedInt	-	Indicates the number of active UE session records for which information is available. Only includes current UE sessions.
UENumberOfEntries	-	unsignedInt	-	Number of UE records for which information is available. This includes inactive as well as active UE sessions.

DeviceInfo.

This object contains general device information.

Parameter	W	Type	Default	Description
Manufacturer	-	string(64)	-	The manufacturer of the CPE (human readable string).
ManufacturerOUI	-	string(6)	-	Organizationally unique identifier of the device manufacturer. Represented as a six hexadecimal-digit value using all upper-case letters and including any leading zeros. The value MUST be a valid OUI as defined in [OUI]. This value MUST remain fixed over the lifetime of the device, including across firmware updates.
ModelName	-	string(64)	-	Model name of the CPE (human readable string).
SerialNumber	-	string(64)	-	Serial number of the CPE. This value MUST remain fixed over the lifetime of the device, including across firmware updates.
HardwareVersion	-	string(64)	-	A string identifying the particular CPE model and version.
SoftwareVersion	-	string(64)	-	A string identifying the software version currently installed in the CPE. To allow version comparisons, this element SHOULD be in the form of dot-delimited integers, where each successive integer represents a more minor category of variation. For example, *3.0.21* where the components mean: *Major.Minor.Build*.
CustomerID	W	string(64)	<Empty>	The CustomerID may be used to identify which customer is using this ServicesNode.
LocationID	W	string(64)	<Empty>	The LocationID may be used to identify the location of this ServicesNode.
ClusterID	W	string(64)	<Empty>	The ClusterID my be used to identify the ServicesNode's cluster.
Storage	-	enum	Encrypted	Indicates if the ServicesNode's storage device is encrypted. Enumeration of: • *Unencrypted* • *Encrypted*

ManagementServer.

This object contains parameters relating to the CPE's association with an ACS.

Parameter	W	Type	Default	Description
URL	W	string(256)	<Empty>	URL, as defined in [RFC3986], for the CPE to connect to the ACS using the CPE WAN Management Protocol. This parameter MUST be in the form of a valid HTTP or HTTPS URL [RFC2616]. The *host* portion of this URL is used by the CPE for validating the ACS certificate when using SSL or TLS. Note that on a factory reset of the CPE, the value of this parameter might be reset to its factory value. If an ACS modifies the value of this parameter, it SHOULD be prepared to accommodate the situation that the original value is restored as the result of a factory reset.
Username	W	string(256)	<Empty>	Username used to authenticate the CPE when making a connection to the ACS using the CPE WAN Management Protocol. This username is used only for HTTP-based authentication of the CPE. Note that on a factory reset of the CPE, the value of this parameter might be reset to its factory value. If an ACS modifies the value of this parameter, it SHOULD be prepared to accommodate the situation that the original value is restored as the result of a factory reset.
Password	W	spanUnsignedInt	<Empty>	Password used to authenticate the CPE when making a connection to the ACS using the CPE WAN Management Protocol. This password is used only for HTTP-based authentication of the CPE. Note that on a factory reset of the CPE, the value of this parameter might be reset to its factory value. If an ACS modifies the value of this parameter, it SHOULD be prepared to accommodate the situation that the original value is restored as the result of a factory reset.
PeriodicInformEnable	W	boolean	false	Whether or not the CPE MUST periodically send CPE information to the ACS using the Inform method call.
PeriodicInformInterval	W	unsignedInt	Mandatory(0)	The duration in seconds of the interval for which the CPE MUST attempt to connect with the ACS and call the Inform method if *PeriodicInformEnable* is *true*. *PeriodicInformInterval* must not be 0 if *PeriodicInformEnable* is true.
PeriodicInformTime	W	dateTime	Empty(0001-01-01T00:00:00Z)	An absolute time reference in UTC to determine when the CPE will initiate the periodic Inform method calls. Each Inform call MUST occur at this reference time plus or minus an integer multiple of the *PeriodicInformInterval*. *PeriodicInformTime* is used only to set the "phase" of the periodic Informs. The actual value of *PeriodicInformTime* can be arbitrarily far into the past or future. For example, if *PeriodicInformInterval* is 86400 (a day) and if *PeriodicInformTime* is set to UTC midnight on some day (in the past, present, or future) then periodic Informs will occur every day at UTC midnight. These MUST begin on the very next midnight, even if *PeriodicInformTime* refers to a day in the future. The Unknown Time value defined in [TR-098a2] section 2.2 indicates that no particular time reference is specified. That is, the CPE MAY locally choose the time reference, and needs only to adhere to the specified *PeriodicInformInterval*. If absolute time is not available to the CPE, its periodic Inform behavior MUST be the same as if the *PeriodicInformTime* parameter was set to the Unknown Time value.
ParameterKey	-	string(32)	-	*ParameterKey* provides the ACS a reliable and extensible means to track changes made by the ACS. The value of *ParameterKey* MUST be equal to the value of the ParameterKey argument from the most recent successful SetParameterValues, AddObject, or DeleteObject method call from the ACS. The CPE MUST set *ParameterKey* to the value specified in the corresponding method arguments if and only if the method completes successfully and no fault response is generated. If a method call does not complete successfully (implying that the changes requested in the method did not take effect), the value of *ParameterKey* MUST NOT be modified. The CPE MUST only modify the value of *ParameterKey* as a result of SetParameterValues, AddObject, DeleteObject, or due to a factory

				reset. On factory reset, the value of *ParameterKey* MUST be set to "".
ConnectionRequestURL	-	string(256)	-	HTTP URL, as defined in [RFC3986], for an ACS to make a Connection Request notification to the CPE. In the form: http://host:port/path The *host* portion of the URL MAY be the IP address for the management interface of the CPE in lieu of a host name.
ConnectionRequestUsername	W	string(256)	<Empty>	Username used to authenticate an ACS making a Connection Request to the CPE.
ConnectionRequestPassword	W	string(256)	<Empty>	Password used to authenticate an ACS making a Connection Request to the CPE.
UpgradesManaged	W	boolean	false	Indicates whether or not the ACS will manage upgrades for the CPE. If *true*, the CPE SHOULD NOT use other means other than the ACS to seek out available upgrades. If *false*, the CPE MAY use other means for this purpose. Note that an autonomous upgrade (reported via an *10 AUTONOMOUS TRANSFER COMPLETE* Inform Event code) SHOULD be regarded as a managed upgade if it is performed according to ACS-specified policy.
ManageableDeviceNotificationLimit	W	unsignedInt	30	The minimum time, in seconds, between Active Notifications resulting from changes to the *ManageableDeviceNumberOfEntries* (if Active Notification is enabled).
EnableCWMP	W	boolean	false	Enables and disables the CPE's support for CWMP. *false* means that CWMP support in the CPE is disabled, in which case the device MUST NOT send any Inform messages to the ACS or accept any Connection Request notifications from the ACS. *true* means that CWMP support on the CPE is enabled. The factory default value MUST be *true*. The subscriber can re-enable the CPE's CWMP support either by performing a factory reset or by using a LAN-side protocol to change the value of this parameter back to *true*.
DefaultActiveNotificationThrottle	W	unsignedInt	30	This parameter is used to control throttling of active notifications sent by the CPE to the ACS. It defines the minimum number of seconds that the CPE MUST wait since the end of the last session with the ACS before establishing a new session for the purpose of delivering an active notification. In other words, if CPE needs to establish a new session with the ACS for the sole purpose of delivering an active notification, it MUST delay establishing such a session as needed to ensure that the minimum time since the last session completion has been met. The time is counted since the last successfully completed session, regardless of whether or not it was used for active notifications or other purposes. However, if connection to the ACS is established for purposes other than just delivering active notifications, including for the purpose of retrying a failed session, such connection MUST NOT be delayed based on this parameter value, and the pending active notifications MUST be communicated during that connection. The time of the last session completion does not need to be tracked across reboots.
ForwardingGroupIndex	W	unsignedInt	Empty(0)	The FIB ID SN uses to connect to ACS. The value MUST be the instance number of an object in the *.Layer3Forwarding.ForwardingGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
DisplayedRATType	W	enum	UMTS/LTE	RAT Types to display in SpiderNet Enumeration of:

				• *UMTS* • *LTE* • *UMTS/LTE*
ConnectionRequestPort	W	unsignedInt	7547	This is the port that the SN will listen for Connection Request messages on.
EnableZLibCompression	W	boolean	false	Enable or disable Zlib compression. The ACS server must support Zlib compression to enable this feature. Changes to this parameter will take effect on the next session.
LastSuccessfulConnectionAttempt	-	dateTime	-	The last time the SN successfully connected to the ACS.
LastFailedConnectionAttempt	-	dateTime	-	Last time the SN failed to connect to the ACS.

ManagementServer.AccessControl.

Parameters relating to restricting access to Management Server service. Each parameter under *AccessControl* represents a method through which the service may be accessed from a network entity external to the system.

- if no parameters under *AccessControl* are specified:
  - access to the service is unrestricted
- if one parameter under *AccessControl* is specified:
  - service access is restricted to the method represented by that parameter
- if more than one parameter under *AccessControl* is specified:
  - service access is restricted to any one of the methods represented.

Parameter	W	Type	Default	Description
VirtualInterface	W	unsignedInt[1:]{}	<Empty>	Ingress virtual interfaces through which Management Server service packets are allowed. If "", ingress virtual interface is not a consideration when considering which Management Server service packets are allowed. The value MUST be the instance number of an object in the *FAPService.{i}.Transport.Tunnel.VirtualInterface.* table, or if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to .. Array of *unsignedInt* items.

ManagementServer.TLS.

Parameters relating to TLS configuration of the services node.

Parameter	W	Type	Default	Description
VerifyACSServerCertificateHostname	W	boolean	false	Enables or Disables ACS certificate hostname verification. When set to false, the services node will not verify that the hostname specified in 'ManagementServer URL' matches the hostname that is embedded in certificate being presented by the ACS server.
VerifyACSServerCertificate	W	boolean	false	Enables or disables verification of the certificate being presented by the ACS server. When disabled the services node will preform no verification check on the certificate that the ACS server present.
CACertIndex	W	unsignedInt	0	The index of the ACS server's CA certificate

ManagementServer.Stats.

ManagementServer Statistics.

Parameter	W	Type	Default	Description
ConnectionRequestsReceived	-	unsignedInt	-	The total number of ConnectionRequests received by the ServicesNode.

ManagementServer.Stats.RPC.

The parameters in this container list the total number of times a TR-069 RPC was run by the ServicesNode since its last reboot.

Parameter	W	Type	Default	Description
Inform	-	unsignedInt	-	Number of Inform messages sent.

GetParameterNames	-	unsignedInt	-	Number of times *GetParameterNames* was called.
GetParameterValues	-	unsignedInt	-	Number of times *GetParameterValues* was called.
SCWAddObject	-	unsignedInt	-	Number of times *SCWAddObject* was called.
SetParameterValues	-	unsignedInt	-	Number of times *SetParameterValues* was called.
DeleteObject	-	unsignedInt	-	Number of times *DeleteObject* was called.
Download	-	unsignedInt	-	Number of times *Download* was called.
SCWBeginTransaction	-	unsignedInt	-	Number of times *SCWBeginTransaction* was called.
SCWEndTransaction	-	unsignedInt	-	Number of times *SCWEndTransaction* was called.
GetAllQueuedTransfers	-	unsignedInt	-	Number of times *GetAllQueuedTransfers* was called.

ManagementServer.Stats.InformEvents.

The total number of events sent by the ServicesNode organized by type.

Parameter	W	Type	Default	Description
BOOT	-	unsignedInt	-	The total number of *BOOT* events sent by the ServicesNode.
PERIODIC	-	unsignedInt	-	The total number of *PERIODIC* events sent by the ServicesNode.
VALUE_CHANGED	-	unsignedInt	-	The total number of *VALUE_CHANGED* events sent by the ServicesNode.
CONNECTION_REQUEST	-	unsignedInt	-	The total number of *CONNECTION_REQUEST* events sent by the ServicesNode.
TRANSFER_COMPLETE	-	unsignedInt	-	The total number of *TRANSFER_COMPLETE* events sent by the ServicesNode.

Time.

This object contains parameters relating an NTP or SNTP time client in the CPE.

Parameter	W	Type	Default	Description
NTPServer1	W	regex(256)	<Empty>	First NTP timeserver. Either a host name or IP address.

				Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$
NTPServer2	W	regex(256)	<Empty>	Second NTP timeserver. Either a host name or IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$
CurrentLocalTime	-	dateTime	-	The current date and time in the CPE's local time zone.
LocalTimeZoneName	W	string(64)	<Empty>	Name of the local time zone (human readable string). The name SHOULD be encoded according to IEEE 1003.1 (POSIX). The following is an example value: *EST+5EDT,M4.1.0/2,M10.5.0/2*
Enable	W	boolean	false	Enables or disables the NTP or SNTP time client.

Status	-	enum	-	Status of Time support on the CPE. Enumeration of: • *Disabled* • *Unsynchronized* • *Synchronized* • *Error_FailedToSynchronize* • *Error* (OPTIONAL) The *Unsynchronized* value indicates that the CPE's absolute time has not yet been set. The *Synchronized* value indicates that the CPE has acquired accurate absolute time; its current time is accurate. The *Error_FailedToSynchronize* value indicates that the CPE failed to acquire accurate absolute time; its current time is not accurate. The *Error* value MAY be used by the CPE to indicate a locally defined error condition.
ForwardingGroupIndex	W	unsignedInt	0	The FIB to be used for NTP server. The value MUST be the instance number of an object in the *.Layer3Forwarding.ForwardingGroup.* table.
TimeZone	W	enum	UTC	The local Time Zone. Enumeration of: • *UTC* (UTC) • *Custom* (Custom value requires LocalTimeZoneName to be set) • *Africa_Abidjan* (Africa_Abidjan) • *Africa_Accra* (Africa_Accra) • *Africa_Addis_Ababa* (Africa_Addis_Ababa) • *Africa_Algiers* (Africa_Algiers) • *Africa_Asmara* (Africa_Asmara) • *Africa_Asmera* (Africa_Asmera) • *Africa_Bamako* (Africa_Bamako) • *Africa_Bangui* (Africa_Bangui) • *Africa_Banjul* (Africa_Banjul) • *Africa_Bissau* (Africa_Bissau) • *Africa_Blantyre* (Africa_Blantyre) • *Africa_Brazzaville* (Africa_Brazzaville) • *Africa_Bujumbura* (Africa_Bujumbura) • *Africa_Casablanca* (Africa_Casablanca) • *Africa_Ceuta* (Africa_Ceuta) • *Africa_Conakry* (Africa_Conakry) • *Africa_Dakar* (Africa_Dakar) • *Africa_Dar_es_Salaam* (Africa_Dar_es_Salaam) • *Africa_Djibouti* (Africa_Djibouti) • *Africa_Douala* (Africa_Douala) • *Africa_El_Aaiun* (Africa_El_Aaiun)

				• *Africa_Freetown* (Africa_Freetown) • *Africa_Gaborone* (Africa_Gaborone) • *Africa_Harare* (Africa_Harare) • *Africa_Johannesburg* (Africa_Johannesburg) • *Africa_Juba* (Africa_Juba) • *Africa_Kampala* (Africa_Kampala) • *Africa_Khartoum* (Africa_Khartoum) • *Africa_Kigali* (Africa_Kigali) • *Africa_Kinshasa* (Africa_Kinshasa) • *Africa_Lagos* (Africa_Lagos) • *Africa_Libreville* (Africa_Libreville) • *Africa_Lome* (Africa_Lome) • *Africa_Luanda* (Africa_Luanda) • *Africa_Lubumbashi* (Africa_Lubumbashi) • *Africa_Lusaka* (Africa_Lusaka) • *Africa_Malabo* (Africa_Malabo) • *Africa_Maputo* (Africa_Maputo) • *Africa_Maseru* (Africa_Maseru) • *Africa_Mbabane* (Africa_Mbabane) • *Africa_Mogadishu* (Africa_Mogadishu) • *Africa_Monrovia* (Africa_Monrovia) • *Africa_Nairobi* (Africa_Nairobi) • *Africa_Ndjamena* (Africa_Ndjamena) • *Africa_Niamey* (Africa_Niamey) • *Africa_Nouakchott* (Africa_Nouakchott) • *Africa_Ouagadougou* (Africa_Ouagadougou) • *Africa_Porto_Novo* (Africa_Porto_Novo) • *Africa_Sao_Tome* (Africa_Sao_Tome) • *Africa_Timbuktu* (Africa_Timbuktu) • *Africa_Tripoli* (Africa_Tripoli) • *Africa_Tunis* (Africa_Tunis) • *Africa_Windhoek* (Africa_Windhoek) • *America_Adak* (America_Adak) • *America_Anchorage* (America_Anchorage) • *America_Anguilla* (America_Anguilla) • *America_Antigua* (America_Antigua) • *America_Araguaina* (America_Araguaina) • *America_Argentina_Buenos_Aires* (America_Argentina_Buenos_Aires) • *America_Argentina_Catamarca* (America_Argentina_Catamarca) • *America_Argentina_ComodRivadavia* (America_Argentina_ComodRivadavia) • *America_Argentina_Cordoba* (America_Argentina_Cordoba) • *America_Argentina_Jujuy* (America_Argentina_Jujuy) • *America_Argentina_La_Rioja* (America_Argentina_La_Rioja)

				• *America_Argentina_Mendoza* (America_Argentina_Mendoza) • *America_Argentina_Rio_Gallegos* (America_Argentina_Rio_Gallegos) • *America_Argentina_Salta* (America_Argentina_Salta) • *America_Argentina_San_Juan* (America_Argentina_San_Juan) • *America_Argentina_Tucuman* (America_Argentina_Tucuman) • *America_Argentina_Ushuaia* (America_Argentina_Ushuaia) • *America_Aruba* (America_Aruba) • *America_Asuncion* (America_Asuncion) • *America_Atikokan* (America_Atikokan) • *America_Atka* (America_Atka) • *America_Bahia* (America_Bahia) • *America_Bahia_Banderas* (America_Bahia_Banderas) • *America_Barbados* (America_Barbados) • *America_Belem* (America_Belem) • *America_Belize* (America_Belize) • *America_Blanc_Sablon* (America_Blanc_Sablon) • *America_Boa_Vista* (America_Boa_Vista) • *America_Bogota* (America_Bogota) • *America_Boise* (America_Boise) • *America_Buenos_Aires* (America_Buenos_Aires) • *America_Cambridge_Bay* (America_Cambridge_Bay) • *America_Campo_Grande* (America_Campo_Grande) • *America_Cancun* (America_Cancun) • *America_Caracas* (America_Caracas) • *America_Catamarca* (America_Catamarca) • *America_Cayenne* (America_Cayenne) • *America_Cayman* (America_Cayman) • *America_Chicago* (America_Chicago) • *America_Chihuahua* (America_Chihuahua) • *America_Coral_Harbour* (America_Coral_Harbour) • *America_Cordoba* (America_Cordoba) • *America_Costa_Rica* (America_Costa_Rica) • *America_Creston* (America_Creston) • *America_Cuiaba* (America_Cuiaba) • *America_Curacao* (America_Curacao) • *America_Danmarkshavn* (America_Danmarkshavn) • *America_Dawson* (America_Dawson) • *America_Dawson_Creek* (America_Dawson_Creek) • *America_Denver* (America_Denver) • *America_Detroit* (America_Detroit) • *America_Dominica* (America_Dominica) • *America_Edmonton* (America_Edmonton) • *America_Eirunepe* (America_Eirunepe)

				• *America_El_Salvador* (America_El_Salvador) • *America_Ensenada* (America_Ensenada) • *America_Fort_Wayne* (America_Fort_Wayne) • *America_Fortaleza* (America_Fortaleza) • *America_Glace_Bay* (America_Glace_Bay) • *America_Goose_Bay* (America_Goose_Bay) • *America_Grand_Turk* (America_Grand_Turk) • *America_Grenada* (America_Grenada) • *America_Guadeloupe* (America_Guadeloupe) • *America_Guatemala* (America_Guatemala) • *America_Guayaquil* (America_Guayaquil) • *America_Guyana* (America_Guyana) • *America_Halifax* (America_Halifax) • *America_Havana* (America_Havana) • *America_Hermosillo* (America_Hermosillo) • *America_Indiana_Indianapolis* (America_Indiana_Indianapolis) • *America_Indiana_Knox* (America_Indiana_Knox) • *America_Indiana_Marengo* (America_Indiana_Marengo) • *America_Indiana_Petersburg* (America_Indiana_Petersburg) • *America_Indiana_Tell_City* (America_Indiana_Tell_City) • *America_Indiana_Vevay* (America_Indiana_Vevay) • *America_Indiana_Vincennes* (America_Indiana_Vincennes) • *America_Indiana_Winamac* (America_Indiana_Winamac) • *America_Indianapolis* (America_Indianapolis) • *America_Inuvik* (America_Inuvik) • *America_Iqaluit* (America_Iqaluit) • *America_Jamaica* (America_Jamaica) • *America_Jujuy* (America_Jujuy) • *America_Juneau* (America_Juneau) • *America_Kentucky_Louisville* (America_Kentucky_Louisville) • *America_Kentucky_Monticello* (America_Kentucky_Monticello) • *America_Knox_IN* (America_Knox_IN) • *America_Kralendijk* (America_Kralendijk) • *America_La_Paz* (America_La_Paz) • *America_Lima* (America_Lima) • *America_Los_Angeles* (America_Los_Angeles) • *America_Louisville* (America_Louisville) • *America_Lower_Princes* (America_Lower_Princes) • *America_Maceio* (America_Maceio) • *America_Managua* (America_Managua) • *America_Manaus* (America_Manaus) • *America_Marigot* (America_Marigot) • *America_Martinique* (America_Martinique)

				• *America_Matamoros* (America_Matamoros) • *America_Mazatlan* (America_Mazatlan) • *America_Mendoza* (America_Mendoza) • *America_Menominee* (America_Menominee) • *America_Merida* (America_Merida) • *America_Metlakatla* (America_Metlakatla) • *America_Mexico_City* (America_Mexico_City) • *America_Miquelon* (America_Miquelon) • *America_Moncton* (America_Moncton) • *America_Monterrey* (America_Monterrey) • *America_Montevideo* (America_Montevideo) • *America_Montreal* (America_Montreal) • *America_Montserrat* (America_Montserrat) • *America_Nassau* (America_Nassau) • *America_New_York* (America_New_York) • *America_Nipigon* (America_Nipigon) • *America_Nome* (America_Nome) • *America_Noronha* (America_Noronha) • *America_North_Dakota_Beulah* (America_North_Dakota_Beulah) • *America_North_Dakota_Center* (America_North_Dakota_Center) • *America_North_Dakota_New_Salem* (America_North_Dakota_New_Salem) • *America_Ojinaga* (America_Ojinaga) • *America_Panama* (America_Panama) • *America_Pangnirtung* (America_Pangnirtung) • *America_Paramaribo* (America_Paramaribo) • *America_Phoenix* (America_Phoenix) • *America_Port_au_Prince* (America_Port_au_Prince) • *America_Port_of_Spain* (America_Port_of_Spain) • *America_Porto_Acre* (America_Porto_Acre) • *America_Porto_Velho* (America_Porto_Velho) • *America_Puerto_Rico* (America_Puerto_Rico) • *America_Rainy_River* (America_Rainy_River) • *America_Rankin_Inlet* (America_Rankin_Inlet) • *America_Recife* (America_Recife) • *America_Regina* (America_Regina) • *America_Resolute* (America_Resolute) • *America_Rio_Branco* (America_Rio_Branco) • *America_Rosario* (America_Rosario) • *America_Santa_Isabel* (America_Santa_Isabel) • *America_Santarem* (America_Santarem) • *America_Santo_Domingo* (America_Santo_Domingo) • *America_Sao_Paulo* (America_Sao_Paulo) • *America_Scoresbysund* (America_Scoresbysund)

				• *America_Shiprock* (America_Shiprock) • *America_Sitka* (America_Sitka) • *America_St_Barthelemy* (America_St_Barthelemy) • *America_St_Johns* (America_St_Johns) • *America_St_Kitts* (America_St_Kitts) • *America_St_Lucia* (America_St_Lucia) • *America_St_Thomas* (America_St_Thomas) • *America_St_Vincent* (America_St_Vincent) • *America_Swift_Current* (America_Swift_Current) • *America_Tegucigalpa* (America_Tegucigalpa) • *America_Thule* (America_Thule) • *America_Thunder_Bay* (America_Thunder_Bay) • *America_Tijuana* (America_Tijuana) • *America_Toronto* (America_Toronto) • *America_Tortola* (America_Tortola) • *America_Vancouver* (America_Vancouver) • *America_Virgin* (America_Virgin) • *America_Whitehorse* (America_Whitehorse) • *America_Winnipeg* (America_Winnipeg) • *America_Yakutat* (America_Yakutat) • *America_Yellowknife* (America_Yellowknife) • *Antarctica_Casey* (Antarctica_Casey) • *Antarctica_Davis* (Antarctica_Davis) • *Antarctica_DumontDUrville* (Antarctica_DumontDUrville) • *Antarctica_Macquarie* (Antarctica_Macquarie) • *Antarctica_Mawson* (Antarctica_Mawson) • *Antarctica_McMurdo* (Antarctica_McMurdo) • *Antarctica_Rothera* (Antarctica_Rothera) • *Antarctica_South_Pole* (Antarctica_South_Pole) • *Antarctica_Syowa* (Antarctica_Syowa) • *Antarctica_Vostok* (Antarctica_Vostok) • *Arctic_Longyearbyen* (Arctic_Longyearbyen) • *Asia_Aden* (Asia_Aden) • *Asia_Almaty* (Asia_Almaty) • *Asia_Anadyr* (Asia_Anadyr) • *Asia_Aqtau* (Asia_Aqtau) • *Asia_Aqtobe* (Asia_Aqtobe) • *Asia_Ashgabat* (Asia_Ashgabat) • *Asia_Ashkhabad* (Asia_Ashkhabad) • *Asia_Baghdad* (Asia_Baghdad) • *Asia_Bahrain* (Asia_Bahrain) • *Asia_Baku* (Asia_Baku) • *Asia_Bangkok* (Asia_Bangkok)

				• *Asia_Beirut* (Asia_Beirut) • *Asia_Bishkek* (Asia_Bishkek) • *Asia_Brunei* (Asia_Brunei) • *Asia_Calcutta* (Asia_Calcutta) • *Asia_Choibalsan* (Asia_Choibalsan) • *Asia_Chongqing* (Asia_Chongqing) • *Asia_Chungking* (Asia_Chungking) • *Asia_Colombo* (Asia_Colombo) • *Asia_Dacca* (Asia_Dacca) • *Asia_Damascus* (Asia_Damascus) • *Asia_Dhaka* (Asia_Dhaka) • *Asia_Dili* (Asia_Dili) • *Asia_Dubai* (Asia_Dubai) • *Asia_Dushanbe* (Asia_Dushanbe) • *Asia_Gaza* (Asia_Gaza) • *Asia_Harbin* (Asia_Harbin) • *Asia_Hebron* (Asia_Hebron) • *Asia_Ho_Chi_Minh* (Asia_Ho_Chi_Minh) • *Asia_Hong_Kong* (Asia_Hong_Kong) • *Asia_Hovd* (Asia_Hovd) • *Asia_Irkutsk* (Asia_Irkutsk) • *Asia_Istanbul* (Asia_Istanbul) • *Asia_Jakarta* (Asia_Jakarta) • *Asia_Jayapura* (Asia_Jayapura) • *Asia_Kabul* (Asia_Kabul) • *Asia_Kamchatka* (Asia_Kamchatka) • *Asia_Karachi* (Asia_Karachi) • *Asia_Kashgar* (Asia_Kashgar) • *Asia_Kathmandu* (Asia_Kathmandu) • *Asia_Katmandu* (Asia_Katmandu) • *Asia_Kolkata* (Asia_Kolkata) • *Asia_Krasnoyarsk* (Asia_Krasnoyarsk) • *Asia_Kuala_Lumpur* (Asia_Kuala_Lumpur) • *Asia_Kuching* (Asia_Kuching) • *Asia_Kuwait* (Asia_Kuwait) • *Asia_Macao* (Asia_Macao) • *Asia_Macau* (Asia_Macau) • *Asia_Magadan* (Asia_Magadan) • *Asia_Makassar* (Asia_Makassar) • *Asia_Manila* (Asia_Manila) • *Asia_Muscat* (Asia_Muscat) • *Asia_Nicosia* (Asia_Nicosia) • *Asia_Novokuznetsk* (Asia_Novokuznetsk)

				• *Asia_Novosibirsk* (Asia_Novosibirsk) • *Asia_Omsk* (Asia_Omsk) • *Asia_Oral* (Asia_Oral) • *Asia_Phnom_Penh* (Asia_Phnom_Penh) • *Asia_Pontianak* (Asia_Pontianak) • *Asia_Pyongyang* (Asia_Pyongyang) • *Asia_Qatar* (Asia_Qatar) • *Asia_Qyzylorda* (Asia_Qyzylorda) • *Asia_Rangoon* (Asia_Rangoon) • *Asia_Riyadh* (Asia_Riyadh) • *Asia_Riyadh87* (Asia_Riyadh87) • *Asia_Riyadh88* (Asia_Riyadh88) • *Asia_Riyadh89* (Asia_Riyadh89) • *Asia_Saigon* (Asia_Saigon) • *Asia_Sakhalin* (Asia_Sakhalin) • *Asia_Samarkand* (Asia_Samarkand) • *Asia_Seoul* (Asia_Seoul) • *Asia_Shanghai* (Asia_Shanghai) • *Asia_Singapore* (Asia_Singapore) • *Asia_Taipei* (Asia_Taipei) • *Asia_Tashkent* (Asia_Tashkent) • *Asia_Tbilisi* (Asia_Tbilisi) • *Asia_Thimbu* (Asia_Thimbu) • *Asia_Thimphu* (Asia_Thimphu) • *Asia_Tokyo* (Asia_Tokyo) • *Asia_Ujung_Pandang* (Asia_Ujung_Pandang) • *Asia_Ulaanbaatar* (Asia_Ulaanbaatar) • *Asia_Ulan_Bator* (Asia_Ulan_Bator) • *Asia_Urumqi* (Asia_Urumqi) • *Asia_Vientiane* (Asia_Vientiane) • *Asia_Vladivostok* (Asia_Vladivostok) • *Asia_Yakutsk* (Asia_Yakutsk) • *Asia_Yekaterinburg* (Asia_Yekaterinburg) • *Asia_Yerevan* (Asia_Yerevan) • *Atlantic_Azores* (Atlantic_Azores) • *Atlantic_Bermuda* (Atlantic_Bermuda) • *Atlantic_Canary* (Atlantic_Canary) • *Atlantic_Cape_Verde* (Atlantic_Cape_Verde) • *Atlantic_Faeroe* (Atlantic_Faeroe) • *Atlantic_Faroe* (Atlantic_Faroe) • *Atlantic_Jan_Mayen* (Atlantic_Jan_Mayen) • *Atlantic_Madeira* (Atlantic_Madeira) • *Atlantic_Reykjavik* (Atlantic_Reykjavik)

				• *Atlantic_South_Georgia* (Atlantic_South_Georgia) • *Atlantic_St_Helena* (Atlantic_St_Helena) • *Atlantic_Stanley* (Atlantic_Stanley) • *Australia_ACT* (Australia_ACT) • *Australia_Adelaide* (Australia_Adelaide) • *Australia_Brisbane* (Australia_Brisbane) • *Australia_Broken_Hill* (Australia_Broken_Hill) • *Australia_Canberra* (Australia_Canberra) • *Australia_Currie* (Australia_Currie) • *Australia_Darwin* (Australia_Darwin) • *Australia_Eucla* (Australia_Eucla) • *Australia_Hobart* (Australia_Hobart) • *Australia_LHI* (Australia_LHI) • *Australia_Lindeman* (Australia_Lindeman) • *Australia_Lord_Howe* (Australia_Lord_Howe) • *Australia_Melbourne* (Australia_Melbourne) • *Australia_NSW* (Australia_NSW) • *Australia_North* (Australia_North) • *Australia_Perth* (Australia_Perth) • *Australia_Queensland* (Australia_Queensland) • *Australia_South* (Australia_South) • *Australia_Sydney* (Australia_Sydney) • *Australia_Tasmania* (Australia_Tasmania) • *Australia_Victoria* (Australia_Victoria) • *Australia_West* (Australia_West) • *Australia_Yancowinna* (Australia_Yancowinna) • *Brazil_Acre* (Brazil_Acre) • *Brazil_DeNoronha* (Brazil_DeNoronha) • *Brazil_East* (Brazil_East) • *Brazil_West* (Brazil_West) • *CET* (CET) • *CST6CDT* (CST6CDT) • *Canada_Atlantic* (Canada_Atlantic) • *Canada_Central* (Canada_Central) • *Canada_East_Saskatchewan* (Canada_East_Saskatchewan) • *Canada_Eastern* (Canada_Eastern) • *Canada_Mountain* (Canada_Mountain) • *Canada_Newfoundland* (Canada_Newfoundland) • *Canada_Pacific* (Canada_Pacific) • *Canada_Saskatchewan* (Canada_Saskatchewan) • *Canada_Yukon* (Canada_Yukon) • *Cuba* (Cuba) • *EET* (EET)

				• *EST* (EST) • *EST5EDT* (EST5EDT) • *Eire* (Eire) • *Etc_GMT* (Etc_GMT) • *Etc_GMT_Plus_0* (Etc_GMT_Plus_0) • *Etc_GMT_Plus_1* (Etc_GMT_Plus_1) • *Etc_GMT_Plus_10* (Etc_GMT_Plus_10) • *Etc_GMT_Plus_11* (Etc_GMT_Plus_11) • *Etc_GMT_Plus_12* (Etc_GMT_Plus_12) • *Etc_GMT_Plus_2* (Etc_GMT_Plus_2) • *Etc_GMT_Plus_3* (Etc_GMT_Plus_3) • *Etc_GMT_Plus_4* (Etc_GMT_Plus_4) • *Etc_GMT_Plus_5* (Etc_GMT_Plus_5) • *Etc_GMT_Plus_6* (Etc_GMT_Plus_6) • *Etc_GMT_Plus_7* (Etc_GMT_Plus_7) • *Etc_GMT_Plus_8* (Etc_GMT_Plus_8) • *Etc_GMT_Plus_9* (Etc_GMT_Plus_9) • *Etc_GMT_Minus_0* (Etc_GMT_Minus_0) • *Etc_GMT_Minus_1* (Etc_GMT_Minus_1) • *Etc_GMT_Minus_10* (Etc_GMT_Minus_10) • *Etc_GMT_Minus_11* (Etc_GMT_Minus_11) • *Etc_GMT_Minus_12* (Etc_GMT_Minus_12) • *Etc_GMT_Minus_13* (Etc_GMT_Minus_13) • *Etc_GMT_Minus_14* (Etc_GMT_Minus_14) • *Etc_GMT_Minus_2* (Etc_GMT_Minus_2) • *Etc_GMT_Minus_3* (Etc_GMT_Minus_3) • *Etc_GMT_Minus_4* (Etc_GMT_Minus_4) • *Etc_GMT_Minus_5* (Etc_GMT_Minus_5) • *Etc_GMT_Minus_6* (Etc_GMT_Minus_6) • *Etc_GMT_Minus_7* (Etc_GMT_Minus_7) • *Etc_GMT_Minus_8* (Etc_GMT_Minus_8) • *Etc_GMT_Minus_9* (Etc_GMT_Minus_9) • *Etc_GMT0* (Etc_GMT0) • *Etc_Greenwich* (Etc_Greenwich) • *Etc_UCT* (Etc_UCT) • *Etc_UTC* (Etc_UTC) • *Etc_Universal* (Etc_Universal) • *Etc_Zulu* (Etc_Zulu) • *Europe_Amsterdam* (Europe_Amsterdam) • *Europe_Andorra* (Europe_Andorra) • *Europe_Athens* (Europe_Athens) • *Europe_Belfast* (Europe_Belfast) • *Europe_Belgrade* (Europe_Belgrade)

				• *Europe_Berlin* (Europe_Berlin) • *Europe_Bratislava* (Europe_Bratislava) • *Europe_Brussels* (Europe_Brussels) • *Europe_Bucharest* (Europe_Bucharest) • *Europe_Budapest* (Europe_Budapest) • *Europe_Chisinau* (Europe_Chisinau) • *Europe_Copenhagen* (Europe_Copenhagen) • *Europe_Dublin* (Europe_Dublin) • *Europe_Gibraltar* (Europe_Gibraltar) • *Europe_Guernsey* (Europe_Guernsey) • *Europe_Helsinki* (Europe_Helsinki) • *Europe_Isle_of_Man* (Europe_Isle_of_Man) • *Europe_Istanbul* (Europe_Istanbul) • *Europe_Jersey* (Europe_Jersey) • *Europe_Kaliningrad* (Europe_Kaliningrad) • *Europe_Kiev* (Europe_Kiev) • *Europe_Lisbon* (Europe_Lisbon) • *Europe_Ljubljana* (Europe_Ljubljana) • *Europe_London* (Europe_London) • *Europe_Luxembourg* (Europe_Luxembourg) • *Europe_Madrid* (Europe_Madrid) • *Europe_Malta* (Europe_Malta) • *Europe_Mariehamn* (Europe_Mariehamn) • *Europe_Minsk* (Europe_Minsk) • *Europe_Monaco* (Europe_Monaco) • *Europe_Moscow* (Europe_Moscow) • *Europe_Nicosia* (Europe_Nicosia) • *Europe_Oslo* (Europe_Oslo) • *Europe_Paris* (Europe_Paris) • *Europe_Podgorica* (Europe_Podgorica) • *Europe_Prague* (Europe_Prague) • *Europe_Riga* (Europe_Riga) • *Europe_Rome* (Europe_Rome) • *Europe_Samara* (Europe_Samara) • *Europe_San_Marino* (Europe_San_Marino) • *Europe_Sarajevo* (Europe_Sarajevo) • *Europe_Simferopol* (Europe_Simferopol) • *Europe_Skopje* (Europe_Skopje) • *Europe_Sofia* (Europe_Sofia) • *Europe_Stockholm* (Europe_Stockholm) • *Europe_Tallinn* (Europe_Tallinn) • *Europe_Tirane* (Europe_Tirane) • *Europe_Tiraspol* (Europe_Tiraspol)

				• *Europe_Uzhgorod* (Europe_Uzhgorod) • *Europe_Vaduz* (Europe_Vaduz) • *Europe_Vatican* (Europe_Vatican) • *Europe_Vienna* (Europe_Vienna) • *Europe_Vilnius* (Europe_Vilnius) • *Europe_Volgograd* (Europe_Volgograd) • *Europe_Warsaw* (Europe_Warsaw) • *Europe_Zagreb* (Europe_Zagreb) • *Europe_Zaporozhye* (Europe_Zaporozhye) • *Europe_Zurich* (Europe_Zurich) • *Factory* (Factory) • *GB* (GB) • *GB_Eire* (GB_Eire) • *GMT* (GMT) • *GMT_Plus_0* (GMT_Plus_0) • *GMT_Minus_0* (GMT_Minus_0) • *GMT0* (GMT0) • *Greenwich* (Greenwich) • *HST* (HST) • *Hongkong* (Hongkong) • *Iceland* (Iceland) • *Indian_Antananarivo* (Indian_Antananarivo) • *Indian_Chagos* (Indian_Chagos) • *Indian_Christmas* (Indian_Christmas) • *Indian_Cocos* (Indian_Cocos) • *Indian_Comoro* (Indian_Comoro) • *Indian_Kerguelen* (Indian_Kerguelen) • *Indian_Mahe* (Indian_Mahe) • *Indian_Maldives* (Indian_Maldives) • *Indian_Mauritius* (Indian_Mauritius) • *Indian_Mayotte* (Indian_Mayotte) • *Indian_Reunion* (Indian_Reunion) • *Jamaica* (Jamaica) • *Japan* (Japan) • *Kwajalein* (Kwajalein) • *Libya* (Libya) • *MET* (MET) • *MST* (MST) • *MST7MDT* (MST7MDT) • *Mexico_BajaNorte* (Mexico_BajaNorte) • *Mexico_BajaSur* (Mexico_BajaSur) • *Mexico_General* (Mexico_General) • *Mideast_Riyadh87* (Mideast_Riyadh87)

				• *Mideast_Riyadh88* (Mideast_Riyadh88) • *Mideast_Riyadh89* (Mideast_Riyadh89) • *NZ* (NZ) • *NZ_CHAT* (NZ_CHAT) • *Navajo* (Navajo) • *PRC* (PRC) • *PST8PDT* (PST8PDT) • *Pacific_Apia* (Pacific_Apia) • *Pacific_Auckland* (Pacific_Auckland) • *Pacific_Chatham* (Pacific_Chatham) • *Pacific_Chuuk* (Pacific_Chuuk) • *Pacific_Efate* (Pacific_Efate) • *Pacific_Enderbury* (Pacific_Enderbury) • *Pacific_Fakaofo* (Pacific_Fakaofo) • *Pacific_Funafuti* (Pacific_Funafuti) • *Pacific_Galapagos* (Pacific_Galapagos) • *Pacific_Gambier* (Pacific_Gambier) • *Pacific_Guadalcanal* (Pacific_Guadalcanal) • *Pacific_Guam* (Pacific_Guam) • *Pacific_Honolulu* (Pacific_Honolulu) • *Pacific_Johnston* (Pacific_Johnston) • *Pacific_Kiritimati* (Pacific_Kiritimati) • *Pacific_Kosrae* (Pacific_Kosrae) • *Pacific_Kwajalein* (Pacific_Kwajalein) • *Pacific_Majuro* (Pacific_Majuro) • *Pacific_Marquesas* (Pacific_Marquesas) • *Pacific_Midway* (Pacific_Midway) • *Pacific_Nauru* (Pacific_Nauru) • *Pacific_Niue* (Pacific_Niue) • *Pacific_Norfolk* (Pacific_Norfolk) • *Pacific_Noumea* (Pacific_Noumea) • *Pacific_Pago_Pago* (Pacific_Pago_Pago) • *Pacific_Palau* (Pacific_Palau) • *Pacific_Pitcairn* (Pacific_Pitcairn) • *Pacific_Pohnpei* (Pacific_Pohnpei) • *Pacific_Ponape* (Pacific_Ponape) • *Pacific_Port_Moresby* (Pacific_Port_Moresby) • *Pacific_Rarotonga* (Pacific_Rarotonga) • *Pacific_Saipan* (Pacific_Saipan) • *Pacific_Samoa* (Pacific_Samoa) • *Pacific_Tahiti* (Pacific_Tahiti) • *Pacific_Tarawa* (Pacific_Tarawa) • *Pacific_Tongatapu* (Pacific_Tongatapu)

				• *Pacific_Truk* (Pacific_Truk) • *Pacific_Wake* (Pacific_Wake) • *Pacific_Wallis* (Pacific_Wallis) • *Pacific_Yap* (Pacific_Yap) • *Poland* (Poland) • *Portugal* (Portugal) • *ROC* (ROC) • *ROK* (ROK) • *Singapore* (Singapore) • *Turkey* (Turkey) • *UCT* (UCT) • *US_Alaska* (US_Alaska) • *US_Aleutian* (US_Aleutian) • *US_Arizona* (US_Arizona) • *US_Central* (US_Central) • *US_East_Indiana* (US_East_Indiana) • *US_Eastern* (US_Eastern) • *US_Hawaii* (US_Hawaii) • *US_Indiana_Starke* (US_Indiana_Starke) • *US_Michigan* (US_Michigan) • *US_Mountain* (US_Mountain) • *US_Pacific* (US_Pacific) • *US_Pacific_New* (US_Pacific_New) • *US_Samoa* (US_Samoa) • *Universal* (Universal) • *W_SU* (W_SU) • *WET* (WET) • *Zulu* (Zulu)

Time.AccessControl.

Parameters relating to restricting access to NTP service. Each parameter under *AccessControl* represents a method through which NTP service may be accessed from a network entity external to the system.

- NTP service is always accessible to Radio Nodes.
- if no parameters under *AccessControl* are specified:
    - access to NTP service is unrestricted
- if one parameter under *AccessControl* is specified:
    - NTP service access is restricted to the method represented by that parameter (in addition to being available to Radio Nodes)
- if more than one parameter under *AccessControl* is specified:
    - NTP service access is restricted to any one of the methods represented (in addition to being available to Radio Nodes).

Parameter	W	Type	Default	Description
VirtualInterface	W	unsignedInt[1:]{}	<Empty>	Ingress virtual interfaces through which NTP packets are allowed. If "", ingress virtual interface is not a consideration when considering which NTP packets are allowed. The value MUST be the instance number of an object in the *FAPService.{i}.Transport.Tunnel.VirtualInterface.* table, or if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to . Array of *unsignedInt* items.

Layer3Forwarding.

This object allows the handling of the routing and forwarding configuration of the device.

Parameter	W	Type	Default	Description
ForwardNumberOfEntries	-	unsignedInt	-	Number of forwarding instances.
ForwardingGroupNumberOfEntries	-	unsignedInt	-	Gives the number of ForwardingGroup entries.

Layer3Forwarding.Forwarding.{i}.

Layer 3 forwarding table.

In addition to statically configured routes, this table MUST include dynamic routes learned through layer 3 routing protocols, including RIP, OSPF, DHCP, and IPCP. The CPE MAY reject attempts to delete or modify a dynamic route entry.

For each incoming packet, the layer 3 forwarding decision is conceptually made as follows:

- Only table entries with a matching *ForwardingPolicy* are considered, i.e. those that either do not specify a *ForwardingPolicy*, or else specify a *ForwardingPolicy* that matches that of the incoming packet.
- For the remaining table entries, those for which the source address/mask matches are sorted by longest prefix, i.e. with the most specific networks first (an unspecified source address is a wild-card and always matches, with a prefix length of zero).
- For the remaining table entries, those for which the destination address/mask matches are sorted by longest prefix, i.e. with the most specific networks first (an unspecified destination address is a wild-card and always matches, with a prefix length of zero).
- The first of the remaining table entries is applied to the packet.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables the forwarding entry. On creation, an entry is disabled by default.
DestIPAddress	W	regex(256)	0.0.0.0	Destination address. "" or a value of "0.0.0.0" indicates no destination address is specified. A Forwarding table entry for which *DestIPAddress* and *DestSubnetMask* are both "" or "0.0.0.0" is a default route. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
DestSubnetMask	W	IPv4Address	0.0.0.0	Destination subnet mask. "" or a value of "0.0.0.0" indicates no destination subnet mask is specified. If a destination subnet mask is specified, the *DestSubnetMask* is ANDed with the destination address before comparing with the *DestIPAddress*. Otherwise, the full destination address is used as is. A Forwarding table entry for which *DestIPAddress* and *DestSubnetMask* are both "" or "0.0.0.0" is a default route.
GatewayIPAddress	W	regex(256)	Empty(0.0.0.0)	IP address of the gateway. Only one of GatewayIPAddress and Interface SHOULD be configured for a route. If both are configured, *GatewayIPAddress* and *Interface* MUST be consistent with each other. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-

				9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
ForwardingMetric	W	unsignedInt	1	Forwarding metric. A value of -1 indicates this metric is not used.
StaticRoute	-	boolean	true	If *true*, this route is a Static route.
Description	W	string(70)	<Empty>	Specifies descriptive text for this route to be used for display and debugging purposes only.
DestPrefixLength	W	unsignedInt[0:128]	Empty(0)	Indicates the IPv4 or IPv6 prefix length of the destination.
LANDevice	W	unsignedInt	Empty(0)	Together with *IPInterface*, specifies the egress interface associated with this route. If a *LANDevice* and *IPInterface* combination are specified, they MUST be consistent *GatewayIPAddress* if specified. The value MUST be the instance number of an object in the *InternetGatewayDevice.LANDevice.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
ManagementDevice	W	unsignedInt	Empty(0)	Together with *IPInterface*, specifies the egress management device interface associated with this route. If a *ManagementDevice* and *IPInterface* combination are specified, they MUST be consistent *GatewayIPAddress* if specified. The value MUST be the instance number of an object in the *InternetGatewayDevice.ManagementDevice.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
TrunkDevice	W	unsignedInt	Empty(0)	Together with *IPInterface*, specifies the egress trunk device interface associated with this route. If a *TrunkDevice* and *IPInterface* combination are specified, they MUST be consistent *GatewayIPAddress* if specified. The value MUST be the instance number of an object in the *InternetGatewayDevice.TrunkDevice.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
IPInterface	W	unsignedInt	Empty(0)	Together with *LANDevice*, specifies the egress interface associated with this route. If a *LANDevice* and *IPInterface* combination are specified, they MUST be consistent with *GatewayIPAddress* if specified. The value MUST be the instance number of an object in the *InternetGatewayDevice.LANDevice.{i}.LANHostConfigManagement.IPInterface.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
ForwardingGroupIndex	W	unsignedInt	Empty(0)	Specifies the IP address domain that this route exists in (the forwarding group this route belongs to). The value MUST be the instance number of an object in the *InternetGatewayDevice.Layer3Forwarding.ForwardingGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
ServicesHostIndex	W	unsignedInt[1:]	Empty(1)	Specifies the Services host which this route exists in. The value MUST be the instance number of an object in the *ServicesHost.* table, or 1 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 1.

Layer3Forwarding.ForwardingGroup.{i}.

Multiple IP address domains can exist. Each domain contains its own interfaces and forwardings. This object provides a reference point that interfaces and forwardings can use to declare their membership.

Parameter	W	Type	Default	Description

Description	W	string(70)	<Empty>	Human-readable description for this forwarding group used for display and debugging purposes only.
ServicesHostIndex	W	unsignedInt[1:]	Empty(1)	Specifies the Services host which this forwarding group exists in. The value MUST be the instance number of an object in the *ServicesHost*. table, or 1 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 1.

LANDevice.{i}.

Each instance models a LAN side layer 3 IP interface.

Each instance has children that correspond to the layer 2 interfaces that are connected to the Gateway's IP router via the modeled IP interface. If a LANDevice instance is deleted, the objects modeling those layer 2 interfaces that are as a result no longer connected to the Gateway's IP router will move to the InternetGatewayDevice.LANInterfaces object.

If the *Layer2Bridging* object is implemented, the view that it provides of the CPE's underlying bridging configuration MUST be consistent with the view provided by any *LANDevice* and *WAN**Connection* objects. The implications of this are explained in [TR-098a2] Annex A.6.

Parameter	W	Type	Default	Description
LANEthernetInterfaceNumberOfEntries	-	unsignedInt	0	Number of instances of *LANEthernetInterfaceConfig* in this *LANDevice*.

LANDevice.{i}.LANHostConfigManagement.

This object enables reporting of LAN-related device information and setting and configuring LAN IP addressing. The DHCP parameters in this object define the behavior of the default DHCP server, i.e. the behavior for DHCP requests that do not match any of the DHCP conditional serving pool entries.

Parameter	W	Type	Default	Description
IPInterfaceNumberOfEntries	-	unsignedInt	0	The number of entries in the *IPInterface* table.
MACAddress	-	regex(17:17)	-	The MAC address associated with the IP interface modeled by this LANDevice instance. This is the MAC address that is returned in response to an ARP request for any of the IP interface's IP addresses. It is also the source MAC address in all IP traffic sent over the IP interface. If no single MAC address meets the above criteria, the value of this parameter MUST be the all-zero MAC address *00:00:00:00:00:00*. Possible patterns: • `([0-9a-fA-F][0-9a-fA-F]:){5}([0-9a-fA-F][0-9a-fA-F])`

LANDevice.{i}.LANHostConfigManagement.IPInterface.{i}.

IP address table with each object representing an IP address on the LANDevice IP interface.

Support for more than one interface instance is OPTIONAL.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this entry. On creation, an entry is disabled by default.
IPInterfaceIPAddress	W	regex(256)	Empty(0.0.0.0)	IP address of the LAN-side interface of the CPE. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
IPInterfaceSubnetMask	W	IPv4Address	Empty(0.0.0.0)	Subnet mask of the LAN-side interface of the IGD.
BypassAlarms	W	enum{2}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 2). Each list item is an enumeration of: • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process)
Description	W	string	<Empty>	Specifies descriptive text for this interface to be used for display and debugging purposes only.
Name	-	string(64)	-	Short name of the interface.
IPInterfacePrefixLength	W	unsignedInt[0:128]	Empty(0)	Interface IPv4 or IPv6 prefix length.
IngressClassificationGroup	W	unsignedInt	Empty(0)	Index for classification group that acts as ingress filter for the IP interface.

EgressClassificationGroup	W	unsignedInt	Empty(0)	Index for classification group that acts as egress filter for the IP interface.
VLANID	W	unsignedInt[0:4094]	Empty(0)	Specifies the virtual LAN identifier for this interface.
ForwardingGroupIndex	W	unsignedInt	Empty(0)	Specifies the IP address domain (forwarding group) in which the interface exists. The value MUST be the instance number of an object in the *InternetGatewayDevice.Layer3Forwarding.ForwardingGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
OperState	-	enum	-	Operational state of this *IPInterface*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*
DHCPServerEnable	W	boolean	Empty(false)	Enable DHCP on this IPInterface.
EgressQoSProfile	W	unsignedInt	Empty(0)	Specifies the egress QoS profile number for this interface.

SharedEgressQoS	W	boolean	Empty(false)	Specifies if egress QoS sharing is enabled on this interface.
MTU	W	unsignedInt[1500:1800]	Empty(1500)	Specifies the Maximum Transmission Unit for this interface.
ServicesHostIndex	W	unsignedInt[1:]	Empty(1)	Specifies the Services host which this interface exists in. The value MUST be the instance number of an object in the *ServicesHost.* table, or 1 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 1.

LANDevice.{i}.LANHostConfigManagement.IPInterface.{i}.Stats.

IP interface statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.
PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.
ErrorsSent	-	unsignedLong	-	The total number of outbound packets that could not be transmitted because of errors.
ErrorsReceived	-	unsignedLong	-	The total number of inbound packets that contained errors preventing them from being deliverable.
UnicastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were not addressed to a multicast or broadcast address, including those that were discarded or not sent.
UnicastPacketsReceived	-	unsignedLong	-	The total number of received packets which were not addressed to a multicast or broadcast address.
DiscardPacketsSent	-	unsignedLong	-	The total number of outbound packets which were chosen to be discarded even though no errors had been detected to prevent their being transmitted. One possible reason for discarding such a packet could be to free up buffer space.
DiscardPacketsReceived	-	unsignedLong	-	The total number of inbound packets which were chosen to be discarded even though no errors had been detected to prevent their being deliverable. One possible reason for discarding such a packet could be to free up buffer space.
MulticastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were addressed to a multicast address, including those that were discarded or not sent.

MulticastPacketsReceived	-	unsignedLong	-	The total number of received packets which were addressed to a multicast address.
BroadcastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were addressed to a broadcast address, including those that were discarded or not sent.
BroadcastPacketsReceived	-	unsignedLong	-	The total number of received packets which were addressed to a broadcast address.
UnknownProtoPacketsReceived	-	unsignedLong	-	The total number of packets received via the interface which were discarded because of an unknown or unsupported protocol.
QueueNumberOfEntries	-	unsignedInt	-	The number of entries in the *Queue* table.

LANDevice.{i}.LANHostConfigManagement.IPInterface.{i}.Stats.Queue.{i}.

IP interface per CoS-queue statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.
PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.
EgressQueueDepth	-	unsignedLong	-	The total number of outstanding packets in the egress queue of the interface.

LANDevice.{i}.LANEthernetInterfaceConfig.{i}.

This object models an Ethernet LAN connection on a CPE device. This object MUST be implemented for CPE that contain an Ethernet interface on the LAN side.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this interface.
Status	-	enum	-	Indicates the status of this interface. Enumeration of: • *Up* • *NoLink*

				• *Error* • *Disabled* The *Error* value MAY be used by the CPE to indicate a locally defined error condition.

MACAddress	-	regex(17:17)	-	The physical address of the interface. Possible patterns: • `([0-9a-fA-F][0-9a-fA-F]:){5}([0-9a-fA-F][0-9a-fA-F])`
MaxBitRate	W	enum	1000	The maximum upstream and downstream bit rate available to this connection. The units of *MaxBitRate* are in Mbits/sec. Enumeration of: • *10* (10Mbps operation, with auto-negotiation) • *100* (100Mbps operation, with auto-negotiation) • *1000* (1Gbps operation, with auto-negotiation) • *2500* (2.5Gbps operation, with auto-negotiation) • *10000* (10Gbps operation, with auto-negotiation) • *100F* (100Mbps operation, without auto-negotiation)
DuplexMode	W	enum	Full	The duplex mode available to this connection. Enumeration of: • *Half* • *Full*
Name	-	string(16)	-	The name of this layer 2 interface, chosen by the vendor, e.g. "eth0" or "eth0:1".
BypassAlarms	W	enum{3}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 3). Each list item is an enumeration of: • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process) • *LINK_DOWN_MAJOR* (Link down)
TrunkDeviceIndex	W	unsignedInt	Empty(0)	Trunk device index.
OperState	-	enum	-	Operational state of this *LANEthernetInterfaceConfig*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT*

				• *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*
ServicesModuleInterfaceEnable	W	boolean	false	Indicates whether this *LANEthernetInterfaceConfig* is mapped to the Services module.

LANDevice.{i}.LANEthernetInterfaceConfig.{i}.Stats.

This object contains statistics for an Ethernet LAN interface on a CPE device. Note that these statistics refer to the link layer, not to the physical layer.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedInt	-	The total number of bytes transmitted out of the interface, including framing characters. The value of this counter MAY be reset to zero when the CPE is rebooted.
BytesReceived	-	unsignedInt	-	The total number of bytes received on the interface, including framing characters. The value of this counter MAY be reset to zero when the CPE is rebooted.
PacketsSent	-	unsignedInt	-	The total number of packets transmitted out of the interface. The value of this counter MAY be reset to zero when the CPE is rebooted.

PacketsReceived	-	unsignedInt	-	The total number of packets which were received on this interface. The value of this counter MAY be reset to zero when the CPE is rebooted.
ErrorsSent	-	unsignedInt	-	The total number of outbound packets that could not be transmitted because of errors. The value of this counter MAY be reset to zero when the CPE is rebooted.
ErrorsReceived	-	unsignedInt	-	The total number of inbound packets that contained errors preventing them from being deliverable. The value of this counter MAY be reset to zero when the CPE is rebooted.
UnicastPacketsSent	-	unsignedInt	-	The total number of packets requested for transmission which were not addressed to a multicast or broadcast address, including those that were discarded or not sent. The value of this counter MAY be reset to zero when the CPE is rebooted.
UnicastPacketsReceived	-	unsignedInt	-	The total number of received packets which were not addressed to a multicast or broadcast address. The value of this counter MAY be reset to zero when the CPE is rebooted.
DiscardPacketsSent	-	unsignedInt	-	The total number of outbound packets which were chosen to be discarded even though no errors had been detected to prevent their being transmitted. One possible reason for discarding such a packet could be to free up buffer space. The value of this counter MAY be reset to zero when the CPE is rebooted.
DiscardPacketsReceived	-	unsignedInt	-	The total number of inbound packets which were chosen to be discarded even though no errors had been detected to prevent their being deliverable. One possible reason for discarding such a packet could be to free up buffer space. The value of this counter MAY be reset to zero when the CPE is rebooted.
MulticastPacketsSent	-	unsignedInt	-	The total number of packets requested for transmission which were addressed to a multicast address, including those that were discarded or not sent. The value of this counter MAY be reset to zero when the CPE is rebooted.
MulticastPacketsReceived	-	unsignedInt	-	The total number of received packets which were addressed to a multicast address. The value of this counter MAY be reset to zero when the CPE is rebooted.
BroadcastPacketsSent	-	unsignedInt	-	The total number of packets requested for transmission which were addressed to a broadcast address, including those that were discarded or not sent. The value of this counter MAY be reset to zero when the CPE is rebooted.
BroadcastPacketsReceived	-	unsignedInt	-	The total number of received packets which were addressed to a broadcast address. The value of this counter MAY be reset to zero when the CPE is rebooted.
UnknownProtoPacketsReceived	-	unsignedInt	-	The total number of packets received via the interface which were discarded because of an unknown or unsupported protocol. The value of this counter MAY be reset to zero when the CPE is rebooted.
BytesSent64Bit	-	unsignedLong	-	BytesSent is only 32-bit. This counter has the full 64-bit range.
BytesReceived64Bit	-	unsignedLong	-	BytesReceived is only 32-bit. This counter has the full 64-bit range.

PacketsSent64Bit	-	unsignedLong	-	PacketsSent is only 32-bit. This counter has the full 64-bit range.
PacketsReceived64Bit	-	unsignedLong	-	PacketsReceived is only 32-bit. This counter has the full 64-bit range.
ErrorsSent64Bit	-	unsignedLong	-	ErrorsSent is only 32-bit. This counter has the full 64-bit range.
ErrorsReceived64Bit	-	unsignedLong	-	ErrorsReceived is only 32-bit. This counter has the full 64-bit range.
UnicastPacketsSent64Bit	-	unsignedLong	-	UnicastPacketsSent is only 32-bit. This counter has the full 64-bit range.
UnicastPacketsReceived64Bit	-	unsignedLong	-	UnicastPacketsReceived is only 32-bit. This counter has the full 64-bit range.
DiscardPacketsSent64Bit	-	unsignedLong	-	DiscardPacketsSent is only 32-bit. This counter has the full 64-bit range.
DiscardPacketsReceived64Bit	-	unsignedLong	-	DiscardPacketsReceived is only 32-bit. This counter has the full 64-bit range.
MulticastPacketsSent64Bit	-	unsignedLong	-	MulticastPacketsSent is only 32-bit. This counter has the full 64-bit range.
MulticastPacketsReceived64Bit	-	unsignedLong	-	MulticastPacketsReceived is only 32-bit. This counter has the full 64-bit range.
BroadcastPacketsSent64Bit	-	unsignedLong	-	BroadcastPacketsSent is only 32-bit. This counter has the full 64-bit range.
BroadcastPacketsReceived64Bit	-	unsignedLong	-	BroadcastPacketsReceived is only 32-bit. This counter has the full 64-bit range.
UnknownProtoPacketsReceived64Bit	-	unsignedLong	-	UnknownProtoPacketsReceived is only 32-bit. This counter has the full 64-bit range.
QueueNumberOfEntries	-	unsignedInt	-	The number of entries in the *Queue* table.

LANDevice.{i}.LANEthernetInterfaceConfig.{i}.Stats.Queue.{i}.

Ethernet interface per CoS-queue statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.
PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.

QueueManagement.

Queue management configuration object.

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enables or disables all queuing operation.
MaxClassificationEntries	-	unsignedInt	-	The maximum number of entries available in the Classification table.
ClassificationNumberOfEntries	-	unsignedInt	-	The number of entries in the *Classification* table.
MaxPolicerEntries	-	unsignedInt	-	The maximum number of entries available in the *Policer* table.
PolicerNumberOfEntries	-	unsignedInt	-	The number of entries in the *Policer* table.
MaxQueueEntries	-	unsignedInt	-	The maximum number of entries available in the *Queue* table.
QueueNumberOfEntries	-	unsignedInt	-	The number of entries in the *Queue* table.
VLANCoS	W	enum	FollowsDSCP	VLAN CoS options Enumeration of: • *Zero* (802.1p CoS zero) • *FollowsDSCP* (802.1p follows DSCP CoS)
EgressQoSProfileNumberOfEntries	-	unsignedInt	-	Number of egress QoS profiles.

QueueManagement.Classification.{i}.

Classification table.

Parameter	W	Type	Default	Description
ClassificationKey	-	unsignedInt	-	OBSOLETED. Unique key for each classification entry. This parameter is OBSOLETED because it serves no purpose (no other parameter references it).
ClassificationEnable	W	boolean	false	Enables or disables this classifier.
ClassificationStatus	-	enum	Disabled	The status of this classifier. Enumeration of: • *Disabled*

				• *Enabled* • *Error* (OPTIONAL) The *Error* value MAY be used by the CPE to indicate a locally defined error condition.

DestIP	W	regex(256)	0.0.0.0	Classification criterion. Destination IP address. "" indicates this criterion is not used for classification. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
DestMask	W	IPv4Address	Empty(0.0.0.0)	Destination IP address mask. If not 0.0.0.0, only the indicated network portion of the DestIP address is to be used for classification. 0.0.0.0 indicates that the full DestIP address is to be used for classification.
SourceIP	W	regex(256)	0.0.0.0	Classification criterion. Source IP address. "" indicates this criterion is not used for classification. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
SourceMask	W	IPv4Address	Empty(0.0.0.0)	Source IP address mask. If not 0.0.0.0, only the indicated network portion of the SourceIP address is to be used for classification. 0.0.0.0 indicates that the full SourceIP address is to be used for classification.

Protocol	W	int[-1:255]	Empty(-1)	Classification criterion. Protocol number. A value of -1 indicates this criterion is not used for classification.
DestPort	W	int[-1:65535]	Empty(-1)	Classification criterion. Destination port number. A value of -1 indicates this criterion is not used for classification.
DestPortRangeMax	W	int[-1:65535]	Empty(-1)	Classification criterion. If specified, indicates the classification criterion is to include the port range from DestPort through DestPortRangeMax (inclusive). If specified, DestPortRangeMax MUST be greater than or equal to DestPort. A value of -1 indicates that no port range is specified.
SourcePort	W	int[-1:65535]	Empty(-1)	Classification criterion. Source port number. A value of -1 indicates this criterion is not used for classification.
SourcePortRangeMax	W	int[-1:65535]	Empty(-1)	Classification criterion. If specified, indicates the classification criterion is to include the port range from SourcePort through SourcePortRangeMax (inclusive). If specified, SourcePortRangeMax MUST be greater than or equal to SourcePort. A value of -1 indicates that no port range is specified.
ClassPolicer	W	int[-1:]	Empty(-1)	Classification result. Instance number of the Policer table entry for traffic that falls in this classification. A value of -1 indicates a null policer.
ClassQueue	W	int[-1:]	Empty(-1)	Classification result. Instance number of the Queue table entry for traffic that falls in this classification. A value of -1 indicates a null queue. *TrafficClass*, *ClassQueue* and *ClassApp* are mutually exclusive and one of the three MUST be specified. If *TrafficClass* and *ClassQueue* are null, *ClassApp* MUST be specified, and vice versa.
Description	W	string	<Empty>	Human-readable description for this Classification used for display and debugging purposes only.
DestPrefixLength	W	unsignedInt[0:128]	0	Indicates the prefix length of the destination IPv4 or IPv6 address.
SourcePrefixLength	W	unsignedInt[0:128]	0	Indicates the prefix length of the source IPv4 or IPv6 address.
Action	W	enum	None	Indicates the action taken for a matching packet. Enumeration of: • *PassThrough* • *Drop* • *None* • *LocalSwitch*

				PassThrough **MUST** be used for walled garden classifications. *PassThrough* **MUST NOT** be used for standard traffic filtering classifications. *None* **SHOULD** be used when either *ClassPolicer* or *ClassQueue* are specified.

QueueManagement.Policer.{i}.

Policer table.

Parameter	W	Type	Default	Description
PolicerEnable	W	boolean	false	Enables or disables this policer.
PolicerStatus	-	enum	Disabled	The status of this policer. Enumeration of: • *Disabled* • *Enabled* • *Error* (OPTIONAL) The *Error* value MAY be used by the CPE to indicate a locally defined error condition.
CommittedRate	W	unsignedInt[16000:]	16000	Committed rate allowed for this policer in bits-per-second.
CommittedBurstSize	W	unsignedInt[2000:]	2000	Committed Burstsize in bytes.
MeterType	W	enum	SimpleTokenBucket	Identifies the method of traffic measurement to be used for this policer. Enumeration of: • *SimpleTokenBucket* • *SingleRateThreeColor* • *TwoRateThreeColor* *SimpleTokenBucket* makes use of *CommittedRate* and *CommittedBurstSize*. *SingleRateThreeColor* makes use of *CommittedRate*, *CommittedBurstSize*, and *ExcessBurstSize* as defined in RFC 2697 [RFC2697]. *TwoRateThreeColor* makes use of *CommittedRate*, *CommittedBurstSize*, *PeakRate*, and *PeakBurstSize* as defined in RFC 2698 [RFC2698]. Only SimpleTokenBucket is supported.
PossibleMeterTypes	-	enum{}	-	Supported meter types. Array of *string* items. Each list item is an enumeration of: • *SimpleTokenBucket* • *SingleRateThreeColor*

				• *TwoRateThreeColor*
ConformingAction	W	enum	Null	Instructions for how to handle traffic that is conforming. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
NonConformingAction	W	enum	Drop	Instructions for how to handle traffic that is non-conforming. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
TotalCountedPackets	-	unsignedInt	0	Total number of Packets counted by this policer, regardless of meter action.
TotalCountedBytes	-	unsignedInt	0	Total number of Bytes counted by this policer, regardless of meter action.
ConformingCountedPackets	-	unsignedInt	0	Number of conforming Packets counted by this policer, regardless of meter action.
ConformingCountedBytes	-	unsignedInt	0	Number of conforming Bytes counted by this policer, regardless of meter action.
NonConformingCountedPackets	-	unsignedInt	0	Number of non-conforming Packets counted by this policer, regardless of meter action.
NonConformingCountedBytes	-	unsignedInt	0	Number of non-conforming Bytes counted by this policer, regardless of meter action.
Description	W	string	<Empty>	Human-readable description for this Policer used for display and debugging purposes only.
TotalCountedPackets64Bit	-	unsignedLong	0	TotalCountedPackets is only 32-bit. This counter has the full 64-bit range.
TotalCountedBytes64Bit	-	unsignedLong	0	TotalCountedBytes is only 32-bit. This counter has the full 64-bit range.
ConformingCountedPackets64Bit	-	unsignedLong	0	ConformingCountedPackets is only 32-bit. This counter has the full 64-bit range.
ConformingCountedBytes64Bit	-	unsignedLong	0	ConformingCountedBytes is only 32-bit. This counter has the full 64-bit range.
NonConformingCountedPackets64Bit	-	unsignedLong	0	NonConformingCountedPackets is only 32-bit. This counter has the full 64-bit range.
NonConformingCountedBytes64Bit	-	unsignedLong	0	NonConformingCountedBytes is only 32-bit. This counter has the full 64-bit range.

QueueManagement.Queue.{i}.

Queue table. This table can contain hardware queues. The CPE MAY refuse to allow hardware queues to be deleted.

Parameter	W	Type	Default	Description
QueueEnable	W	boolean	false	Enables or disables this queue.
QueueStatus	-	enum	Disabled	The status of this queue. Enumeration of: • *Disabled* • *Enabled* • *Error* (OPTIONAL) The *Error* value MAY be used by the CPE to indicate a locally defined error condition.
QueueWeight	W	unsignedInt	0	Weight of this queue in case of *WFQ* or *WRR*, but only used for queues of equal precedence. For all *QueueManangement.Queue.{i}.*, all *QueueWeight* must add up to 100.
REDThreshold	W	unsignedInt[100]	50	Random Early Detection threshold, used only when *DropAlgorithm* is *RED*. This is the minimum threshold (*min_th*) and is measured as a percentage of the queue size. If the value is set to zero, the CPE MUST choose a sensible value, e.g. 5 (but the value MUST still read back as zero). In this version of the data model, there is no way to set the maximum threshold (*max_th*). The CPE MUST choose a sensible value, e.g. three times the minimum threshold. In this version of the data model, there is no way to set the RED weight (*w_q*). The CPE MUST choose a sensible value, e.g. 0.002.
REDPercentage	W	unsignedInt[100]	50	Random Early Detection percentage, used only when *DropAlgorithm* is *RED*. This is the maximum value of the packet marking probability (*max_p*). If the value is set to zero, the CPE MUST choose a sensible value, e.g. 10 (but the value MUST still read back as zero). In this version of the data model, there is no way to set the RED weight (*w_q*). The CPE MUST choose a sensible value, e.g. 0.002.
DropAlgorithm	W	enum	WRED	Dropping algorithm used for this queue if congested. Only *WRED* is supported. Enumeration of: • *RED* (Random Early Detection) • *DT* (Drop Tail) • *WRED* (Weighted RED) • *BLUE* (BLUE)
SchedulerAlgorithm	W	enum	WRR	Scheduling Algorithm used by scheduler. Only *WRR* is supported. Enumeration of:

				• *WFQ* (Weighted Fair Queueing) • *WRR* (Weighted Round Robin) • *SP* (Strict Priority)
QueueName	-	enum	-	The queue name. Enumeration of: • *UNKNOWN* (Unknown value) • *BE* • *AF1* • *AF2* • *AF3* • *AF4* • *EF* • *NC1* • *NC2*
QueueCodePoint	W	int[-1:63]{64}	Empty(-1)	A list of DSCP that are directed to this queue. Up to 64 unique members may be in the list, each in the range 0-63. Each DSCP must be associated with a single queue. Array of *int* items (maximum number of items 64).
QueueMarking	W	int[-1:63]	Empty(-1)	The DSCP marking for outgoing packets from this queue, in the range 0-63.

QueueManagement.ControlPlaneCoS.

This object defines parameters related to control plane class of service.

Parameter	W	Type	Default	Description
ControlPlaneClassificationGroup	W	unsignedInt	Empty(0)	This parameter specifies the classification group index used for setting the class of service for control plane IPv4 packets. A classification group can be used to override the default class queue used for the IPv4 traffic specified by this classification group. A value of zero is used to specify the absence of such a classification group.
IPv6ControlPlaneClassificationGroup	W	unsignedInt	Empty(0)	This parameter specifies the classification group index used for setting the class of service for control plane IPv6 packets. A classification group can be used to override the default class queue used for the IPv6 traffic specified by this classification group. A value of zero is used to specify the absence of such a classification group.
DefaultSignalingClassQueue	W	unsignedInt[1:8]	7	This parameter specifies the default class queue used for sending signaling IP packets such as SCTP packets that carry UMTS signaling packets.
DefaultOAMClassQueue	W	unsignedInt[1:8]	3	This parameter specifies the default class queue used for sending operations, administration, and management IP packets such as SNMP and SSH

				packets.

QueueManagement.ClassificationGroup.{i}.

Classification groups are used to collect a set of classification rules to apply as a unit.

A classification group is effectively an Access Control List (ACL).

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this ClassificationGroup.
Description	W	string	<Empty>	Human-readable description for this ClassificationGroup used for display and debugging purposes only.
ClassificationIndexes	W	unsignedInt{1:128}	Mandatory(0)	List of classifications included in this group. Each should either: • be a "Walled Garden" classification group (an outcome of *PassThrough*) • a classification with an outcome of either *Drop* or *None* The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.Classification.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0. Array of *unsignedInt* items (minimum number of items 1, maximum number of items 128). *ClassificationIndexes* must not be 0 if *Enable* is true.

QueueManagement.EgressQoSProfile.{i}.

Egress QoS profiles are used to rate-limit data transmission on an IP interface and/or to prioritize IP packets for transmission.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this EgressQoSProfile.
Description	W	string	<Empty>	Human-readable description for this EgressQoSProfile. It is used for display and debugging purposes only.
RateLimit	W	unsignedInt[ranges]	0	Maximum transmit bit-rate allowed on an IP interface on which this EgressQoSProfile is applied. A value of zero means that rate limiting is not present. Possible values: • *0* • *2 to 1000*
QueueNumberOfEntries	-	unsignedInt	-	The number of entries in the *Queue* table.

QueueManagement.EgressQoSProfile.{i}.Queue.{i}.

When an EgressQoSProfile is applied on an IP interface, the transmit queues of the EgressQoSProfile corresponds to the transmit queues of the IP interface.

Parameter	W	Type	Default	Description
QueueWeight	W	unsignedInt[0:100]	0	Priority of the queue. A higher weight indicates a higher priority. The sum of weights of all 8 queues should be 100.

FAPService.{i}.

The Femto Access Point (FAP) Service Object.

Parameter	W	Type	Default	Description
DNPrefix	W	string(256)	<Empty>	Specifies the Distinguished Name (DN) Prefix to be used when constructing full DNs which uniquely identify a FAP object, e.g. *.FaultMgmt.CurrentAlarm.{i}.ManagedObjectInstance*. Encodes the Managed Object Prefix representation in string format as defined in [3GPP-TS.32.300]. Examples: "DC=a1.companyNN.com,SubNetwork=1,IRPAgent=1" and "SubNetwork=1"

FAPService.{i}.FAPControl.

This object contains parameters relating to state management and provisioning aspects of the FAP.

Parameter	W	Type	Default	Description
AdminState	W	boolean	true	Administratively enables or disables all FAP services including RF operation
OperState	-	enum	-	Operational state of this *FAPControl*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED*

				• *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*
PTPAlgorithm	W	enum	SCW-200	Specifies the PTP algorithm to synchronize *RadioNode.{i}.Radio.* objects. Enumeration of: • *SCW-146* (Is the PTP algorithm introduced in release 1.4.6. This algorithm is OBSOLETE. Please use SCW-200.) • *SCW-150* (Is the PTP algorithm introduced in release 1.5.0. This algorithm is OBSOLETE. Please use SCW-200.) • *SCW-200* (Is the PTP algorithm introduced in release 2.0.0.)

FAPService.{i}.FAPControl.UMTS.

This object contains parameters relating to the UMTS system specific information.

Parameter	W	Type	Default	Description
OperState	-	enum	-	Operational state of this *UMTS.* Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT*

				• *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*

AdminState	W	boolean	true	Lock or unlock the UMTS FAP. This controls the administrative state of the UMTS FAP as defined in [ITU-X.731]. If *true* Unlocked with permission to serve traffic (and enable RF transmitter(s)). If *false* Locked. Transition UMTS FAP to state where it is NOT permitted to serve traffic. RF transmitter is disabled. Given that this command controls the UMTS FAP's RF transmitter, the underlying expectation is that the unlock is done when all necessary conditions are met to allow the transmitter to key on and provide service, including aspects such as: 1. location verification (including meeting the governing regulatory requirements) 2. verifying the UMTS FAP configuration 3. if physical tampering is supported and no physical tampering is detected. The default value after power-on is *false*.
BypassAlarms	W	enum{11}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 11). Each list item is an enumeration of: • *RANAP_CS_CONNECTION_TERM_MAJOR* (The RANAP connection to the CS core has been terminated) • *RANAP_PS_CONNECTION_TERM_MINOR* (The RANAP connection to the PS core has been terminated) • *RANAP_PS_CONNECTION_TERM_WARNING* (The RANAP connection to the PS core has been terminated) • *NEIGHBORHOOD_REFERENCE_DELTA_MAJOR* (The current cell neighborhood is not same as the reference cell neighborhood) • *NEIGHBORHOOD_REFERENCE_DELTA_MINOR* (The current cell neighborhood is not same as the reference cell neighborhood) • *SYSTEM_NEARING_MAX_SESSION_RATE_WARNING* (System is operating close to the maximum allowed UMTS session rate) • *SYSTEM_MAX_SESSION_RATE_EXCEEDED_WARNING* (System is operating at more than maximum allowed UMTS session rate) • *UARFCNDL_CHANGED_MAJOR* (UARFCNDL has changed) • *RFMGMT_REM_REQUIRED_MAJOR* (REM required) • *RFMGMT_NLC_REQUIRED_MAJOR* (Neighborlist creation required)

FAPService.{i}.FAPControl.UMTS.SelfConfig.

This object contains parameters relating to the controlling of self-configuration capabilities in the FAP.

Parameter	W	Type	Default	Description
NeighborListSelfConfigEnable	W	boolean	true	Indicates whether the entire Self Organizing Network (SON) Management suite is enabled. If *true*, the system performs a number of actions, including: 1. Performs REM scanning according to the configuration of *FAPService.{i}.REM*. 2. Determines the values for each *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborListInUse*. 3. Determines the value for each *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.PrimaryScramblingCodeInUse*. 4. Determines the value for each *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.MaxFAPTxPowerInUse*. If *false*, the {{ACS}} must provision all external neighbors in *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList*. All cells, both internal and external, are assumed to be neighbors of each other. The {{ACS}} must configure each

				Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.PrimaryScramblingCode and *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.MaxFAPTxPower*.
MeasIMSIList	W	string(15)	000000000000000	When a device with this IMSI establishes an active session, it is instructed to send measurements to the {{SCW-SN}}. After a complete walkthrough of the deployment area, the gathered measurements may be processed to determine the MaxFAPTxPower assignments for the cells in the system. This is an optional installation step when self-configuration of power assignment is enabled.
MeasLoadingFactor	W	unsignedInt	70	*MeasLoadingFactor* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *MeasLoadingFactor* should not be changed from its default value.
FAPCoverageTargetMinBase	W	int	-900	Minimum background interference level used to establish the deployment coverage target in units of *0.1 dBm*. The system scans and measures the external interference level. The system uses the maximum of: • the measured external interference level • *FAPCoverageTargetMinBase* to set the base for its deployment coverage target.
FAPCoverageTargetValue1	W	int	50	Value in *0.1 dB* that is added to the base coverage target to establish the final deployment coverage target.
FAPCoverageTargetValue2	W	int	-30	*FAPCoverageTargetValue2* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *FAPCoverageTargetValue2* should not be changed from its default value.
FAPCoverageTargetAdditionDelta	W	int	30	*FAPCoverageTargetAdditionDelta* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *FAPCoverageTargetAdditionDelta* should not be changed from its default value.
MaxPowerDelta	W	unsignedInt[0:340]	340	Value in *0.1 dBm* that is used to restrict the Tx power difference between adjacent cells
NumMeasUe	W	unsignedInt	2	*NumMeasUe* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *NumMeasUe* should not be changed from its default value.
NumPtsThresh	W	unsignedInt	1000	*NumPtsThresh* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *NumPtsThresh* should not be changed from its default value.
NumImsiThresh	W	unsignedInt	2	*NumImsiThresh* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *NumImsiThresh* should not be changed from its default value.
NumValidRSThresh	W	unsignedInt	2	*NumValidRSThresh* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *NumValidRSThresh* should not be changed from its default value.
rMeasDiscard	W	int	0	*rMeasDiscard* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *rMeasDiscard* should not be changed from its default value.
RequireFreqStabilityForTopologyDiscovery	W	boolean	true	Enables or disables the check to make sure radio nodes have frequency stability before topology discovery. If *RequireFreqStabilityForTopologyDiscovery* is *true*, checks are performed to make sure the radio nodes corresponding to enabled

				cells have frequency stability. If *RequireFreqStabilityForTopologyDiscovery* is *false*, all PTP state checks are bypassed during topology discovery, equivalent to assuming each radio node has frequency stability.
RRCCSFBDetectionEnable	W	boolean	true	Enables or disables the release and redirection of the CS fallback calls to the EUTRA cell based on the RRC Connection request message. If *RRCCSFBDetectionEnable* is *true*, CSFB call is identified based on the information contained in the RRC Connection request message and the UE will be redirected to the LTE after the termination of the CS Call.
AutoProvisionEnable	W	boolean	false	Enables or disables auto-provisioning. An object becomes ***provisioned*** when it becomes part of the configuration. For example, *RadioNode.{i}.* objects that are part of the operational state but **not** the configuration are ***unprovisioned***. If *AutoProvisionEnable* is *false*, auto-provisioning mode is disabled, *RadioNode.{i}.*, *RadioNode.{i}.Radio.{i}.* and *Cell.{i}.* configuration objects *MUST* be created manually through CLI or management server. If *AutoProvisionEnable* is *true*, auto-provisioning mode is enabled,*RadioNode.{i}.*, *RadioNode.{i}.Radio.{i}.* and *Cell.{i}.* configuration objects *SHOULD* be created automatically by ServicesNode and manual creation of these objects through CLI or management server will **not** be allowed. In auto-provisioning mode, when a new RadioNode attaches, the ServicesNode will: 1. create a *RadioNode.{i}.* object (identified uniquely by *RadioNode.{i}.EthernetID.*) 2. create a *RadioNode.{i}.Radio.{i}.* object for any radio present in that 3. create a *Cell.{i}.* for any new radio **if and only if** the *RadioNode.{i}.Radio.{i}.ActualBand* matches *.CellConfig.UMTS.RAN.FDDFAP.RF.UARFCNDL* When *AutoProvisionEnable* is transitioned from *false* to *true*: 1. any *unprovisioned RadioNode.{i}.* objects will be provisioned as described above 2. a *Cell.{i}.* will be provisioned for any *provisioned RadioNode.{i}.Radio.{i}.* objects without a Cell
MaxPathLossForIntraFreqExtCellDiscovery	W	unsignedInt[0:1000]	1000	DEPRECATED. This parameter has been deprecated.
UMTSExtIntraFreqREMScanEnable	W	boolean	true	Enables or disables scanning of external intra-frequency UMTS cells. If *UMTSExtIntraFreqREMScanEnable* is *false*, previously scanned external UMTS intra-frequency cells (if available) are used by Self Organizing Network (SON) Management. If *UMTSExtIntraFreqREMScanEnable* is *true*, external intra-frequency UMTS cells are scanned as part of REM scans.
UMTSExtInterFreqREMScanEnable	W	boolean	true	Enables or disables scanning of external inter-frequency UMTS cells. If *UMTSExtInterFreqREMScanEnable* is *false*, previously scanned external UMTS inter-frequency cells (if available) are used by Self Organizing Network (SON) Management. If *UMTSExtInterFreqREMScanEnable* is *true*, external inter-frequency UMTS cells are scanned as part of REM scans.
GSMREMScanEnable	W	boolean	true	Enables or disables scanning of external GSM cells. If *GSMREMScanEnable* is *false*, previously scanned external GSM cells (if available) are used by Self Organizing Network (SON)

				Management. If *GSMREMScanEnable* is *true*, external GSM cells are scanned as part of REM scans.
InternalTopologyDiscoveryEnable	W	boolean	true	Enables or disables internal topology discovery during REM scans. If *InternalTopologyDiscoveryEnable* is *false*, previously discovered internal topology (if available) is used by Self Organizing Network (SON) Management. If *InternalTopologyDiscoveryEnable* is *true*, internal topology discovery is performed as part of REM scans.

FAPService.{i}.FAPControl.UMTS.Gateway.

This object contains parameters relating to the Gateways that FAP is connected to.

Parameter	W	Type	Default	Description
SecGWServer1	W	regex(256)	<Empty>	First SecGW the FAP attempts to establish connection with. Either hostname or IPaddress. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$
SecGWServer2	W	regex(256)	<Empty>	Second SecGW the FAP attempts to establish connection with. Either hostname or IPaddress. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-

				F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9].){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$

SecGWServer3	W	regex(256)	<Empty>	Third SecGW the FAP attempts to establish connection with. Either hostname or IPaddress. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$
FAPGWServer1	W	string(64)	<Empty>	First FAP-GW the FAP attempts to establish connection with. Either hostname or IPaddress.
FAPGWPort	W	unsignedInt[65535]	29169	Port number of FAPGW used for initial Iuh SCTP contact. This value is specified as 29169 according to IANA definition per [IANA-portnumbers], registered on 2009-09-08. Use of IANA-defined value is recommended.
CNConnectionEnable	W	boolean	false	Enables or disables the control connection to the core network.
SecGWServer1IPSecId	W	string(256)	<Empty>	Specifies the identity (IP address, FQDN etc.) of the first security gateway during IPSec authentication. If not specified, SecGWServer1 is used as the IPSec ID.
SecGWServer2IPSecId	W	string(256)	<Empty>	Specifies the identity (IP address, FQDN etc.) of the second security gateway during IPSec authentication. If not specified, SecGWServer2 is used as the IPSec ID.
SecGWServer3IPSecId	W	string(256)	<Empty>	Specifies the identity (IP address, FQDN etc.) of the third security gateway during IPSec authentication. If not specified, SecGWServer3 is used as the IPSec ID.
FAPLocalIPAddress	-	IPv4Address	-	The local address being used for SCTP association with the Iuh gateway.
FAPRemoteIPAddress	-	IPv4Address	-	The remote address being used for SCTP association with the Iuh gateway.
FAPLocalPort	W	unsignedInt[65535]	29169	The local port being used for SCTP association with the Iuh gateway.
CNProtocol	W	enum	Pico	The protocol for interacting with the Core Network.

				Enumeration of: • *Pico* • *Iu/IP* • *Iuh*
CNForwardingGroupIndex	W	unsignedInt	0	The FIB to be used to interact with core network. The value MUST be the instance number of an object in the *.Layer3Forwarding.ForwardingGroup.* table.
RTPPayloadType	W	unsignedInt[96:127]	96	The payload type value to be used in the RTP header for IuCS packets sent to the CS Domain. The value can be set to any number in the dynamic payload range from 96 through 127.
IUUPFrameNumTimebased	W	boolean	true	Enables or disables setting IuUP frame number based on inter pdu transmission interval. If enabled, the frame number is incremented based on the time delta between two frames. If disabled, the frame number is incremented for every sent packet.
CNConnectionHoldDownTime	W	unsignedInt[0:300]	0	The time in *seconds*, that the cell provisioning is delayed from the instance core network connection is established.
CNConnectionMaxRetry	W	unsignedInt	0	The number of attempts to establish the CN connection before triggering a switchover to the secondary Gateway.
CNConnectionMaxSwitchover	W	unsignedInt	0	The number of times a switchover is triggered if the CN connection cannot be established. After MaxSwitchover attempts, a switchover is no longer triggered automatically.

FAPService.{i}.FAPControl.UMTS.LocalSwitching.

This object defines parameters related to UMTS local switching.

Parameter	W	Type	Default	Description
PDPContextTimeout	W	unsignedInt[ranges]	3600	This parameter specifies the PDP context timeout value in *seconds* configured in the operator core network. A locally switched PDP session uses this value to send keepalive messages to the core network. A value of zero means the PDP session does not timeout. Possible values: • *0* • *900 to 86400*
TCPMSSAdjust	W	unsignedInt[ranges]	0	Specifies the value to which the Maximum Segment Size for any local-switched UMTS UE TCP traffic will be adjusted. A value of 0 means MSS will not be adjusted. Possible values: • *0*

				• *500 to 1460*
TCPMSSAdjustAutoEnable	W	boolean	true	Specifies whether or not to auto-adjust Maximum Segment Size for any local-switched UMTS UE TCP traffic. If enabled, the TCPMSSAdjust value will be ignored and MSS automatically adjusted.
TCPMSSAdjustAutoAddEncapOverhead	W	unsignedInt[0:256]	0	Specifies any additional encapsulation overhead in bytes to use when using auto-MSS for local-switched UMTS UE data traffic.

FAPService.{i}.FAPControl.UMTS.HomeNodeB.

This object defines parameters related to the Home Node B (HNB).

Parameter	W	Type	Default	Description
RegistrationTimeout	W	unsignedInt[1:65535]	1	This parameter specifies the initial timeout value in *seconds* after which the HNB will retry an HNB registration. The HNB performs an exponential backoff on its retries, so each subsequent retry will be twice that of the previous, up to an implementation-defined limit.
UERegistrationTimeout	W	unsignedInt[1:65535]	1	This parameter specifies the timeout value in *seconds* after which the HNB will timeout a UE registration attempt.
UEIdleTimeout	W	unsignedInt[0:65535]	4200	This parameter specifies how long in *seconds* a registered UE with no signaling connections will stay registered with the HNB gateway after the last signaling connection is released. After this time passes, the UE will be deregistered with the gateway.
GeoLocationRadioNode	W	unsignedInt	Empty(0)	This parameter specifies the index of the RadioNode whose geographical position will be used when registering with the HNB gateway.
RegistrationState	-	enum	-	Indicates the registration state of the HNB with the HNB gateway. Enumeration of: • *Unregistered* • *Registering* • *Registered* • *Timing-out*
TimeUntilNextRegistrationAttempt	-	unsignedInt	-	Indicates the time in *seconds* until the HNB will attempt to register itself again with the HNB gateway.
RANAPConnectionState	-	enum	-	Indicates the overall state of the RANAP core connection for both CS and PS domains. Enumeration of: • *None* • *Init* • *Connecting* • *WaitingForHoldDownTimerExpiry*

				• *Connected*
UENumberOfEntries	-	unsignedInt	-	This value indicates the number of UEs known to the HNB. Each of these UEs is either registered or in the process of registering.
HNBIdentity	-	string	-	Gives the identity of the HNB in the form of a string.
ReplaceMacroCoverageInfoEnable	W	boolean	true	Indicates whether the HNB uses its location information instead of the detected macro cell coverage information, when registering with the HNB gateway.
CellIdentityFormat	W	enum	WithoutRNCID	Indicates which Cell Identity format to use in the HNB Registration. Enumeration of: • *WithoutRNCID* (Use Cell Identity format that does not include RNCID) • *WithRNCID* (Use Cell Identity format that includes RNCID)
HNBIdentityFormat	W	enum	23.003	Indicates which HNB Identity format to use in the HNB Registration. Enumeration of: • *23.003* (Use HNB Identity format defined in 23.003) • *25.469* (Use HNB Identity format defined in 25.469)
SendCellAccessMode	W	boolean	false	Determines whether or not the release-9 IE of Cell-Access-Mode is included in registration requests sent to the HNB gateway.
DeregisterUEAfterEmergencySession	W	boolean	false	Determines whether or not UE is deregistered when an emergency call ends, in case the UE initially registered to the HNB gateway with an emergency session.
OverridePSEstCauseInEmergencySession	W	boolean	false	Determines whether or not the PS connection setup requests are sent with emergency establishment-cause to the HNB gateway during emergency sessions.
HeartbeatEnable	W	boolean	false	Indicates whether HNB sends periodic HNB heartbeat messages to the gateway to validate the HNBAP connection.
HeartbeatInterval	W	unsignedInt[5:600]	30	Indicates the time in *seconds* for sending periodic heartbeat messages to the gateway.
HeartbeatRetryInterval	W	unsignedInt[1:30]	3	Indicates the time in *seconds* for sending periodic heartbeat messages to the gateway when no acknowledgement is received for the previous heartbeat message.
HeartbeatMaxRetries	W	unsignedInt[0:20]	10	Indicates the maximum number of times, the heartbeat message is sent when not getting acknowledged by the HNB gateway. After these maximum consecutive attempts, the HNBAP link is torn down and the connection to HNB gateway is re-established.

FAPService.{i}.FAPControl.UMTS.HomeNodeB.UE.{i}.

This object contains state maintained about UEs known to the Home Node B (HNB).

Parameter	W	Type	Default	Description
Identity	-	string	-	Gives the identity of the UE in the form of a string.
RegistrationState	-	enum	-	Indicates the registration state of the UE with the HNB gateway. Enumeration of: • *Unregistered* • *Registering* • *Registered* • *Timing-out*
TimeUntilNextRegistrationAttempt	-	unsignedInt	-	Indicates the time in *seconds* until the HNB will attempt to register the UE again with the HNB gateway.
TimeUntilDeregistration	-	unsignedInt	-	Indicates the time in *seconds* until the HNB will deregister the UE with the HNB gateway.

FAPService.{i}.FAPControl.UMTS.HomeNodeB.UE.{i}.CSDomain.

This object contains CS domain state maintained about a UE known to the Home Node B (HNB)

Parameter	W	Type	Default	Description
ConnectionState	-	enum	-	Indicates the state of the connection with the CS domain. Enumeration of: • *Unbound* • *Bound*

FAPService.{i}.FAPControl.UMTS.HomeNodeB.UE.{i}.PSDomain.

This object contains PS domain state maintained about a UE known to the Home Node B (HNB)

Parameter	W	Type	Default	Description
ConnectionState	-	enum	-	Indicates the state of the connection with the PS domain. Enumeration of:

				• *Unbound* • *Bound*

FAPService.{i}.FAPControl.UMTS.PSData.

Parameters for traffic inside UE flows to and from the core.

Parameter	W	Type	Default	Description
TCPMSSAdjust	W	unsignedInt[ranges]	0	Specifies the value to which the Maximum Segment Size of any UE TCP traffic within the GTP tunnel will be adjusted. A value of 0 means MSS will not be adjusted. Possible values: • *0* • *500 to 1460*
TCPMSSAdjustAutoEnable	W	boolean	true	Specifies whether or not to auto-adjust the Maximum Segment Size for any UE TCP data traffic within the GTP tunnel. If enabled, the TCPMSSAdjust value will be ignored and MSS automatically adjusted based on the encapsulation overheads for IPSec, GTP and RLC.
TCPMSSAdjustAutoAddEncapOverhead	W	unsignedInt[0:256]	0	Specifies any additional encapsulation overhead in bytes to use when using auto-MSS for UE data traffic to and from the core.

FAPService.{i}.FAPControl.LTE.

This object contains parameters relating to the LTE system specific information.

Parameter	W	Type	Default	Description
AdminState	W	boolean	false	Lock or unlock the LTE FAP. This controls the administrative state of the LTE FAP as defined in [ITU-X.731]. If *true* Unlocked with permission to serve traffic (and enable RF transmitter(s)). If *false* Locked. Transition LTE FAP to state where it is NOT permitted to serve traffic. RF transmitter is disabled. Given that this command controls the LTE FAP's RF transmitter, the underlying expectation is that the unlock is done when all necessary conditions are met to allow the transmitter to key on and provide service, including aspects such as: 1. location verification (including meeting the governing regulatory requirements) 2. verifying the LTE FAP configuration 3. if physical tampering is supported and no physical tampering is detected. The default value after power-on is *false*.

BypassAlarms	W	enum{5}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 5). Each list item is an enumeration of: • *RFMGMT_REM_REQUIRED_MAJOR* (REM required) • *RFMGMT_NLC_REQUIRED_MAJOR* (Neighborlist creation required) • *LTE_S1AP_CONNECTION_TERM_MAJOR* (The S1AP connection to the EPC core has been terminated) • *RFMGMT_SUBOPTIMAL_ASSIGNMENT_OF_PCIS_DETECTED_MINOR* (The current assignment of the PCIs is not optimal)
OperState	-	enum	-	Operational state of this *LTE*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*

FAPService.{i}.FAPControl.LTE.Gateway.

This object contains parameters relating to the Gateways that the LTE FAP is connected to.

Parameter	W	Type	Default	Description
SecGWServer1	W	regex(256)	<Empty>	First SecGW the LTE FAP attempts to establish connection with. Either hostname or IPaddress. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$
SecGWServer2	W	regex(256)	<Empty>	Second SecGW the LTE FAP attempts to establish connection with. Either hostname or IPaddress. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-

				9a-zA-Z]{0,61}[0-9a-zA-Z]))*$

SecGWServer3	W	regex(256)	<Empty>	Third SecGW the LTE FAP attempts to establish connection with. Either hostname or IPaddress. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$
S1ConnectionMode	W	enum	One	Indicates how many of the configured far-end S1 link address(es),as defined in *S1SigLinkServerList*, LTE FAP SHOULD attempt to establish connection with simultaneously. If *S1ConnectionMode* parameter is not explicitly configured, then LTE FAP shall assume the value to be *One* as default. Enumeration of: • *One* • *All*
S1ConnectionEnable	W	boolean	false	Enables or disables S1AP connection to the EPC network.
SecGWServer1IPSecId	W	string(256)	<Empty>	Specifies the identity (IP address, FQDN etc.) of the first security gateway during IPSec authentication. If not specified, SecGWServer1 is used as the IPSec ID.
SecGWServer2IPSecId	W	string(256)	<Empty>	Specifies the identity (IP address, FQDN etc.) of the second security gateway during IPSec authentication. If not specified, SecGWServer2 is used as the IPSec ID.
SecGWServer3IPSecId	W	string(256)	<Empty>	Specifies the identity (IP address, FQDN etc.) of the third security gateway during IPSec authentication. If not specified, SecGWServer3 is used as the IPSec ID.
CNForwardingGroupIndex	W	unsignedInt	0	The FIB to be used to interact with LTE core network. The value MUST be the instance number of an object in the *.Layer3Forwarding.ForwardingGroup.* table.
S1SigLinkLocalPort	W	unsignedInt[65535]	1024	The port number of the local endpoint for establishing SCTP connection with EPC gateway.

S1ConnectionHoldDownTime	W	unsignedInt[0:300]	0	The time in *seconds*, that the cell provisioning is delayed from the instance first EPC S1AP connection is established.

FAPService.{i}.FAPControl.LTE.Gateway.M3Connection.

Configuration information for M3 signaling connection endpoints.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables M3 connection to the MME.
LocalPort	W	unsignedInt[65535]	36444	The port number of the local endpoint for establishing SCTP connection to MME on M3 interface.

FAPService.{i}.FAPControl.LTE.Gateway.S1SigLinkServer.{i}.

Configuration information for S1AP signaling connection endpoints.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables S1AP connection to the remote server.
Address	W	regex(256)	<Empty>	Specifies the identity of remote server in terms of IP address or FQDN. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$
LocalAddress	-	regex(256)	-	The local IP address being used for SCTP association with the remote server.

				Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
RemoteAddress	-	regex(256)	-	The remote address being used for SCTP association with the remote server. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
Port	W	unsignedInt[65535]	36412	Specifies the SCTP signaling port number of the S1 remote server.
Type	W	enum	MME	Specifies whether the S1 remote server is an MME or an HeNB-GW. Enumeration of: • *MME* (S1 remote server is an MME.) • *HeNB-GW* (S1 remote server is an HeNB-GW.)

Name	-	string	-	Specifies a reference name for the S1 remote server.
ConnectionState	-	enum	-	Shows the S1 signaling connection state. Enumeration of: • *None* • *Resolving FQDN* • *Waiting For SCTP Reconnection* • *Connecting SCTP* • *Connecting S1AP* • *Resetting S1AP* • *Waiting For HoldDownTimer Expiry* • *Waiting For S1 Reconnection* • *Connected*
ConnectionId	-	unsignedInt[0:15]	-	Shows the SCTP signaling connection ID.
NumberOfAssociatedUEs	-	unsignedInt	-	Number of UEs connecting or connected through this remote S1AP signalling connection gateway.
RelativeMMECapacity	-	unsignedInt	-	Relative MME capacity is used to evaluate how much load should be directed towards this remote S1AP server. Maximum value of 255 indicates 100% capability, while a value of 128 amounts to about 50%. If twelve UEs come up on such a setup with the MMEs serving the same PLMNs, eight will go towards the MME with capacity of 255, and four to the MME with capacity of 128.

FAPService.{i}.FAPControl.LTE.Gateway.S1SigLinkServer.{i}.ServedPLMN.{i}.

PLMNIDs served by the remote S1AP signaling connection gateway.

Parameter	W	Type	Default	Description
PLMNID	-	string	-	PLMN Identifier served by the remote S1AP gateway.

FAPService.{i}.FAPControl.LTE.Gateway.S1SigLinkServer.{i}.ServedMMEGroupId.{i}.

MME Group IDs served by the remote S1AP signaling connection gateway.

Parameter	W	Type	Default	Description
MMEGroupId	-	unsignedInt	-	MME Group Identifier served by the remote S1AP gateway.

FAPService.{i}.FAPControl.LTE.Gateway.S1SigLinkServer.{i}.ServedMMECode.{i}.

MME Codes served by the remote S1AP signaling connection gateway.

Parameter	W	Type	Default	Description
MMECode	-	unsignedInt	-	MME Code served by the remote S1AP gateway.

FAPService.{i}.FAPControl.LTE.Gateway.S1SigLinkServer.{i}.M3Connection.

Configuration information for M3 signaling connection endpoint of the MME.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables M3 connection to the remote server.
RemotePort	W	unsignedInt[65535]	36444	Specifies the SCTP signaling port number of the M3 remote server.
State	-	enum	-	Shows the M3 connection state. Enumeration of: • *None* (M3 connection not initialized) • *Waiting For SCTP Reconnection* (Waiting for the expiery of reconnection timer to initiate SCTP connection to the remote M3 endpoint) • *Connecting SCTP* (Initiated SCTP connection procedure to the remote M3 endpoint) • *Resetting M3AP* (Initiated M3AP reset procedure to the remote M3 endpoint) • *Connected* (M3 connection is established with the remote M3 endpoint)
Id	-	unsignedInt[0:15]	-	Shows the SCTP signaling connection ID of M3 connection.
ActiveEMBMSSessionsNumberOfEntries	-	unsignedInt	-	Shows the number of active EMBMS sessions.

FAPService.{i}.FAPControl.LTE.Gateway.S1SigLinkServer.{i}.M3Connection.ActiveEMBMSSessions.{i}.

Specifies the properties of an active EMBMS session on a M3 signaling link.

Parameter	W	Type	Default	Description
MMEMBMSM3APID	-	unsignedInt	-	Specifies the MME MBMS M3AP Id of the active EMBMS session.

NumberOfServiceAreas	-	unsignedInt	-	Specifies the the number of EMBMS service areas of the active EMBMS session.
ServiceAreaIDList	-	unsignedInt[0:65535]{}	-	Specifies the list of EMBMS service areas for the active EMBMS session. Array of *unsignedInt* items.
PLMNID	-	string	-	Specifies the PLMN ID of the active EMBMS session.
ServiceID	-	unsignedInt	-	Specifies the Service Id of the active EMBMS session.
SessionID	-	unsignedInt	-	Specifies the Session Id of the active EMBMS session.

FAPService.{i}.FAPControl.LTE.SelfConfig.

Parameters relating to controlling LTE system self-configuration

Parameter	W	Type	Default	Description
RequireFreqStabilityForTopologyDiscovery	W	boolean	true	Enables or disables the check to make sure radio nodes have frequency stability before topology discovery. If *RequireFreqStabilityForTopologyDiscovery* is *true*, checks are performed to make sure the radio nodes corresponding to enabled cells have frequency stability. If *RequireFreqStabilityForTopologyDiscovery* is *false*, all PTP state checks are bypassed during topology discovery, equivalent to assuming each radio node has frequency stability.
NeighborListSelfConfigEnable	W	boolean	true	Indicates whether the entire Self Organizing Network (SON) Management suite is enabled. If *true*, the system performs a number of actions, including: 1. Performs REM scanning according to the configuration of *FAPService.{i}.REM*. 2. Determines the values for each *LTECell.{i}.CellConfig.LTE.RAN.NeighborListInUse*. 3. Determines the value for each *LTECell.{i}.CellConfig.LTE.RAN.RF.X_002448_PhyCellIDInUse*. If *false*, the {{ACS}} must provision all external neighbors in *FAPService.{i}.CellConfig.LTE.RAN.NeighborList*. All cells, both internal and external, are assumed to be neighbors of each other. The {{ACS}} must configure *Cell.{i}.FAPService.{i}.CellConfig.LTE.RAN.RF.X_002448_PhyCellIDConfigured*.
LTEExtIntraFreqREMScanEnable	W	boolean	true	Enables or disables scanning of external intra-frequency LTE cells. If *LTEExtIntraFreqREMScanEnable* is *false*, previously scanned external LTE intra-frequency cells (if available) are used by Self Organizing Network (SON) Management. If *LTEExtIntraFreqREMScanEnable* is *true*, external intra-frequency LTE cells are scanned as part of REM scans.
LTEExtInterFreqREMScanEnable	W	boolean	true	Enables or disables scanning of external inter-frequency LTE cells. If *LTEExtInterFreqREMScanEnable* is *false*, previously scanned external LTE inter-frequency cells (if available) are used by Self Organizing Network (SON) Management. If *LTEExtInterFreqREMScanEnable* is *true*, external inter-frequency LTE cells are scanned as part of REM scans.

UMTSREMScanEnable	W	boolean	true	Enables or disables scanning of external UMTS cells. If *UMTSREMScanEnable* is *false*, previously scanned external UMTS cells (if available) are used by Self Organizing Network (SON) Management. If *UMTSREMScanEnable* is *true*, external UMTS cells are scanned as part of REM scans.
GSMREMScanEnable	W	boolean	true	Enables or disables scanning of external GSM cells. If *GSMREMScanEnable* is *false*, previously scanned external GSM cells (if available) are used by Self Organizing Network (SON) Management. If *GSMREMScanEnable* is *true*, external GSM cells are scanned as part of REM scans.
InternalTopologyDiscoveryEnable	W	boolean	true	Enables or disables internal topology discovery during REM scans. If *InternalTopologyDiscoveryEnable* is *false*, previously discovered internal topology (if available) is used by Self Organizing Network (SON) Management. If *InternalTopologyDiscoveryEnable* is *true*, internal topology discovery is performed as part of REM scans.
NeighborListLockEnable	W	boolean	false	Locks or unlocks the neighbor list of all LTE cells in the system.
PhyCellIDLockEnable	W	boolean	false	When *true*, *LTECell.{i}.CellConfig.LTE.RAN.RF.X_002448_PhyCellIDInUse* of all LTE cells in the system is locked and cannot be changed by the user nor by Self Organizing Network (SON) Management.
SamePCIForColocatedCellsEnable	W	boolean	false	When *true*, colocated LTE cells in the system are assigned the same Physical Cell ID by Self Organizing Network (SON) Management at the end of REM Scan.
RootSequenceLockEnable	W	boolean	false	When *true*, the Root Sequence Index of all LTE cells in the system is locked and cannot be changed by the user nor by Self Organizing Network (SON) Management.
RefSignalTxPowerLockEnable	W	boolean	false	When *true*, the Reference Signal Transmit Power of all LTE cells in the system is locked and cannot be changed by the user nor by Self Organizing Network (SON) Management.
RFLockEnable	W	boolean	false	When *true*, *LTECell.{i}.CellConfig.LTE.RAN.RF.X_002448_PhyCellIDInUse* and the neighbor list of all LTE cells in the system is locked and cannot be changed by the user nor by Self Organizing Network (SON) Management.
CellAddProcedureEnable	W	boolean	true	Enables or disables the add procedure. If *CellAddProcedureEnable* is *false*, then the add process is NOT started for a newly added LTE cell or an LTE cell that is faulted during the REM procedure. If *CellAddProcedureEnable* is *true*, then the add procedure is periodically started until the LTE cell is successfully added to the system.
SelfHealingActivationThreshold	W	unsignedInt[0:100]	100	Indicates the hand-over / hand-out failure rate above which the Self Healing mechanism is activated The Self Healing mechanism is activated for an LTE neighbor pair if its hand-over / hand-out failure rate exceeds *SelfHealingActivationThreshold percent*.
SelfHealingDeactivationThreshold	W	unsignedInt[0:100]	0	Indicates the hand-over / hand-out failure rate below which the Self Healing mechanism is deactivated. The Self Healing mechanism is deactivated for an LTE neighbor pair if its hand-over / hand-out failure rate becomes smaller than *SelfHealingDeactivationThreshold percent*.

AgingPeriodicTimerDuration	W	unsignedInt[0:364]	14	Indicates the duration in *days* between two consecutive activations of the Aging mechanism. 0 effectively disables the Aging mechanism.
InternalToInternalNeighborAgingEnabled	W	boolean	false	Enables or disables the Aging mechanism for internal-internal neighbor pairs.
InternalToExternalLTENeighborAgingEnabled	W	boolean	false	Enables or disables the Aging mechanism for internal-external LTE neighbor pairs.
BoundaryCellPeriodicTimerDuration	W	unsignedInt[0:364]	7	Indicates the duration in *days* between two consecutive activations of the Auto-Identification of the Boundary Cells mechanism. 0 effectively disables the Auto-Identification of the Boundary Cells mechanism.
BoundaryCellHIHOThreshold	W	unsignedInt[0:65535]	2500	Indicates the *number* of successful hand-in or hand-out attempts above which an internal LTECell becomes a boundary cell.
NonBoundaryCellHIHOThreshold	W	unsignedInt[0:65535]	250	Indicates the *number* of successful hand-in or hand-out attempts below which an internal LTECell becomes a non-boundary cell.

FAPService.{i}.FAPControl.LTE.SelfConfig.TxPowerOptimization.

Stats based TX power optimization parameters.

Parameter	W	Type	Default	Description
A2ThresholdForPwrIncr	W	unsignedInt[0:65535]	10	Minimum number of A2 events needed in every 1000 handover attempts to cause TX power increment.
A2ThresholdForPwrDecr	W	unsignedInt[0:65535]	0	Maximum number of A2 events needed in every 1000 handover attempts to cause TX power decrement.
RrcReestabThresholdForPwrIncr	W	unsignedInt[0:65535]	10	Minimum number of RRC Re-establishments needed in every 1000 handover attempts to cause TX power increment.
RrcReestabThresholdForPwrDecr	W	unsignedInt[0:65535]	0	Maximum number of RRC Re-establishments needed in every 1000 handover attempts to cause TX power decrement.
CoverageHoleEventThreshold	W	unsignedInt[0:65535]	10	Minimum number of events where a short visit out of E-RAN occurred out of every 1000 handover attempts to cause TX power increment.
BleedOutEventThreshold	W	unsignedInt[0:65535]	50	Minimum number of events where a short visit to E-RAN occurred out of every 1000 handover attempts to cause TX power decrement.
MaxTxPowerSwing	W	int[0:120]	4	Maximum allowable TX power (dB) difference within first tier internal LTE neighbors.
TxPowerIncrementStep	W	int[0:100]	1	TX power increment step in dB.
TxPowerDecrementStep	W	int[0:100]	1	TX power decrement step in dB.
Enable	W	boolean	false	Enables or disables periodic stats based TX power optimization. When *.FAPControl.LTE.SelfConfig.NeighborListSelfConfigEnable* is enabled, a power optimization update is performed after every *PeriodicTxPwrRefreshInterval*. The power optimization updates are scheduled periodically using *Enable* and *PeriodicTxPwrRefreshInterval*. *Enable* is considered only when *.FAPControl.LTE.SelfConfig.NeighborListSelfConfigEnable* is *true.*

PeriodicInterval	W	unsignedInt[1:31536000]	86400	Indicates the interval in *seconds* for periodic stats based TX power optimization. When enabled, this value indicates the interval in *seconds* where power optimization updates are performed. These occasions are in addition to the power optimization updates performed after every*PeriodicTxPwrRefreshInterval*. The local time reference for periodic power optimization udpates is *PeriodicTxPwrRefreshTime*.
PeriodicTime	W	dateTime	1970-01-04T00:00:00Z	Local time reference for initiating periodic stats based TX power optimization.

FAPService.{i}.FAPControl.LTE.PSData.

Parameters for traffic inside UE flows to and from the LTE core.

Parameter	W	Type	Default	Description
TCPMSSAdjust	W	unsignedInt[ranges]	0	Specifies the value to which the Maximum Segment Size of any UE TCP traffic within the GTP tunnel will be adjusted. A value of 0 means MSS will not be adjusted. Possible values: • *0* • *500 to 1460*
TCPMSSAdjustAutoEnable	W	boolean	true	Specifies whether or not to auto-adjust the Maximum Segment Size for any UE TCP data traffic within the GTP tunnel. If enabled, the TCPMSSAdjust value will be ignored and MSS automatically adjusted based on the encapsulation overheads for IPSec, GTP and RLC.
TCPMSSAdjustAutoAddEncapOverhead	W	unsignedInt[0:256]	0	Specifies any additional encapsulation overhead in bytes to use when using auto-MSS for UE data traffic to and from the core.

FAPService.{i}.FAPControl.LTE.LocalSwitching.

This object defines parameters related to local switching of LTE traffic.

Parameter	W	Type	Default	Description
TCPMSSAdjust	W	unsignedInt[ranges]	0	Specifies the value to which the Maximum Segment Size for any local-switched LTE UE TCP traffic will be adjusted. A value of 0 means MSS will not be adjusted. Possible values: • *0* • *500 to 1460*
TCPMSSAdjustAutoEnable	W	boolean	true	Specifies whether or not to auto-adjust Maximum Segment Size for any local-switched LTE UE TCP traffic. If enabled, the TCPMSSAdjust value will be ignored and MSS automatically adjusted.

TCPMSSAdjustAutoAddEncapOverhead	W	unsignedInt[0:256]	0	Specifies any additional encapsulation overhead in bytes to use when using auto-MSS for local-switched LTE UE data traffic.

FAPService.{i}.FAPControl.LTE.X2Connection.

Configuration parameters for the LTE X2 interface.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables X2 connections to the eNodeBs.
LocalPort	W	unsignedInt[65535]	36422	Port number for local SCTP endpoint for establishing X2 connections to the eNodeBs.
NumberOfConfiguredPeers	-	unsignedInt[0:16]	-	Number of configured peer entries.
NumberOfDynamicPeers	-	unsignedInt[0:16]	-	Number of X2 peer entries which were discovered dynamically instead of being configured.
NumberOfConnectedPeers	-	unsignedInt[0:16]	-	Number of peers with currently active X2 connections.
DynamicPeerConnectionEnable	W	boolean	true	Enables or disables connecting to dynamically discovered peers which are not configured in X2 peer table.
X2HandInEnable	W	boolean	true	Enable or disable X2 hand-in procedure.
X2HandInDataForwardingEnable	W	boolean	true	Enable or disable data forwarding during X2 hand-in procedure.
X2HandOutEnable	W	boolean	true	Enable or disable X2 hand-out procedure.
X2HandOutDataForwardingEnable	W	boolean	true	Enable or disable data forwarding during X2 hand-out procedure.

FAPService.{i}.FAPControl.LTE.X2Connection.Peer.{i}.

Configuration parameters for establishing X2 connections to the remote eNodeBs.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables X2AP connection to the peer.
Address	W	regex(256)	<Empty>	Specifies the identity of peer in terms of IP address or FQDN. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-

				9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$

LocalAddress	-	regex(256)	-	The local IP address being used for SCTP association with the peer. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
RemoteAddress	-	regex(256)	-	The remote address being used for SCTP association with the peer. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
Port	W	unsignedInt[65535]	36422	Specifies the SCTP signaling port number of the peer.
Name	W	string	<Empty>	Specifies a reference name for the peer.
PLMNID	W	string	<Empty>	PLMN ID part of the peer's global eNodeB ID.

eNodeBID	W	unsignedInt[0:268435455]	0	Macro or Home eNodeB ID contained in the global eNodeB ID.
Type	W	enum	Macro	Type of the remote peer determining the format of global eNodeB ID. Enumeration of: • *Macro* (X2 remote peer is an eNodeB with a Macro eNodeB-Id.) • *HeNB* (X2 remote peer is a Home eNodeB with a Home eNodeB-Id.)
TAC	W	unsignedInt[65535]	0	Tracking Area Code sent while exchanging X2 peer discovery messages.
ConnectionState	-	enum	-	Shows the X2 signaling connection state. Enumeration of: • *None* • *Discovering IP* • *Resolving FQDN* • *Waiting For SCTP Reconnection* • *Connecting SCTP* • *Connecting X2AP* • *Waiting For X2 Reconnection* • *Connected*
ConnectionId	-	unsignedInt[0:15]	-	Shows the SCTP signaling connection ID.
NumberOfServedCells	-	unsignedInt	-	Shows the number of cells managed by the peer.
NumberOfGUGroups	-	unsignedInt	-	Number of GU MME groups, with which peer is associated.
Dynamic	-	boolean	-	Indicates whether or not the peer entry is dynamically discovered. If *false* the peer entry is statically configured.
X2HandInEnable	W	boolean	true	Enable or disable X2 hand-in procedure.
X2HandInDataForwardingEnable	W	boolean	true	Enable or disable data forwarding during X2 hand-in procedure.
X2HandOutEnable	W	boolean	true	Enable or disable X2 hand-out procedure.
X2HandOutDataForwardingEnable	W	boolean	true	Enable or disable data forwarding during X2 hand-out procedure.

FAPService.{i}.FAPControl.LTE.X2Connection.Peer.{i}.ServedCell.{i}.

Table listing operating parameters and IDs of each cell managed by the X2 peer

Parameter	W	Type	Default	Description
PCI	-	unsignedInt	-	Physical CellID of the served cell.
CellID	-	unsignedInt[0:255]	-	Cell Identifier. *CellID* represents the lower 8 bits for the 28 bit E-UTRAN cell identity (ECI).
TAC	-	unsignedInt	-	Tracking Area Code of served cell.
EARFCNUL	-	unsignedInt	-	EUTRA Absolute Radio Frequency Channel Number in uplink direction for the served cell.
EARFCNDL	-	unsignedInt	-	EUTRA Absolute Radio Frequency Channel Number in downlink direction for the served cell.
ULBandwidth	-	unsignedInt[ranges]	-	Uplink channel bandwidth of the served cell, specified in terms of number of resource blocks. Valid values are 6, 15, 25, 50, 75, and 100 RBs for 1.4, 3, 5, 10, 15, and 20 MHz, respectively. Possible values: • *6* • *15* • *25* • *50* • *75* • *100*
DLBandwidth	-	unsignedInt[ranges]	-	Downlink channel bandwidth of the served cell, specified in terms of number of resource blocks. Valid values are 6, 15, 25, 50, 75, and 100 RBs for 1.4, 3, 5, 10, 15, and 20 MHz, respectively. Possible values: • *6* • *15* • *25* • *50* • *75* • *100*

FAPService.{i}.FAPControl.LTE.X2Connection.Peer.{i}.GUGroupId.{i}.

Table listing globally unique IDs of the pools with which the peer is associated.

Parameter	W	Type	Default	Description

PLMNID	-	string	-	PLMN Id of the GU Group.
MMEGroupId	-	unsignedInt	-	MME Group Id of the GU Group.

FAPService.{i}.AccessMgmt.

This object contains parameters relating to Access Management (ACL, CSG, LIPA).

Closed Subscriber Group (CSG) service behavior is specified in [3GPP-TS.22.011].

Note: Cell barring and 3GPP access class parameters are contained in *.CellConfig.UMTS.RAN.FDDFAP.CellRestriction.* (UMTS FAP).

Parameter	W	Type	Default	Description
MemberDetailNumberOfEntries	-	unsignedInt	-	The number of entries in the *.AccessMgmt.MemberDetail.{i}.* table.
PolicyNumberOfEntries	-	unsignedInt	-	Indicates the number of policies in the configuration.
PolicyGroupNumberOfEntries	-	unsignedInt	-	Indicates the number of policy groups in the configuration.
InPathServiceNumberOfEntries	-	unsignedInt	-	Indicates the number of in-path services in the configuration.
UnknownUEPolicyGroupIndex	W	unsignedInt	0	The default policy group for guest UE sessions is to place them in *PassThrough* mode. *UnknownUEPolicyGroupIndex* allows the administrator to override the default with a particular policy. The value MUST be the instance number of an object in the *.AccessMgmt.PolicyGroup.* table.
AirlinkPartitionEnable	W	boolean	true	Indicates whether CoS configuration is obeyed on the radio interface.
IMSIIdentityRequestEnable	W	boolean	true	Indicates whether system will send 'Identity Request' to UE to know its IMSI. If *false*, system relies on 'Common ID' message from CN. Knowing the IMSI is necessary for proper policy enforcement (see *FAPService.{i}.AccessMgmt.MemberDetail.{i}.PolicyGroupIndex*).
IMEIIdentityRequestEnable	W	boolean	false	Indicates whether system will send 'Identity Request' to UE to know its IMEI.
LocalAddressPoolNumberOfEntries	-	unsignedInt	-	Indicates the number of local address pools in the configuration
IMSIWhitelistEnforcementEnable	W	boolean	false	Enable or disable IMSI Whitelist enforcement. If enabled, an IMSI is allowed access to the cells only if it has been configured in *FAPService.{i}.AccessMgmt.MemberDetail.{i}.* and it is allowed by the Policy configuration.

FAPService.{i}.AccessMgmt.MemberDetail.{i}.

Details for CSG and Non-CSG members.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables the MemberDetail entry.
IMSI	W	string(15)	<Empty>	International Mobile Subscriber Identity of the UE.
MSISDN	W	string(15)	<Empty>	Mobile Station International Subscriber Identity Number. Set to "" if unknown.
Description	W	string	<Empty>	Human-readable description for this UE used for display and debugging purposes only.
PolicyGroupIndex	W	unsignedInt	Mandatory(0)	The value MUST be the instance number of an object in the *.AccessMgmt.PolicyGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0. All members MUST be associated with a policy group. Assigning a set of members (UEs) to the same policy group effectively groups UEs. This allows changes to session parameters for all associated UEs by modifying a single policy group definition. The value MUST be the instance number of an object in the *.AccessMgmt.PolicyGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0. *PolicyGroupIndex* must not be 0 if *Enable* is true.
AutoPolicyUpdate	W	boolean	false	Indicates that any change to the PolicyGroupIndex will result in the properties of active sessions being updated immediately. Normally changes would only apply to new sessions.
Username	W	string(256)	<Empty>	User name assigned by the enterprise.

FAPService.{i}.AccessMgmt.LTE.

This object contains parameters relating to Access Management, as defined in [3GPP-TS.32.592]/

Closed Subscriber Group (CSG) service behavior is specified in [3GPP-TS.22.011].

Note: Cell barring and 3GPP access class parameters are contained in SIB1 in [3GPP-TS.36.331].

Parameter	W	Type	Default	Description
MaxUEsServed	W	int[-1:]	128	Maximum number of concurrent UEs allowed at a cell. A value of -1 allows an unlimited number of concurrent UEs up to the limit of FAP capacity. The setting does not affect emergency calls.
MaxGBRBearers	W	unsignedInt[0:64]	32	Maximum number of concurrent guaranteed bit rate bearers allowed at a cell.
IMSIIdentityRequestEnable	W	boolean	true	Enables or disables Identity Request procedure for IMSI. If enabled, Identity Request will be sent after connection setup completion to obtain the IMSI of the UE to be used for policy based access management.
EmergencyPriorityLevel	W	unsignedInt[0:15]	0	The ARP priority level assigned by EPC for emergency E-RABs. A value of 0 indicates that the priority level is not configured.
MaxNumSessions	W	unsignedInt[0:8000]	8000	The maximum number of concurrent LTE sessions.

MaxNumBearers	W	unsignedInt[0:18000]	18000	The maximum number of concurrent bearers.
EmergencyCallReservation	W	unsignedInt[0:32]	2	Number of UE resources per-cell to be reserved for emergency calls. This also includes GBR bearer resources.
SignalingConnReservation	W	unsignedInt[0:32]	2	Number of UE resources per-cell to be reserved for signaling connections. Also used for admission control prioritization and to redirect users to macro in case of congestion.
IMSIWhitelistEnforcementEnable	W	boolean	false	Enable or disable IMSI Whitelist enforcement. If enabled, an IMSI is allowed access only if it has been configured in *FAPService.{i}.AccessMgmt.MemberDetail.{i}.* and it is allowed by the Policy configuration.

FAPService.{i}.AccessMgmt.Enrollment.

Enrollment Service configuration.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables UE user enrollment service.

FAPService.{i}.AccessMgmt.Enrollment.Web.

Parameters relating to enrollment service web service.

The enrollment web service executes locally on the ServiceNode.

Server and *Port* represent the host and port that the UE will use when contacting the enrollment web service.

This must be configured in order to allow a UE whose data session was created using a Policy

whose *FAPService.{i}.AccessMgmt.Policy.{i}.SwitchingMode* is set to

Enrollment-NAPT or *Enrollment-CNAPT* to access the enrollment web service.

Parameter	W	Type	Default	Description
AAAServerType	W	enum	Mandatory(None)	Type of remote AAA server used to authorize the UE user. Web enrollment service will communicate with this remote AAA server at the time of UE enrollment. At that time, ServicesNode learns the authorized policy for the enrolling user, associates it with the IMSI and updates *FAPService.{i}.AccessMgmt.MemberDetail.{i}.*. Enumeration of:

				• *None* • *RADIUS* (AAA server support RADIUS) *AAAServerType* must not be None if *FAPService.{i}.AccessMgmt.Enrollment.Enable* is true.
Server	W	regex(256)	<Mandatory>	Enrollment web server address in dotted IP address format. Possible patterns: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$` • `^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$` *Server* must not be "" if *FAPService.{i}.AccessMgmt.Enrollment.Enable* is true.
Port	W	unsignedInt[0:65535]	443	Enrollment Web server port.

FAPService.{i}.AccessMgmt.Enrollment.Web.RADIUS.

Enrollment web service RADIUS client configuration. This configuration is mandatory when *FAPService.{i}.AccessMgmt.Enrollment.Web.AAAServerType* is set to *RADIUS*. See *FAPService.{i}.AccessMgmt.Enrollment.Web.AAAServerType* for details on how the RADIUS server is used in this context.

Parameter	W	Type	Default	Description
Server	W	regex(256)	<Mandatory>	RADIUS server address as either: . full qualified domain name . dotted IP address format. Possible patterns: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$` • `^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$` *Server* must not be "" if *FAPService.{i}.AccessMgmt.Enrollment.Web.AAAServerType* is *RADIUS*.

Port	W	unsignedInt[0:65535]	1812	RADIUS server port.
Secret	W	spanUnsignedInt	<Mandatory>	RADIUS server secret. *Secret* must not be "" if *FAPService.{i}.AccessMgmt.Enrollment.Web.AAAServerType* is *RADIUS*.
Timeout	W	unsignedInt[1:90]	3	RADIUS request timeout between retries.
Retry	W	unsignedInt[1:10]	3	Total number of RADIUS request attempts before considering the request a failure.

FAPService.{i}.AccessMgmt.Enrollment.DynamicAuth.

Dynamic authorization configuration.

Parameter	W	Type	Default	Description
AAAServerType	W	enum	Mandatory(None)	Dynamic authorization AAA server type. This remote AAA server will communicate with the ServicesNode when it is time to **remove** a UE from *FAPService.{i}.AccessMgmt.MemberDetail.{i}.*. This allows enterprise IT staff the ability to remove UEs (users) from the list of allowed users of the system using a remote mechanism. Enumeration of: • *None* • *RADIUS* (AAA server support RADIUS) *AAAServerType* must not be None if *FAPService.{i}.AccessMgmt.Enrollment.Enable* is true.

FAPService.{i}.AccessMgmt.Enrollment.DynamicAuth.RADIUS.

Parameter related to Dynamic Authorization Extensions to RADIUS. This configuration is mandatory when *FAPService.{i}.AccessMgmt.Enrollment.DynamicAuth.AAAServerType* is set to *RADIUS*. See *FAPService.{i}.AccessMgmt.Enrollment.DynamicAuth.AAAServerType* for details on how the RADIUS server is used in this context.

Parameter	W	Type	Default	Description
Secret	W	spanUnsignedInt	<Mandatory>	Dynamic Authorization Server RADIUS shared secret. *Secret* must not be "" if *FAPService.{i}.AccessMgmt.Enrollment.DynamicAuth.AAAServerType* is *RADIUS*.
LocalPort	-	unsignedInt[0:65535]	3799	Local port on which Dynamic Authorization Server RADIUS is listening.

FAPService.{i}.AccessMgmt.GTP.

GTP access management configuration.

Parameter	W	Type	Default	Description

FAPService.{i}.AccessMgmt.GTP.Echo.

GTP Echo access management configuration.

Parameter	W	Type	Default	Description

FAPService.{i}.AccessMgmt.GTP.Echo.AccessControl.

GTP Echo Access control.

Parameter	W	Type	Default	Description
VirtualInterface	W	unsignedInt[1:]{}	<Empty>	Ingress virtual interfaces through which GTP Echo packets are allowed. If "", ingress virtual interface is not a consideration when considering which GTP Echo packets are allowed. The value MUST be the instance number of an object in the *FAPService.{i}.Transport.Tunnel.VirtualInterface.* table, or if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to . Array of *unsignedInt* items.

FAPService.{i}.AccessMgmt.PolicyGroup.{i}.

A policy group defines a set of policies for defining UE session parameters. Assigning a set of members (UEs) to the same policy effectively groups UEs. This allows changes to session parameters for all associated UEs by modifying a single policy definition.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this policy group.
Description	W	string	<Empty>	Specifies descriptive text for this policy group to be used for display and debugging purposes only.
PolicyIndexList	W	unsignedInt{}	Empty(0)	Gives the list of Policy objects in the order in which they will be executed by this Policy Group. Array of *unsignedInt* items.

FAPService.{i}.AccessMgmt.InPathService.{i}.

Parameters for an in-path service. When configured in a Policy, an in-path service will receive and process up-link and down-link user-plane packets.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this in-path service.
Description	W	string	<Empty>	Specifies descriptive text for this in-path service to be used for display and debugging purposes only.
RegisteredServiceIndex	W	unsignedInt	0	Specifies the index of the registered service that implements this in-path service.
ForwardingGroupIndex	W	unsignedInt	0	Indicates the forwarding group index.
Encapsulation	W	enum	None	Indicates the encapsulation used when sending packets to this service. Enumeration of: • *None* (No encapsulation.) • *GTP* (GTP encapsulation.) • *GRE* (GRE encapsulation.)
BypassClassQueueIndexes	W	unsignedInt[1:8]{}	<Empty>	Indicates the Class Queues whose traffic will bypass this service. Array of *unsignedInt* items. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table, or if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to .

FAPService.{i}.AccessMgmt.LocalAddressPool.{i}.

Local Address Pool.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this pool.
NumPoolRange	-	unsignedInt	-	Number of Local Address Pool Ranges.

FAPService.{i}.AccessMgmt.LocalAddressPool.{i}.PoolRange.{i}.

Local Address Pool Range.

Parameter	W	Type	Default	Description
RangeStart	W	regex(256)	Empty(0.0.0.0)	Range Start Address Possible patterns:

				• ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
RangeEnd	W	regex(256)	Empty(0.0.0.0)	Range End Address Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

FAPService.{i}.AccessMgmt.Policy.{i}.

Defines UE session parameters. A *Policy* must be referenced from an *.AccessMgmt.PolicyGroup* to be used.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this policy. A disabled policy cannot be used by an *.AccessMgmt.MemberDetail*.
Description	W	string	<Empty>	Specifies descriptive text for this policy to be used for display and debugging purposes only.
APNMatchList	W	unsignedInt{}	<Empty>	Array of *unsignedInt* items. *APNMatchList* defines the list of *.APN.{i}.* for which this policy applies. If *APNMatchList* value is "", the APN for a new session is not considered when deciding if this *Policy* should be applied.

				The value MUST be the instance number of an object in the *.APN.* table, or if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to .

SwitchingMode	W	enum	Empty(Unspecified)	*SwitchingMode* specifies how to handle locally switched data traffic for UEs using this policy. Enumeration of:
				• *PassThrough* (UE data traffic sent untouched to mobile core)
				• *NAPT* (Apply Network Address Port Translation to locally switched UE data traffic)
				• *CNAPT* (Apply Core Network Address Port Translation to locally switched UE data traffic)
				• *Unspecified* (Do not change prior setting of switching mode)
				• *Enrollment-NAPT* (Apply Network Address Port Translation to locally switched UE enrollment data traffic)
				• *Enrollment-CNAPT* (Apply Core Network Address Port Translation to locally switched UE enrollment data traffic)
				Details
				• *PassThrough* mode
				  o UE receives a core IP address and all data traffic is sent untouched to the core.
				• *NAPT* mode
				  o UE receives a core IP address and all traffic except walled garden traffic will be offloaded locally. Walled garden traffic will be sent untouched to the mobile core. Local traffic will be NATted and will appear on the local subnet with a DHCP obtained IP Address.
				• *CNAPT* mode
				  o UE receives a DHCP obtained local IP address and all traffic except walled garden traffic will be offloaded locally. Walled garden traffic will be NATted to the core IP address that was originally assigned to the UE. Local traffic will be passed untouched to the local subnet.

LocalIPv4AddressPool	W	unsignedInt	Empty(0)	Local IPv4 Address Pool
LocalIPv6AddressPool	W	unsignedInt	Empty(0)	Local IPv6 Address Pool
Action	W	enum	Empty(Unspecified)	Indicates the action to take for the UE. Enumeration of: • *Accept* (UE will be accepted) • *Reject* (UE will be rejected) • *Unspecified* (Do not change prior setting of action) • *Redirect* (UE will be redirected)
PassThroughUplinkClassificationGroup	W	unsignedInt	Empty(0)	Classification group (ACL) applied to uplink (egress) IPv4 traffic when *SwitchingMode* is *PassThrough*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
PassThroughDownlinkClassificationGroup	W	unsignedInt	Empty(0)	Classification group (ACL) applied to downlink (ingress) IPv4 traffic when *SwitchingMode* is *PassThrough*. The value MUST be

				the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
LocalSwitchUplinkClassificationGroup	W	unsignedInt	Empty(0)	Classification group (ACL) applied to uplink (egress) ***locally switched*** IPv4 traffic when *SwitchingMode* is either *NAPT* or *CNAPT*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
LocalSwitchDownlinkClassificationGroup	W	unsignedInt	Empty(0)	Classification group (ACL) applied to downlink (ingress) ***locally switched*** IPv4 traffic when *SwitchingMode* is either *NAPT* or *CNAPT*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
IPv6PassThroughUplinkClassificationGroup	W	unsignedInt	Empty(0)	Classification group (ACL) applied to uplink (egress) IPv6 traffic when *SwitchingMode* is *PassThrough*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
IPv6PassThroughDownlinkClassificationGroup	W	unsignedInt	Empty(0)	Classification group (ACL) applied to downlink (ingress) IPv6 traffic when *SwitchingMode* is *PassThrough*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
IPv6LocalSwitchUplinkClassificationGroup	W	unsignedInt	Empty(0)	Classification group (ACL) applied to uplink (egress) ***locally switched*** IPv6 traffic when *SwitchingMode* is either *NAPT* or *CNAPT*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
IPv6LocalSwitchDownlinkClassificationGroup	W	unsignedInt	Empty(0)	Classification group (ACL) applied to downlink (ingress) ***locally switched*** IPv6 traffic when *SwitchingMode* is either *NAPT* or *CNAPT*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
DefaultClassQueue	W	int[ranges]	Empty(-1)	The default queue is used to determine the IP QoS and radio bandwidth allocation on the downlink and the external network IP QoS on the uplink. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.Queue.* table, or -1 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to -1. Possible values: • *-1* • *1 to 5*
ForwardingGroupIndex	W	unsignedInt	Empty(4294967295)	Specifies the IP address domain in which this route exists. A value of 0 indicates to use the default ForwardingGroup, while a value of 4294967295 is reserved to indicate no change to the prevailing ForwardingGroup. The value MUST be the instance number of an object in the *Layer3Forwarding.ForwardingGroup.* table, or 4294967295 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 4294967295.
PrimaryLANDevice	W	unsignedInt	Empty(0)	Together with *PrimaryIPInterface*, this field specifies the IPv4 local switching interface. This interface is used to broadcast any DHCP requests and is the interface which will answer ARP requests for the UE's enterprise address. The specified interface MUST be in the same forwarding group as indicated by *ForwardingGroupIndex*. The value MUST be the instance number of an object in the *LANDevice.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.

PrimaryTrunkDevice	W	unsignedInt	Empty(0)	Together with *PrimaryIPInterface*, this field specifies the IPv4 local switching interface. This interface is used to broadcast any DHCP requests and is the interface which will answer ARP requests for the UE's enterprise address. The specified interface MUST be in the same forwarding group as indicated by *ForwardingGroupIndex*. The value MUST be the instance number of an object in the *TrunkDevice.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
PrimaryIPInterface	W	unsignedInt	Empty(0)	Together with *PrimaryLANDevice* or *PrimaryTrunkDevice*, this field specifies the IPv4 local switching interface. This interface is used to broadcast any DHCP requests and is the interface which will answer ARP requests for the UE's enterprise address. The specified interface MUST be in the same forwarding group as indicated by *ForwardingGroupIndex*. The value MUST be the instance number of an object in the *LANDevice.{i}.LANHostConfigManagement.IPInterface.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
IPv6PrimaryLANDevice	W	unsignedInt	Empty(0)	Together with *IPv6PrimaryIPInterface*, this field specifies the IPv6 local switching interface. This interface is used to broadcast any DHCP requests and is the interface which will answer ARP requests for the UE's enterprise address. The specified interface MUST be in the same forwarding group as indicated by *ForwardingGroupIndex*. The value MUST be the instance number of an object in the *LANDevice.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
IPv6PrimaryTrunkDevice	W	unsignedInt	Empty(0)	Together with *IPv6PrimaryIPInterface*, this field specifies the IPv6 local switching interface. This is the interface which will answer ND requests for the UE's enterprise address. The specified interface MUST be in the same forwarding group as indicated by *ForwardingGroupIndex*. The value MUST be the instance number of an object in the *TrunkDevice.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
IPv6PrimaryIPInterface	W	unsignedInt	Empty(0)	Together with *IPv6PrimaryLANDevice* or *IPv6PrimaryTrunkDevice*, this field specifies the IPv6 local switching interface. This is the interface which will answer ND requests for the UE's enterprise address. The specified interface MUST be in the same forwarding group as indicated by *ForwardingGroupIndex*. The value MUST be the instance number of an object in the *LANDevice.{i}.LANHostConfigManagement.IPInterface.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
LocationStreamMode	W	enum	Empty(Unspecified)	Enables or disables location stream for users of this policy. Enumeration of: • *Disabled* (Location stream reports will not be switched on) • *Enabled* (Location stream reports will be switched on) • *Unspecified* (Do not change prior setting of location stream reports)
AdmissionPriorityGroupIndex	W	unsignedInt	Empty(0)	Specifies the set of admission priorities that will apply. The value MUST be the instance number of an object in the *.AccessMgmt.AdmissionPriorityGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
SessionTraceMode	W	enum	Empty(Unspecified)	Enables or disables session tracing for users of this policy. Enumeration of: • *Disabled* (Session tracing is disabled)

				• *Enabled* (Session tracing is enabled) • *Unspecified* (Do not change prior setting of session tracing)
DetectionClass	W	enum	Empty(Unspecified)	Sets detection class for users of this policy. Enumeration of: • *WhiteList* (Detection according to White List class) • *BlackList* (Detection according to Black List class) • *Unspecified* (Do not change prior setting of detection class)
DetectionEvent	W	enum	Empty(Unspecified)	Sets detection event for users of this policy. Enumeration of: • *Enabled* (Detection event is enabled) • *Disabled* (Detection event is disabled) • *Unspecified* (Do not change prior setting of detection event)
InPathServiceIndexes	W	unsignedInt{}	<Empty>	Indicates list of in-path services for this policy. Array of *unsignedInt* items. The value MUST be the instance number of an object in the *.InPathService.* table, or if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to .

FAPService.{i}.AccessMgmt.AdmissionPriorityGroup.{i}.

This object specifies priorities for different session types which are applied by the policy that refers to it. Multiple policies can refer to the same Admission Priority Group. The priorities are applied to IMSIs which refer to the policies during session establishment and are used to decide whether the session should be allowed in or not. The smaller the priority value, the higher the priority.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this group. A disabled admission priority group cannot be used by an *.AccessMgmt.Policy.*
Description	W	string(256)	<Empty>	Provides a human-readable description of the admission priority group.
Emergency	W	unsignedInt[0:0]	0	Specifies the priority for an Emergency Call. This value is always 0 and cannot be set to any other value.
Voice	W	unsignedInt[1:65535]	65533	Specifies the priority for a voice call in the CS domain.
HSDPA	W	unsignedInt[1:65535]	65534	Specifies the priority for a PS data session which supports HSDPA but not HSUPA.

HSUPA	W	unsignedInt[1:65535]	65534	Specifies the priority for a PS data session which supports both HSDPA and HSUPA.
R99Data	W	unsignedInt[1:65535]	65535	Specifies the priority for a PS data session which does not support HSDPA. The resource requirements for such a session is more than an HSDPA session.

FAPService.{i}.AccessMgmt.AdmissionControl.

Admission control configuration

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enables or disables admission control. Enabling admission control provides session prioritization and manages uplink (radio links) and downlink (OVSF code) resource allocation based on session priority.
MaxNumberOfRadioLinks	W	unsignedInt[ranges]	32	Indicates the maximum number of radio links for a cell. Possible values: • *8* • *16* • *32*
MobilityLinkReservation	W	unsignedInt[0:10]	5	Indicates the number of radio links that will be reserved exclusively for soft handover if *Enable* is *true*. If *MaxNumberOfRadioLinks* is set to 32, then the recommended value of this parameter is 5.
RACHLinkReservation	W	unsignedInt[0:6]	1	Indicates the number of radio links reserved for RACH decodes. If *MaxNumberOfRadioLinks* is set to 32, then the recommended value of this parameter is 1.
RegistrationLinkReservation	W	unsignedInt[0:6]	1	Indicates the number of radio links reserved for Registration sessions. A non-registration session is allowed to use these radio links if a lower priority session will be disconnected or it is an E911 call. If *MaxNumberOfRadioLinks* is set to 32, then the recommended value of this parameter is 1.
UplinkROTTokenUsageLimit	W	unsignedInt[0:65535]	1024	Token usage limit for controling uplink Rise-over-thermal on a cell. If the cell token usage exceeds this limit and *Enable* is *true*, sessions with uplink R99 DCH may be reconfigured to lower rates.
HSUPATTIMgmtEnable	W	boolean	true	Enables or disables HSUPA TTI Management. If enabled, and *FAPService.{i}.AccessMgmt.AdmissionControl.Enable* is set to *true*, admission control will manage the number of 2ms TTI users on a cell to maintain L1 stability.

FAPService.{i}.AccessMgmt.EmergencyCall.

Parameters for Emergency call handling

Parameter	W	Type	Default	Description

OffloadEnabled	W	boolean	false	Enables or disables Emergency call offload. If enabled, the SN will attempt to offload all Emergency calls to the macro by means of RRC Connection Reject or a measurement based handover. If the handover attempt is not successful, the SN will continue to serve the Emergency call.
CNPriorityLevel	W	unsignedInt[0:14]	0	The Priority Level reported by the CN in RAB Assignment for an Emergency call. If the configured value is 0, the reported Priority Level in RAB Assignment Request is not used to determine if it is an Emergency call.
GSMRedirectPreferred	W	boolean	true	Enables or disables preference for GSM for RRC Redirect of Emergency call. If enabled, SN will attempt RRC Redirect to GSM. If disabled, the RRC Redirect will be done to an inter-frequency channel if configured in the neighbor list, else the redirection will be to GSM.

FAPService.{i}.AccessMgmt.SessionRateLimiting.

Parameters for session rate limiting.

Parameter	W	Type	Default	Description
MaxSessionRate	W	unsignedInt[0:65535]	1000	Sets the maximum session rate in sessions/min. If the rate of incoming sessions exceeds this value, all PS session connection requests will be rejected through an RRC Connection Reject. The rate monitoring and session rejection is done at a granularity of 6 second intervals.
SessionRateThreshold	W	unsignedInt[ranges]	90	Threshold of *FapService.{i}.AccessMgmt.SessionRateLimiting.MaxSessionRate* at which the system will start rejecting some low priority sessions. Possible values: • *70* • *80* • *90* • *100*
MaxTransitionRate	W	unsignedInt[0:65535]	2000	Sets the maximum RRC state transition rate in sessions/min. If the rate of RRC transitions exceeds this value, all RRC transition events are ignored. The rate monitoring is done at a granularity of 6 second intervals.
EnableTransitionDrop	W	boolean	false	Enables or disables the mechanism to drop RRC state transition events upon reaching max session rate. If the max session rate is exceeded, RRC transitions are dropped if this flag is enabled.
WorkqueueThreshold	W	unsignedInt[0:65535]	0	Sets the work queue threshold at which PS RRC Connection requests will be rejected.

FAPService.{i}.AccessMgmt.UMTS.

UMTS access management configuration.

Parameter	W	Type	Default	Description
MaxNumSessions	W	unsignedInt[0:2400]	1000	The maximum number of concurrent LTE sessions.

MaxNumBearers	W	unsignedInt[0:7200]	3000	The maximum number of concurrent bearers.

FAPService.{i}.CellConfig.

This object contains parameters relating to configuring the FAP.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.UMTS.

This object contains parameters relating to configuring UMTS system specific information.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.UMTS.CN.

This object contains parameters relating to configuring UMTS CN.

Parameter	W	Type	Default	Description
PLMNType	W	enum	GSM-MAP	Type of Public Land Mobile Network (PLMN). Enumeration of: • *GSM-MAP* • *ANSI-41*
PLMNID	W	string(6)	<Mandatory>	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5. *PLMNID* must not be "" if *FAPService.{i}.FAPControl.UMTS.Gateway.CNConnectionEnable* is true.
SAC	W	unsignedInt[0:65535]	Empty(0)	Service Area Code (SAC) [3GPP-TS.23.003]. The concatenation of PLMN ID (MCC+MNC), LAC, and SAC uniquely identifies the Service Area ID (SAI).
LACRAC	W	string{}<256>	<Mandatory>	Array (maximum length as string 256) of *string* items. Each item is a LAC/RAC combination expressed in the following format:

				• <LAC or LACrange>':'<RAC or RACrange>
				
				Where LAC and RAC are single values, while LACrange and RACrange are inclusive and can be expressed in the following format:
				
				• <Start-value>".."<End-value>
				
				Location Area Code (LAC) consists of up to 5 numerical characters. The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the Location Area ID (LAI). [3GPP-TS.23.003] Section 4.1 [3GPP-TS.25.413] Section 9.2.3.6.
				Routing Area Code (RAC) consists of up to 3 numerical characters. The concatenation of PLMN ID (MCC+MNC), LAC, and RAC uniquely identifies the Routing Area ID (RAI). [3GPP-TS.23.003] Section 4.2 [3GPP-TS.25.413] Section 9.2.3.7.
				The FAP is to select one LAC and RAC from the combination(s) expressed in this parameter for use in *LACInUse* and *RACInUse* respectively.
				If a LAC occurs more than once in the list, this shall not increase the chance that it is selected over other LAC values in the list.
				The following are examples of the valid LACRAC combination formats:
				
				• "64000:210"
				  o (one list item with single value for LAC and RAC)
				• "64000..64100:210, 64101:211"
				  o (two list items, first item has a LAC range)
				• "64000:210..214, 64001:215..219"
				  o (two list items, both items have a RAC range for a specific LAC value)
				• "64000..64100:210..214"
				  o (one list item both have a LAC range and a RAC range)
				
				LACRAC must not be "" if *FAPService.{i}.FAPControl.UMTS.Gateway.CNConnectionEnable* is true.

LACInUse	-	unsignedInt[65535]	-	The LAC being used by the FAP. Self-configuration for LAC is controlled by *.Capabilities.UMTS.SelfConfig.LACRACURAConfig* from an availability perspective and *.FAPControl.UMTS.SelfConfig.LACRACURASelfConfigEnable* from an enabled perspective. If the self-configuration capability is available and enabled, this parameter indicates the value selected by the FAP among the choices provided in *LACRAC*. If the self-configuration capability is not available or not enabled, then this parameter contains the first LAC value in *LACRAC*.
RACInUse	-	unsignedInt[255]	-	The RAC being used by the FAP. Self-configuration for RAC is controlled by *.Capabilities.UMTS.SelfConfig.LACRACURAConfig* from an availability perspective and *.FAPControl.UMTS.SelfConfig.LACRACURASelfConfigEnable* from an enabled perspective. If the self-configuration capability is available and enabled, this parameter indicates the value selected by the FAP among the choices provided in *LACRAC*. If the self-configuration capability is not available or not enabled, then this parameter contains the first RAC value in *LACRAC*.
BroadcastSAC	W	unsignedInt[0:65535]	Empty(0)	Service Area Code (SAC) for broadcast. The format of this parameter is the same with *SAC*, and it uniquely identifies the Service Area ID (SAI) for Earthquake and Tsunami Warning Services (ETWS) [3GPP-TS.25.469] Section 9.1.3.
CNID	W	unsignedInt	0	The identifier for the Core Network.
CommonPLMNIDInMultiplePLMNList	W	boolean	true	This will indicate whether Common PLMN ID of the MIB is part of the Multiple PLMN List.
PositioningMethodAndUsage	W	unsignedInt[ranges]	65535	The value of the PositioningMethodAndUsage element in the RANAP Location report message sent to the core. Possible values: • *0 to 255* • *65535*

FAPService.{i}.CellConfig.UMTS.CN.CSDomain.

This object contains parameters relating to configuring the CS domain of the UMTS CN.

Parameter	W	Type	Default	Description
T3212	W	unsignedInt[91800]	3600	T3212 timeout value specified in *seconds*. [3GPP-TS.24.008]
IMSIAttachDetachEnable	W	boolean	true	Indicates the UE behavior regarding IMSI attach/detach procedure to the CN. [3GPP-TS.24.008] If *true* UE SHALL apply IMSI attach and detach procedure If *false* UE SHALL NOT apply IMSI attach and detach procedure

FAPService.{i}.CellConfig.UMTS.CN.PSDomain.

This object contains parameters relating to configuring the PS domain of the UMTS CN.

Parameter	W	Type	Default	Description
NetworkModeOperationCombined	W	boolean	true	Network Mode of Operation of the CN. [3GPP-TS.23.060] [3GPP-TS.24.008] If *true* (Network Mode of Operation II) Combined procedures between CS and PS domain are not supported (i.e. Gs interface is not present). If *false* (Network Mode of Operation I) Combined procedures between CS and PS domain are supported (i.e. Gs interface is present).

FAPService.{i}.CellConfig.UMTS.CN.MultiplePLMNsList.{i}.

This object defines list of PLMNs which will be broadcasted in MultiplePLMNList of Master Information Block of each cell.

Parameter	W	Type	Default	Description
PLMNID	W	string(6)	<Empty>	PLMN ID of the current entry.
Description	W	string(256)	<Empty>	Description of the PLMN in readable format.
AccessClassBarredListCS	W	unsignedInt[0:15]{}	<Empty>	List of barred access classes specific to CS domain for the PLMN. Array of *unsignedInt* items.
AccessClassBarredListPS	W	unsignedInt[0:15]{}	<Empty>	List of barred access classes specific to PS domain for the PLMN. Array of *unsignedInt* items.

FAPService.{i}.CellConfig.UMTS.RAN.

This object contains parameters relating to the RAN-level configuration.

Parameter	W	Type	Default	Description
URAList	W	unsignedInt[65535]{1:8}<50>	0	Array (maximum length as string 50) of *unsignedInt* items (minimum number of items 1, maximum number of items 8). Each item is a URA (UTRAN Registration Area) to which the FAP belongs. The order of the URA values has no significance. [3GPP-TS.25.331] Section 10.3.2.6
URAInUse	-	unsignedInt[65535]	-	The URA being used by the FAP. Self-configuration for URA is controlled by *.Capabilities.UMTS.SelfConfig.LACRACURAConfig* from an availability perspective and *.FAPControl.UMTS.SelfConfig.LACRACURASelfConfigEnable* from an enabled perspective. If the FAP's self-configuration capability for URA is available and enabled, this parameter indicates the value selected by the FAP among the choices provided in *URAList*.

				If the self-configuration capability is not available or not enabled, then this parameter contains the first URA value in *URAList*.
RNCID	W	unsignedInt[0:4095]	Empty(0)	RNC-ID allocated to the FAP. It uniquely identifies an RNC within a PLMN. Normally, RNC-ID consists of 12 bits (i.e. a range of [0:4095]). However, if the value is larger than 4095, then Extended RNC-ID (range of [4096:65535]) is used in RANAP. The RNC-ID and Extended RNC-ID are combined into a single parameter here as there is no explicit need to have them separated. [3GPP-TS.25.413] Section 9.2.1.39
CellID	W	unsignedInt[ranges]	Empty(4294967295)	Cell Identity. [3GPP-TS.25.401] Section 6.1.5 This value is not used to provision any cells, but is only the value that is send to the HNB gateway in the HNB registration. Possible values: • *less than 268435455* • *4294967295*
TRafC	W	unsignedInt	10	Maximum amount of time in *seconds* that the FAP SHOULD wait for receiving a "RANAP:RESET ACKNOWLEDGE" message from the Femto GW after sending a Reset to the Femto GW. [3GPP-TS.25.413] Section 9.5
AutoProvCIDList	W	spanUnsignedInt{}	<Empty>	Gives the list of local cell identifiers that will be used by auto-provisioning to configure cells. Array of *string* items.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.

This object contains parameters relating to the cell-level configuration for FDD mode FAP.

Parameter	W	Type	Default	Description
HSFlag	W	boolean	true	Enables/disables the HSDPA function in the FAP. If *true* HSDPA is enabled (this is equivalent to a "1" in [3GPP-TS.32.642] Section 6.3.9) If *false* HSDPA is disabled (this is equivalent to a "0" in [3GPP-TS.32.642] Section 6.3.9)
HSEnable	W	boolean	true	Enables or disables HSDPA in the cell. If *true* HSDPA is enabled (this is equivalent to a "1" in [3GPP-TS.32.642] Section 6.3.9) If *false* HSDPA is not enabled (this is equivalent to a "0" in [3GPP-TS.32.642] Section 6.3.9) If *HSFlag* is *false* then this value MUST be *false*. Note: In the current release, *HSEnable* applies to all cells in the system.
NumOfHSPDSCHs	W	unsignedInt[1:14]	5	Number of OVSF codes reserved per cell for HSDPA downlink.
HSUPAEnable	W	boolean	true	Enables or disables HSUPA in individual cells.

				Note: In the current release, *HSUPAEnable* applies to all cells in the system. If *true* HSUPA is enabled in all cells. If *false* HSUPA is disabled in all cells. If *HSEnable* is *false* then this value MUST be *false*.
HSUPA2msTTIEnable	W	boolean	true	Enables or disables HSUPA 2ms TTI in UMTS cells.
HSUPASchedulerConfig	W	enum	Mode-2	Selection of HSUPA scheduling parameters based on the type of provisioned radio-nodes. Enumeration of: • *Mode-1* (Scheduling parameters for network comprising of RN200s only) • *Mode-2* (Scheduling parameters for network comprising only of RN310s, or a mix of RN310s and RN200s)
R99RLCMode	W	enum	AM	RLC Mode for sessions with R99 downlink and R99 uplink. Enumeration of: • *AM* (Acknowledge Mode) • *UM* (Unacknowledge Mode) • *UMFSW* (Unacknowledge Mode Fast Switch)
HSDownR99UpRLCMode	W	enum	AM	RLC Mode for sessions with HSDPA downlink and R99 uplink. Enumeration of: • *AM* (Acknowledge Mode) • *UM* (Unacknowledge Mode) • *UMFSW* (Unacknowledge Mode Fast Switch)
HSRLCMode	W	enum	AM	RLC Mode for sessions with HSDPA downlink and HSUPA uplink. Enumeration of: • *AM* (Acknowledge Mode) • *UM* (Unacknowledge Mode) • *UMFSW* (Unacknowledge Mode Fast Switch)
HSRLCWindowSize	W	unsignedInt[0:11]	11	*HSRLCWindowSize* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *HSRLCWindowSize* should not be changed from its default value. RLC sender window size for sessions with HSDPA downlink and HSUPA upink. The window size is specified as an enumeration value as defined in TS 25.331 Section 10.3.4.25. The default value is 11, corresponding to a window size of 2047.

HSPlusRLCWindowSize	W	unsignedInt[0:11]	7	*HSPlusRLCWindowSize* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *HSPlusRLCWindowSize* should not be changed from its default value. RLC sender window size for HSPA+ sessions. The window size is specified as an enumeration value as defined in TS 25.331 Section 10.3.4.25. The default value is 9, corresponding to a window size of 1024.
HSRLCPduSize	W	unsignedInt[ranges]	336	RLC PDU size for sessions with HSDPA downlink and/or HSUPA uplink. Possible values: • *336* • *656*
HSRLCMaxPduSize	W	unsignedInt[48:8192]	2880	Maximum Flex RLC PDU size in bits for sessions with HSDPA/MAC-ehs downlink.
SecondaryScramblingCodeEnable	W	boolean	false	Enables or disables use of Secondary Scrambling Codes. Use of Secondary Scrambling Codes can increase the HSDPA cell throughput as it would allow allocating more OVSF codes for HSDPA downlink through the *NumOfHSPDSCHs* parameter. It also increases the number of R99 data users supported by the cells and improves Compressed Mode performance of users.
R99DownlinkRate	W	unsignedInt[ranges]	64	The downlink rate in *Kbps* of Packet Switched (PS) R99 sessions. Possible values: • *64* • *384*
R99UplinkRate	W	unsignedInt[ranges]	64	The uplink rate in *Kbps* of Packet Switched (PS) R99 sessions. Possible values: • *64* • *384*
IntraFreqHardHandoverEnable	W	boolean	false	Enables or disables use of Intra-Frequency Hard Handover. Intra-Frequency Hard Handover is performed when the target cell is a UMTS cell being controlled by a different RNC and is operating at the same UARFCNDL as the source.
InterFreqHardHandoverEnable	W	boolean	true	Enables or disables use of Inter-Frequency Hard Handover. Inter-Frequency Hard Handover is performed when the target cell is a UMTS cell being controlled by a different RNC and is operating on a different UARFCNDL as the source.
InterRATHardHandoverEnable	W	boolean	true	Enables or disables use of Inter-RAT Hard Handover. Inter-RAT Hard Handover is performed when the target cell belongs to different Radio Access Technology such as GSM.
PSHardHandoverEnable	W	boolean	false	Enables or disables hard handover for PS Domain. *PSHardHandoverEnable* is only applicable if at least one of *InterFreqHardHandoverEnable* or *IntraFreqHardHandoverEnable* is *true*.
HalfRateAMREnable	W	boolean	false	Enables or disables Half-Rate AMR support for CS calls. The actual rate selected depends on the rates specified in the RadioBearer message

				from the MSC.
CSVideoEnable	W	boolean	false	Enables or disables H.223 based CS video calls support in the CS Domain.
SRBDataRate	W	enum	13.6Kbps	Data rate used for Signalling Radio Bearers before Radio Bearer Setup. After first Radio Bearer Setup, data rate for Signalling Radio Bearers is always 3.4 Kbps. Enumeration of: • *3.4Kbps* • *13.6Kbps*
MACehsEnable	W	boolean	true	Enables or disables MAC-ehs support.
SixtyFourQAMEnable	W	boolean	true	Enables or disables 64-QAM support.
FlexRLCEnable	W	boolean	true	Enables or disables Flex RLC support.
PagingRetryCount	W	unsignedInt[0:5]	2	Number of times system should retry sending a CN originated Paging Type 1 message if no paging response is received. If *PagingRetryCount* is set to 0, paging retries are not attempted.
HandInTargetCellDetermination	W	enum	MeasReportPSC	Method to determine target cell for hand-in when {system} receives a RANAP Relocation Request message. Enumeration of: • *TargetCellID* (Use target cell id to lookup target cell for hand-in) • *MeasReportPSC* (Use PSC from Measurement Report to lookup target cell for hand-in)
MRABHandOutEnable	W	boolean	false	Enables or disables simultaneous handout of both CS and PS domains to a UMTS neighbor.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellSelection.

This object contains parameters related to cell selection and reselection.

Parameter	W	Type	Default	Description
QualityMeasureCPICH	W	enum	CPICH Ec/No	Which mechanism to use when doing CPICH quality measurements. [3GPP-TS.25.331] Section 10.3.7.47 Enumeration of: • *CPICH Ec/No* • *CPICH RSCP*

QqualMin	W	int[-24:0]	-19	Minimum required quality measure, specified in *dB*. [3GPP-TS.25.331] Section 10.3.2.3 and Section 10.3.2.4 This value is only meaningful if *QualityMeasureCPICH* has the value *Ec/No* and it MUST otherwise be ignored.
QRxLevMin	W	int[ranges]	-105	Minimum required RX level in the cell, specified in *dBm*. [3GPP-TS.25.331] Section 10.3.2.3 Only odd values are valid, use of an even value MUST be rejected by the CPE. This value is only meaningful if *QualityMeasureCPICH* has the value *RSCP* and it MUST otherwise be ignored. Possible values: • *-115 to -25* • *0*
QHyst1s	W	unsignedInt[0:40]	0	GSM and FDD Cell reselection hysteresis 1. [3GPP-TS.25.331] Section 10.3.2.3 Only even values are valid, use of an odd value MUST be rejected by the CPE. This value is only meaningful if *QualityMeasureCPICH* has the value *RSCP* and it MUST otherwise be ignored.
QHyst2s	W	unsignedInt[0:40]	4	FDD Cell reselection hysteresis 2. [3GPP-TS.25.331] Section 10.3.2.3 Only even values are valid, use of an odd value MUST be rejected by the CPE. This value is only meaningful if *QualityMeasureCPICH* has the value *RSCP* and it MUST otherwise be ignored. By default when *QHyst1s* is set and *QHyst2s* is not, then the value for *QHyst2s* should match the value of *QHyst1s*.
TReselections	W	unsignedInt[0:31]	2	A member of the set of parameters used for cell reselection functionality. A UE triggers the reselection of a new cell if the cell reselection criteria are fulfilled during the time interval in *seconds*. Parameter defined in SIB3 [3GPP-TS.25.331] Section 10.3.2.3.
SIntrasearch	W	int[0:20]	10	A member of the set of parameters used for cell reselection functionality. Defines the threshold for intra-frequency measurements, and for the HCS measurement rules. Only even values are valid, use of an odd value MUST be rejected by the CPE. Parameter defined in SIB3 [3GPP-TS.25.331] Section 10.3.2.3.
SIntersearch	W	int[0:20]	2	A member of the set of parameters used for cell reselection functionality. Defines the threshold for inter-frequency measurements, and for the HCS measurement rules. Only even values are valid, use of an odd value MUST be rejected by the CPE. Parameter defined in SIB3 [3GPP-TS.25.331] Section 10.3.2.3.
SSearchRAT	W	int[0:20]	2	A member of the set of parameters used for cell reselection functionality. Defines the RAT (GSM) specific threshold for inter-RAT measurement rules. Only even values are valid, use of an odd value MUST be rejected by the CPE. Parameter defined in SIB3 [3GPP-TS.25.331] Section 10.3.2.3.

UETxPwrMaxRACH	W	int[-50:33]	21	A member of the set of parameters used for cell reselection functionality. Defines the maximum transmit power level, specified in *dBm*, that an UE may use when accessing the cell on RACH. Used to calculate Pcompensation, which is: max(UE_TXPWR_MAX_RACH - P_MAX, 0), where UE_TXPWR_MAX_RACH is *UETxPwrMaxRACH* and P_MAX is the max transmit power for a UE. [3GPP-TS.25.331] Section 10.3.2.3 [3GPP-TS.25.304] Section 5.2.3
IntraFreqQOffset1sn	W	int[-50:50]	0	This specifies the bias against reselection to an intra-freq neighbor cell in *dB* when *QualityMeasureCPICH* is set to *CPICH RSCP*. Note: As currently implemented, this value also gets applied to the intra-system cells. This needs to be fixed in the future.
IntraFreqQOffset2sn	W	int[-50:50]	4	This specifies the bias against reselection to an intra-freq neighbor cell in *dB* when *QualityMeasureCPICH* is set to *CPICH Ec/No*. Note: As currently implemented, this value also gets applied to the intra-system cells. This needs to be fixed in the future.
InterFreqQOffset1sn	W	int[-50:50]	0	This specifies the bias against reselection to an inter-freq cell specified in *dB* when *QualityMeasureCPICH* is set to *CPICH RSCP*
InterFreqQOffset2sn	W	int[-50:50]	50	This specifies the bias against reselection to an inter-freq cells specified in *dB* when *QualityMeasureCPICH* is set to *CPICH RSCP*
InterRatQOffset1sn	W	int[-50:50]	50	This specifies the bias against reselection to an inter-RAT cell in *dB*
ServingCellPriority	W	unsignedInt[0:7]	3	Absolute priority of the serving cell
SPrioritySearch1	W	unsignedInt[0:31]	8	This threshold is used in the measurement rules for cell re-selection when absolute priorities are used. It specifies the value of Srxlev in the serving cell controlling the rate of inter-frequency and inter-RAT measurements. Specified in *dB*, value of (*SPrioritySearch1* * 2) yields the actual value.
ThreshServingLow	W	unsignedInt[0:31]	8	This threshold is used in the rules for cell reselection to lower priority neighbors when absolute priorities are used. It specifies the limit for Srxlev in the serving cell below which the UE may perform cell reselection to a cell on a lower absolute priority layer. Specified in *dB*, value of (*ThreshServingLow* * 2) yields the actual value.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.RRCTimers.

This object contains parameters related to miscellaneous RRC timers and constants.

Parameter	W	Type	Default	Description
T300	W	unsignedInt[ranges]	2000	Timer measured in *milliseconds*. Only the following values are considered valid: • 100, 200, 400, 600, 800, 1000, 1200, 1400, 1600, 1800, 2000, 3000, 4000, 6000, and 8000 Any value other than those and the CPE MUST reject the request. Defined in SIB1 [3GPP-TS.25.331] Section 13.1 and Section 10.3.3.43. Possible values: • *100* • *200*

				• *400* • *600* • *800* • *1000* • *1200* • *1400* • *1600* • *1800* • *2000* • *3000* • *4000* • *6000* • *8000*

T313	W	unsignedInt[0:15]	1	T313 (Time to RL Failure) in *seconds*
T314	W	unsignedInt[ranges]	6	T314 (Time to RadioBearer reestablishment failure on CS domain) in *seconds*. Recommended value is 6. Possible values: • *0* • *2* • *4* • *6* • *8* • *12* • *16* • *20*
T315	W	unsignedInt[ranges]	0	T315 (Time to RadioBearer reestablishment failure on PS domain) in *seconds* Possible values: • *0* • *10* • *30* • *60* • *180* • *600* • *1200* • *1800*
N300	W	unsignedInt[0:7]	5	Counter. Defined in SIB1 [3GPP-TS.25.331] Section 13.1 and Section 10.3.3.43.
T323	W	unsignedInt[ranges]	5	T323 (Time to delay the UE to send Signalling Connection Release Indication) in *seconds* Possible values: • *0* • *5* • *10* • *20* • *30* • *60* • *90* • *120*

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.DRX.

This object contains parameters related to DRX parameters.

Parameter	W	Type	Default	Description
DRXCycleLengthCoefficientCS	W	unsignedInt[6:9]	7	Defines the DRX cycle length coefficient for CS domain to optimize paging in idle mode. Defined in SIB1 [3GPP-TS.25.331] Section 10.3.3.6. *DRXCycleLengthCoefficientCS* refers to 'k' in the formula as specified in [3GPP-TS.25.304], Discontinuous reception. Used by the CN CS domain to count paging occasions for discontinuous reception in Idle Mode. The duration of the DRX cycle is 2 <power> k frames, where 'k' is the used DRX cycle length coefficient for CN. This parameter determines the frequency of paging opportunity for CS domain
DRXCycleLengthCoefficientPS	W	unsignedInt[6:9]	7	Defines the DRX cycle length coefficient for PS domain to optimize paging in idle mode. Defined in SIB1 [3GPP-TS.25.331] Section 10.3.3.6. *DRXCycleLengthCoefficientPS* refers to 'k' in the formula as specified in [3GPP-TS.25.304], Discontinuous reception. Used by the CN PS domain to count paging occasions for discontinuous reception in Idle Mode. The duration of the DRX cycle is 2 <power> k frames, where 'k' is the used DRX cycle length coefficient for CN. This parameter determines the frequency of paging opportunity for PS domain
UTRANDRXCycleLengthCoefficient	W	unsignedInt[3:9]	6	Defines the DRX cycle length used by UTRAN to count paging occasions for discontinuous reception in Connected Mode. The duration of the DRX cycle is 2 <power> k frames, where 'k' is the used DRX cycle length coefficient for UTRAN. *UTRANDRXCycleLengthCoefficient* SHOULD be used by the UTRAN/FAP for UEs in Cell_PCH/Cell_FACH state. [3GPP-TS.25.331] Section 10.3.3.49

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.PowerControl.

This object contains parameters related to power control and RACH.

Parameter	W	Type	Default	Description
ConstantValue	W	int[-35:-10]	-10	Used by the UE to calculate the initial output power, specified in *dB*, on PRACH according to the open loop power control procedure. Parameter in SIB5. [3GPP-TS.25.331] Section 10.3.6.11
PowerRampSetup	W	unsignedInt[0:8]	1	Used for the Uplink Common Channel. Defines the Power ramp setup, specified in *dB*, on PRACH preamble when no acquisition indicator (AI) is detected by the UE. Parameter in SIB5. [3GPP-TS.25.331] Section 10.3.6.54
PreambleRetransMax	W	unsignedInt[0:64]	10	Used for the Uplink Common Channel. Defines the maximum number of preambles allowed in one preamble ramping cycle. PRACH Preamble Retrans Max is part of "PRACH power offset" which is part of "PRACH system information list".

				Parameter in SIB5. [3GPP-TS.25.331] Section 10.3.6.54
MMax	W	unsignedInt[0:32]	4	Maximum number of RACH preamble cycles. Defines how many times the PRACH preamble ramping procedure can be repeated before UE MAC reports a failure on RACH transmission to higher layers. Maximum number of RACH preamble cycles is part of "RACH transmission parameters" which is part of "PRACH system information list" which is part of SIB5. [3GPP-TS.25.331] Section 10.3.6.67
NB01Min	W	unsignedInt[0:50]	0	RACH random back-off lower bound. *NB01Min* is the lower bound of the waiting time in 10 millisecond increments (i.e. 1 corresponds to 10 ms and 50 corresponds to 500 ms). *NB01Min* is part of "RACH transmission parameters" which is part of "PRACH system information list" which is part of SIB5. [3GPP-TS.25.331] Section 10.3.6.67
NB01Max	W	unsignedInt[0:50]	20	RACH random back-off upper bound. *NB01Max* is the Upper bound of the waiting time in 10 millisecond increments (i.e. 1 corresponds to 10 ms and 50 corresponds to 500 ms). *NB01Max* is part of "RACH transmission parameters" which is part of "PRACH system information list" which is part of SIB5. [3GPP-TS.25.331] Section 10.3.6.67
OLPCEnable	W	boolean	true	Enables or disables Outer Loop Power Control on the uplink.
MinSIRTargetUL	W	int[-82:173]	30	The minimum SIR target of the OLPC on the UL in *0.1 dB*.
MaxSIRTargetUL	W	int[-82:173]	60	The maximum SIR target of the OLPC on the UL in *0.1 dB*.
InitialSIRTargetUL	W	int[-82:173]	45	The initial SIR target of the OLPC on the UL in *0.1 dB*.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellRestriction.

This object contains parameters related to cell access restriction.

Parameter	W	Type	Default	Description
AccessClassBarredListCS	W	unsignedInt[0:15]{}	<Empty>	Array of *unsignedInt* items. Each entry is an Access Class that is barred from CS service. The order of the list has no significance. [3GPP-TS.25.331] Section 10.3.2
AccessClassBarredListPS	W	unsignedInt[0:15]{}	<Empty>	Array of *unsignedInt* items. Each entry is an Access Class that is barred from PS service. The order of the list has no significance. [3GPP-TS.25.331] Section 10.3.2

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.IntraFreqMeas.

This object contains parameters relating to the intra-freq HO control parameters.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.IntraFreqMeas.InterferenceManagement.

Interference Management control parameters

Parameter	W	Type	Default	Description
HHOTriggerOffset	W	unsignedInt[1:15]	5	Defines the relative CPICH quality offset for triggering intra-frequency hard handover. If the reported CPICH quality for external intra-frequency cell is {param|HHOTriggerOffset} *dB* above the best cell in active set and we have received {param|HHOTriggerCount} such measurement reports, intra-frequency hard handover will be attempted.
HHOTriggerCount	W	unsignedInt[1:5]	2	Defines the number of successive measurement reports which satisfy {param|HHOTriggerOffset} for triggering intra-freq hard handover. See {param|HHOTriggerOffset} for details.
CellDraggingTriggerOffset	W	unsignedInt[1:15]	5	Defines the relative CPICH quality offset for triggering cell dragging. If the reported CPICH quality for intra-frequency cell is {param|CellDraggingTriggerOffset} *dB* above the best cell in active set and we have received {param|CellDraggingTriggerCount} such measurement reports and the reported PSC cannot be added to the active set due to admission control or intra-frequency HHO is not successful, the UE is considered to be a source of high interference to the neighboring cell. When cell dragging is triggered, inter-freq or inter-rat blind Handover is attempted and if that fails, the connection is released.
CellDraggingTriggerCount	W	unsignedInt[1:5]	3	Defines the number of successive measurement reports which satisfy {param|CellDraggingTriggerOffset} for triggering cell dragging. See {param|CellDraggingTriggerOffset} for details.
AMRVoiceCellDraggingTriggerOffsetOverride	W	int[ranges]	10	Defines the relative CPICH quality offset for triggering cell dragging for voice call. This serves as an override to {param|CellDraggingTriggerOffset} for AMR Voice calls. See {param|CellDraggingTriggerOffset} for details. If set to -128, {param|CellDraggingTriggerOffset} is used for AMR Voice calls. Possible values: • *-128* • *1 to 15*

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.InterFreqMeas.

This object contains parameters relating to the inter-freq HO related control parameters.

Parameter	W	Type	Default	Description

MeasurementQuantity	W	enum	Empty(QUANT_INVALID)	Defines the measurement quantity for inter-freq HO measurement when the UE is in Cell-DCH state. Enumeration of: Enumeration of: • *QUANT_INVALID* • *CPICH Ec/No* • *CPICH RSCP* [3GPP-TS.25.331] Section 10.3.7.18
ThresholdUsedFrequencyEvent2b	W	int[ranges]	Empty(65535)	Defines the reporting threshold for inter-freq HO measurement when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Each valid value of *MeasurementQuantity* has a different valid range. *CPICH RSCP* has a range of -120 dBm to -25 dBm *CPICH Ec/No* has a range of -24 dB to 0 dB Possible values: • *-120 to 0* • *65535*
ThresholdUsedFrequencyEvent2d	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2D inter-freq HO measurement based on CPICH Ec/No when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values: • *-24 to 0* • *65535*
ThresholdUsedFrequencyEvent2f	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2F inter-freq HO measurement based on CPICH Ec/No when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values: • *-24 to 0* • *65535*
ThresholdNonUsedFrequencyEvent2b	W	int[ranges]	Empty(65535)	Defines the reporting threshold for inter-freq HO measurement when the UE is in Cell-DCH state. This is the "Threshold non-used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Each valid value of *MeasurementQuantity* has a different valid range. *CPICH RSCP* has a range of -120 dBm to -25 dBm *CPICH Ec/No* has a range of -24 dB to 0 dB

				Possible values: • *-120 to 0* • *65535*
ThresholdUsedFrequencyEvent2dRscp	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2D inter-freq HO measurement based on CPICH RSCP when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values: • *-120 to -25* • *65535*
ThresholdUsedFrequencyEvent2fRscp	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2F inter-freq HO measurement based on CPICH RSCP when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values: • *-120 to -25* • *65535*

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.InterRATMeas.

This object contains parameters relating to the inter-RAT HO related control parameters. This is specifically for GERAN system.

Parameter	W	Type	Default	Description
ThresholdOtherSystem	W	int[-115:0]	-98	Defines the reporting threshold for inter-RAT HO measurement when the UE is in Cell-DCH state. This is the "Threshold other system" as defined in [3GPP-TS.25.331] Section 10.3.7.30.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.UEInternalMeas.

This object contains parameters relating to the UE internal measurement control parameters.

Parameter	W	Type	Default	Description
PeriodicTxPowerReportingEnable	W	boolean	false	Enables or disables UE Internal Measurement Configuration for TX Power reporing. If enabled, this is included as additional measurement results in Periodic Measurement Reports. Note: This parameter causes IOT issues with certain UE models.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.

This object contains parameters relating to the RF configuration.

Parameter	W	Type	Default	Description
UARFCNDL	W	unsignedInt[ranges]{1:1}	Mandatory(0)	Array of *unsignedInt* items (minimum number of items 1, maximum number of items 1). Each item is a DL UTRA Absolute Radio Frequency Channel Number (UARFCN) in an FDD mode cell. [3GPP-TS.25.433] Section 9.2.1.65 Self-configuration for UARFCN is controlled by *.Capabilities.UMTS.SelfConfig.UARFCNConfig* from an availability perspective and *.FAPControl.UMTS.SelfConfig.UARFCNSelfConfigEnable* from an enabled perspective. If the FAP's self-configuration capability for UARFCN is available and enabled, this parameter MAY contain more than one item and the FAP is expected to select one from the list for *UARFCNDLInUse*. If the self-configuration capability is not available or not enabled, then this parameter SHOULD contain only a single item. The UARFCN values supplied to the list are derived based on the formula defined in [3GPP-TS.25.104] Section 5.4.3 The order of the UARFCN entries has no significance. The carrier spacing in FDD mode is fixed as defined in [3GPP-TS.25.104]. Therefore, the FAP can unambiguously derive the UL UARFCN value based on the selected DL UARFCN. Possible values for each list item: • *0* • *412* • *437* • *462* • *487* • *512* • *537* • *562* • *587* • *612* • *637* • *662* • *687* • *1007* • *1012* • *1032* • *1037* • *1062* • *1087* • *1537 to 1738* • *1887* • *1912* • *1937* • *1962* • *1987*

				• *2012* • *2037* • *2062* • *2087* • *2237 to 2563* • *2587* • *2612* • *2637* • *2662* • *2687* • *2712* • *2737* • *2762* • *2787* • *2812* • *2837* • *2862* • *2887* • *2912* • *4357 to 4458* • *9662 to 9938* • *10562 to 10838* *UARFCNDL* must not be 0 if *FAPService.{i}.FAPControl.AdminState* is true.

PrimaryScramblingCode	W	spanUnsignedInt{1:50}	0..511	Array of *string* items (minimum number of items 1, maximum number of items 50). Each item is a Primary DL Scrambling Code used by the FDD mode cell with a numeric range between 0 and 511 inclusive.
				[3GPP-TS.25.433] Section 9.2.2.34
				Self-configuration for PSC is controlled by *.FAPControl.UMTS.SelfConfig.NeighborListSelfConfigEnable*.
				If enabled, this parameter MAY contain more than one item and the system is expected to select one from the list for *PrimaryScramblingCodeInUse*. This list is used for cells configured with *Cell.CellConfig.UMTS.RAN.FDDFAP.RF.UseSelfConfigAlternatePSC* set to *false*.
				If the self-configuration capability is not available or not enabled, then this parameter SHOULD contain only a single item.
				The multiplicity of the PSC values can also be expressed by defining a range using ".." (two periods) between two values. In this case, the combination of two values defines the lower-bound and upper-bound of the range inclusive.
				The following are examples of valid PSC string:
				• "20"
				  o (explicitly specifies a single PSC value)
				• "20,30,40"
				  o (specifies 3 possible PSC values to select from)
				• "20..40"
				  o (specifies 21 possible values between 20 and 40, inclusive)
				• "20..40,50"
				  o (specifies 22 possible values between 20 and 40 inclusive and a single value 50)
				The order of the items has no significance.

MaxFAPTxPower	W	spanInt	-100..240	Defines the maximum transmission power allowed on the FAP, maximum value for the linear sum of the power of all downlink physical channels, that is allowed to be used in a cell. *MaxFAPTxPower* is expressed as a range of allowed maximum power levels with ".." (two periods) between the upper and lower values, i.e. "<Pmax_low>..<Pmax_high>". *MaxFAPTxPower* identifies the limits between which the FAP can self-configure its maximum transmit power. Self-configuration for maximum transmission power is controlled by *.Capabilities.UMTS.SelfConfig.MaxFAPTxPowerConfig* from an availability perspective and *.FAPControl.UMTS.SelfConfig.MaxFAPTxPowerSelfConfigEnable* from an enabled perspective. <Pmax_low> and <Pmax_high> are measured in dBm and have a range of 0.0 to 20.0 incremented by 0.1 dB. [3GPP-TS.32.642] Section 6.3.9 [3GPP-TS.25.104] Section 6.2.1 Note: In the current release, the upper end of the range is restricted to a maximum of 24.0 dBm. Note: In the current release, the lower end of the range must be -10.0 dBm.
CTCHAllocationPeriod	W	unsignedInt[1:255]	8	The value defines 'N' multiples of M(TTI) for CBS DRX calculations at the UE side.
CBSFrameOffset	W	unsignedInt[0:255]	0	Value of CBS frame offset (CTCH) on DL FACH. Parameter in SIB5
SelfConfigAlternatePSC	W	spanUnsignedInt{0:50}	<Empty>	Array of *string* items (minimum number of items 0, maximum number of items 50). Each item is a Primary DL Scrambling Code used by the FDD mode cell with a numeric range between 0 and 511 inclusive. [3GPP-TS.25.433] Section 9.2.2.34 Self-configuration for PSC is controlled by *.FAPControl.UMTS.SelfConfig.NeighborListSelfConfigEnable*.

				If enabled, this parameter MAY contain more than one item and the system is expected to select one from the list for *PrimaryScramblingCodeInUse*. This alternate list is used for cells configured with *Cell.CellConfig.UMTS.RAN.FDDFAP.RF.UseSelfConfigAlternatePSC* set to *true*. This set and *PrimaryScramblingCode* must not have any elements in common.
				If the self-configuration capability is not available or not enabled, then this parameter SHOULD be "".
				The multiplicity of the PSC values can also be expressed by defining a range using ".." (two periods) between two values. In this case, the combination of two values defines the lower-bound and upper-bound of the range inclusive.
				The following are examples of valid PSC string:
				• "20"
				  o (explicitly specifies a single PSC value)
				• "20,30,40"
				  o (specifies 3 possible PSC values to select from)
				• "20..40"
				  o (specifies 21 possible values between 20 and 40, inclusive)
				• "20..40,50"
				  o (specifies 22 possible values between 20 and 40 inclusive and a single value 50)
				The order of the items has no significance.

PrimaryScramblingCodeLockEnable	W	boolean	false	When *true*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_PrimaryScramblingCodeConfigured* is locked for all cells in the system and cannot be changed by the user nor by Self Organizing Network (SON) Management.
ULScramblingCodeMin	W	unsignedInt[0:1677215]	100	Minimum value for Uplink Scrambling Code assigned to UEs. UEs are assigned a unique scrambling code within the range ULScramblingCodeMin to *X_002448_ULScramblingCodeMax*. The value should be set smaller than *X_002448_ULScramblingCodeMax*.
ULScramblingCodeMax	W	unsignedInt[0:1677215]	9999	Maximum value for Uplink Scrambling Code assigned to UEs. UEs are assigned a unique scrambling code within the range *X_002448_ULScramblingCodeMin* to ULScramblingCodeMax. The value should be set larger than *X_002448_ULScramblingCodeMin*.
MaxFAPTxPowerLockEnable	W	boolean	false	When *true*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_MaxFAPTxPowerConfigured* is locked for all cells in the system and cannot be changed by the user nor by Self Organizing Network (SON) Management.
RxDiversityEnable	W	boolean	true	Enables or disables the second receive path in cells for receive diversity. Note: In the current release, this enable / disable flag applies to all cells in the system.
TargetRoT	W	unsignedInt[0:350]	70	Target Rise-over-Thermal (RoT) at a cell, used by HSUPA scheduler to maintain RoT stability by modifying EUL scheduler grants in the presence of interference. This parameter does not affect the allocated grants when there is no interference. Note: In the current release, this value applies to all cells in the system.
FAPCPICHEcIor	W	int[-170:-100]	-130	*FAPCPICHEcIor* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *FAPCPICHEcIor* should not be changed from its default value. CPICH TX Power offset from MaxFAPTxPower
MinHSPDSCHPower	W	int[-100:60]	0	*MinHSPDSCHPower* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *MinHSPDSCHPower* should not be changed from its default value. Minimum PDSCH Power offset from CPICH Power

TotDPCHPowerThreshold	W	int[0:170]	55	*TotDPCHPowerThreshold* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *TotDPCHPowerThreshold* should not be changed from its default value. Total DPCH Power threshold set as offset from CPICH Power
MaxRetxHSPDSCHPower	W	int[-100:170]	130	*MaxRetxHSPDSCHPower* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *MaxRetxHSPDSCHPower* should not be changed from its default value. Maximum Retx HSPDSCH Power set as offset from CPICH Power
MaxHSPDSCHPower	W	int[-100:170]	100	*MaxHSPDSCHPower* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *MaxHSPDSCHPower* should not be changed from its default value. Maximum Tx HSPDSCH Power set as offset from CPICH Power
HSSCCHPower	W	int[-100:30]	0	*HSSCCHPower* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *HSSCCHPower* should not be changed from its default value. SCCH Power offset from CPICH Power
RFLockEnable	W	boolean	false	When *true*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_MaxFAPTxPowerConfigured*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_PrimaryScramblingCodeConfigured* and the neighbor list of all cells in the system is locked and cannot be changed by the user nor by Self Organizing Network (SON) Management.
ResetMode	W	boolean	Empty(true)	DEPRECATED. This parameter has been deprecated. Use *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.InitialMode* instead.
InitialMode	W	enum	UMTSNetmon	Used by auto-provisioning feature to determine the initial mode of auto-provisioned cells. Enumeration of: • *UMTSNodeB* (Operational mode) • *UMTSNetmon* (UMTS scan mode) • *GSMNetmon* (GSM scan mode) • *LTENetmon* (LTE scan mode)
ULDesenseEnable	W	boolean	true	Enables or disables desense of the uplink receiver for all cells in the system. Note: Enabling uplink desense improves the performance of the system.
ULDesenseBase	W	int[-950:-550]	-850	The minimum desense power level applied on the uplink receiver of each cell. Note: The actual value applied to a specific cell is a function of this parameter as well as *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.MaxFAPTxPower* and *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.MaxFAPTxPowerInUse* of all cells in the system.
ULDesenseMax	W	int[-950:-300]	-650	The maximum desense power level that can be applied on the uplink receiver of each cell.
MaxFAPTxPowerInUseAlarmDelta	W	int[0:300]	100	Allowed delta between *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.MaxFAPTxPowerInUse* and *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.MaxFAPTxPowerInUseAlarmReference.* When *MaxFAPTxPowerInUseAlarmDelta* is exceeded: • **CELL_MAX_TX_POWER_DELTA_CROSS** event is sent

				• **CELL_MAX_TX_POWER_DELTA_EXCEED** condition (fault) is set When the condition is no longer present • **CELL_MAX_TX_POWER_DELTA_CLEAR** event is sent • **CELL_MAX_TX_POWER_DELTA_EXCEED** condition (fault) is cleared
ChannelBandwidth	W	enum	5.0MHz	Bandwidth of the UMTS channel. Enumeration of: • *5.0MHz* • *4.2MHz*

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.

This object contains parameters relating to the neighbor list.

Parameter	W	Type	Default	Description
MaxIntraFreqCellEntries	-	unsignedInt	-	The maximum number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}.* table.
MaxInterFreqCellEntries	-	unsignedInt	-	The maximum number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}.* table.
IntraFreqCellNumberOfEntries	-	unsignedInt	-	The number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}.* table.
InterFreqCellNumberOfEntries	-	unsignedInt	-	The number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}.* table.
NeighborListLockEnable	W	boolean	false	Locks or unlocks the neighbor list of all cells in the system.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}.

Table containing the intra-frequency cell list provided by the ACS. The table contents may be added/deleted/modified during operation, in which case these changes shall be reflected in the broadcast information as soon as possible.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this entry.
MustInclude	W	boolean	false	This parameter has been deprecated. Use *X_002448_InclusionMode* instead.

PLMNID	W	string(6)	<Empty>	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
RNCID	W	unsignedInt[0:65535]	0	RNC-ID of an intra-freq neighbor cell. It uniquely identifies an RNC within a PLMN. Normally, RNC-ID consists of 12 bits (i.e. a range of [0:4095]). However, if the value is larger than 4095, then Extended RNC-ID (range of [4096:65535]) is used in RANAP. The RNC-ID and Extended RNC-ID are combined into a single parameter here as there is no explicit need to have them separated. [3GPP-TS.25.413] Section 9.2.1.39
CID	W	unsignedInt[0:65535]	Empty(0)	Cell Identifier (C-id) that identifies a cell within an RNS. This Cell Identifier together with the controlling RNC (RNC-ID) constitutes the UTRAN Cell ID (UC-ID) and is used to identify a cell uniquely within UTRAN. C-ID is either 12-bit or 16-bit value. [3GPP-TS.25.401] Section 6.1.5.
LAC	W	unsignedInt[0:65535]	0	Location Area Code (LAC). The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the Location Area ID (LAI). [3GPP-TS.23.003] Section 4.1 [3GPP-TS.25.413] Section 9.2.3.6
RAC	W	unsignedInt[0:255]	0	Routing Area Code (RAC). The concatenation of PLMN ID (MCC+MNC), LAC, and RAC uniquely identifies the Routing Area ID (RAI). [3GPP-TS.23.003] Section 4.2 [3GPP-TS.25.413] Section 9.2.3.7
URA	W	unsignedInt[0:65535]	0	UTRAN Registration Area (URA) [3GPP-TS.23.401]. Indicates to the UE which *URA* it shall use in case of overlapping URAs. [3GPP-TS.25.331] Section 10.3.2.6
PCPICHScramblingCode	W	unsignedInt[0:511]	0	Primary CPICH scrambling code.
PCPICHTxPower	W	int[-100:500]	0	Primary CPICH Tx power in *dBm*. Actual values of the power are -10.0 *dBm* to 50.0 *dBm* in steps of 0.1 dB. The value of *PCPICHTxPower* divided by 10 yields the actual value of the power. [3GPP-TS.32.642] Section 6.3.11 [3GPP-TS.25.433] Section 2.2.33
InclusionMode	W	enum	MustInclude	*InclusionMode* specifies whether a particular neighbor will be included, or excluded or included if found during Self Organizing Network (SON) Management operations in all cell's neighbor list. This can be overriden on a per cell basis. When *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}* refers to this entry, *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}.X_002448_InclusionMode* will supercede this parameter. Enumeration of: • *IncludeIfFound* (Include in specified neighbor list if found during REM) • *MustInclude* (Must include this neighbor in specified neighbor list) • *MustExclude* (Must exclude this neighbor from specified neighbor list)

QOffset1snOverride	W	int[ranges]	Empty(-128)	This specifies the bias against reselection to this cell in *dB* when *QualityMeasureCPICH* is set to *CPICH RSCP*. If the value is -128 (ie: default), value specified in *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellSelection.X_002448_IntraFreqQOffset1sn* will be applied. Possible values: • *-128* • *-50 to 50*
QOffset2snOverride	W	int[ranges]	Empty(-128)	This specifies the bias against reselection to this cell in *dB* when *QualityMeasureCPICH* is set to *Ec/No*. If the value is -128 (ie: default), value specified in *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellSelection.X_002448_IntraFreqQOffset2sn* will be applied. Possible values: • *-128* • *-50 to 50*
CPICHRSCP	W	int[ranges]	-85	The CPICH RSCP in *dBm* to be associated with this intra-frequency neighbor. This parameter can be overridden on a per cell basis. When *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}* refers to this entry, *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}.X_002448_CPICHRSCP* will supercede this parameter. Possible values: • *-120 to -25* • *0*

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}.

Table containing the inter-frequency cell list provided by the ACS. The table contents may be added/deleted/modified during operation, in which case these changes shall be reflected in the broadcast information as soon as possible.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this entry.
MustInclude	W	boolean	false	This parameter has been deprecated. Use *X_002448_InclusionMode* instead.
PLMNID	W	string(6)	<Empty>	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.

RNCID	W	unsignedInt[0:65535]	0	RNC-ID of an intra-freq neighbor cell. It uniquely identifies an RNC within a PLMN. Normally, RNC-ID consists of 12 bits (i.e. a range of [0:4095]). However, if the value is larger than 4095, then Extended RNC-ID (range of [4096:65535]) is used in RANAP. The RNC-ID and Extended RNC-ID are combined into a single parameter here as there is no explicit need to have them separated. [3GPP-TS.25.413] Section 9.2.1.39
CID	W	unsignedInt[0:65535]	Empty(0)	Cell Identifier (C-id) that identifies a cell within an RNS. This Cell Identifier together with the controlling RNC (RNC-ID) constitutes the UTRAN Cell ID (UC-ID) and is used to identify a cell uniquely within UTRAN. C-ID is either 12-bit or 16-bit value. [3GPP-TS.25.401] Section 6.1.5.
LAC	W	unsignedInt[0:65535]	0	Location Area Code (LAC). The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the Location Area ID (LAI). [3GPP-TS.23.003] Section 4.1 [3GPP-TS.25.413] Section 9.2.3.6
RAC	W	unsignedInt[0:255]	0	Routing Area Code (RAC). The concatenation of PLMN ID (MCC+MNC), LAC, and RAC uniquely identifies the Routing Area ID (RAI). [3GPP-TS.23.003] Section 4.2 [3GPP-TS.25.413] Section 9.2.3.7
URA	W	unsignedInt[0:65535]	0	UTRAN Registration Area (URA) [3GPP-TS.23.401]. Indicates to the UE which *URA* it shall use in case of overlapping URAs. [3GPP-TS.25.331] Section 10.3.2.6
UARFCNUL	W	unsignedInt[0:16383]	Empty(0)	The UL UTRA Absolute Radio Frequency Channel Number (UARFCN) in an FDD mode cell. [3GPP-TS.25.433]
UARFCNDL	W	unsignedInt[0:16383]	Empty(0)	The DL UTRA Absolute Radio Frequency Channel Number (UARFCN) in an FDD mode cell. [3GPP-TS.25.433]
PCPICHScramblingCode	W	unsignedInt[0:511]	0	Primary CPICH scrambling code.
PCPICHTxPower	W	int[-100:500]	0	Primary CPICH Tx power in *dBm*. Actual values of the power are -10.0 *dBm* to 50.0 *dBm* in steps of 0.1 dB. The value of *PCPICHTxPower* divided by 10 yields the actual value of the power. [3GPP-TS.32.642] Section 6.3.11 [3GPP-TS.25.433] Section 2.2.33
InclusionMode	W	enum	MustInclude	*InclusionMode* specifies whether a particular neighbor will be included, or excluded or included if found during Self Organizing Network (SON) Management operations in all cell's neighbor list. This can be overriden on a per cell basis. When {{param|Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}"> refers to this entry, {{param|Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}.X_002448_InclusionMode"> will supercede this parameter. Enumeration of: • *IncludeIfFound* (Include in specified neighbor list if found during REM) • *MustInclude* (Must include this neighbor in specified neighbor list) • *MustExclude* (Must exclude this neighbor from specified neighbor list)
QOffset1snOverride	W	int[ranges]	Empty(-	This specifies the bias against reselection to this cell in *dB* when *QualityMeasureCPICH* is set to *CPICH RSCP*. If the value is -128 (ie: default), value

			128)	specified in *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellSelection.X_002448_InterFreqQOffset1sn* will be applied. Possible values: • *-128* • *-50 to 50*
QOffset2snOverride	W	int[ranges]	Empty(-128)	This specifies the bias against reselection to this cell in *dB* when *QualityMeasureCPICH* is set to *Ec/No*. If the value is -128 (ie: default), value specified in *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellSelection.X_002448_InterFreqQOffset2sn* will be applied. Possible values: • *-128* • *-50 to 50*
CPICHRSCP	W	int[ranges]	-85	The CPICH RSCP in *dBm* to be associated with this inter-frequency neighbor. This parameter can be overridden on a per cell basis. When *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}* refers to this entry, *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}.X_002448_CPICHRSCP* will supercede this parameter. Possible values: • *-120 to -25* • *0*

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.

The inter-RAT cell lists separated by technology. [3GPP-TS.25.331] Section 10.3.7.23

Parameter	W	Type	Default	Description
MaxGSMEntries	-	unsignedInt	-	The maximum number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}.* table.
GSMNumberOfEntries	-	unsignedInt	-	Number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}.* table.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}.

Table containing the inter-RAT cell list for GSM provided by the ACS. The table contents may be added/deleted/modified during operation, in which case these changes shall be reflected in the broadcast information as soon as possible.

Parameter	W	Type	Default	Description

Enable	W	boolean	false	Enables or disables this entry.
MustInclude	W	boolean	false	This parameter has been deprecated. Use *X_002448_InclusionMode* instead.
PLMNID	W	string(6)	<Empty>	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
LAC	W	unsignedInt[0:65535]	0	Location Area Code (LAC). The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the Location Area ID (LAI). [3GPP-TS.23.003] Section 4.1 [3GPP-TS.25.413] Section 9.2.3.6
BSIC	W	unsignedInt[0:255]	Empty(0)	BSIC of the cell per [3GPP-TS.23.003], consisting of: • Bit 7:6 - not used ("00") • Bit 5:3 - NCC (PLMN Color Code) • Bit 2:0 - BCC (BS color code) For example, if NCC is 7 and BCC is 2 you would have 00111010 (binary) or 0x3A (hex), and the value of this parameter would be 58.
CI	W	unsignedInt[0:65535]	Empty(0)	Cell ID of the cell per [3GPP-TS.23.003] Section 4.3.1.
BandIndicator	W	enum	<Empty>	Indicates how to interpret the BCCH ARFCN. Enumeration of: • *GSM 850* • *GSM 900* • *DCS 1800* • *PCS 1900*
BCCHARFCN	W	unsignedInt[0:1023]	Empty(0)	ARFCN of this cell.
InclusionMode	W	enum	MustInclude	*InclusionMode* specifies whether a particular neighbor will be included, or excluded or included if found during Self Organizing Network (SON) Management operations in all cell's neighbor list. This can be overriden on a per cell basis. When {{param|Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}"> refers to this entry, {{param|Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}.X_002448_InclusionMode"> will supercede this parameter. Enumeration of: • *IncludeIfFound* (Include in specified neighbor list if found during REM) • *MustInclude* (Must include this neighbor in specified neighbor list) • *MustExclude* (Must exclude this neighbor from specified neighbor list)

QOffset1snOverride	W	int[ranges]	Empty(-128)	This specifies the bias against reselection to this cell in *dB*. If the value is -128 (ie: default), value specified in *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellSelection.X_002448_InterRATQOffset1sn* will be applied. Possible values: • *-128* • *-50 to 50*
RSSI	W	int[ranges]	-85	The RSSI in *dBm* to be associated with this inter-RAT GSM neighbor. This parameter can be overridden on a per cell basis. When *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}* refers to this entry, *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}.X_002448_RSSI* will supercede this parameter. Possible values: • *-120 to -25* • *0*

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.UELocationStream.

UE location stream related control parameters. The location stream is generated by initialing a periodic measurement report on the UE.

The parameters below control how the measurement report is configured on the UE and processed at the RNC.

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enables or disables the UE location stream feature. If enabled, this will cause UEs in Cell_DCH state with the apporpriate policy setting to periodically generate a measurement report with location data.
MaxCellsInLocationReport	W	unsignedInt[1:6]	6	Maximum number of cells to be included in a location report. The location report will comprise of the strongest cells, based on the RSCP, upto the configured limit, from the union of the active, monitored and detected set of cell.
MaxSimultaneousStreams	W	unsignedInt	10	Maximum number of simultaneous location streams. The control for putting a limit on the maximum number of location streams at any given time.
PeriodicReportingInterval	W	unsignedInt[ranges]	1	The minumum interval in *seconds* with which the location report will be generated. Possible values: • *1* • *2* • *3*

				• *4* • *6* • *8* • *12* • *16* • *20* • *24* • *28* • *32* • *64*
FilterCoefficientEcIo	W	unsignedInt[0:100]	100	The filter coefficient for the ARMA-1 filter applied to the EcIo measurements from the UE for each cell. The filter is active only in cell_DCH, and is reset if the cell is not discovered by the UE for a predetermined duration.
FilterCoefficientRSCP	W	unsignedInt[0:100]	100	The filter coefficient for the ARMA-1 filter applied to the RSCP measurements from the UE for each cell. The filter is active only in cell_DCH, and is reset if the cell is not discovered by the UE for a predetermined duration.
ReportingDeltaForEcIo	W	unsignedInt[0:5]	0	The minimum difference in *dB* for the filtered EcIo value for triggering a new location report. The delta is measured across all cells to be included in the location report. If any cell meets this criterion, the entire location report is generated. If any cells are added or dropped from the location report, the entire report is generated.
ReportingDeltaForRSCP	W	unsignedInt[0:5]	0	The minimum difference in *dB* for the filtered RSCP value for triggering a new location report. The delta is measured across all cells to be included in the location report. If any cell meets this criterion, the entire location report is generated. If any cells are added or dropped from the location report, the entire report is generated.
GenerateSyslogEvents	W	boolean	true	Enables or disables the syslog event generation of UE location stream. If enabled, this will cause the location data derived from UE measurement reports to be sent to a configured syslog server.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.Neighborhood.

Parameters relating to the cell neighborhood of the system.

Parameter	W	Type	Default	Description
ReferenceListStatus	-	enum	Absent	Status of the reference cell neighborhood list. Enumeration of: • *Absent* (Reference cell neighborhood does not exist, no cell neighborhood faults will arise) • *Present* (Reference cell neighborhood exists, faults may arise if member cells are missing or new non-member neighbor cells are found) In order for these events to be generated:

				• *NEIGHBORHOOD_CELL_UNEXPECTED* • *NEIGHBORHOOD_CELL_MISSING* • *NEIGHBORHOOD_CELL_MATCH* and for this fault to be set/cleared: • *NEIGHBORHOOD_REFERENCE_DELTA* the following is required: • *ReferenceListStatus* must have a value of *Present*

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellFACH.

Parameters related to CELL_FACH and CELL_PCH state transitions.

Parameter	W	Type	Default	Description
DCHInactivityTimer	W	unsignedInt[0:600]	50	Inactivity timer used to trigger transition from CELL_DCH to CELL_FACH in units of *100ms*. *DCHInactivityTimer* value "0" disables transition from CELL_DCH to CELL_FACH.
FastDCHToPCHEnable	W	boolean	false	Enables or disabled RRC state transition from CELL_DCH to CELL_PCH without going to CELL_FACH.
DCHToPCHInactivityTimer	W	unsignedInt[0:600]	50	Inactivity timer used to trigger transition from CELL_DCH to CELL_PCH in units of *100ms*. *DCHToPCHInactivityTimer* value "0" disables transition from CELL_DCH to CELL_PCH.
FACHInactivityTimer	W	unsignedInt[0:600]	100	Inactivity timer used to trigger transition from CELL_FACH to CELL_PCH in units of *100ms*. *FACHInactivityTimer* value "0" disables transition from CELL_FACH to CELL_PCH.
DisconnectInactivityTimer	W	unsignedInt[0:3600]	30	Inactivity timer used to trigger transition to IDLE in units of *seconds*. *DisconnectInactivityTimer* value "0" disables transition to IDLE.
UE4aThreshold	W	unsignedInt[ranges]	256	When buffer occupancy at UE exceeds this threshold in *bytes*, UE sends traffic volume report in event 4A. Possible values: • *8* • *16* • *32* • *64*

				• *128* • *256* • *512* • *1024* • *2048* • *3072* • *4096* • *6144* • *8192* • *12288* • *16384* • *24576* • *32768* • *49152* • *65536* • *98304* • *131072* • *196608* • *262144* • *393216* • *524288* • *786432*

UE4aTimeToTrigger	W	unsignedInt[ranges]	100	Period of time in *milliseconds* during which threshold condition must be satisfied at UE before sending event 4A. Possible values: • *0* • *10* • *20* • *40* • *60* • *80* • *100* • *120* • *160* • *200* • *240* • *320* • *640* • *1280* • *2560* • *5000*
UE4aTxInterruption	W	unsignedInt[ranges]	500	Time in *milliseconds* UE shall block DTCH transmission on RACH after sending measurement event 4A. Possible values: • *250* • *500* • *1000* • *2000* • *4000* • *8000* • *16000*
UE4aPendingTimeAfterTrigger	W	unsignedInt[ranges]	250	Time for UE to wait in *milliseconds* before sending consecutive 4A events. Possible values: • *250* • *500* • *1000* • *2000* • *4000* • *8000*

				• *16000*

RNC4aThreshold	W	unsignedInt[ranges]	512	When buffer occupancy of a UE in downlink exceeds this threshold in *bytes*, RNC MAC layer sends downlink traffic volume report to RRM. RRM may use traffic report to decide CELL_FACH to CELL_DCH transition for a UE. Possible values: • *8* • *16* • *32* • *64* • *128* • *256* • *512* • *1024* • *2048* • *3072* • *4096* • *6144* • *8192* • *12288* • *16384* • *24576* • *32768* • *49152* • *65536* • *98304* • *131072* • *196608* • *262144* • *393216* • *524288* • *786432*
RNC4aTimeToTrigger	W	unsignedInt[ranges]	100	Time in *milliseconds* during which threshold condition must be met at RNC MAC layer before sending traffic volume report to RRM. Possible values: • *0* • *10* • *20* • *40* • *60* • *80* • *100* • *120*

				• *160* • *200* • *240* • *320* • *640* • *1280* • *2560* • *5000*
MaxNumCellFACHUEs	W	unsignedInt[0:128]	128	Maximum number of UEs per cell that can be in CELL_FACH state simultaneously.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellBroadcast.

Cell Broadcast Service related parameters, used for handling of broadcast control messages from the core network, and the subsequent broadcast over all the active radio nodes.

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enables or disables the CBS feature.
Active	-	boolean	-	Indicates that the brodcast messages are currently being transmitted over the local radio nodes.
CurrentNumCBSMessages	-	unsignedInt[0:255]	-	Indicates the number of brodcast messages, currently being transmitted over the local radio nodes.
CurrentMinCBSInterval	-	unsignedInt[0:4500]	-	Indicates the minimum time in seconds at which a CBS message is currently being broadcast periodically.
LastCBSMessageId	-	unsignedInt[0:65535]	-	Indicates the message identifier of the last CBS broadcast request recvieved from the core network, which resulted in cell broadcast.
LastCBSSerialNum	-	unsignedInt[0:65535]	-	Indicates the serial number of the last CBS broadcast request recvieved from the core network, which resulted in cell broadcast.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.Mobility.

This object contains parameters relating to the UE's mobility configuration.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.Mobility.IdleMode.

This object contains parameters relating to the UE's mobility while it is in idle mode (cell (re-)selection).

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.Mobility.IdleMode.IRAT.

This object contains parameters relating to the idle mode mobility configuration for inter-RAT (Radio Access Technology) re-selection scenario.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.Mobility.IdleMode.IRAT.LTE.

This object contains parameters relating to the idle mode mobility configuration for inter-RAT (Radio Access Technology) re-selection, specifically for re-selection to LTE scenario.

Parameter	W	Type	Default	Description
CarrierNumberOfEntries	-	unsignedInt	-	The number of entries in the *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.Mobility.IdleMode.IRAT.LTE.Carrier.{i}.* table.

FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.Mobility.IdleMode.IRAT.LTE.Carrier.{i}.

This object contains parameters relating to the idle mode mobility configuration for inter-RAT (Radio Access Technology) re-selection to a specific LTE carrier.

Parameter	W	Type	Default	Description
EUTRACarrierARFCN	W	unsignedInt[ranges]	4294967295	Indicates the ARFCN of this frequency carrier. 4294967295 is an invalid default value. Possible values: • *0 to 65535* • *4294967295*
QRxLevMinEUTRA	W	int[-70:-22]	-62	Required minimum received RSRP level on this E-UTRA frequency carrier, specified in *dBm*. The value of (*QRxLevMinEUTRA* * 2) yields the actual value.
CellReselectionPriority	W	unsignedInt[0:7]	7	Absolute priority of this E-UTRA frequency carrier. This priority is compared to the *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellSelection.ServingCellPriority* for re-selection.
ThreshXHigh	W	unsignedInt[0:31]	3	Threshold used when this E-UTRAN frequency is higher priority than the serving cell. ThreshXHigh alone determines re-selection. Specified in *dB*, the value of (*ThreshXHigh* * 2) yields the actual value.
ThreshXLow	W	unsignedInt[0:31]	3	Threshold used when this E-UTRAN frequency is lower priority than the serving cell. *ThreshXLow* along with *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellSelection.ThreshServingLow* determines re-selection. Specified in *dB*, the value of (*ThreshXLow* * 2)

				yields the actual value.
MultiBandIndList	W	unsignedInt[1:64]{8}	<Empty>	Indicates the list of additional frequency bands of the LTE carrier. Array of *unsignedInt* items (maximum number of items 8).

FAPService.{i}.CellConfig.LTE.

This object contains parameters relating to configuring the LTE FAP.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.LTE.EPC.

This object contains parameters relating to configuring LTE EPC.

Parameter	W	Type	Default	Description
TAC	W	unsignedInt[0:65535]	Mandatory(0)	TAC (Tracking Area Code) for LTE FAP as specified in SystemInformationBlockType1 message in [3GPP-TS.36.331] Section 6.2.2. *TAC* must not be 0 if *FAPService.{i}.FAPControl.LTE.Gateway.S1ConnectionEnable* is true.
EAID	W	unsignedInt[0:16777216]	0	Emergency Area ID that uniquely identifies the area of emergency for Earthquake and Tsunami Warning Services (ETWS). Corresponds to Emergency Area ID in [3GPP-TS.36.413] Section 9.2.1.47.
PWS	W	enum	None	The type of Public Warning System configured on SN. Enumeration of: • *None* (No public warning system support.) • *CMAS* (Commercial Mobile Alert System support.) • *EU-ALERT* (European Public Warning System support.)
eNodeBName	W	string(150)	<Empty>	The name of SN in a human readable form, which is sent to EPC gateway as an optional parameter while setting up S1AP link.
IMSEmergencySupportEnabled	W	boolean	false	Indicates whether the network supports IMS emergency bearer services for UEs in limited service mode. If disabled, IMS emergency call is not supported by the network in the cell for UEs in limited service mode.

FAPService.{i}.CellConfig.LTE.EPC.PLMNList.{i}.

This object contains parameters relating to list of PLMN identity specific to LTE EPC definition, called PLMN-IdentityList, as specified in SystemInformationBlockType1 message in [3GPP-TS.36.331] Section 6.2.2. Each instance in this object is a PLMN-IdentityInfo which consists of plmn-Identity and cellReservedForOperatorUse IEs. At minimum 1 item MUST be present in this list, and maximum of 6 items.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this entry.
Alias	W	string	<Empty>	{{datatype|expand}}
IsPrimary	W	boolean	false	Indicates whether this *PLMNID* is a primary PLMN or not. If there is more than one instance in *.CellConfig.LTE.EPC.PLMNList.{i}.* table, then ACS MUST set this *IsPrimary* set to *true* in only one instance.
PLMNID	W	string(6)	<Empty>	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
CellReservedForOperatorUse	W	boolean	false	Indicates whether the cell is reserved for operator use or not. If *true*, it is reserved. If *false*, it is not reserved. Corresponds to "reserved" "notReserved" respectively as defined in PLMN-IdentityInfo in [3GPP-TS.36.331] Section 6.2.2.
InService	-	boolean	-	Indicates whether the PLMNID is being serviced by the system or not. PLMNID is in service if it is being broadcast by the LTE cells.
NumberOfServingMMEs	-	unsignedInt	-	Indicates the number of MMEs with an active S1AP connection, which are serving this particular PLMN.
ServingMMEList	-	unsignedInt{32}	-	Indicates the list of MMEs with an active S1AP connection, which are serving this particular PLMN. Array of *unsignedInt* items (maximum number of items 32).
NumberOfAssociatedUEs	-	unsignedInt	-	Number of UEs currently in connecting or connected state using this particular PLMN.

FAPService.{i}.CellConfig.LTE.EPC.QoS.{i}.

This object contains parameters relating to configuring QoS in LTE EPC.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this entry.
QCI	W	unsignedInt[1:20]	1	QoS class identity as defined in [3GPP-TS.23.203] Section 6.1.7.2.
ClassQueue	W	unsignedInt[1:6]	1	Class queue corresponding to the QCI. Allowed values are 1-6.
QosRlcMode	W	enum	AM	RLC Mode corresponding to the QCI. Enumeration of:

				• *AM* (Acknowledge Mode) • *UM* (Unacknowledge Mode) • *UMFSW* (Unacknowledge Mode Fast Switch)

FAPService.{i}.CellConfig.LTE.EPC.PWSMessageList.{i}.

Broadcast parameters for currently active Public Warning System messages.

Parameter	W	Type	Default	Description
MessageIdentifier	-	unsignedInt	-	Message Identifier of the PWS broadcast message.
SerialNumber	-	unsignedInt	-	Serial Number of the PWS broadcast message.
NumberOfBroadcastsRequested	-	unsignedInt	-	Number of PWS broadcasts requested. A value of 0 implies continued broadcasts until stopped by the core.
RepetitionPeriod	-	unsignedInt	-	The time in seconds after which PWS message is rebroadcasted.
NumberOfBroadcastsTransmitted	-	unsignedInt	-	Number of PWS broadcasts transmitted over the air.
NumberOfBroadcastingCells	-	unsignedInt	-	Number of cells currently broadcasting the PWS message over the air.
BroadcastingCellIDList	-	unsignedInt{100}	-	The list of CellIDs currently broadcasting the PWS message over the air. Array of *unsignedInt* items (maximum number of items 100).

FAPService.{i}.CellConfig.LTE.RAN.

This object contains parameters relating to the LTE RAN level configuration.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.LTE.RAN.Common.

This object contains parameters relating to the common configuration in LTE RAN.

Parameter	W	Type	Default	Description
eNodeBID	W	unsignedInt[0:1048575]	0	Macro eNodeB Identifier which represents upper 20 bits of the Global eNB ID.

CellID	W	unsignedInt[0:255]	0	Cell Identifier which represents the lower 8 bits for the 28 bit Global eNB ID sent to HeNB-GW.

FAPService.{i}.CellConfig.LTE.RAN.S1AP.

S1AP related parameters for LTE RAN configuration.

Parameter	W	Type	Default	Description
TRelocPrep	W	unsignedInt[1:10]	5	Maximum amount of time for the S1AP Relocation preparation procedure in source eNodeB in *seconds*. The timer is started after sending the S1AP Handover required message to the EPC. The timer is stopped upon the reception of the S1AP Handover command message from the EPC. Expiry of the timer will abort the ongoing S1AP Relocation preparation procedure source eNodeB.
TRelocOverall	W	unsignedInt[1:10]	10	Maximum amount of time for the protection of the overall S1AP Relocation procedure in source eNodeB in *seconds*. The timer is started upon the reception of the S1AP Handover command message from the EPC. Expiry of the timer will abort the ongoing S1AP Relocation execution in the source eNodeB and release the UE session.
HandoverRequestTimer	W	unsignedInt[1:10]	8	Maximum amount of time for the S1AP Handover request procedure in the source eNodeB in *seconds*. The time is started upon the reception of the S1AP Handover request message from the EPC. The timer is stopped after sending S1AP Handover request acknowledge message or S1AP Handover failure message to the EPC. Expiry of the timer will abort the ongoing S1AP Handover Request procedure in the source eNodeB.
ERABSetupRequestTimer	W	unsignedInt[1:10]	5	Maximum amount of time for the S1AP ERAB setup request procedure in the eNodeB in *seconds*. The timer is started upon the reception of the S1AP ERAB Setup request message from the EPC. The timer is stopped after sending S1AP ERAB Setup response message to the EPC. Expiry of the timer will abort the ongoing S1AP ERAB Setup procedure and disconnect the session.
ERABReleaseRequestTimer	W	unsignedInt[1:10]	5	Maximum amount of time for the S1AP ERAB release request procedure in the eNodeB in *seconds*. The timer is started upon the reception of the S1AP ERAB Release request message from the EPC. The timer is stopped after sending S1AP ERAB Release response message to the EPC. Expiry of the timer will abort the ongoing S1AP ERAB Release procedure and disconnect the session.
S1SetupRequestTimer	W	unsignedInt[1:10]	10	Maximum amount of time for the S1AP S1 setup procedure in the eNodeB in *seconds*. The timer is started after sending the S1AP S1 setup request message to the EPC. The timer is stopped upon the reception of the S1AP S1 setup response message or S1AP S1 setup failure message from the EPC. Expiry of the timer will abort the ongoing S1 setup procedure and will reestablish the sctp connection with peer.
InitialContextSetupRequestTimer	W	unsignedInt[1:10]	5	Maximum amount of time for the S1AP Initial context setup procedure in the eNodeB in *seconds*. The timer is started upon the reception of the S1AP Initial context setup request message from the EPC. The timer is stopped after sending S1AP Initial context setup response message or S1AP Initial context setup failure message to the EPC.

				Expiry of the timer will abort the ongoing S1AP Initial context setup procedure and will disconnect the session.
S1ResetTimer	W	unsignedInt[1:10]	10	Maximum amount of time for the S1AP reset procedure in the eNodeB in *seconds*. During the eNodeB initiated S1 Reset procedure timer is started after sending the S1AP Reset message and shall stop after the reception of the S1AP Reset acknowledge message. During the EPC initiated S1 Reset procedure the timer is started upon the reception of the S1AP Reset message and shall stop after sending the S1AP Reset acknowledge message. Expiry of the timer will abort the ongoing S1 setup procedure and will reestablish the sctp connection with the peer.
UEContextReleaseTimer	W	unsignedInt[1:10]	10	Maximum amount of time for the S1AP UE context release procedure initiated by the eNodeB in *seconds*. The timer is started after sending the S1AP UE Context release request message to the EPC. The timer is stopped upon the reception of the S1AP UE Context release command message from the EPC. Expiry of the timer will disconnect the session.
InitialResetEnable	W	boolean	false	Enable or disable initiation of the S1AP Reset procedure to the EPC followed by the S1AP S1 Setup procedure.
MaxInitialResetAttempts	W	unsignedInt[1:5]	3	Maximum number S1AP Reset procedure can be attempted to the EPC followed by the S1AP S1 Setup procedure. If S1AP Reset procedure was not successfull after the maximum number of attempts the sctp connection with peer and will reestablish the sctp connection with the peer.
S1HandInDataForwardingEnable	W	boolean	true	Enable or disable data forwarding for the ERABs during the S1 hand-in procedure.
S1HandOutDataForwardingEnable	W	boolean	true	Enable or disable data forwarding for the ERABs during the S1 hand-out procedure.

FAPService.{i}.CellConfig.LTE.RAN.RF.

This object contains parameters relating to the RF, see [3GPP-TS.32.592] Section 6.1.7.1.

Parameter	W	Type	Default	Description
EARFCNDL	W	unsignedInt[0:65535]	3100	E-UTRA Absolute Radio Frequency Channel Number in the downlink direction. Corresponds to parameter NDL specified in [3GPP-TS.36.104] Table 5.7.3.1.
EARFCNUL	W	unsignedInt[0:65535]	21100	E-UTRA Absolute Radio Frequency Channel Number in the uplink direction. Corresponds to parameter NUL specified in [3GPP-TS.36.104] Table 5.7.3.1.
FreqBandIndicator	W	unsignedInt[1:40]	7	Frequency band indicator. Corresponds to parameter freqBandIndicator in SIB1 in [3GPP-TS.36.331] Section 6.2.2.
DLBandwidth	W	unsignedInt[ranges]	50	Downlink transmission bandwidth, specified in number of Resource Blocks. Valid values are 15, 25, 50, 75, and 100 RBs for 3, 5, 10, 15, and 20 MHz, respectively. Corresponds to parameter dl_Bandwidth in MIB (Master Information Block) in [3GPP-TS.36.331] Section 6.2.2 and to parameter NRB in [3GPP-TS.36.101] Table 5.6-1. Possible values: • *15*

				• *25* • *50* • *75* • *100* • *4294967295*
ULBandwidth	W	unsignedInt[ranges]	50	Uplink transmission bandwidth, specified in number of Resource Blocks. Valid values are 15, 25, 50, 75, and 100 RBs for 3, 5, 10, 15, and 20 MHz, respectively. Corresponds to parameter ul_Bandwidth in SIB2 in [3GPP-TS.36.331] Section 6.3.1 and to parameter NRB in [3GPP-TS.36.101] Table 5.6-1. Possible values: • *15* • *25* • *50* • *75* • *100* • *4294967295*
ReferenceSignalPower	W	spanInt	-41..-1	Downlink reference-signal transmit power range, specified in *dBm* per resource element, used by the system to configure the Reference Signal Powers of all cells.
PhyCellID	W	spanUnsignedInt{1:512}	0..503	Array of *string* items (minimum number of items 1, maximum number of items 512). Each item is a physical cell ID with a numeric range between 0 and 503 inclusive. Represents the list of physical cell identities LTE FAP to choose from. In case there is more than one item in the list, the first item contains the most preferred value. As specified in [3GPP-TS.36.211] Section 6.11. The multiplicity of the *PhyCellID* values can also be expressed by defining a range using ".." (two periods) between two values. In this case, the combination of two values defines the lower-bound and upper-bound of the range inclusive. If this notation is used, then the list contains at least 2 items: "<preferred-value>,<lower-bound>..<upper-bound>". If LTE FAP supports self-configuration capability for *PhyCellID* and more than one item is configured, then LTE FAP is expected to select one from the list and overwrite this parameter containing only the one selected. If LTE FAP does not support self-configuration capability for *PhyCellID* and more than one item is configured, then accepts the first value and ignore the rest. If only one item is configured regardless of the self-configuration capability of , accepts the value as an explicit configuration by the ACS.
PSCHPowerOffset	W	int[-350:150]	0	Power offset, specified in *dB*, of the Primary Synchronization Channel with respect to the ReferenceSignalPower. The value of *PSCHPowerOffset* divided by 10 yields the actual value.
SSCHPowerOffset	W	int[-350:150]	0	Power offset, specified in *dB*, of the Secondary Synchronization Channel with respect to the ReferenceSignalPower. The value of *SSCHPowerOffset* divided by 10 yields the actual value.
PBCHPowerOffset	W	int[-60:40]	0	Power offset, specified in *dB*, of the Physical Broadcast Channel with respect to the ReferenceSignalPower. The value of *PBCHPowerOffset* divided by 10 yields the actual value.

FAPService.{i}.CellConfig.LTE.RAN.RF.OTASync.

Parameters related to over the air synchronization configuration.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or disable over the air time and frequency synchronization in all cells (set to false to disable).
MacroDonorThresholdLowRSRP	W	int[-140:-44]	-105	Low threshold of macro donor in RSRP below which internal cells are considered as probable donors.
HystMacroSyncedDonor	W	unsignedInt[0:50]	5	The value above the low RSRP threshold of macro donor cell over which an internal macro synced cell is preferred over macro cell as a donor.
HystInternalSyncedLev1Donor	W	unsignedInt[0:50]	5	The value above the low RSRP threshold of macro donor cell over which an internal level 1 synced cell is preferred over macro cell as a donor.
HystInternalSyncedLev2Donor	W	unsignedInt[0:50]	5	The value above the low RSRP threshold of macro donor cell over which an internal level 2 synced cell is preferred over level 1 synced cell as a donor.
HystInternalSyncedLev3Donor	W	unsignedInt[0:50]	5	The value above the low RSRP threshold of macro donor cell over which an internal level 3 synced cell is preferred over level 2 synced cell as a donor.
MaxInternalSyncHopLevLimit	W	unsignedInt[1:4]	4	Maximum hops allowed for over the air time and frequency synchronization.

FAPService.{i}.CellConfig.LTE.RAN.RF.OTASync.MacroDonor.{i}.

This object contains parameters related to over the air synchronization configuration for all cells.

Parameter	W	Type	Default	Description
EARFCNDL	W	unsignedInt[0:65535]	0	The downlink operating frequency of the donor macro cell.
PhyCellID	W	unsignedInt[0:503]	0	The Physical Cell ID (PCI) of the donor macro cell.

FAPService.{i}.CellConfig.LTE.RAN.PHY.

PHY related parameters for LTE RAN configuration.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.LTE.RAN.PHY.PRACH.

PRACH related parameters for LTE RAN PHY configuration.

Parameter	W	Type	Default	Description
RootSequenceIndexList	W	spanUnsignedInt{0:20}	0	List of Root Sequence Indices Array of *string* items (minimum number of items 0, maximum number of items 20).

FAPService.{i}.CellConfig.LTE.RAN.PHY.ULPowerControl.

Uplink power control related parameter for LTE RAN PHY configuration.

Parameter	W	Type	Default	Description
ClosedLoopPUSCHEnabled	W	boolean	true	Enables or disables PUSCH closed loop power control.

FAPService.{i}.CellConfig.LTE.RAN.PHY.EMBMS.

EMBMS related parameters for LTE RAN configuration.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or disable all EMBMS related configuration.
MBSFNAreaNumberOfEntries	-	unsignedInt[0:8]	-	Number of MBSFN area entries.
NeighCellConfig	W	unsignedInt[0:3]	0	Defines the information related to MBSFN configuration of neighbour cells (FDD only). Corresponds to NeighCellConfig IE specified in [Section 6.3.6/3GPP-TS.36.331]. Value 0: Not all neighbour cells have the same MBSFN sub-frame allocation as serving cell. Value 1: No MBSFN sub-frames are present in all neighbour cells. Value 2: The MBSFN sub-frame allocations of all neighbour cells are identical to or subsets of that in the serving cell.

FAPService.{i}.CellConfig.LTE.RAN.PHY.EMBMS.MBSFNAreaList.{i}.

This object contains parameters relating to the MBSFN (Multimedia Broadcast multicast service Single Frequency Network) configuration for an MBSFN area.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this entry.
MBSFNAreaID	W	unsignedInt[0:255]	0	Identifier of the MBSFN area.
ServiceAreaIDList	W	unsignedInt[0:65535]{}	<Empty>	List of MBMS Service Areas for this MBSFN Area. Array of *unsignedInt* items.
MaxSFConfigListEntries	-	unsignedInt	-	Maximum number of entries in the SFConfigList table.

SFConfigListNumberOfEntries	-	unsignedInt	-	Number of entries in the SFConfigList table.

FAPService.{i}.CellConfig.LTE.RAN.PHY.EMBMS.MBSFNAreaList.{i}.SFConfigList.{i}.

This object contains parameters relating to the sub-frame that are reserved for MBSFN

(Multimedia Broadcast multicast service Single Frequency Network) in downlink direction.

For FDD mode, only one entry can exist in this table.

At most one enabled entry in this table can exist with all the same values for RadioFrameAllocationPeriod,

RadioframeAllocationOffset and RadioFrameAllocationSize.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this entry.
RadioFrameAllocationPeriod	W	unsignedInt[ranges]	1	Defines the period where MBSFN sub-frames occur in the radio frames. Radio frames contain MBSFN sub-frame when the following condition is met: ((SFN mod RadioFrameAllocationPeriod) = RadioframeAllocationOffset). The value of 1 and 2 are only meaningful when the value of RadioFrameAllocationSize parameter is 1. Corresponds to radioFrameAllocationPeriod IE specified in [Section 6.3.1/3GPP-TS.36.331]. Possible values: • *1 to 2* • *4* • *8* • *16* • *32*
RadioframeAllocationOffset	W	unsignedInt[0:7]	0	Defines the offset where MBSFN sub-frames occur in the radio frames. Radio frames contain MBSFN sub-frame when the following condition is met: ((SFN mod RadioFrameAllocationPeriod) = RadioframeAllocationOffset). Corresponds to radioFrameAllocationOffset IE specified in [Section 6.3.1/3GPP-TS.36.331].
RadioFrameAllocationSize	W	unsignedInt[ranges]	1	Defines the number of consecutive frames that the MBSFN allocation pertains to defined by the combination of RadioFrameAllocationPeriod and RadioframeAllocationOffset parameters. Possible values: • *1*

				• *4*
SubFrameAllocations	W	unsignedInt[ranges]{}<64>	0	List (maximum list length 64) of unsigned integers (value 0, or 1). The value of "1" indicates the position of sub-frames that is allocated to MBSFN within the radio frame. First item defines the MBSFN allocation for sub-frame #1, second item for #2, third item for #3, fourth item for #6, fifth item for #7, sixth item for #8. If the value of RadioFrameAllocationSize is 4, then this pattern repeats in the sequence of the four radio frames. The actual size of this parameter depends on the value of RadioFrameAllocationSize parameter. If the value of RadioFrameAllocationSize is 1, then the size of this parameter is 6; if the size RadioFrameAllocationSize is 4, then the size of this parameter is 24. Corresponds to subframeAllocation IE specified in [Section 6.3.1/3GPP-TS.36.331]. Array (maximum length as string 64) of *unsignedInt* items. Possible values for each list item: • *0* • *1*

FAPService.{i}.CellConfig.LTE.RAN.MAC.

This object contains parameters relating to the MAC (Medium Access Control) configuration.

Parameter	W	Type	Default	Description
UeInactivityTimer	W	unsignedInt[0:3600000]	150000	Used to disconnect UE when there is no traffic on dedicated logical channels for a value in milliseconds equal to *UeInactivityTimer*. The value of 0 indicates that the UE will never be disconnected due to lack of traffic.

FAPService.{i}.CellConfig.LTE.RAN.MAC.RACH.

This object contains parameters relating to the RACH (Random Access Channel) configuration (see [3GPP-TS.32.592] Section 6.1.2.1).

Parameter	W	Type	Default	Description
NumberOfRaPreambles	W	unsignedInt[ranges]	52	Number of non-dedicated random access preambles. Corresponds to parameter numberOfRA-Preambles specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.1. 4294967295 is an invalid value. Possible values: • *4* • *8* • *12*

				• *16* • *20* • *24* • *28* • *32* • *36* • *40* • *44* • *48* • *52* • *56* • *60* • *64* • *4294967295*

SizeOfRaGroupA	W	unsignedInt[ranges]	52	Number of non-dedicated random access preambles in Random Acces Preambles group A. Corresponds to parameter sizeOfRA-PreamblesGroupA specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.1. 4294967295 is an invalid value. Possible values: • *4* • *8* • *12* • *16* • *20* • *24* • *28* • *32* • *36* • *40* • *44* • *48* • *52* • *56* • *60* • *4294967295*
MessageSizeGroupA	W	unsignedInt[ranges]	56	Threshold for preamble selection, specified in *bits*. Defined in [3GPP-TS.36.321] Section 5.1.2. Corresponds to parameter messageSizeGroupA specified in [3GPP-TS.36.331] Section 6.3.2. 4294967295 is an invalid value. Possible values: • *56* • *144* • *208* • *256* • *4294967295*
MessagePowerOffsetGroupB	W	int[ranges]	5	Threshold for preamble selection, specified in *dB*. Defined in [3GPP-TS.36.321] Section 5.1.2. Corresponds to parameter messagePowerOffsetGroupB specified in [3GPP-TS.36.331] Section 6.3.2. Value of -1 indicates "minusinfinity". 2147483647 is an invalid value. Possible values: • *-1* • *0* • *5*

				• *8* • *10* • *12* • *15* • *18* • *2147483647*

PowerRampingStep	W	unsignedInt[ranges]	4	Power increase factor between subsequent random access preamble transmissions, specified in *dB*. Corresponds to parameter powerRampingStep specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.3. 4294967295 is an invalid value. Possible values: • *0* • *2* • *4* • *6* • *4294967295*
PreambleInitialReceivedTargetPower	W	int[ranges]	-90	Value used as the baseline for computation for random access transmission power, specified in *dBm*. Also used as a parameter in the criteria for preamble selection. Corresponds to parameter preambleInitialReceivedTargetPower specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.2 and section 5.1.3. 2147483647 is an invalid value. Possible values: • *-120* • *-118* • *-116* • *-114* • *-112* • *-110* • *-108* • *-106* • *-104* • *-102* • *-100* • *-98* • *-96* • *-94* • *-92* • *-90* • *0* • *2147483647*
PreambleTransMax	W	unsignedInt[ranges]	10	Maximum number of random access preamble transmissions. Corresponds to parameter preambleTransMax specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.4 and section 5.1.5. 4294967295 is an invalid value. Possible values:

				• *3* • *4* • *5* • *6* • *7* • *8* • *10* • *20* • *50* • *100* • *200* • *4294967295*

ResponseWindowSize	W	unsignedInt[ranges]	10	Duration of the random access response window, specified in *sub-frames*. Corresponds to parameter ra-ResponseWindowSize specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.4. 4294967295 is an invalid value. Possible values: • *2* • *3* • *4* • *5* • *6* • *7* • *8* • *10* • *4294967295*
ContentionResolutionTimer	W	unsignedInt[ranges]	64	Contention resolution timer, specified in *sub-frames*. Corresponds to parameter mac-ContentionResolutionTimer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.5. 4294967295 is an invalid value. Possible values: • *8* • *16* • *24* • *32* • *40* • *48* • *56* • *64* • *4294967295*
MaxHARQMsg3Tx	W	unsignedInt[1:8]	4	Maximum number of Msg3 HARQ transmissions by RRC. Corresponds to parameter maxHARQ-Msg3Tx specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.4.2.2.

FAPService.{i}.CellConfig.LTE.RAN.MAC.DRX.

This object contains parameters relating to the DRX (Discontinuous Reception) configuration (see [3GPP-TS.32.592] Section 6.1.2.2).

Parameter	W	Type	Default	Description
DRXEnabled	W	boolean	true	Specifies whether DRX operation is enabled or not. If *true*, DRX operation is enabled. If *false*, DRX operation is not enabled.

				Corresponds to drx-Configuration IE defined in [3GPP-TS.36.331] Section 6.3.2.
OnDurationTimer	W	unsignedInt[ranges]	10	DRX cycle during which UE actively monitors PDCCH, specified in number of PDCCH *sub-frames*. Corresponds to parameter onDurationTimer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.7. 4294967295 is an invalid value. Possible values: • *1* • *2* • *3* • *4* • *5* • *6* • *8* • *10* • *20* • *30* • *40* • *50* • *60* • *80* • *100* • *200* • *4294967295*
DRXInactivityTimer	W	unsignedInt[ranges]	100	Number of inactive consecutive PDCCH sub-frame(s) that will activate short DRX cycle, specified in number of PDCCH*sub-frames*. Corresponds to parameter drx-InactivityTimer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.7. 4294967295 is an invalid value. Possible values: • *1* • *2* • *3* • *4* • *5* • *6* • *8* • *10* • *20* • *30* • *40* • *50*

				• *60* • *80* • *100* • *200* • *300* • *500* • *750* • *1280* • *1920* • *2560* • *4294967295*

DRXRetransmissionTimer	W	unsignedInt[ranges]	2	Maximum number of consecutive PDCCH sub-frame(s) UE MUST remain active expecting a DL retransmission, specified in number of PDCCH *sub-frames*. The timer is started when a HARQ RTT Timer expires and the data in the soft buffer of the corresponding HARQ process was not successfully decoded. There is one timer for each active HARQ process. Corresponds to parameter drx-RetransmissionTimer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.7. 4294967295 is an invalid value. Possible values: • *1* • *2* • *4* • *6* • *8* • *16* • *24* • *33* • *4294967295*
LongDRXCycle	W	unsignedInt[ranges]	320	Long DRX Cycle value, specified in number of *sub-frames*. If shortDRX-Cycle is configured, this value MUST be a multiple of the *ShortDRXCycle* value. Corresponds to longDRX-Cycle parameter specified in [3GPP-TS.36.321] Section 5.7. and longDRX-CycleStartOffset specified in [3GPP-TS.36.331] Section 6.3.2. 4294967295 is an invalid value. Possible values: • *10* • *20* • *32* • *40* • *64* • *80* • *128* • *160* • *256* • *320* • *512* • *640* • *1024* • *1280* • *2048* • *2560* • *4294967295*

DRXStartOffset	W	unsignedInt[0:2559]	0	Starting frame of the DRX cycle within the long DRX cycle. The valid value range is dependent on *LongDRXCycle* parameter which defines the upper bound of this range, i.e., range definition is [0: (*LongDRXCycle*-1)]. Corresponds to drxStartOffset parameter specified in [3GPP-TS.36.321] Section 5.7.
ShortDRXCycle	W	unsignedInt[ranges]	20	Short DRX Cycle value, specified in number of *sub-frames*. If *shortDRX-Cycle* is configured, the value of *LongDRXCycle* MUST be a multiple of the *ShortDRXCycle* value. Corresponds to shortDRX-Cycle parameter specified in [3GPP-TS.36.321] Section 5.7. 4294967295 is an invalid value. Possible values: • *2* • *5* • *8* • *10* • *16* • *20* • *32* • *40* • *64* • *80* • *128* • *160* • *256* • *320* • *512* • *640* • *4294967295*
DRXShortCycleTimer	W	unsignedInt[1:16]	1	Duration of the short DRX cycle in multiples of *ShortDRXCycle* parameter, specified in number of *sub-frames*. Denotes the number of consecutive sub-frame(s)the UE shall follow the short DRX cycle after the DRX Inactivity Timer has expired. Corresponds to drxShortCycleTimer parameter specified in [3GPP-TS.36.321] Section 5.7.
ShortDRXEnabled	W	boolean	false	Specifies whether short DRX cycle operations are enabled or not.

FAPService.{i}.CellConfig.LTE.RAN.MAC.ULSCH.

This object contains parameters relating to the ULSCH (Uplink Shared Channel) configuration (see [3GPP-TS.32.592] Section 6.1.2.3).

Parameter	W	Type	Default	Description
MaxHARQTx	W	unsignedInt[ranges]	4	Maximum number of UL HARQ transmissions. Corresponds to parameter maxHARQ-Tx specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.4.2.2. 4294967295 is an invalid value.

				Possible values: • *1 to 8* • *10* • *12* • *16* • *20* • *24* • *28* • *4294967295*
PeriodicBSRTimer	W	unsignedInt[ranges]	20	Timer for Periodic BSR (Buffer Status Report) reporting, specified in number of *subframes*. UE transmits periodic BSR at the expiration of this timer. Corresponds to parameter periodicBSR-Timer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.4.5. Value of 0 indicates "infinity." 4294967295 is an invalid value. Possible values: • *0* • *5* • *10* • *16* • *20* • *32* • *40* • *64* • *80* • *128* • *160* • *320* • *640* • *1280* • *2560* • *4294967295*
RetxBSRTimer	W	unsignedInt[ranges]	320	Timer for Regular BSR reporting, specified in number of *subframes*. UE transmits a Regular BSR at the expiration of this timer if data is available in the buffer. Corresponds to parameter retxBSR-Timer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.4.5. 4294967295 is an invalid value. Possible values: • *320* • *640*

				• *1280* • *2560* • *5120* • *10240* • *4294967295*
TTIBundling	W	boolean	false	Enables/disables TTI bundling. If *true*, TTI bundling is enabled. If *false*, TTI bundling is disabled. Corresponds to parameter ttiBundling specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.4.2.1.

FAPService.{i}.CellConfig.LTE.RAN.MAC.CarrierAggregation.

This object contains all parameters relating to Carrier Aggregation.

Parameter	W	Type	Default	Description
Enabled	W	boolean	true	Enables or disables carrier aggregation.
SCellA1ThresholdRSRP	W	int[-140:-44]	-95	RSRP threshold to be used in EUTRA measurement report triggering condition for secondary cell event A1.
SCellA2ThresholdRSRP	W	int[-140:-44]	-105	RSRP threshold to be used in EUTRA measurement report triggering condition for secondary cell event A2.

FAPService.{i}.CellConfig.LTE.RAN.MAC.Scheduling.

Configure parameters related to MAC scheduling.

Parameter	W	Type	Default	Description
DLFFRMode	W	enum	Disabled	Fractional frequency reuse (FFR) mode used for downlink resource allocation. Enumeration of: • *Disabled* (Disable FFR, cells configured with entire system bandwith as cell center region) • *Static* (Enable static FFR, cells statically configured with cell center and cell edge regions) • *Dynamic* (Enable dynamic FFR, cells dynamically configured with cell center and cell edge regions)
ULFFRMode	W	enum	Disabled	Fractional frequency reuse (FFR) mode used for uplink resource allocation. Enumeration of: • *Disabled* (Disable FFR, cells configured with entire system bandwith as cell center region) • *Static* (Enable static FFR, cells statically configured with cell center and cell edge regions)

				• *Dynamic* (Enable dynamic FFR, cells dynamically configured with cell center and cell edge regions)

FAPService.{i}.CellConfig.LTE.RAN.RLC.

Parameters relating to RLC configuration.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.LTE.RAN.RLC.DRB.

Parameters relating to RLC configuration for DRB.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.LTE.RAN.RLC.DRB.UM.

Parameters relating to RLC configuration for Unacknowledged Mode DRB.

Parameter	W	Type	Default	Description
SNFieldLength	W	unsignedInt[ranges]	10	Indicates the UM RLC SN field size in bits. Possible values: • *5* • *10*

FAPService.{i}.CellConfig.LTE.RAN.CellRestriction.

This object contains parameters relating to the cell restriction configuration.

Parameter	W	Type	Default	Description
CellBarred	W	boolean	false	Indicates whether the cell is barred or not. If true, the cell is barred. If false, the cell is not barred. Corresponds to parameter CellBarred specified in SIB1 in [3GPP-TS.36.331] Section 6.2.2.
BarringForEmergency	W	boolean	false	Indicates whether the is barred for Access Class 10 or not. If true, the cell is barred for Access Class 10. If false, the cell is not barred for Access Class 10.

				Corresponds to parameter ac-BarringForEmergency specified in SIB2 in [3GPP-TS.36.331] Section 6.2.2.
IntraFreqReselection	W	boolean	true	Used to control cell reselection to intra-frequency cells when the highest ranked cell is barred, or treated as barred by the UE, as specified in [3GPP-TS.36.304]
ACBarringForMOSignallingEnable	W	boolean	false	Enables or disables access class barring for mobile originated signalling.
ACBarringFactorMOSignalling	W	unsignedInt[ranges]	0	If the random number drawn by the UE is lower than this value, access is allowed. Otherwise the access is barred. The values are interpreted in the range [0,1): p00 = 0, p05 = 0.05, p10 = 0.10,.,p95 = 0.95. Values other than 0 can only be set if *X_002448_ACBarringForSpecialACMOSignalling* is empty. Possible Values: 0, 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 75, 80, 85, 90, 95 Possible values: • *0* • *5* • *10* • *15* • *20* • *25* • *30* • *40* • *50* • *60* • *70* • *75* • *80* • *85* • *90* • *95*
ACBarringTimeMOSignalling	W	unsignedInt[ranges]	32	Mean access barring time value in seconds. Used to calculate the absolute barring time. Possible Values: 4, 8, 16, 32, 64, 128, 256, 512 Possible values: • *4* • *8* • *16* • *32* • *64* • *128* • *256*

				• *512*

ACBarringSpecialACMOSignalling	W	unsignedInt[11:15]{}	<Empty>	Access class barring for AC 11 to 15 for mobile originated signalling. If an access class is included in the list, it indicates that access class barring is enabled for that access class for mobile orignated signalling connections. Array of *unsignedInt* items.
ACBarringForMODataEnable	W	boolean	false	Enables or disables access class barring for mobile originated data.
ACBarringFactorMOData	W	unsignedInt[ranges]	0	If the random number drawn by the UE is lower than this value, access is allowed. Otherwise the access is barred. The values are interpreted in the range [0,1): p00 = 0, p05 = 0.05, p10 = 0.10,.,p95 = 0.95. Values other than 0 can only be set if *X_002448_ACBarringForSpecialACMOSignalling* is empty. Possible Values: 0, 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 75, 80, 85, 90, 95 Possible values: • *0* • *5* • *10* • *15* • *20* • *25* • *30* • *40* • *50* • *60* • *70* • *75* • *80* • *85* • *90* • *95*
ACBarringTimeMOData	W	unsignedInt[ranges]	32	Mean access barring time value in seconds. Used to calculate the absolute barring time. Possible Values: 4, 8, 16, 32, 64, 128, 256, 512 Possible values: • *4* • *8* • *16* • *32* • *64* • *128* • *256*

				• *512*
ACBarringSpecialACMOData	W	unsignedInt[11:15]{}	<Empty>	Access class barring for AC 11 to 15 for mobile originated data. If an access class is included in the list, it indicates that access class barring is enabled for that access class for mobile orignated data connections. Array of *unsignedInt* items.

FAPService.{i}.CellConfig.LTE.RAN.Mobility.

This object contains parameters relating to the UE's mobility configuration. It covers both idle mode and connected mode.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.

This object contains parameters relating to the UE's mobility while it is in idle mode (cell (re-)selection). Parameters under this object determines the content in the SIB (System Information Block) that is broadcast by LTE .

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.Common.

This object contains parameters relating to the idle mode mobility configuration that is common to all cell re-selection scenarios (intra/inter-freq, inter-RAT to UTRA (UMTS), GERAN (GSM) and CDMA2000) (see [3GPP-TS.32.592] Section 6.1.5.1.1).

Parameter	W	Type	Default	Description
Qhyst	W	unsignedInt[ranges]	2	Cell reselection hysteresis. Possible values: • *0 to 6* • *8* • *10* • *12* • *14* • *16* • *18* • *20* • *22*

				• *24*

FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IntraFreq.

This object contains parameters relating to the idle mode mobility configuration for intra-freq re-selection scenario (see [3GPP-TS.32.592] Section 6.1.5.1.2).

Parameter	W	Type	Default	Description
QRxLevMinSIB1	W	int[-70:-22]	-60	RSRP threshold for serving cell.
QRxLevMinSIB3	W	int[-70:-22]	-60	RSRP threshold for candidate intra-frequency cells.
QRxLevMinOffset	W	unsignedInt[1:8]	4	RSRP offset for candidate cells for reselection to higher priority PLMN.
TReselectionEUTRA	W	unsignedInt[0:7]	1	Time interval in *seconds* in which criteria must stay fulfilled for a UE to trigger a cell reselection.
SNonIntraSearch	W	unsignedInt[0:31]	0	Threshold in on RSRP of current cell for inter-frequency and inter-rat measurements. The value of (*SNonIntraSearch* * 2) is the actual value used by the UE.
CellReselectionPriority	W	unsignedInt[0:7]	4	Absolute priority of this E-UTRA frequency carrier.
PMax	W	int[-30:33]	23	Expected maximum power of UEs camping on this cell.
ThreshServingLow	W	unsignedInt[0:31]	31	This threshold is used in the rules for cell reselection to lower priority neighbors when absolute priorities are used. It specifies the limit for Srxlev in the serving cell below which the UE may perform cell reselection to a cell on a lower absolute priority layer. Specified in *dB*, value of (*ThreshServingLow* * 2) yields the actual value.
SIntrasearch	W	unsignedInt[0:31]	31	Threshold on RSRP of serving cell for intra-frequency measurements. The value of (*SIntrasearch* * 2) is the actual value used by the UE.

FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.InterFreq.

This object contains parameters relating to the idle mode mobility configuration for inter-freq re-selection scenario .

Parameter	W	Type	Default	Description
MaxCarrierEntries	-	unsignedInt	-	The maximum number of entries in the *.CellConfig.LTE.RAN.Mobility.IdleMode.InterFreq.Carrier.{i}.* table.
CarrierNumberOfEntries	-	unsignedInt	-	{{numentries}}
ColocatedForceRedirect	W	boolean	false	Enable or disable forced redirection to co-located inter-frequency cell.

CarrierListEnable	W	enum	True	Enable or disable carriers defined in the inter-freq carrier list. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
QRxLevMinSIB5	W	int[-70:-22]	-60	RSRP threshold for candidate inter-frequency cells.
QOffsetFreq	W	int[ranges]	0	Bias against reselection to an inter-frequency neighbor cell. Possible values: • *-24* • *-22* • *-20* • *-18* • *-16* • *-14* • *-12* • *-10 to -8* • *-6 to 6* • *8* • *10* • *12* • *14* • *16* • *18* • *20* • *22* • *24*
TReselectionEUTRA	W	unsignedInt[0:7]	1	Time interval in *seconds* in which criteria must stay fulfilled for a UE to trigger a cell reselection.
CellReselectionPriority	W	unsignedInt[0:7]	4	Absolute priority of candidate E-UTRA frequency carrier.
ThreshXHigh	W	unsignedInt[0:31]	0	Threshold used when candidate E-UTRAN frequency is higher priority than the serving cell. ThreshXHigh alone determines reselection. Specified in *dB*, the value of (*ThreshXHigh* * 2) yields the actual value.
ThreshXLow	W	unsignedInt[0:31]	10	Threshold used when candidate E-UTRAN frequency is lower priority than the serving cell. *ThreshXLow* along with *FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IntraFreq.ThreshServingLow* determines reselection. Specified in *dB*, the value of (*ThreshXLow* * 2) yields the actual value.

PMax	W	int[-30:33]	23	Expected maximum power of UEs camping on any cell on candidate carrier.

FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.InterFreq.Carrier.{i}.

This object contains parameters relating to the carrier information for inter-freq re-selection scenario (see [3GPP-TS.32.592] Section 6.1.5.1.3).

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enable or disable *Carrier*.
EUTRACarrierARFCN	W	unsignedInt[0:65535]	0	E-UTRA Absolute Radio Frequency Channel Number of this entry.
QRxLevMinSIB5	W	int[-70:-22]	-60	RSRP threshold for candidate inter-frequency cells on this carrier.
QOffsetFreq	W	int[ranges]	0	Bias against reselection to an inter-frequency neighbor cell on this carrier. Possible values: • *-24* • *-22* • *-20* • *-18* • *-16* • *-14* • *-12* • *-10 to -8* • *-6 to 6* • *8* • *10* • *12* • *14* • *16* • *18* • *20* • *22* • *24*
TReselectionEUTRA	W	unsignedInt[0:7]	1	Time interval in *seconds* in which criteria must stay fulfilled for a UE to trigger a cell reselection.
CellReselectionPriority	W	unsignedInt[0:7]	4	Absolute priority of this E-UTRA frequency carrier.
ThreshXHigh	W	unsignedInt[0:31]	0	Threshold used when this E-UTRAN frequency is higher priority than the serving cell. ThreshXHigh alone determines reselection. Specified in *dB*, the value of

				(*ThreshXHigh* * 2) yields the actual value.
ThreshXLow	W	unsignedInt[0:31]	10	Threshold used when this E-UTRAN frequency is lower priority than the serving cell. *ThreshXLow* along with *FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IntraFreq.ThreshServingLow* determines reselection. Specified in *dB*, the value of (*ThreshXLow* * 2) yields the actual value.
PMax	W	int[-30:33]	23	Expected maximum power of UEs camping on any cell on this carrier.
MultiBandInfoList	W	unsignedInt[1:64]{8}	<Empty>	Indicates the list of additional frequency bands of the carrier. Array of *unsignedInt* items (maximum number of items 8).

FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IRAT.

This object contains parameters relating to the idle mode mobility configuration for inter-RAT (Radio Access Technology) re-selection scenario.

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IRAT.UTRA.

This object contains parameters relating to the idle mode mobility configuration for inter-RAT (Radio Access Technology) re-selection, specifically for re-selection to UTRA (UMTS) scenario (see [3GPP-TS.32.592] Section 6.1.5.1.4).

Parameter	W	Type	Default	Description
TReselectionUTRA	W	unsignedInt[0:7]	1	Time interval in *seconds* in which criteria must stay fulfilled for a UE to trigger a cell reselection to a UMTS cell.
MaxUTRANFDDFreqEntries	-	unsignedInt	-	The maximum number of entries in the *.CellConfig.LTE.RAN.Mobility.IdleMode.IRAT.UTRA.UTRANFDDFreq.{i}.* table.
UTRANFDDFreqNumberOfEntries	-	unsignedInt	-	{{numentries}}
QRxLevMin	W	int[-60:-13]	-60	RSCP threshold for candidate UMTS FDD cells.
QQualMinSIB6	W	int[-24:0]	0	EcIo threshold for candidate UMTS FDD cells.
CellReselectionPriority	W	unsignedInt[0:7]	2	Absolute priority of candidate UTRA frequency.
ThreshXHigh	W	unsignedInt[0:31]	0	Threshold used when candidate UTRA frequency is higher priority than the serving cell. ThreshXHigh alone determines reselection. Specified in *dB*, the value of (*ThreshXHigh* * 2) yields the actual value.
ThreshXLow	W	unsignedInt[0:31]	10	Threshold used when candidate UTRA frequency is lower priority than the serving cell. *ThreshXLow* along with *FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IntraFreq.ThreshServingLow* determines reselection. Specified in *dB*, the value of (*ThreshXLow* * 2) yields the actual value.

PMaxUTRA	W	int[-50:33]	23	Expected maximum power of UEs camping on any cell on candidate frequency.

FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IRAT.UTRA.UTRANFDDFreq.{i}.

This object contains parameters relating to the channel frequncy related information of UTRA (UMTS) system (see [3GPP-TS.32.592] Section 6.1.5.1.5, 6.1.5.1.6).

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enable or disable *UTRANFDDFreq*.
UTRACarrierARFCN	W	unsignedInt[0:16383]	0	UTRA Absolute Radio Frequency Channel Number of this entry.
QRxLevMin	W	int[-60:-13]	-60	RSCP threshold for candidate UMTS FDD cells on this frequency.
CellReselectionPriority	W	unsignedInt[0:7]	0	Absolute priority of this UTRA frequency.
ThreshXHigh	W	unsignedInt[0:31]	0	Threshold used when this UTRA frequency is higher priority than the serving cell. ThreshXHigh alone determines reselection. Specified in *dB*, the value of (*ThreshXHigh* * 2) yields the actual value.
ThreshXLow	W	unsignedInt[0:31]	0	Threshold used when this UTRA frequency is lower priority than the serving cell. *ThreshXLow* along with *FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IntraFreq.ThreshServingLow* determines reselection. Specified in *dB*, the value of (*ThreshXLow* * 2) yields the actual value.
PMaxUTRA	W	int[-50:33]	0	Expected maximum power of UEs camping on any cell on this frequency.
QQualMinSIB6	W	int[-24:0]	0	EcIo threshold for candidate UMTS FDD cells on this frequency.

FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IRAT.GERAN.

This object contains parameters relating to the idle mode mobility configuration for inter-RAT (Radio Access Technology) re-selection, specifically for re-selection to GERAN (GSM) scenario (see [3GPP-TS.32.592] Section 6.1.5.1.6).

Parameter	W	Type	Default	Description
TReselectionGERAN	W	unsignedInt[0:7]	1	Time interval in *seconds* in which criteria must stay fulfilled for a UE to trigger a cell reselection to a GSM cell.
MaxGERANFreqGroupEntries	-	unsignedInt	-	The maximum number of entries in the *.CellConfig.LTE.RAN.Mobility.IdleMode.IRAT.GERAN.GERANFreqGroup.{i}.* table.
GERANFreqGroupNumberOfEntries	-	unsignedInt	-	{{numentries}}

QRxLevMin	W	int[0:45]	0	RSSI threshold for candidate GSM cells.
CellReselectionPriority	W	unsignedInt[0:7]	1	Absolute priority of candidate ARFCN.
ThreshXHigh	W	unsignedInt[0:31]	0	Threshold used in cell reselection when candiate GSM ARFCN is higher priority than the serving cell.
ThreshXLow	W	unsignedInt[0:31]	10	Threshold used when candidate GSM ARFCN is lower priority than the serving cell. *ThreshXLow* along with *FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IntraFreq.ThreshServingLow* determines reselection. Specified in *dB*, the value of (*ThreshXLow* * 2) yields the actual value. Corresponds to parameter threshX-Low specified in SIB7 in [3GPP-TS.36.331] Section 6.3.1 and in [3GPP-TS.36.304] Section 5.2.4.5.

FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IRAT.GERAN.GERANFreqGroup.{i}.

This object contains parameters relating to the channel frequncy related information of GERAN (GSM) system (see [3GPP-TS.32.592] Section 6.1.5.1.7).

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this entry.
BandIndicator	W	enum	<Empty>	Indicates how to interpret the BCCH ARFCN. Enumeration of: • *GSM 850* • *GSM 900* • *DCS 1800* • *PCS 1900*
BCCHARFCN	W	unsignedInt[0:1023]	0	ARFCN of this cell.
QRxLevMin	W	int[0:45]	0	RSSI threshold for candidate GSM cells on this ARFCN.
CellReselectionPriority	W	unsignedInt[0:7]	0	Absolute priority of this GERAN frequency group, as used by the inter-frequency cell re-selection procedure. Corresponds to parameter CellReselectionPriority specified in SIB7 in [3GPP-TS.36.331] Section 6.3.1 and in [3GPP-TS.36.304] Section 5.2.4.7.
ThreshXHigh	W	unsignedInt[0:31]	0	Threshold used when re-selecting towards a higher priority GERAN frequency group than current serving E-UTRA frequency, specified in *dB*. The value of (*ThreshXHigh* * 2) yields the actual value. Corresponds to parameter threshX-High specified in SIB7 in [3GPP-TS.36.331] Section 6.3.1 and in [3GPP-TS.36.304] Section 5.2.4.5.
ThreshXLow	W	unsignedInt[0:31]	0	Threshold used when this GSM ARFCN is lower priority than the serving cell. *ThreshXLow* along with *FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IntraFreq.ThreshServingLow* determines reselection. Specified in *dB*, the value of (*ThreshXLow* * 2) yields the actual value.Corresponds to parameter threshX-Low specified in SIB7 in [3GPP-TS.36.331] Section 6.3.1 and in [3GPP-TS.36.304] Section 5.2.4.5.

FAPService.{i}.CellConfig.LTE.RAN.Mobility.ConnMode.

This object contains parameters relating to the UE's mobility while it is in connected mode (handover).

Parameter	W	Type	Default	Description

FAPService.{i}.CellConfig.LTE.RAN.Mobility.ConnMode.EUTRA.

This object contains parameters relating to the connected mode mobility (handover) configuration within LTE system (see [3GPP-TS.32.592] Section 6.1.5.2.1).

Parameter	W	Type	Default	Description
A1ThresholdRSRP	W	int[-140:-44]	-105	RSRP threshold to be used in EUTRA measurement report triggering condition for event A1.
A1ThresholdRSRQ	W	int[-19:-3]	-13	RSRQ threshold to be used in EUTRA measurement report triggering condition for event A1.
A2ThresholdRSRP	W	int[-140:-44]	-110	RSRP threshold to be used in EUTRA measurement report triggering condition for event A2.
A2ThresholdRSRQ	W	int[-19:-3]	-15	RSRQ threshold to be used in EUTRA measurement report triggering condition for event A2.
A3Offset	W	int[-30:30]	6	Offset to be used in evaluation of EUTRA measurement report triggering condition for event A3 for E-RAN internal cells, with a numeric range between -30 and 30 inclusive. Mapping to actual values is specified in [3GPP-TS.36.133]. Corresponds to parameter a3-Offset specified in ReportConfigEUTRA IE in [3GPP-TS.36.331] Section 6.3.5.
A5Threshold1RSRP	W	int[-140:-44]	-105	RSRP threshold1 to be used in EUTRA measurement report triggering condition for event A5. Corresponds to parameter a5-Threshold1:threshold-RSRP specified in ReportConfigEUTRA IE in [3GPP-TS.36.331] Section 6.3.5.
A5Threshold2RSRP	W	int[-140:-44]	-105	RSRP threshold2 to be used in EUTRA measurement report triggering condition for event A5. Corresponds to parameter a5-Threshold2:threshold-RSRP specified in ReportConfigEUTRA IE in [3GPP-TS.36.331] Section 6.3.5.
TimeToTrigger	W	unsignedInt[ranges]	320	Time period during which measurement report triggering condition needs to be met in order to trigger a measurement report for internal cells, specified in milliseconds. Corresponds to parameter timeToTrigger specified in ReportConfigEUTRA IE in [3GPP-TS.36.331] Section 6.3.5. This parameter applies to event A3 for internal cells. Possible values: • *0* • *40* • *64* • *80* • *100* • *128* • *160*

				• *256* • *320* • *480* • *512* • *640* • *1024* • *1280* • *2560* • *5120*

TimeToTriggerExternal	W	unsignedInt[ranges]	320	Time period during which measurement report triggering condition needs to be met in order to trigger a measurement report for handover to macro, specified in milliseconds. Corresponds to parameter timeToTrigger specified in ReportConfigEUTRA IE in [3GPP-TS.36.331] Section 6.3.5. This parameter applies to events A1, A2 and A5. Possible values: • *0* • *40* • *64* • *80* • *100* • *128* • *160* • *256* • *320* • *480* • *512* • *640* • *1024* • *1280* • *2560* • *5120*
IntrafreqHandOutEnabled	W	boolean	true	Enables/disables intra-frequency handout to macro LTE cell.
InterfreqHandOutEnabled	W	boolean	true	Enables/disables inter-frequency handout to macro LTE cell.
HandInEnabled	W	boolean	true	Enables/disables hand-in from macro LTE cell.
PeriodicReportingEnabled	W	boolean	false	Enables/disables Intra-frequency Periodic Reporting. When enabled, all UEs in connected mode send intra-frequency periodic reports.
ANREnabled	W	boolean	false	Enables/disables ANR using CGI reporting. When enabled, {{System}} uses CGI reporting from UE to detect neighboring EUTRA cells.
X1InterfreqHandoverEnabled	W	boolean	true	Enables/disables X1 inter-frequency handover functionality.

FAPService.{i}.CellConfig.LTE.RAN.Mobility.ConnMode.IRAT.

This object contains parameters relating to the connected mode mobility (handover) configuration that is common to all inter-RAT handover scenarios (UTRA (UMTS), GERAN (GSM) and CDMA2000) (see [3GPP-TS.32.592] Section 6.1.5.2.2).

Parameter	W	Type	Default	Description

QoffsettUTRA	W	int[-15:15]	0	UTRA-specific offset to be applied when evaluating triggering conditions for measurement reporting in connected mode, with a numeric range between -15 and 15 inclusive. Corresponds to parameter offsetFreq included in the IE MeasObjectUTRA specified in [3GPP-TS.36.331].
MeasQuantityUTRAFDD	W	enum	CPICH Ec/No	Measurement quantity used for UTRA measurements. Corresponds to measQuantityUTRA-FDD parameter specified in QuantityConfigUTRA IE in [Section 6.3.5/3GPP-TS.36.331]. Enumeration of: CPICH-RSCP CPICH-EcN0 Enumeration of: • *QUANT_INVALID* • *CPICH Ec/No* • *CPICH RSCP*
QoffsetGERAN	W	int[-15:15]	0	GERAN-specific offset to be applied when evaluating triggering conditions for measurement reporting in connected mode, with a numeric range between -15 and 15 inclusive. Corresponds to parameter offsetFreq included in the IE MeasObjectGERAN specified in [3GPP-TS.36.331].
B2Threshold2UTRARSCP	W	int[-120:-24]	-95	RSCP threshold to be used in UTRA measurement report triggering condition for event B2. Corresponds to parameter b2-Threshold2UTRA:utra-RSCP specified in ReportConfigInterRAT IE in [Section 6.3.5/3GPP-TS.36.331].
B2Threshold2UTRAEcN0	W	int[-24:0]	-16	EcN0 threshold to be used in UTRA measurement report triggering condition for event B2. Corresponds to parameter b2-Threshold2UTRA:utra-EcNo specified in ReportConfigInterRAT IE in [Section 6.3.5/3GPP-TS.36.331].
B2Threshold2GERAN	W	int[-110:-47]	-90	Threshold to be used in GERAN measurement report triggering condition for event B2. Corresponds to parameter b2-Threshold2GERAN specified in ReportConfigInterRAT IE in [Section 6.3.5/3GPP-TS.36.331].
SRVCCToUTRANEnabled	W	boolean	true	Enables/disables inter-RAT handover to UMTS for SRVCC.
SRVCCToGSMEnabled	W	boolean	true	Enables/disables inter-RAT handover to GSM for SRVCC.

FAPService.{i}.CellConfig.LTE.RAN.NeighborList.

This object contains parameters relating to the neighbor list.

Parameter	W	Type	Default	Description
LTECellNumberOfEntries	-	unsignedInt	-	{{numentries}}

FAPService.{i}.CellConfig.LTE.RAN.NeighborList.LTECell.{i}.

Table containing the E-UTRA (i.e. intra-RAT) cell list provided by the ACS. The table contents MAY be added/deleted/modified during operation, in which case these changes shall be reflected in the broadcast information as soon as possible.

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enables or disables this entry.
PLMNID	W	string(6)	<Empty>	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
CID	W	unsignedInt[1:268435455]	1	Cell Identity. [3GPP-TS.36.331] Section 6.3.4. Combination of *PLMNID* and *CID* constitutes the Cell Global ID (CGI).
EUTRACarrierARFCN	W	unsignedInt[0:65535]	0	Indicates the ARFCN of this carrier frequency. Corresponds to parameter dl-CarrierFreq in SIB5 in [3GPP-TS.36.331] Section 6.3.1, and and parameter NDL in [3GPP-TS.36.101] Section 5.7.3. If the value of *EUTRACarrierARFCN* is the same with the one currently being used by the, then it implies that this neighbor cell is an intra-frequency cell; otherwise, it is an inter-frequency cell.
PhyCellID	W	unsignedInt[0:503]	0	Physical cell ID, as specified in [3GPP-TS.36.211] Section 6.11.
QOffset	W	int[ranges]	0	Indicate a cell-specific offset applicable to a specific neighbouring cell. It is used for evaluating the cell as a candidate for cell re-selection in idle mode. Corresponds to parameter q-OffsetCell broadcast in SIB4 for intra-frequency cells and in SIB5 for inter-frequency cells, specified in [3GPP-TS.36.331] Section 6.3.1. For the value less than or equal to -8, and bigger than or equal to 8, only even numbers are valid. If the value is other than these, the CPE MUST reject the value. Possible values: • *-24* • *-22* • *-20* • *-18* • *-16* • *-14* • *-12* • *-10 to -8* • *-6 to 6* • *8* • *10* • *12* • *14* • *16* • *18* • *20* • *22*

				• *24*

CIO	W	int[ranges]	0	Cell individual offset applicable to a specific neighbouring cell. It is used for evaluating triggering conditions for measurement reporting in connected mode. Specified by cellIndividualOffset in MeasObjectEUTRA IE in [3GPP-TS.36.331] Section 6.3.5. For the value less than or equal to -8, and bigger than or equal to 8, only even numbers are valid. If the value is other than these, the CPE MUST reject the value. Possible values: • *-24* • *-22* • *-20* • *-18* • *-16* • *-14* • *-12* • *-10 to -8* • *-6 to 6* • *8* • *10* • *12* • *14* • *16* • *18* • *20* • *22* • *24*
RSTxPower	W	int[ranges]	-128	The downlink reference-signal transmit power, specified in *dBm*. Defined as the linear average over the power contributions (in W) of all resource elements that carry cell-specific reference signals within the operating system bandwidth. Corresponds to parameter referenceSignalPower in SIB4 as a part of PDSCH-Config IE in [3GPP-TS.36.331] Section 6.3.2. Possible values: • *-128* • *-60 to 50*
Blacklisted	W	boolean	false	Indicates whether this neighbor cell is allowed for UEs as handover target or not. If *true*, handover is prohibited towards this cell. If *false*, handover is allowed toward this cell. The *Blacklisted* parameter allows this cell to be prohibited as a handover target, while still allowing this cell to be included in the BCCH SIB4 or 5.
InclusionMode	W	enum	MustInclude	*InclusionMode* specifies whether a particular neighbor will be included, or excluded or included if found during Self Organizing Network (SON) Management operations. Note that only a subset of the neighborlist is sent to the UE. Enumeration of: • *IncludeIfFound* (Include in specified neighbor list if found during REM) • *MustInclude* (Must include this neighbor in specified neighbor list)

				• *MustExclude* (Must exclude this neighbor from specified neighbor list)

SecondaryPLMNs	W	string(6){5}	<Empty>	Secondary PLMNs of this entry. Each item is a PLMN ID. PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *SecondaryPLMNs* is 5. Array of *string* items (maximum number of items 5).
TAC	W	unsignedInt[0:65535]	0	*TAC* specifies the Tracking Area Code of the current entry.
RSRP	W	int[ranges]	-95	The RSRP in *dBm* to be associated with this LTE neighbor. This RSRP is only used for ranking cells for inclusion in SIB 4/5 and the Measurement Object. Possible values: • *-140 to -44* • *0*
DLBandwidth	W	unsignedInt[ranges]	4294967295	Downlink transmission bandwidth, specified in number of Resource Blocks. Valid values are 6, 15, 25, 50, 75, and 100 RBs for 1.4, 3, 5, 10, 15, and 20 MHz, respectively. Possible values: • *6* • *15* • *25* • *50* • *75* • *100* • *4294967295*
ULBandwidth	W	unsignedInt[ranges]	4294967295	Uplink transmission bandwidth, specified in number of Resource Blocks. Valid values are 6, 15, 25, 50, 75, and 100 RBs for 1.4, 3, 5, 10, 15, and 20 MHz, respectively. Possible values: • *6* • *15* • *25* • *50* • *75* • *100* • *4294967295*

FAPService.{i}.CellConfig.LTE.RAN.NeighborList.InterRATCell.

The inter-RAT cell lists separated by technology. [3GPP-TS.36.331] Section 6.3.1 (SIB6, 7, 8).

Parameter	W	Type	Default	Description
UMTSNumberOfEntries	-	unsignedInt	-	{{numentries}}
GSMNumberOfEntries	-	unsignedInt	-	{{numentries}}

FAPService.{i}.CellConfig.LTE.RAN.NeighborList.InterRATCell.UMTS.{i}.

Table containing the inter-RAT cell list for UTRA (UMTS) provided by the ACS. The table contents MAY be added/deleted/modified during operation, in which case these changes shall be reflected in the broadcast information as soon as possible.

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enables or disables this entry.
PLMNID	W	string(6)	<Empty>	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
RNCID	W	unsignedInt[0:65535]	0	RNC-ID of an intra-RAT UMTS neighbor cell. It uniquely identifies an RNC within a PLMN. Normally, RNC-ID consists of 12 bits (i.e. a range of [0:4095]). However, if the value is larger than 4095, then Extended RNC-ID (range of [4096:65535]) is used in RANAP. The RNC-ID and Extended RNC-ID are combined into a single parameter here as there is no explicit need to have them separated. [3GPP-TS.25.413] Section 9.2.1.39
CID	W	unsignedInt[1:65535]	1	Cell Identifier (C-id) that identifies a cell within an RNS. This Cell Identifier together with the controlling RNC (RNC-ID) constitutes the UTRAN Cell ID (UC-ID) and is used to identify a cell uniquely within UTRAN. C-ID is either 12-bit or 16-bit value. [3GPP-TS.25.401] Section 6.1.5.
LAC	W	unsignedInt[0:65535]	0	Location Area Code (LAC). The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the Location Area ID (LAI). [3GPP-TS.23.003] Section 4.1 [3GPP-TS.25.413] Section 9.2.3.6
RAC	W	unsignedInt[0:255]	0	Routing Area Code (RAC). The concatenation of PLMN ID (MCC+MNC), LAC, and RAC uniquely identifies the Routing Area ID (RAI). [3GPP-TS.23.003] Section 4.2 [3GPP-TS.25.413] Section 9.2.3.7
URA	W	unsignedInt[0:65535]	0	UTRAN Registration Area (URA) [3GPP-TS.23.401]. Indicates to the UE which *URA* it shall use in case of overlapping URAs.

				[3GPP-TS.25.331] Section 10.3.2.6
UARFCNUL	W	unsignedInt[0:16383]	0	The UL UTRA Absolute Radio Frequency Channel Number (UARFCN) in an FDD mode cell. [3GPP-TS.25.433]
UARFCNDL	W	unsignedInt[0:16383]	0	The DL UTRA Absolute Radio Frequency Channel Number (UARFCN) in an FDD mode cell. [3GPP-TS.25.433]
PCPICHScramblingCode	W	unsignedInt[0:511]	0	Primary CPICH scrambling code.
PCPICHTxPower	W	int[-100:500]	0	Primary CPICH Tx power in *dBm*. Actual values of the power are -10.0 *dBm* to 50.0 *dBm* in steps of 0.1 dB. The value of *PCPICHTxPower* divided by 10 yields the actual value of the power. [3GPP-TS.32.642] Section 6.3.11 [3GPP-TS.25.433] Section 2.2.33
InclusionMode	W	enum	MustInclude	*InclusionMode* specifies whether a particular neighbor will be included, or excluded or included if found during Self Organizing Network (SON) Management operations in all cell's neighbor list. This can be overriden on a per cell basis. Enumeration of: • *IncludeIfFound* (Include in specified neighbor list if found during REM) • *MustInclude* (Must include this neighbor in specified neighbor list) • *MustExclude* (Must exclude this neighbor from specified neighbor list)
CPICHRSCP	W	int[ranges]	-85	The CPICH RSCP in *dBm* to be associated with this UMTS neighbor. Possible values: • *-120 to -25* • *0*

FAPService.{i}.CellConfig.LTE.RAN.NeighborList.InterRATCell.GSM.{i}.

Table containing the inter-RAT cell list for GERAN (GSM) provided by the ACS. The table contents MAY be added/deleted/modified during operation, in which case these changes shall be reflected in the broadcast information as soon as possible.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this entry.
PLMNID	W	string(6)	<Empty>	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.

LAC	W	unsignedInt[0:65535]	0	Location Area Code (LAC). The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the Location Area ID (LAI). [3GPP-TS.23.003] Section 4.1 [3GPP-TS.25.413] Section 9.2.3.6
BSIC	W	unsignedInt[0:255]	0	BSIC of the cell per [3GPP-TS.23.003], consisting of: • Bit 7:6 - not used ("00") • Bit 5:3 - NCC (PLMN Color Code) • Bit 2:0 - BCC (BS color code) For example, if NCC is 7 and BCC is 2 you would have 00111010 (binary) or 0x3A (hex), and the value of this parameter would be 58.
CI	W	unsignedInt[0:65535]	0	Cell ID of the cell per [3GPP-TS.23.003] Section 4.3.1.
BandIndicator	W	enum	<Empty>	Indicates how to interpret the BCCH ARFCN. Enumeration of: • *GSM 850* • *GSM 900* • *DCS 1800* • *PCS 1900*
BCCHARFCN	W	unsignedInt[0:1023]	0	ARFCN of this cell.
InclusionMode	W	enum	MustInclude	*InclusionMode* specifies whether a particular neighbor will be included, or excluded or included if found during Self Organizing Network (SON) Management operations in all cell's neighbor list. Enumeration of: • *IncludeIfFound* (Include in specified neighbor list if found during REM) • *MustInclude* (Must include this neighbor in specified neighbor list) • *MustExclude* (Must exclude this neighbor from specified neighbor list)
RSSI	W	int[ranges]	-85	The RSSI in *dBm* to be associated with this inter-RAT GSM neighbor. Possible values: • *-120 to -25* • *0*

FAPService.{i}.CellConfig.LTE.RAN.X2AP.

X2AP related parameters for LTE RAN configuration.

Parameter	W	Type	Default	Description
TX2RelocPrep	W	unsignedInt[1:10]	5	Maximum amount of time for the X2AP Relocation preparation procedure in source eNodeB in *seconds*. The timer is started after sending the X2AP Handover request message to the X2 Peer. The timer is stopped upon the reception of the X2AP Handover request acknowledge message from the X2 peeer. Expiry of the timer will abort the ongoing X2AP Relocation preparation procedure source eNodeB.
TX2RelocOverall	W	unsignedInt[1:10]	10	Maximum amount of time for the protection of the overall X2AP Relocation procedure in source eNodeB in *seconds*. The timer is started upon the reception of the X2AP Handover request acknowledge message from the X2 peer. Expiry of the timer will abort the ongoing X2AP Relocation execution in the source eNodeB.

FAPService.{i}.Transport.

This object contains parameters relating to the transport

Parameter	W	Type	Default	Description

FAPService.{i}.Transport.SCTP.

This object contains parameters relating to SCTP as defined in [RFC4960] and [RFC3873].

Parameter	W	Type	Default	Description

FAPService.{i}.Transport.SCTP.LTE.

Parameters relating to SCTP transport layer between EPC and the {{System}}.

Note: Reconfiguration of any of these parameters will cause the following.

1. Terminate the SCTP connections towards all the S1AP peers.

2. All the active UE sessions will be terminated.

3. SCTP connection will be restablished to all the S1AP peers with the new configuration.

Parameter	W	Type	Default	Description
HBInterval	W	unsignedInt[1:]	3	Hearbeat interval in seconds.

MaxAssociationRetransmits	W	unsignedInt	10	Maximum number of consecutive retransmissions to a peer before an endpoint considers that the peer is unreachable.
MaxInitRetransmits	W	unsignedInt	3	Number of retransmission per connection-attempt.
MaxPathRetransmits	W	unsignedInt	5	Maximum retransmission per destination address.
RTOInitial	W	unsignedInt	3000	Initial value for Retransmit timeout in milliseconds. A retransmission time value of zero means immediate retransmission.
RTOMax	W	unsignedInt	6000	Maximum value for Retransmit timeout in milliseconds. A retransmission time value of zero means immediate retransmission.
RTOMin	W	unsignedInt	1000	Minimum value for Retransmit timeout in milliseconds. A retransmission time value of zero means immediate retransmission.
ValCookieLife	W	unsignedInt	60000	Valid cookie life in the 4-way start-up handshake procedure in milliseconds.

FAPService.{i}.Transport.SCTP.UMTS.

Parameters relating to SCTP transport layer between IU CS/PS core or IuH Gateway and the {{System}}.

Note: Reconfiguration of any of these parameters will cause the following.

1. Terminate the SCTP connections towards IU CS/PS core or IuH Gateway.

2. All the active UE sessions will be terminated.

3. SCTP connection will be restablished to IU CS/PS core or IuH Gateway.

Parameter	W	Type	Default	Description
HBInterval	W	unsignedInt[1:]	3	Hearbeat interval in seconds.
MaxAssociationRetransmits	W	unsignedInt	10	Maximum number of consecutive retransmissions to a peer before an endpoint considers that the peer is unreachable.
MaxInitRetransmits	W	unsignedInt	3	Number of retransmission per connection-attempt.
MaxPathRetransmits	W	unsignedInt	5	Maximum retransmission per destination address.
RTOInitial	W	unsignedInt	3000	Initial value for Retransmit timeout in milliseconds. A retransmission time value of zero means immediate retransmission.

RTOMax	W	unsignedInt	6000	Maximum value for Retransmit timeout in milliseconds. A retransmission time value of zero means immediate retransmission.
RTOMin	W	unsignedInt	1000	Minimum value for Retransmit timeout in milliseconds. A retransmission time value of zero means immediate retransmission.
ValCookieLife	W	unsignedInt	60000	Valid cookie life in the 4-way start-up handshake procedure in milliseconds.

FAPService.{i}.Transport.Tunnel.

This object contains parameters relating to Tunneling.

Parameter	W	Type	Default	Description
IKESANumberOfEntries	-	unsignedInt	-	The number of entries in the *.Transport.Tunnel.IKESA.{i}.* table.
ChildSANumberOfEntries	-	unsignedInt	-	The number of entries in the *.Transport.Tunnel.ChildSA.{i}.* table.
MaxVirtualInterfaces	-	unsignedInt	1	The maximum number of virtual interfaces.
VirtualInterfaceNumberOfEntries	-	unsignedInt	-	The number of entries in the *.Transport.Tunnel.VirtualInterface.{i}.* table.
SecGWServerNumberOfEntries	-	unsignedInt	Empty(0)	The number of entries in the *.Transport.Tunnel.SecGWServer.{i}.* table.

FAPService.{i}.Transport.Tunnel.IKESA.{i}.

IKE IPsec Security Association Table. This Table is a member of the IPsec Security Association Database (SAD). [RFC4301].

Parameter	W	Type	Default	Description
Status	-	enum	-	The status of this IKE SA entry. Enumeration of: • *Disabled* • *Active* • *Completed* • *Progressing* • *Error* (OPTIONAL, This value MAY be used by the CPE to indicate a locally defined error condition.)
PeerAddress	-	regex(256)	-	The IP address of the peer SecGW.

				Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
CreationTime	-	dateTime	-	The time that the current IKE SA was set up.
IPAddress	-	regex(256)	-	The current IP address assigned to this interface by IKEv2. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
SubnetMask	-	IPAddress	-	The current subnet mask assigned to this interface by IKEv2.
DNSServers	-	IPAddress{}<256>	-	Array (maximum length as string 256) of *IPAddress* items. Each item is an IP Address of a DNS server for this interface assigned to this interface by IKEv2.
DHCPServers	-	IPAddress{}<256>	-	Array (maximum length as string 256) of *IPAddress* items. Each item is an IP address of a DHCP server for this interface. A non empty list instructs the CPE to send any internal DHCP request to the address contained within this parameter.

IntegrityErrors	-	unsignedInt	-	The number of inbound packets discarded by the IKE SA due to Integrity checking errors.
OtherErrors	-	unsignedInt	-	The number of inbound packets discarded by the IKE SA due to other errors, such as anti-replay errors.
AuthErrors	-	unsignedInt	-	The number of inbound packets discarded by the IKE SA due to authentication errors.
NextRekeyTime	-	dateTime	-	Indicates the time that the next IKE SA will be negotiated.
ExpirationTime	-	dateTime	-	Indicates the time that the current IKE SA will expire.
SubnetPrefixLength	-	unsignedInt	-	Subnet prefix length assigned to this interface by IKEv2.
IKEEncryptInUse	-	enum	AES-CBC	IKEv2 encryption algorithm in use. Enumeration of: • *3DES-CBC* (3DES in Cipher Block Chaining mode.) • *AES-CBC* (128-bit AES in Cipher Block Chaining mode.) • *AES-CBC-256* (256-bit AES in Cipher Block Chaining mode.)
IKEPRFInUse	-	enum	HMAC-SHA1	IKEv2 pseudo-random function in use. Enumeration of: • *HMAC-SHA1* (HMAC using SHA1.) • *AES-XCBC-PRF-128* (128-bit AES in extended Cipher Block Chaining mode.) • *HMAC-SHA2-256* (HMAC using 256-bit SHA2.)
IKEIntegrityInUse	-	enum	HMAC-SHA1-96	IKEv2 integrity function in use. Enumeration of: • *HMAC-SHA1-96* (96-bit MAC using HMAC with SHA1.) • *AES-XCBC-MAC-96* (96-bit MAC using 128-bit AES in extended Cipher Block Chaining mode.) • *HMAC-SHA2-256-128* (128-bit MAC using HMAC with 256-bit SHA2.)
IKEDHInUse	-	enum	2048	IKEv2 Diffie-Hellman group in use. Enumeration of: • *1024* • *2048*

FAPService.{i}.Transport.Tunnel.ChildSA.{i}.

Child IPsec Security Association Table. This Table is a member of the IPsec Security Association Database (SAD). [RFC4301].

Parameter	W	Type	Default	Description
ParentID	-	unsignedInt	-	The value MUST be the instance number of an object in the *.Transport.Tunnel.IKESA.* table.
SPI	-	unsignedInt	-	SPI value of the Child SA.
DirectionOutbound	-	boolean	-	Traffic Direction. If *true* this Child SA refers to outbound traffic. If *false* this Child SA refers to inbound traffic.
CreationTime	-	dateTime	-	The time that the current Child SA was set up.
Traffic	-	unsignedInt	-	The measured traffic in *bytes* transferred by the Child SA.
IntegrityErrors	-	unsignedInt	-	The number of inbound *packets* discarded by the Child SA due to integrity checking errors.
ReplayErrors	-	unsignedInt	-	The number of inbound *packets* discarded by the Child SA due to anti-replay errors.
NextRekeyTime	-	dateTime	-	Indicates the time that the next Child SA will be negotiated.
ExpirationTime	-	dateTime	-	Indicates the time that the current Child SA will expire.
ESPEncryptInUse	-	enum	AES-CBC	IPsec encryption algorithm in use Enumeration of: • *3DES-CBC* (3DES in Cipher Block Chaining mode.) • *AES-CBC* (128-bit AES in Cipher Block Chaining mode.) • *Null* (No encryption.) • *AES-CBC-256* (256-bit AES in Cipher Block Chaining mode.)
ESPIntegrityInUse	-	enum	HMAC-SHA1-96	IPsec integrity function in use. Enumeration of: • *HMAC-SHA1-96* (96-bit MAC using HMAC with SHA1.) • *AES-XCBC-MAC-96* (96-bit MAC using 128-bit AES in extended Cipher Block Chaining mode.) • *HMAC-SHA2-256-128* (128-bit MAC using HMAC with 256-bit SHA2.)

TrafficPackets	-	unsignedInt	-	Measured traffic in *packets* transferred by the Child SA.
CryptErrors	-	unsignedInt	-	Number of *packets* discarded due to Encrypt/Decrypt errors.
DecryptErrors	-	unsignedInt	-	Number of *packets* discarded due to Decrypt errors.
SAErrors	-	unsignedInt	-	Number of *packets* discarded due to SA-related errors.
PolicyErrors	-	unsignedInt	-	Number of *packets* discarded due to policy errors.
SoftLifeErrors	-	unsignedInt	-	Number of *packets* exceeding IPSecRekeyLifetimeByte.

FAPService.{i}.Transport.Tunnel.VirtualInterface.{i}.

Virtual Interfaces used for associating the tunnel (ephemeral) childSA pairs with the QueueManagement framework defined in the used root data model:

- For the Device:2 root model specified in [TR-181i2] the Device.QoS.Classification.{i}. and Device.QoS.Queue.{i}. objects can be associated with these interfaces.

- For InternetGatewayDevice root model specified in [TR-098] the InternetGatewayDevice.QueueManagement.Classification.{i}. and InternetGatewayDevice.QueueManagement.Queue.{i}. objects can be associated with these interfaces.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables and disables this entry.
DSCPMarkPolicy	W	int[-2:]	-1	DSCP to mark the outer IP header for traffic that is associated with this virtual interface. A value of -1 indicates copy from the incoming packet. A value of -2 indicates automatic marking of DSCP as defined for the UMTS QoS class [3GPP-TS.23.107]. De-tunneled packets are never re-marked.
CryptoProfileIndex	W	unsignedInt	Empty(0)	The value MUST be the instance number of an object in the *.Transport.Security.CryptoProfile.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
SecGWServerIndex	W	unsignedInt	Empty(0)	The value MUST be the instance number of an object in the *.Transport.Tunnel.X_002448_SecGWServer.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
IngressClassificationGroup	W	unsignedInt	Empty(0)	The index of classification group that acts as ingress filter for the virtual IP interface. The value MUST be the instance number of an object in the *.QueueManagement.ClassificationGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
EgressClassificationGroup	W	unsignedInt	Empty(0)	The index of classification group that acts as egress filter for the virtual IP interface. The value MUST be the instance number of an object in the *.QueueManagement.ClassificationGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
TCPMSSAdjust	W	unsignedInt[ranges]	0	Specifies the value to which the Maximum Segment Size for any TCP traffic within the core-bound IPSec tunnel will be adjusted. A value of 0 means MSS will not be adjusted. Possible values: • *0* • *500 to 1460*
TCPMSSAdjustAutoEnable	W	boolean	true	Specifies whether or not to auto-adjust Maximum Segment Size for any TCP traffic within the core-bound IPSec tunnel. If enabled, the TCPMSSAdjust value will be ignored and MSS automatically adjusted based on the encapsulation overhead for IPSec.
TCPMSSAdjustAutoAddEncapOverhead	W	unsignedInt[0:256]	0	Specifies any additional encapsulation overhead in bytes to use when using auto-MSS for TCP traffic within the core-bound IPSec tunnel.
FragmentBeforeEncapsulation	W	boolean	false	If true, the packet to the core network is fragmented before it is IPSec-encapsulated. Default is false.

FAPService.{i}.Transport.Tunnel.SecGWServer.{i}.

For each of these that are configured:

- *.FAPControl.UMTS.Gateway.SecGWServer1*
- *.FAPControl.UMTS.Gateway.SecGWServer2*
- *.FAPControl.UMTS.Gateway.SecGWServer3*

a *.Transport.Tunnel.SecGWServer.{i}.* reports the status of a connection between the ServicesNode and that security gateway server.

The ServicesNode will attempt to create an IPSec tunnel connection to only one of these addresses at any one time.

Only one IPSec tunnel will exist between ServicesNode and mobile core at any one time.

Parameter	W	Type	Default	Description
Status	-	enum	Untried	Status of connection between ServicesNode and core network. Enumeration of: • *Establishing* (Tunnel is establishing) • *Established* (Tunnel is established) • *Error* (Tunnel is down because of an error) • *Untried* (Security Gateway status unknown)
LastError	-	string(128)	<Empty>	Description of the last error when *Status* is *Error*.
LastTriedTime	-	dateTime	Empty(0001-01-01T00:00:00Z)	Last time SN tried to establish an IPSec tunnel with this core security gateway.
AuthType	-	enum{}	Unknown	Authentication type used to authenticate SN. It could be either PSK, PKEY, EAP-AKA or EAP-SIM. Array of *string* items. Each list item is an enumeration of: • *PSK* (Authentication type is Preshared Key) • *PKEY* (Authentication type is Public Key. The public key scheme currently supported is X.509 certificate) • *EAP-AKA* (Authentication type is EAP-AKA) • *EAP-SIM* (Authentication type is EAP-SIM)
SecGWAuthType	-	enum	Unknown	Authentication type used to authenticate core security gateway. It could be either PSK or PKEY. Enumeration of: • *PSK* (SecGW authentication type is Preshared Key) • *PKEY* (SecGW authentication type is Public Key. The public key scheme currently supported is X.509 certificate)
LocalIPAddress	-	regex(256)	Empty(0.0.0.0)	The IP address of the local endpoint of IPSec tunnel between ServicesNode and core network (if such tunnel exists). Possible patterns: • ^$

				• ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

SecGWIPAddress	-	regex(256)	Empty(0.0.0.0)	The IP address of the security gateway endpoint of the IPSec tunnel between ServicesNode and core network (if such tunnel exists). Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
CoreForwardingGroupIndex	-	unsignedInt	Empty(0)	The forwarding group index/FIB id used to route traffic within IPSec tunnel between ServicesNode and core network (if such tunnel exists).
SecGWServerIPSecId	-	string(256)	<Empty>	IPSec identity of the security gateway used to establish the tunnel.
SNIPSecId	-	string(256)	<Empty>	IPSec identity of the SN used to establish the tunnel.
IKESAIndex	-	unsignedInt	Empty(0)	The value MUST be the instance number of an object in the *.Transport.Tunnel.IKESA.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
ChildSAIndex	-	unsignedInt{}	Empty(0)	The value MUST be the instance number of an object in the *.Transport.Tunnel.ChildSA.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0. Array of *unsignedInt* items.
FAPServiceType	W	enum	UMTS	The type of FAP service. Enumeration of: • *UMTS* (FAP service type is UMTS.) • *LTE* (FAP service type is LTE.)
FAPSecGWServer	W	unsignedInt[1:3]	1	Refers to a SecGWServer under FAPControl.UMTS or FAPControl.LTE depending on FAPServiceType. Acceptable values are 1-3 corresponding to SecGWServer1 through SecGWServer3.
RequestedIPAddress	W	regex(256)	Empty(0.0.0.0)	IP address requested from the Security Gateway as part of the IKEv2 Configuration Payload (CP) when StaticConfigEnable is false. Possible patterns:

				• ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
RequestedIPAddressEnforced	W	boolean	false	Enforce the IP address assigned by the Security Gateway is the same as the RequestedIPAddress. Fail the tunnel otherwise.
RequestedIPAddressType	W	enum	IPv4	Type of IP address, IPv4 or IPv6, requested from the SecGW. Applicable for dynamic IPSec configuration. Enumeration of: • *IPv4* (Requested address type is IPv4.) • *IPv6* (Requested address type is IPv6.)
StaticConfigEnable	W	boolean	false	Enable static configuration of IP and protected core subnets when *SecGWServer* does not support IKEv2 Configuration Payload (CP)).
StaticConfigNumberOfEntries	-	unsignedInt	-	Number of entries in the *StaticConfig* table.
RouteNumberOfEntries	-	unsignedInt	-	Number of entries in the *Route* table.

FAPService.{i}.Transport.Tunnel.SecGWServer.{i}.StaticConfig.{i}.

Contains static configuration parameters for IPSec.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable this *StaticConfig* entry.
ConfigIPAddress	W	regex(256)	Empty(0.0.0.0)	IP address for SN to use to reach the IPSec-protected subnets. Possible patterns:

				• ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
ConfigIPMask	W	IPv4Address	Empty(0.0.0.0)	Mask for configured IP address.
ConfigIPPrefixLength	W	unsignedInt	Empty(0)	Prefix length of the configured IP address.
ProtectedSubnetNumberOfEntries	-	unsignedInt	-	Number of entries in the *ProtectedSubnet* table.

FAPService.{i}.Transport.Tunnel.SecGWServer.{i}.StaticConfig.{i}.ProtectedSubnet.{i}.

Protected subnets behind the SecGWServer.

Parameter	W	Type	Default	Description
Description	W	string(70)	<Empty>	Human-readable description for this protected subnet.
Enable	W	boolean	false	Enable this {object}} entry.
SourceIPAddress	W	regex(256)	0.0.0.0	Source IP address for the SN to use for traffic to the protected subnet. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-

				F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
DestIPAddress	W	regex(256)	0.0.0.0	Protected subnet IP address. Configuring 0.0.0.0 for DestIPAddress and DestSubnetMask will result in traffic not matching other routes to be sent via the IPSec tunnel. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
DestSubnetMask	W	IPv4Address	0.0.0.0	Protected subnet mask. Configuring 0.0.0.0 for DestIPAddress and DestSubnetMask will result in traffic not matching other routes to be sent via the IPSec tunnel.
DestSubnetPrefixLength	W	unsignedInt	Empty(0)	Protected subnet prefix length.

FAPService.{i}.Transport.Tunnel.SecGWServer.{i}.Route.{i}.

Contains routes learned by or configured for this gateway.

Parameter	W	Type	Default	Description
DestPrefix	-	regex(256)	-	Indicates the prefix of the destination. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-

				fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
DestPrefixLength	-	unsignedInt	-	Indicates the prefix length of the destination.
SourceAddress	-	regex(256)	-	Indicates the source address to be used for the route. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

FAPService.{i}.Transport.Security.

This object contains parameters relating to Security.

Parameter	W	Type	Default	Description
SecretNumberOfEntries	-	unsignedInt	-	The number of entries in the *.Transport.Security.Secret.{i}.* table.
CryptoProfileNumberOfEntries	-	unsignedInt	-	The number of entries in the *.Transport.Security.CryptoProfile.{i}.* table.

FAPService.{i}.Transport.Security.Secret.{i}.

Shared Secret Table. This table gathers information about all types of shared secret-based credentials (UICC).

Parameter	W	Type	Default	Description

Enable	W	boolean	false	Enable or disable this Shared Secret entry
Type	-	enum	-	The type of this Shared Secret entry. Enumeration of: • *SIM* • *USIM*
Status	-	enum	-	The status of this Shared Secret entry. Enumeration of: • *Present* • *Not_present* • *Error* (This value MAY be used by the CPE to indicate a locally define error condition.)
UICCCardID	-	string(19)	-	The UICC Card Identifier (UICCID), only numeric values are allowed. [ITU-E.118]
NAIDomainSuffix	W	regex	<Empty>	DEPRECATED. Network Access Identifier suffix to append to IMSI to form value of *NAI*. For example, if *NAIDomainSuffix* has value *domain.suffix*, and the IMSI stored on the SIM is *389457823745893*, *NAI* will have value *389457823745893@domain.suffix*. Possible patterns: • `^$` • `^([a-zA-Z]\|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]\|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*[\.]{0,1}$`
NAI	-	string	<Empty>	DEPRECATED. Network Access Identifier. Example value: imsi@domain.suffix

FAPService.{i}.Transport.Security.Pkey.{i}.

Public Key table.

Parameter	W	Type	Default	Description
LastModif	-	dateTime	-	The last modification time of this certificate entry.
SerialNumber	-	string(64)	-	The serial number field in the certificate. It is unique for each certificate issued by the CA.
Issuer	-	string(256)	-	The issuer field in the certificate. It is the Distinguished Name (DN) of the entity who has signed the certificate.

NotBefore	-	dateTime	-	The beginning of the certificate validity period; i.e., the Not Before field in the X.509 certificate.
NotAfter	-	dateTime	-	The end of the certificate validity period; i.e., the Not After field in the X.509 certificate.
Subject	-	string(256)	-	The X.501 Distinguished Name (DN) of the entity associated with the Public Key; i.e., the Subject field in the X.509 certificate.
SubjectAlt	-	string{}<256>	-	Comma-separated list (maximum length 256) of strings of DNS names; i.e., the Subject Alternative Names extension field in the X.509 certificate. Array (maximum length as string 256) of *string* items.
Filename	-	string	-	File Name of the certificate.
Description	-	string	-	User-assigned description for the certificate for display and debugging purposes only.
PrivateKeyExists	-	boolean	-	A private key that corresponds to the Pkey exists.
SignatureAlgorithm	-	string(64)	-	The signature algorithm of the certificate.

FAPService.{i}.Transport.Security.CryptoProfile.{i}.

This object contains parameters relating to IKEv2 and IPsec crypto profiles, which are essentially a subset of the typical IPsec SPD. [RFC4301].

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables and disables this entry.
MaxChildSA	W	unsignedInt[ranges]	2	Controls the maximum number of child SAs that can be negotiated by a single IKE session. Possible values: • *2* • *4* • *6* • *8* • *10*
IKEEncrypt	W	enum{}	AES-CBC	IKEv2 encryption algorithm. [RFC4307] Array of *string* items. Each list item is an enumeration of: • *3DES-CBC* (3DES in Cipher Block Chaining mode.) • *AES-CBC* (128-bit AES in Cipher Block Chaining mode.)

				• *AES-CBC-256* (256-bit AES in Cipher Block Chaining mode.)

IKEPRF	W	enum{}	HMAC-SHA1	IKEv2 pseudo-random function. [RFC4307]. Array of *string* items. Each list item is an enumeration of: • *HMAC-SHA1* (HMAC using SHA1.) • *AES-XCBC-PRF-128* (128-bit AES in extended Cipher Block Chaining mode.) • *HMAC-SHA2-256* (HMAC using 256-bit SHA2.)
IKEIntegrity	W	enum{}	HMAC-SHA1-96	IKEv2 integrity function. [RFC4307] Array of *string* items. Each list item is an enumeration of: • *HMAC-SHA1-96* (96-bit MAC using HMAC with SHA1.) • *AES-XCBC-MAC-96* (96-bit MAC using 128-bit AES in extended Cipher Block Chaining mode.) • *HMAC-SHA2-256-128* (128-bit MAC using HMAC with 256-bit SHA2.)
IKEDH	W	enum{}	2048	IKEv2 pseudo-random function. [RFC4307] Array of *string* items. Each list item is an enumeration of: • *1024* • *2048*
ESPEncrypt	W	enum{}	AES-CBC	IPsec encryption algorithm. [RFC4307] Array of *string* items. Each list item is an enumeration of: • *3DES-CBC* (3DES in Cipher Block Chaining mode.) • *AES-CBC* (128-bit AES in Cipher Block Chaining mode.) • *Null* (No encryption.) • *AES-CBC-256* (256-bit AES in Cipher Block Chaining mode.)
ESPIntegrity	W	enum{}	HMAC-SHA1-96	IPsec integrity function. [RFC4307] Array of *string* items. Each list item is an enumeration of: • *HMAC-SHA1-96* (96-bit MAC using HMAC with SHA1.) • *AES-XCBC-MAC-96* (96-bit MAC using 128-bit AES in extended Cipher Block Chaining mode.) • *HMAC-SHA2-256-128* (128-bit MAC using HMAC with 256-bit SHA2.)
IPsecWindowSize	W	unsignedInt[ranges]	0	This parameter specifies the IPSec anti-replay window size. The allowed values are: 0, 32, 64, 128, 256, 512, and 1024. A value of zero means replay checking is disabled.

				Possible values: • *0* • *32* • *64* • *128* • *256* • *512* • *1024*
IKERekeyLifetime	W	unsignedInt[ranges]	28800	This parameter specifies the IKEv2 SA rekey timeout value in *seconds*. A value of zero means rekey is not needed. Possible values: • *0* • *900 to 604800*
IPsecRekeyLifetimeByte	W	unsignedInt	0	IPsec SA rekey timeout in *Kilobytes*.
IPsecRekeyLifetimeTime	W	unsignedInt[ranges]	25200	This parameter specifies the IPSec SA rekey timeout value in *seconds*. A value of zero means rekey is not needed. Possible values: • *0* • *900 to 604800*
DPDTimer	W	unsignedInt[60:3600]	300	This parameter specifies the DPD timeout value in *seconds*.
NATTKeepaliveTimer	W	unsignedInt	180	NAT-T keepalive timeout in *seconds*.
SecretIndex	W	unsignedInt	Empty(0)	DEPRECATED. The value MUST be the instance number of an object in the *.Transport.Security.Secret.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
PkeyIndex	W	unsignedInt	Empty(0)	Set to 1 for the SN to be authenticated by its certificate.
SecGWPreSharedKeyIndex	W	unsignedInt	Empty(0)	The value MUST be the instance number of an object in the *.Transport.Security.PreSharedKey.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
PFS	W	boolean	true	Enables or disables Perfect Forward Secrecy while negotiating ChildSAs.
SNIPSecIdEnable	W	boolean	false	Enables use of the SNIPSecId parameter as SN's IPSec identity.

SNIPSecId	W	string(256)	<Empty>	If SNIPSecIdEnable is true, this is the IPSec identity that SN sends to authenticate itself to the security gateway. If SNIPSecIdEnable is false, SN sends the IP address of the SN's interface to the core as its IPSec identity. Currently, the SNIPSecID parameter is only used for PSK authentication.

FAPService.{i}.Transport.Security.PreSharedKey.{i}.

IKE pre-shared key (PSK) table.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this PSK entry
Password	W	spanUnsignedInt	<Mandatory>	PSK value. *Password* must not be "" if *Enable* is true.

FAPService.{i}.Transport.SIGTRAN.

This object contains parameters relating to the SIGTRAN transport used when *InternetGatewayDevice.Services.FAPService.{i}.FAPControl.UMTS.Gateway.CNProtocol* is set to *Iu/IP*.

Parameter	W	Type	Default	Description
SCCPAddrType	W	enum	ITU	The type of SCCP addresses in use by the system. Enumeration of: • *ITU* • *ANSI*
M3UASubserviceField	W	enum	National	Indicates whether message is for national or international network. Enumeration of: • *International* (M3UA message is for international network) • *InternationalSpare* (Spare value that can be used in M3UA message for international network) • *National* (M3UA message is for national network) • *NationalSpare* (Spare value that can be used in M3UA message for national network) [ITU Q.704] Section 14.2.2
SCCPTimerIas	W	unsignedInt[65535]	300	Specifies the sender SCCP inactivity timeout in *seconds*. [ITU Q.714] Section 3.4
SCCPTimerIar	W	unsignedInt[65535]	660	Specifies the receiver SCCP inactivity timeout in *seconds*. [ITU Q.714] Section 3.4

FAPService.{i}.Transport.SIGTRAN.CSDomain.

This object contains Circuit Switched (CS) domain specific parameters relating to the SIGTRAN transport used when *InternetGatewayDevice.Services.FAPService.{i}.FAPControl.UMTS.Gateway.CNProtocol* is set to *Iu/IP*.

Parameter	W	Type	Default	Description
ConnectionState	-	enum	-	Indicates the overall state of the core connection for this domain. Enumeration of: • *None* • *Init* • *Connecting* • *WaitingForHoldDownTimerExpiry* • *Connected*
SCCPState	-	enum	-	Indicates the state of SCCP for this domain. Enumeration of: • *None* (This layer is not configured or active) • *Idle* (This layer is idle until its lower layer has become connected) • *Connecting* (This layer is actively attempting to connect with its peer) • *Connected* (This layer has successfully connected with its peer)
M3UAState	-	enum	-	Indicates the state of M3UA for this domain. Enumeration of: • *None* (This layer is not configured or active) • *Idle* (This layer is idle until its lower layer has become connected) • *Connecting* (This layer is actively attempting to connect with its peer) • *Connected* (This layer has successfully connected with its peer)
M3UAConnectionState	-	enum	-	Indicates the state of the M3UA connection with its peer for this domain. Enumeration of: • *None* (M3UA is not configured or active) • *Waiting-for-SCTP* (M3UA is waiting for the SCTP association to come up) • *Waiting-for-ASPUP-ACK* (M3UA is waiting for its peer to send an ASP-Up-Acknowledgement) • *Waiting-for-ASPAC-ACK* (M3UA is waiting for its peer to send an ASP-Active-Acknowledgement) • *Ready* (M3UA is ready to pass data)
M3UALastError	-	string	-	Indicates the last M3UA error received from the peer for this domain.

SCTPState	-	enum	-	Indicates the state of SCTP for this domain. Enumeration of: • *None* (This layer is not configured or active) • *Idle* (This layer is idle until its lower layer has become connected) • *Connecting* (This layer is actively attempting to connect with its peer) • *Connected* (This layer has successfully connected with its peer)
CNIPAddress	W	IPv4Address	Empty(0.0.0.0)	The IP address of SCTP endpoint of the core device.
CNIPPort	W	unsignedInt[65535]	2905	The port number of SCTP endpoint of the core device.
RNCIPAddress	-	IPv4Address	-	The IP address of SCTP endpoint being used by the FAP.
RNCIPPort	W	unsignedInt[65535]	1706	The port number of SCTP endpoint of the FAP.
RNCM3UAPSPType	W	enum	IPSP	Indicates the type of Peer Server Process (PSP) on the FAP. Enumeration of: • *IPSP* • *ASP*
RNCM3UAASPID	W	unsignedInt	0	The M3UA Application Server Process (ASP) Identifier of the FAP.
M3UARoutingContext	W	unsignedInt	0	The M3UA Routing Context value.
M3UARoutingContextIncluded	W	boolean	true	Whether M3UA Routing Context should be included in messages to peer.
CNM3UANA	W	unsignedInt	0	The M3UA Network Appearance of the core device.
CNM3UANAIncluded	W	boolean	true	Whether M3UA Network Appearance should be included in messages to the peer.
OPC	W	unsignedInt	Empty(0)	Indicates the SCCP point code of the FAP.
DPC	W	unsignedInt	Empty(0)	Indicates the SCCP point code of the core device.

FAPService.{i}.Transport.SIGTRAN.PSDomain.

This object contains Packet Switched (PS) domain specific parameters relating to the SIGTRAN transport used when *InternetGatewayDevice.Services.FAPService.{i}.FAPControl.UMTS.Gateway.CNProtocol* is set to *Iu/IP*.

Parameter	W	Type	Default	Description
ConnectionState	-	enum	-	Indicates the overall state of the core connection for this domain. Enumeration of: • *None* • *Init* • *Connecting* • *WaitingForHoldDownTimerExpiry* • *Connected*
SCCPState	-	enum	-	Indicates the state of SCCP for this domain. Enumeration of: • *None* (This layer is not configured or active) • *Idle* (This layer is idle until its lower layer has become connected) • *Connecting* (This layer is actively attempting to connect with its peer) • *Connected* (This layer has successfully connected with its peer)
M3UAState	-	enum	-	Indicates the state of M3UA for this domain. Enumeration of: • *None* (This layer is not configured or active) • *Idle* (This layer is idle until its lower layer has become connected) • *Connecting* (This layer is actively attempting to connect with its peer) • *Connected* (This layer has successfully connected with its peer)
M3UAConnectionState	-	enum	-	Indicates the state of the M3UA connection with its peer for this domain. Enumeration of: • *None* (M3UA is not configured or active) • *Waiting-for-SCTP* (M3UA is waiting for the SCTP association to come up) • *Waiting-for-ASPUP-ACK* (M3UA is waiting for its peer to send an ASP-Up-Acknowledgement) • *Waiting-for-ASPAC-ACK* (M3UA is waiting for its peer to send an ASP-Active-Acknowledgement) • *Ready* (M3UA is ready to pass data)
M3UALastError	-	string	-	Indicates the last M3UA error received from the peer for this domain.
SCTPState	-	enum	-	Indicates the state of SCTP for this domain. Enumeration of: • *None* (This layer is not configured or active) • *Idle* (This layer is idle until its lower layer has become connected) • *Connecting* (This layer is actively attempting to connect with its peer)

				• *Connected* (This layer has successfully connected with its peer)
CNIPAddress	W	IPv4Address	Empty(0.0.0.0)	The IP address of SCTP endpoint of the core device.
CNIPPort	W	unsignedInt[65535]	2905	The port number of SCTP endpoint of the core device.
RNCIPAddress	-	IPv4Address	-	The IP address of SCTP endpoint being used by the FAP.
RNCIPPort	W	unsignedInt[65535]	4097	The port number of SCTP endpoint of the FAP.
RNCM3UAPSPType	W	enum	IPSP	Indicates the type of Peer Server Process (PSP) on the FAP. Enumeration of: • *IPSP* • *ASP*
RNCM3UAASPID	W	unsignedInt	0	The M3UA Application Server Process (ASP) Identifier of the FAP.
M3UARoutingContext	W	unsignedInt	0	The M3UA Routing Context value.
M3UARoutingContextIncluded	W	boolean	true	Whether M3UA Routing Context should be included in messages to peer.
CNM3UANA	W	unsignedInt	0	The M3UA Network Appearance of the core device.
CNM3UANAIncluded	W	boolean	true	Whether M3UA Network Appearance should be included in messages to the peer.
OPC	W	unsignedInt	Empty(0)	Indicates the SCCP point code of the FAP.
DPC	W	unsignedInt	Empty(0)	Indicates the SCCP point code of the core device.

FAPService.{i}.REM.

This object contains parameters relating to REM (Radio Environment Measurement).

Parameter	W	Type	Default	Description
ScanStatus	-	enum	REMStatusIdle	Specifies Radio Environment Measurement (REM) scanning status. Enumeration of: • *REMStatusIdle* (Self Organizing Network (SON) Management is not active.)

				• *REMStatusGsmScan* (Self Organizing Network (SON) Management is executing a GSM scan.) • *REMStatusUmtsIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra Frequency scan.) • *REMStatusUmtsInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan.) • *REMStatusUmtsScan* (Self Organizing Network (SON) Management is executing an UMTS scan.) • *REMStatusInternalTopoDiscovery* (Self Organizing Network (SON) Management is executing internal topology discovery.) • *REMStatusAddCycleGsmScan* (Self Organizing Network (SON) Management is executing a GSM scan on a cell being added into the system.) • *REMStatusAddCycleUmtsIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra Frequency scan on a cell being added into the system.) • *REMStatusAddCycleUmtsInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan on a cell being added into the system.) • *REMStatusAddCycleUmtsScan* (Self Organizing Network (SON) Management is executing an UMTS scan on a cell being added into the system.) • *REMStatusLteIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra Frequency scan.) • *REMStatusLteInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan.) • *REMStatusLteScan* (Self Organizing Network (SON) Management is executing an LTE scan.) • *REMStatusAddCycleLteScan* (Self Organizing Network (SON) Management is executing an LTE scan on a cell being added into the system.)

LTEScanStatus	-	enum	REMStatusIdle	Specifies Radio Environment Measurement (REM) scanning status for LTE Cells. Enumeration of: • *REMStatusIdle* (Self Organizing Network (SON) Management is not active.) • *REMStatusGsmScan* (Self Organizing Network (SON) Management is executing a GSM scan.) • *REMStatusUmtsIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra Frequency scan.) • *REMStatusUmtsInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan.) • *REMStatusUmtsScan* (Self Organizing Network (SON) Management is executing an UMTS scan.) • *REMStatusInternalTopoDiscovery* (Self Organizing Network (SON) Management is executing internal topology discovery.) • *REMStatusAddCycleGsmScan* (Self Organizing Network (SON) Management is executing a GSM scan on a cell being added into the system.) • *REMStatusAddCycleUmtsIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra Frequency scan on a cell being added into the system.) • *REMStatusAddCycleUmtsInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan on a cell being added into the system.) • *REMStatusAddCycleUmtsScan* (Self Organizing Network (SON) Management is executing an UMTS scan on a cell being added into the system.) • *REMStatusLteIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra Frequency scan.) • *REMStatusLteInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan.) • *REMStatusLteScan* (Self Organizing Network (SON) Management is executing an LTE scan.) • *REMStatusAddCycleLteScan* (Self Organizing Network (SON) Management is executing an LTE scan on a cell being added into the system.)
Mode	W	enum	ScanAndUpdate	DEPRECATED. This parameter has been deprecated. Enumeration of: • *ScanAndUpdate* (REM scan will update internal and external network topology along with Self Organizing Network (SON) Management parameters) • *ScanOnly* (REM scan is only used for determining the cell neighborhood so that new and missing cells can be detected)

FAPService.{i}.REM.WCDMAFDD.

This object contains parameters relating to REM (Radio Environment Measurement), and additionally to self-configuration power assignment update times

Parameter	W	Type	Default	Description
ScanPeriodically	W	boolean	false	Enables or disables periodic Radio Environment Measurement (REM) scanning.
PeriodicInterval	W	unsignedInt[1:31536000]	86400	When *ScanPeriodically* is *true*, this value indicates the interval in *seconds* which REM is performed while the FAP service is enabled.
PeriodicTime	W	dateTime	1970-01-04T00:00:00Z	An absolute time reference in UTC to determine when the CPE will initiate the periodic REM. Each REM MUST occur at (or as soon as possible after) this reference time plus or minus an integer multiple of the *PeriodicInterval*. *PeriodicTime* is used only to set the "phase" of the REM. The actual value of *PeriodicTime* can be arbitrarily far into the past or future.

				For example, if *PeriodicInterval* is 86400 (a day) and if *PeriodicTime* is set to UTC midnight on some day (in the past, present, or future) then periodic REMs will occur every day at UTC midnight. These MUST begin on the very next midnight, even if *PeriodicTime* refers to a day in the future. The Unknown Time value defined in [TR-106a2] Section 3.2 indicates that no particular time reference is specified. That is, the CPE MAY locally choose the time reference, and needs only to adhere to the specified PeriodicInformInterval. If absolute time is not available to the CPE, its periodic REM behavior MUST be the same as if *PeriodicTime* parameter was set to the Unknown Time value.
UARFCNDLList	W	unsignedInt[ranges]{16}	Empty(0)	Array of *unsignedInt* items (maximum number of items 16). Each entry is a UARFCN in the DL direction to measure. This parameter is used for both UMTS and LTE REM. If 0 or 0, then LTE SON will not scan any DL UARFCNs. If 0 of 0, UMTS SON will scan the system DL UARFCN (see *.CellConfig.UMTS.RAN.FDDFAP.RF.UARFCNDL*). Possible values for each list item: • *0* • *412* • *437* • *462* • *487* • *512* • *537* • *562* • *587* • *612* • *637* • *662* • *687* • *1007* • *1012* • *1032* • *1037* • *1062* • *1087* • *1537 to 1738* • *1887* • *1912* • *1937* • *1962* • *1987* • *2012* • *2037* • *2062* • *2087* • *2937 to 3088*

				• *4357 to 4458* • *9662 to 9938* • *10562 to 10838*
PeriodicTxPwrRefresh	W	boolean	false	Enables or disables self-configuration periodic power assignment update. When *.FAPControl.UMTS.SelfConfig.NeighborListSelfConfigEnable* is enabled, a power assignment update is performed after every REM scan. In addition to these occasions, additional power assignment updates are scheduled periodically using *PeriodicTxPwrRefresh* and *PeriodicTxPwrRefreshInterval*. *PeriodicTxPwrRefresh* is considered only when *.FAPControl.UMTS.SelfConfig.NeighborListSelfConfigEnable* is *true*.
PeriodicTxPwrRefreshTime	W	dateTime	1970-01-04T00:00:00Z	Local time reference for initiating periodic transmit power refresh.
PeriodicTxPwrRefreshInterval	W	unsignedInt[1:31536000]	86400	When enabled, this value indicates the interval in *seconds* where power assignment updates are performed. These occasions are in addition to the power assignment updates performed after every REM scan. The local time reference for periodic power assignment udpates is *PeriodicTxPwrRefreshTime*.

FAPService.{i}.REM.WCDMAFDD.Cell.{i}.

Table indicating the components of the discovered cells.

Parameter	W	Type	Default	Description

FAPService.{i}.REM.WCDMAFDD.Cell.{i}.RF.

Table indicating the RF aspect of the discovered cells.

Parameter	W	Type	Default	Description
PrimaryScramblingCode	-	unsignedInt[0:511]	-	Primary scrambling code.

FAPService.{i}.REM.WCDMAFDD.Cell.{i}.BCCH.

Table containing the system information broadcast in the BCCH logical channel.

Parameter	W	Type	Default	Description
SIBListNumberOfEntries	-	unsignedInt[0:65535]	-	Actual number of SIB entries broadcast by the scanned cell and scanned by REM.

FAPService.{i}.REM.WCDMAFDD.Cell.{i}.BCCH.SIBList.{i}.

Actual list of SIB entries broadcast by the scanned cell and scanned by REM.

Parameter	W	Type	Default	Description
FormattedTextNumEntries	-	unsignedInt[0:65535]	-	Number of decoded SIB parameters.

FAPService.{i}.REM.WCDMAFDD.Cell.{i}.BCCH.SIBList.{i}.FormattedText.{i}.

Parameter value for decoded sib.

Parameter	W	Type	Default	Description
Text	-	string	-	Parameter value for decoded sib.

FAPService.{i}.REM.WCDMAFDD.Cell.{i}.BCCH.AlternatePSCList.{i}.

Actual list of SIB entries broadcast by the scanned cell and scanned by REM.

Parameter	W	Type	Default	Description
AltPSC	-	unsignedInt[0:65535]	-	Configured Alternate PSC.
Presence	-	string	-	Presence info for AltPSC in the scanned cell.

FAPService.{i}.REM.GSM.

This object contains parameters relating to GSM REM capabilities.

Parameter	W	Type	Default	Description
PeriodicInterval	W	unsignedInt[1:31536000]	86400	When *ScanPeriodically* is *true*, this value indicates the interval in *seconds* which REM is performed while the FAP service is enabled. Note: The {{SCW-SN}} requires the GSM periodic interval to be a integer multiple of the WCDMAFDD peridic interval (see *.WCDMAFDD.PeriodicInterval*.
REMBandList	W	enum{}	<Empty>	Each entry is a GSM band to scan. This parameter is used for both UMTS and LTE REM. If "", then *ARFCNList* must also be "". Array of *string* items. Each list item is an enumeration of: • *T-GSM380* • *T-GSM410* • *GSM450*

				• *GSM480* • *GSM710* • *GSM750* • *T-GSM810* • *GSM850* • *P-GSM900* • *E-GSM900* • *R-GSM900* • *T-GSM900* • *GSM900* • *DCS1800* • *PCS1900*

ARFCNList	W	spanUnsignedInt{0:127}	<Empty>	Each entry is a GSM absolute radio frequency channel numbers (ARFCN) to scan, or an ARFCN range. This parameter is used for both UMTS and LTE REM.
				For each band in *REMBandList*, the intersection of:
				• the ARFCN list for that band
				• the ARFCN list represented by *ARFCNList*
				is choosen for scan.
				REMBandList and *ARFCNList* **must** have at least one ARFCN in common.
				Examples of valid strings:
				• "26"
				  o (explicitly specifies an ARFCN)
				• "26 27 29"
				  o (explicitly specifies 3 ARFCNs)
				• "26..29"
				  o (specifies 4 ARFCNs between 26 and 29, inclusive)
				• "26..29 31"
				  o (specifies 4 ARFCNs between 26 and 29, inclusive, and ARFCN 31)
				• "26..29 31..33"
				  o (specifies 4 ARFCNs between 26 and 29, inclusive, and 3 ARFCNs between 31 and 33, inclusive)
				The order of the items has no significance.
				Array of *string* items (minimum number of items 0, maximum number of items 127).

FAPService.{i}.REM.LTE.

This object contains parameters relating to REM (Radio Environment Measurement)

Parameter	W	Type	Default	Description

ScanPeriodically	W	boolean	false	Enables or disables periodic Radio Environment Measurement (REM) scanning.
PeriodicInterval	W	unsignedInt[1:31536000]	86400	When *ScanPeriodically* is *true*, this value indicates the interval in *seconds* which REM is performed while the FAP service is enabled.
PeriodicTime	W	dateTime	1970-01-04T00:00:00Z	An absolute time reference in UTC to determine when the CPE will initiate the periodic REM. Each REM MUST occur at (or as soon as possible after) this reference time plus or minus an integer multiple of the *PeriodicInterval*. *PeriodicTime* is used only to set the "phase" of the REM. The actual value of *PeriodicTime* can be arbitrarily far into the past or future. For example, if *PeriodicInterval* is 86400 (a day) and if *PeriodicTime* is set to UTC midnight on some day (in the past, present, or future) then periodic REMs will occur every day at UTC midnight. These MUST begin on the very next midnight, even if *PeriodicTime* refers to a day in the future. The Unknown Time value defined in [TR-106a2] Section 3.2 indicates that no particular time reference is specified. That is, the CPE MAY locally choose the time reference, and needs only to adhere to the specified PeriodicInformInterval. If absolute time is not available to the CPE, its periodic REM behavior MUST be the same as if *PeriodicTime* parameter was set to the Unknown Time value.
EUTRACarrierARFCNDLList	W	unsignedInt{16}	<Empty>	Array of *unsignedInt* items (maximum number of items 16). Each entry is a EARFCN in the DL direction to measure. If "" or 0, then the system will not scan any DL EARFCN other than the system DL EARFCN (see *.CellConfig.LTE.RAN.RF.EARFCNDL*).

FAPService.{i}.REM.LTE.Cell.{i}.

Table indicating the components of the discovered cells.

Parameter	W	Type	Default	Description

FAPService.{i}.REM.LTE.Cell.{i}.BCCH.

Table containing the system information broadcast in the BCCH logical channel.

Parameter	W	Type	Default	Description
SIBListNumberOfEntries	-	unsignedInt[0:65535]	-	Actual number of SIB entries broadcast by the scanned cell and scanned by REM.

FAPService.{i}.REM.LTE.Cell.{i}.BCCH.SIBList.{i}.

Actual list of SIB entries broadcast by the scanned cell and scanned by REM.

Parameter	W	Type	Default	Description
FormattedTextNumEntries	-	unsignedInt[0:65535]	-	Number of decoded SIB parameters.

FAPService.{i}.REM.LTE.Cell.{i}.BCCH.SIBList.{i}.FormattedText.{i}.

Parameter value for decoded sib.

Parameter	W	Type	Default	Description
Text	-	string	-	Parameter value for decoded sib.

FAPService.{i}.PerfMgmt.

This object contains parameters for performance management of this FAP.

Parameter	W	Type	Default	Description

FAPService.{i}.PerfMgmt.Collection.

This object contains parameters related to collection of statistics for performance management of this FAP.

Parameter	W	Type	Default	Description
Enable	W	boolean	true	This object enables the collection of statistics for performance management. If *true*, the statistics are queried at regular intervals specified in *Frequency*. If *false*, no statistics are collected for this FAP.
Frequency	W	unsignedInt[1:300]	60	This object specifies the frequency in *seconds* at which statistics are collected for performance management.
VisitThresholdTimer	W	unsignedInt[10:10000]	240	Timer that determines the duration in *minutes* of a visit from an UE. The timer has to be larger than the location update time.
UniqueIMSITimer	W	unsignedInt[10:10000]	1440	Length of time in *minutes* used to count the number of unique IMSIs in the system.
CollectRLCStatistics	W	boolean	true	Enables or disables collection of RLC statistics. If *true*, the RLC statistics are collected at regular intervals specified in *Frequency*. If *false*, no RLC statistics are collected for this FAP.
CollectLteL2Statistics	W	boolean	true	Enables or disables collection of LTE layer2 PDCP/RLC/MAC statistics. If *true*, LTE layer2 statistics are collected at regular intervals specified in *Frequency*. If *false*, no LTE layer2 statistics are collected for this FAP.
StoreSessionStatistics	W	boolean	false	Enables or disables the storage of Session statistics. If *true*, all session statistics for each session are collected and stored in the logging database for retieval.

				If *false*, no session statistics are written into the logging database for any session, a subset of these statistics are still collected in RAM.
StoreEDMStatistics	W	boolean	true	Enables or disables the storage of 3GPP 32.405 related statistics. If *true*, all 3GPP 32.405 statistics are collected and stored in the logging database for reporting. If *false*, no 3GPP 32.405 statistics are written into the logging database, allowing regular report generation.
StoreSystemStatistics	W	boolean	true	Enables or disables the storage of System statistics. It is recommended that the system statistics be reset after toggling this flag. If *true*, all system statistics are collected and stored in the logging database for retrieval. System statistics are aggregated across reboots. If *false*, no system statistics are written into the logging database, a subset of these statistics are still collected in RAM. System statistics are not aggregated across reboots.
StoreCellStatistics	W	boolean	false	Enables or disables the storage of Cell statistics. It is recommended that the Cell statistics be reset after toggling this flag. If *true*, all cell statistics are collected and stored in the logging database for retrieval. Cell statistics are aggregated across reboots. If *false*, no cell statistics are written into the logging database, a subset of these statistics are still collected in RAM. Cell statistics are not aggregated across reboots.
StoreUEStatistics	W	boolean	false	Enables or disables the storage of UE statistics. It is recommended that the UE statistics be reset after toggling this flag. If *true*, all UE statistics are collected and stored in the logging database for retrieval. UE statistics are aggregated across reboots. If *false*, no UE statistics are written into the logging database, a subset of these statistics are still collected in RAM. UE statistics are not aggregated across reboots.
StoreSessionSnapshotStatistics	W	boolean	false	Enables or disables the storage of Session Snapshot statistics. If *true*, all snapshot statistics for each session are collected and stored in the logging database for retieval. If *false*, no snapshot statistics are written into the logging database for any session, a subset of these statistics are still collected in RAM.

FAPService.{i}.PerfMgmt.ReportMgmt.

This object contains parameters for performance management statistics of this FAP.

Parameter	W	Type	Default	Description
SampleSetNumberOfEntries	-	unsignedInt	Empty(0)	This value gives the number of configured SampleSet objects.
Enable	W	boolean	false	Enable or disable report generation.

FAPService.{i}.PerfMgmt.ReportMgmt.SampleSet.{i}.

This object contains parameters for a SampleSet.

Parameter	W	Type	Default	Description

Enable	W	boolean	false	Enables or disables collection of periodic statistics for this *SampleSet*. Only an *enabled SampleSet* can also transition to *active* (*Active* is *true*).
Description	W	string	<Empty>	Specifies descriptive text for this SampleSet to be used for display and debugging purposes only.
Type	W	enum	UMTS	Specifies subsystem type of the SampleSet. Enumeration of: • *UMTS* (FAP service type is UMTS.) • *LTE* (FAP service type is LTE.)
SampleInterval	W	unsignedInt[ranges]	3600	The sample interval in *seconds*. Each statistic is measured over this sample interval. *SampleInterval* is equivalent to the granularity period referenced in [3GPP-TS.32.401] (the time between the initiation of two successive gatherings of measurement data). At the end of each sample interval, the appropriate statistics will be collected into a report. Possible values: • *300* • *900* • *1800* • *3600*
ReportSamples	W	unsignedInt[1:288]	1	The number of reports that the system will generate for the given statistics.

TimeReference	W	dateTime	1970-01-01T00:00:00Z	A time used to determine when sample intervals will be completed. Each sample interval shall complete at this reference time plus or minus an integer multiple of *SampleInterval*.
				TimeReference is used only to set the "phase" of the sample intervals. The actual value of *TimeReference* can be arbitrarily far into the past or future.
				This is a time reference in local time, with the following constraints:
				• If the *SampleInterval* is set to 300 (5 minutes), then the mins:secs portions of *TimeReference* can be set to one of the following:
				  o 00:00, 05:00, 10:00, 15:00, 20:00, 25:00, 30:00, 35:00, 40:00, 45:00, 50:00 55:00
				• If the *SampleInterval* is set to 900 (15 minutes), then the mins:secs portions of *TimeReference* can be set to one of the following:
				  o 00:00, 15:00, 30:00, 45:00
				• If the *SampleInterval* is set to 1800 (30 minutes), then the mins:secs portions of *TimeReference* can be set to one of the following:
				  o 00:00, 30:00
				• If the *SampleInterval* is set to 3600 (1 hour), then the mins:secs portions of *TimeReference* can be set to the following:
				  o 00:00

ReportStartTime	-	dateTime	Empty(0001-01-	The time at which the sample interval for the first stored sample (for each statistic) started. This is a time reference in local time.

			01T00:00:00Z)	
ReportEndTime	-	dateTime	Empty(0001-01-01T00:00:00Z)	The time at which the sample interval for the first stored sample (for each statistic) ended. This is a time reference in local time.
Active	-	boolean	false	A *SampleSet* is **active** during the period of time when measurements are collected and processed. A report is written at the end of each *SampleInterval* during this period. If *true*, the *SampleSet* is **active** and generating reports. If *false*, the *SampleSet* is **not active** and not generating reports. It is possible for *Enable* to be *true* when *Active* is *false*. It is not possible for *Active* to be *true* when *Enable* is *false*.
StatisticNumberOfEntries	-	unsignedInt	Empty(0)	Gives the number of Statistic entries.

FAPService.{i}.PerfMgmt.ReportMgmt.SampleSet.{i}.Statistic.{i}.

This object contains parameters specific to statistics to be gathered in a SampleSet.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or disable this Statistic.
Reference	W	enum	Mandatory(Unspecified)	Gives the name of the statistic to collect. The names are those specified in 3GPP TS 32.405. Enumeration of: • *Unspecified* • *RAB.AttEstabCS* • *RAB.SuccEstabCSNoQueuing* • *RAB.FailEstabCSNoQueuing* • *RAB.AttEstabPS* • *RAB.SuccEstabPSNoQueuing* • *RAB.FailEstabPSNoQueuing* • *RAB.AttModCS* • *RAB.SuccModCSNoQueuing* • *RAB.FailModCSNoQueuing* • *RAB.AttModPS* • *RAB.SuccModPSNoQueuing* • *RAB.FailModPSNoQueuing* • *RAB.AttRelCS* • *RAB.SuccRelCS* • *RAB.FailRelCS* • *RAB.AttRelPS*

				• *RAB.SuccRelPS* • *RAB.FailRelPS* • *RAB.SuccEstabCSSetupTimeMean* • *RAB.SuccEstabCSSetupTimeMax* • *RAB.SuccEstabPSSetupTimeMean* • *RAB.SuccEstabPSSetupTimeMax* • *RAB.RelReqCS* • *RAB.RelReqPS* • *RAB.NbrIuRelReqCS* • *RAB.NbrIuRelReqPS* • *SIG.AttConnEstabCS* • *SIG.AttConnEstabPS* • *RRC.AttConnEstab* • *RRC.FailConnEstab* • *RRC.SuccConnEstab* • *RRC.MeanConn* • *RRC.MaxConn* • *RRC.AttConnReEstab* • *RRC.SuccConnReEstab* • *RRC.AttConnRelDCCH* • *RRC.AttConnRelCCCH* • *RLC.NbrBlocksSent* • *RLC.NbrBlocksReceived* • *RLC.RetransmittedBlocksToUE* • *SHO.AttRLAddUESide* • *SHO.SuccRLAddUESide* • *SHO.FailRLAddUESide* • *SHO.AttRLDelUESide* • *SHO.SuccRLDelUESide* • *RLM.AttRLSetupIub* • *RLM.SuccRLSetupIub* • *RLM.FailRLSetupIub* • *RLM.AttRLDelIub* • *RLM.SuccRLDelIub* • *RELOC.AttPrepUEInvolCS* • *RELOC.SuccPrepUEInvolCS* • *RELOC.FailPrepUEInvolCS* • *RELOC.AttResAllocUEInvolCS* • *RELOC.SuccResAllocUEInvolCS* • *RELOC.FailResAllocUEInvolCS* • *RELOC.SuccCS* • *RELOC.AttPrepUEInvolPS* • *RELOC.SuccPrepUEInvolPS*

				• *RELOC.FailPrepUEInvolPS* • *RELOC.AttResAllocUEInvolPS* • *RELOC.SuccResAllocUEInvolPS* • *RELOC.FailResAllocUEInvolPS* • *RELOC.SuccPS* • *IRATHO.SuccOutPSUE* • *IU.AttConnRelReqUTRANCS* • *IU.AttConnRelReqUTRANPS* • *IU.AttConnRelCNCS* • *IU.AttConnRelCNPS* • *IU.SuccConnRelCNCS* • *IU.SuccConnRelCNPS* • *CARR.FDDMeanTCP* • *CARR.FDDMaxTCP* • *CARR.FDDMeanRTWP* • *CARR.FDDMaxRTWP* • *CARR.MeanRadioLink* • *CARR.MaxRadioLink* • *Pag.AttCn* • *Pag.AttPagType1* • *Pag.AttPagType2* • *HSDPA.AttMacdSetup* • *HSDPA.SuccMacdSetup* • *HSDPA.FailMacdSetup* • *HSDPA.AttRBSetup* • *HSDPA.SuccRBSetup* • *HSDPA.FailRBSetup* • *HSDPA.AttFachToHs* • *HSDPA.SuccFachToHs* • *HSDPA.AttHsToFach* • *HSDPA.SuccHsToFach* • *HSDPA.AttCellChange* • *HSDPA.SuccCellChange* • *HSDPA.NbrAckdMachsPdu* • *HSDPA.NbrMachsPdu* • *HSDPA.MeanNbrUser* • *HSDPA.NbrAckdMacHsOcts* • *HSDPA.NbrTTINonEmptyBuffer* • *HSDPA.SuccHSDSCHreleaseUserInact* • *RRC.AttCellUpdate* • *HSUPA.AttMacdSetup* • *HSUPA.SuccMacdSetup* • *HSUPA.FailMacdSetup*

				• *HSUPA.AttRBSetup* • *HSUPA.SuccRBSetup* • *HSUPA.FailRBSetup* • *HSUPA.AttEdchAddUESide* • *HSUPA.SuccEdchAddUESide* • *HSUPA.FailEdchAddUESide* • *HSUPA.AttEdchDelUESide* • *HSUPA.SuccEdchDelUESide* • *HSUPA.MeanNbrUser* • *HSUPA.AttRachToEdch* • *HSUPA.SuccRachToEdch* • *HSUPA.AttEdchToRach* • *HSUPA.SuccEdchToRach* • *HSUPA.NbrMacePdu* • *HSUPA.NbrAckdMacePdu* • *SCE_RAB.AttEstabCS* • *SCE_RAB.AttEstabPS.sum* • *SCE_RAB.FailEstabPS.sum* • *SCE_RAB.Rel.DropCSData.sum* • *SCE_RAB.Rel.DropCSVoice.sum* • *SCE_RAB.Rel.DropPS.sum* • *SCE_RAB.SuccEstabCS* • *SCE_RAB.SuccEstabPS.sum* • *SCE_RRC.AttConnEstab* • *SCE_RRC.ConnSRBDrop.CS* • *SCE_RRC.ConnSRBDrop.PS* • *SCE_RRC.SuccConnEstab* • *SCE_RRC.DupAttConnEstab* • *SCE_IRATHO.AttRelocPrepOutCS* • *SCE_IRATHO.SuccOutCS* • *SCE_SHO.SuccRLAddUESide* • *SCE_SHO.AttRLAddUESide* • *SCE_NAS.CallDurationCS.sum* • *SCE_NAS.CC.DownlinkCallProceeding* • *SCE_NAS.CC.DownlinkSetup* • *SCE_RRC.FailConnectEstab* • *SCE_RABCell.SuccEstabCS* • *SCE_RABCell.AttEstabCS* • *SCE_IRATHOCell.FailOutCS.Sum* • *SCE_IRATHOCell.AttOutCS* • *SCE_IU.CoreConnectDurationCS* • *SCE_IU.CoreConnectDurationPS* • *SCE_RLC.NbrBytesSent.AM*

				• *SCE_RLC.NbrBytesReceived.AM* • *SCE_RRCCell.SuccConnEstab* • *SCE_RRCCell.AttConnEstab* • *SCE_RRCCell.DupAttConnEstab* • *SCE_RRCCell.ConnSRBDrop.CS* • *SCE_RRCCell.AttCellUpdate* • *SCE_RRCCell.AttReestabByRNC* • *SCE_HHOCell.AttBlindTrigger* • *SCE_HHOCell.AttMeasuredTrigger* • *SCE_RRU.UTRANCellAvailableTime* • *SCE_RRCCell.CallDurationCS.sum* • *SCE_RRCCell.UniqueRABsCS* • *SCE_RRCCell.UniqueRABsPS* • *SCE_RRCCell.SuccConnReEstab* • *SCE_HSUPACell.NbrServMacePDUs* • *SCE_HSUPACell.NbrNonServMacePDUs* • *SCE_HSDPACell.NbrAckdMacHsOcts* • *SCE_RABCell.Rel.DropCSVoice.sum* • *SCE_RABCell.Rel.DropPS.sum* • *SCE_IUCell.AttConnRelReqUTRANPS* • *SCE_IU.AttConnRelReqUTRANPS* • *SCE_RRCCell.ConnSRBDrop.PS* • *SCE_RABCell.SuccEstabPS.sum* • *SCE_RABCell.AttEstabPS.sum* • *SCE_RRCCell.FailConnectEstab* • *SCE_IRATHOCell.AttRelocPrepOutCS* • *SCE_IRATHOCell.SuccOutCS* • *SCE_R99Cell.PSBytesSent* • *SCE_R99Cell.PSPDUsSent* • *SCE_R99Cell.PSBytesReceived* • *SCE_R99Cell.PSPDUsReceived* • *SCE_RRC.DropOnFACH.sum* • *SCE_RRC.PagingType1* • *SCE_RRC.UTRANOrigPagingType1* • *SCE_IU.CSSessionDropsOnCellDCH* • *SCE_IU.PSSessionDropsOnCellDCH* • *SCE_HO.CMDeactivationSuccess* • *SCE_HOCell.CMDeactivationSuccess* • *SCE_IUCell.CSSessionDropsOnCellDCH* • *SCE_IUCell.PSSessionDropsOnCellDCH* • *SCE_HSDPACell.HSSCCHUserSchedCount* • *SCE_HSDPACell.HSSCCHNumObservation* • *SCE_HSDPA.NumHSDPAUsers*

				• *SCE_Cell.RLOccHist* • *SCE_HSDPACell.UserHist* • *SCE_HSDPACell.HSPwrTxHist* • *SCE_Cell.TotalTxPwrHist* • *SCE_HSDPACell.PhyDatRateHist* • *SCE_Cell.MaxTxPowerInUse* • *SCE_Cell.FAPCPICHEcIor* • *SCE_HI.NumSuccCS* • *SCE_HI.NumSuccPS* • *SCE_HI.NumSuccCSPS* • *SCE_HI.NumSuccCSPSRel* • *SCE_HI.NumCNAttsCS* • *SCE_HI.NumCNAttsPS* • *SCE_HI.NumCNAttsCSPS* • *SCE_HI.NumCNFailCS* • *SCE_HI.NumCNFailPS* • *SCE_HI.NumCNFailCSPS* • *SCE_HICell.NumSuccCS* • *SCE_HICell.NumSuccPS* • *SCE_HICell.NumSuccCSPS* • *SCE_HICell.NumSuccCSPSRel* • *SCE_HICell.NumCNAttsCS* • *SCE_HICell.NumCNAttsPS* • *SCE_HICell.NumCNAttsCSPS* • *SCE_HICell.NumCNFailCS* • *SCE_HICell.NumCNFailPS* • *SCE_HICell.NumCNFailCSPS* • *SCE_HI.NumSuccess* • *SCE_HICell.NumSuccess* • *SCE_HI.NumCNSuccCSPSRel* • *SCE_HI.NumCNSuccCS* • *SCE_HI.NumCNSuccPS* • *SCE_HI.NumCNSuccCSPS* • *SCE_AVAILABILITY.CSServiceDownTimeDuration* • *SCE_AVAILABILITY.PSServiceDownTimeDuration* • *SCE_AVAILABILITY.SNUnscheduledDownTime* • *SCE_AVAILABILITY.ServiceUpTime* • *SCE_AVAILABILITY.SNMaintenanceDuration* • *SCE_IRATHO.CNSuccessesCS* • *SCE_IRATHO.CNFailureCS* • *SCE_IRATHO.UEAtts* • *SCE_IRATHO.UESuccesses* • *SCE_IRATHO.UEFailures*

				• *SCE_HO_InterUMTS.CNFailuresCS* • *SCE_HO_InterUMTS.CNFailuresPS* • *SCE_HO_InterUMTS.UEAtts* • *SCE_HO_InterUMTS.UESuccessesCS* • *SCE_HO_InterUMTS.UESuccessesPS* • *SCE_HO_InterUMTS.NumUESuccesses* • *SCE_HO_InterUMTS.NumUEFailures* • *SCE_RRC.PagingType1Retry* • *SCE_GTPU.InboundBytes* • *SCE_GTPU.OutboundBytes* • *SCE_LS.InboundBytes* • *SCE_LS.OutboundBytes* • *SCE_HSUPACell.NumOctetsReceivedSrvCell* • *SCE_HSUPACell.NumOctetsReceivedNonSrvCell* • *SCE_HSUPACell.NumActive10msTTIs* • *SCE_HSUPA.NumHSUPAUsers* • *RRC.ConnEstabAtt* • *RRC.ConnEstabSucc* • *RRC.ConnEstabFail* • *RRC.ConnEstabFailNBCause.Congestion* • *RRC.ConnEstabFailNBCause.Unspecified* • *RRC.ConnEstabFailNBCause.EnergySaving* • *SCE_LTE_RRC.ConnEstabAtt* • *SCE_LTE_RRC.ConnEstabSucc* • *SCE_LTE_RRC.ConnEstabFail* • *SCE_LTE_RRC.ConnEstabFailNBCause.Congestion* • *SCE_LTE_RRC.ConnEstabFailNBCause.Unspecified* • *SCE_LTE_RRC.ConnEstabFailNBCause.EnergySaving* • *SCE_LTE.UECtxtRelReqRN* • *SCE_LTE.UECtxtRelReqTL* • *SCE_LTE.UECtxtRelReqNAS* • *SCE_LTE.UECtxtRelReqProto* • *SCE_LTE.UECtxtRelReqMisc* • *SCE_LTECell.UECtxtRelReqRN* • *SCE_LTECell.UECtxtRelReqTL* • *SCE_LTECell.UECtxtRelReqNAS* • *SCE_LTECell.UECtxtRelReqProto* • *SCE_LTECell.UECtxtRelReqMisc* • *SCE_LTE_S1AP.InitUEMessage* • *SCE_LTE_S1AP.ERABSetupRequest.NumERABsSetupAttempts* • *SCE_LTE_S1AP.ERABSetupResponse.NumERABsSetupSuccess* • *SCE_LTE_S1AP.InitContextSetupRequest.sum* • *SCE_LTE_S1AP.CSFBAttempts*

				• *SCE_LTE_HO.IntraEUTRANIntraFreq.CNAtts* • *SCE_LTE_HO.IntraEUTRANIntraFreq.NumSuccesses* • *SCE_LTE_HO.IntraEUTRANInterFreq.CNAtts* • *SCE_LTE_HO.IntraEUTRANInterFreq.NumSuccesses* • *SCE_LTE_HO.IntraERAN.Atts* • *SCE_LTE_HO.IntraERAN.NumSuccesses* • *SCE_LTE_GTP.DL.NumBytes* • *SCE_LTE_GTP.UL.NumBytes* • *SCE_LTE_RRC_Cell.ConnEstabAtt* • *SCE_LTE_RRC_Cell.ConnEstabSucc* • *SCE_LTE_S1AP_Cell.InitUEMessage* • *SCE_LTE_S1AP_Cell.CSFBAttempts* • *SCE_LTE_S1AP_Cell.InitContextSetupRequest.sum* • *SCE_LTE_S1AP_Cell.ERABSetupResponse.NumERABsSetupSuccess* • *SCE_LTECell_HO.IntraEUTRANIntraFreq.CNAtts* • *SCE_LTECell_HO.IntraEUTRANIntraFreq.NumSuccesses* • *SCE_LTECell_HO.IntraEUTRANInterFreq.CNAtts* • *SCE_LTECell_HO.IntraEUTRANInterFreq.NumSuccesses* • *SCE_LTECell_HO.IntraERAN.Atts* • *SCE_LTECell_HO.IntraERAN.NumSuccesses* • *SCE_LTECell_GTP.DL.NumBytes* • *SCE_LTECell_GTP.UL.NumBytes* • *SCE_LTECell_PDCP.DL.NumBytes* • *SCE_LTECell_PDCP.UL.NumBytes* • *SCE_LTECell_RLC.DL.NumBytes* • *SCE_LTECell_RLC.UL.NumBytes* • *SCE_LTECell_MAC.DL.NumBytes* • *SCE_LTECell_MAC.UL.NumBytes* • *SCE_LTECell_MAC.DL.PRBUsageTotal* • *SCE_LTECell_MAC.UL.PRBUsageTotal* • *SCE_LTECell_MAC.DL.NumActiveUEs* • *SCE_LTECell_MAC.UL.NumActiveUEs* • *SCE_LTECell_MAC.DLHARQFailureHist* • *SCE_LTECell_MAC.ULHARQFailureHist* • *SCE_LTECell_MAC.DL.HARQTotalFirstTx* • *SCE_LTECell_MAC.UL.HARQTotalFirstTx* • *SCE_LTECell_MAC.ULHARQRetxAllocFailureHist* • *SCE_LTECell_MAC.DownlinkCQIWidebandHist* • *SCE_LTECell_MAC.UplinkCQIWidebandHist* • *SCE_LTECell_MAC.DLRankIndicatorHist* • *SCE_LTECell_MAC.DLRACHMSG1PreambleDedHist* • *SCE_LTECell_MAC.DLRACHMSG1PreambleAHist* • *SCE_LTECell_MAC.DLRACHMSG1PreambleBHist*

				• *SCE_LTECell_MAC.DL.RACH.MSG1NumPRACHTti* • *SCE_LTE_S1AP.ERABRelIndERABsReleasedPerRNCause* • *SCE_LTE_S1AP.UEContextRelReqERABsReleasedPerRNCause* • *SCE_LTE_S1AP.ERABReleaseIndication.NumERABsReleased* • *SCE_LTE_S1AP.UEContextReleaseRequest.NumERABsReleased* • *SCE_LTECell_RRU.LTECellAvailableTime* • *SCE_LTE_S1AP_Cell.ERABReleaseIndication.NumERABsReleased* • *SCE_LTE_S1AP_Cell.InitContextSetupResponse.NumERABsSetupSuccess* • *SCE_LTE_S1AP_Cell.ERABSetupRequest.NumERABsSetupAttempts* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsReleasedPerRNCause* • *SCE_LTECell_HO.IntraERAN.InterruptionTime* • *SCE_LTE_S1AP.InitContextSetupResponse.NumERABsSetupSuccess* • *SCE_LTE_HO.IntraERAN.InterruptionTime* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsReleasedPerRNCause* • *SCE_LTE_S1AP_Cell.InitContextSetupRequest.NumERABsSetupAttempts* • *SCE_LTE_S1AP.InitContextSetupRequest.NumERABsSetupAttempts* • *SCE_LTE_S1AP_Cell.CSFBReleases* • *SCE_LTE_S1AP.CSFBReleases* • *SCE_LTE_S1AP_Cell.UEContextReleaseRequest.NumERABsReleased* • *SCE_LTE_S1AP.S1SigConnEstabSuccesses* • *SCE_LTE_S1AP_Cell.S1SigConnEstabSuccesses* • *SCE_LTE_AVAILABLIITY.EPCConnectionDownTimeDuration* • *SCE_LTECell_MAC.DL.NormalizedNumActiveUEs* • *SCE_LTECell_MAC.UL.NormalizedNumActiveUEs* • *SCE_LTE_S1AP_Cell.InitCtxtSetupReqERABSetupAttsPerQCI* • *SCE_LTE_S1AP_Cell.InitCtxtSetupRespERABSetupSuccsPerQCI* • *SCE_LTE_S1AP_Cell.InitCtxtSetupRespERABSetupFailsPerQCI* • *SCE_LTE_S1AP_Cell.InitCtxtSetupFailERABSetupFailsPerQCI* • *SCE_LTE_S1AP_Cell.ERABSetupRequestERABSetupAttsPerQCI* • *SCE_LTE_S1AP_Cell.ERABSetupRespERABSetupSuccsPerQCI* • *SCE_LTE_S1AP_Cell.ERABSetupRespERABSetupFailsPerQCI* • *SCE_LTE_S1AP.InitCtxtSetupReqERABSetupAttsPerQCI* • *SCE_LTE_S1AP.InitCtxtSetupRespERABSetupSuccsPerQCI* • *SCE_LTE_S1AP.InitCtxtSetupRespERABSetupFailsPerQCI* • *SCE_LTE_S1AP.InitCtxtSetupFailERABSetupFailsPerQCI* • *SCE_LTE_S1AP.ERABSetupRequestERABSetupAttsPerQCI* • *SCE_LTE_S1AP.ERABSetupRespERABSetupSuccsPerQCI* • *SCE_LTE_S1AP.ERABSetupRespERABSetupFailsPerQCI* • *SCE_LTE_S1AP.ERABRelIndERABsQCI1RlsdPerRNCause* • *SCE_LTE_S1AP.ERABRelIndERABsQCI2RlsdPerRNCause* • *SCE_LTE_S1AP.ERABRelIndERABsQCI3RlsdPerRNCause* • *SCE_LTE_S1AP.ERABRelIndERABsQCI4RlsdPerRNCause* • *SCE_LTE_S1AP.ERABRelIndERABsQCI5RlsdPerRNCause*

				• *SCE_LTE_S1AP.ERABRelIndERABsQCI6RlsdPerRNCause* • *SCE_LTE_S1AP.ERABRelIndERABsQCI7RlsdPerRNCause* • *SCE_LTE_S1AP.ERABRelIndERABsQCI8RlsdPerRNCause* • *SCE_LTE_S1AP.ERABRelIndERABsQCI9RlsdPerRNCause* • *SCE_LTE_S1AP.ERABRelIndERABsQCI10RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsQCI1RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsQCI2RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsQCI3RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsQCI4RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsQCI5RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsQCI6RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsQCI7RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsQCI8RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsQCI9RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsQCI10RlsdPerRNCause* • *SCE_LTE_S1AP.UEContextRelReqERABsQCI1RlsdPerRNCause* • *SCE_LTE_S1AP.UEContextRelReqERABsQCI2RlsdPerRNCause* • *SCE_LTE_S1AP.UEContextRelReqERABsQCI3RlsdPerRNCause* • *SCE_LTE_S1AP.UEContextRelReqERABsQCI4RlsdPerRNCause* • *SCE_LTE_S1AP.UEContextRelReqERABsQCI5RlsdPerRNCause* • *SCE_LTE_S1AP.UEContextRelReqERABsQCI6RlsdPerRNCause* • *SCE_LTE_S1AP.UEContextRelReqERABsQCI7RlsdPerRNCause* • *SCE_LTE_S1AP.UEContextRelReqERABsQCI8RlsdPerRNCause* • *SCE_LTE_S1AP.UEContextRelReqERABsQCI9RlsdPerRNCause* • *SCE_LTE_S1AP.UEContextRelReqERABsQCI10RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsQCI1RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsQCI2RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsQCI3RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsQCI4RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsQCI5RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsQCI6RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsQCI7RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsQCI8RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsQCI9RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsQCI10RlsdPerRNCause* • *SCE_LTE_S1AP_Cell.UEContextRelReqERABsRlsdPerQCI* • *SCE_LTE_S1AP_Cell.ERABRelIndERABsRlsdPerQCI* • *SCE_LTE_S1AP.UEContextRelReqERABsRlsdPerQCI* • *SCE_LTE_S1AP.ERABRelIndERABsRlsdPerQCI* • *SCE_LTE_S1AP.PagingAttempts* • *SCE_LTE_S1AP.HandoverNotify* • *SCE_LTE_S1AP.HandoverRequest* • *SCE_LTECell_MAC.DL.HARQTotalResidualFailure*

				• *SCE_LTECell_MAC.DL.HARQTotalFirstTxQCI1* • *SCE_LTECell_MAC.DL.HARQTotalResidualFailureQCI1* • *SCE_LTECell_MAC.UL.HARQTotalResidualFailure* • *SCE_LTECell_MAC.UL.HARQTotalFirstTxQCI1* • *SCE_LTECell_MAC.UL.HARQTotalResidualFailureQCI1* • *SCE_LTECell_MAC.DLSchedulingDelayHist* • *SCE_LTECell_MAC.DLSchedulingDelayHistQCI1* • *SCE_LTECell_X2HO.IntraFreq.Attempts* • *SCE_LTECell_X2HO.IntraFreq.NumSuccesses* • *SCE_LTECell_X2HO.InterFreq.Attempts* • *SCE_LTECell_X2HO.InterFreq.NumSuccesses* • *SCE_LTECell_HO.UMTS_SRVCC.CNAtts* • *SCE_LTECell_HO.UMTS_SRVCC.NumSuccesses* • *SCE_LTECell_HO.GSM_SRVCC.CNAtts* • *SCE_LTECell_HO.GSM_SRVCC.NumSuccesses* • *SCE_LTECell_X2HI.Attempts* • *SCE_LTECell_X2HI.NumSuccesses* • *SCE_LTE_X2HO.IntraFreq.Attempts* • *SCE_LTE_X2HO.IntraFreq.NumSuccesses* • *SCE_LTE_X2HI.Attempts* • *SCE_LTE_X2HI.NumSuccesses* • *SCE_LTE_X2HO.InterFreq.Attempts* • *SCE_LTE_X2HO.InterFreq.NumSuccesses* • *SCE_LTE_HO.UMTS_SRVCC.CNAtts* • *SCE_LTE_HO.UMTS_SRVCC.NumSuccesses* • *SCE_LTE_HO.GSM_SRVCC.CNAtts* • *SCE_LTE_HO.GSM_SRVCC.NumSuccesses* • *SCE_LTECell_X1HO.IntraFreqERABAttsPerQCI* • *SCE_LTECell_X1HO.IntraFreqERABSuccPerQCI* • *SCE_LTECell_X1HO.InterFreqERABAttsPerQCI* • *SCE_LTECell_X1HO.InterFreqERABSuccPerQCI* • *SCE_LTECell_S1HO.IntraFreqERABAttsPerQCI* • *SCE_LTECell_S1HO.IntraFreqERABSuccPerQCI* • *SCE_LTECell_S1HO.InterFreqERABAttsPerQCI* • *SCE_LTECell_S1HO.InterFreqERABSuccPerQCI* • *SCE_LTECell_IntraEUTRANHI.ERABAttsPerQCI* • *SCE_LTECell_IntraEUTRANHI.ERABSuccPerQCI* • *SCE_LTECell_IntraEUTRANHI.Atts* • *SCE_LTECell_IntraEUTRANHI.NumSuccesses* • *SCE_LTE_X1HO.IntraFreqERABAttsPerQCI* • *SCE_LTE_X1HO.IntraFreqERABSuccPerQCI* • *SCE_LTE_X1HO.InterFreqERABAttsPerQCI* • *SCE_LTE_X1HO.InterFreqERABSuccPerQCI*

				• *SCE_LTE_S1HO.IntraFreqERABAttsPerQCI* • *SCE_LTE_S1HO.IntraFreqERABSuccPerQCI* • *SCE_LTE_S1HO.InterFreqERABAttsPerQCI* • *SCE_LTE_S1HO.InterFreqERABSuccPerQCI* • *SCE_LTE_IntraEUTRANHI.ERABAttsPerQCI* • *SCE_LTE_IntraEUTRANHI.ERABSuccPerQCI* • *SCE_LTE_IntraEUTRANHI.Atts* • *SCE_LTE_IntraEUTRANHI.NumSuccesses* • *SCE_LTECell_HO.IntraERAN.IntraFreq.Atts* • *SCE_LTECell_HO.IntraERAN.IntraFreq.NumSuccesses* • *SCE_LTECell_HO.IntraERAN.InterFreq.Atts* • *SCE_LTECell_HO.IntraERAN.InterFreq.NumSuccesses* • *SCE_LTE_HO.IntraERAN.IntraFreq.Atts* • *SCE_LTE_HO.IntraERAN.IntraFreq.NumSuccesses* • *SCE_LTE_HO.IntraERAN.InterFreq.Atts* • *SCE_LTE_HO.IntraERAN.InterFreq.NumSuccesses* • *SCE_LTE_RRC_Cell.NumUEsWithDRBHist1* • *SCE_LTE_RRC_Cell.NumUEsWithDRBHist2* • *SCE_LTE_S1AP_Cell.NumVoLTESessHist* • *SCE_LTE_RRC_Cell.ConnReEstabAtt* • *SCE_LTE_RRC_Cell.ConnReEstabSucc* • *SCE_LTE_RRC.ConnReEstabAtt* • *SCE_LTE_RRC.ConnReEstabSucc* • *SCE_LTE_MAC_Cell.NumUEPagingReceived* • *SCE_LTE_MAC_Cell.NumUEPagingDiscarded* • *SCE_LTECell_PDCP.DLNumSDUsLostOverAirPerQCI* • *SCE_LTECell_PDCP.DLNumSDUsPerQCI* • *SCE_LTECell_PDCP.ULNumSDUsLostPerQCI* • *SCE_LTECell_PDCP.ULNumSDUsPerQCI* • *SCE_LTECell_MAC.DL.NumTTIsDRB* • *SCE_LTECell_MAC.DL.NumBytesDRB* • *SCE_LTECell_MAC.NumTTIsElapsed* • *SCE_LTECell_RLC.DLSDUsLatencyTimerPerQCI* • *SCE_LTECell_RLC.DLNumSDUsLatSamplesPerQCI* • *SCE_LTE_MAC_Cell.UETxPowerHist* • *SCE_LTECell_MAC.DL.NormalizedPRBUsage* • *SCE_LTECell_MAC.UL.NormalizedPRBUsage* • *SCE_LTE_S1AP_Cell.HandoverNotify* • *SCE_LTE_S1AP_Cell.HandoverRequest* • *SCE_LTECell_MAC.UL.NumTTIsDRB* • *SCE_LTECell_MAC.UL.NumBytesDRB* *Reference* must not be Unspecified if *Enable* is true.

FAPService.{i}.LocalDN.

Name of a managed object from a particular local context. [3GPP-TS.32.300] Annex C

Parameter	W	Type	Default	Description
SubNetwork	W	string(256)	<Empty>	0 or 1 instance of a subNetwork. [3GPP-TS.32.622] Section 6.1.3.7
MEContext	W	string(256)	<Empty>	MEContext is for naming purpose. It supports creation of unique DNs in scenarios when some MEs have the same RDNs due to the fact that they have been manufacturer pre-configured. [3GPP-TS.32.622] Section 6.1.3.6
ManagedElement	W	string(256)	<Mandatory>	A representation of telecommunications equipment or TMN entities within the telecommunications network that performs Managed Element(ME) functions, i.e. provides support and/or service to the subscriber. [3GPP-TS.32.622] Section 6.1.3.3 *ManagedElement* must not be "" if *FAPService.{i}.PerfMgmt.ReportMgmt.Enable* is true.

FAPService.{i}.APN.{i}.

Parameters relating to an Access Point Name (APN).

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this APN. A disabled APN cannot be used as part of a *.AccessMgmt.Policy.{i}.APNMatchList* list.
Description	W	string	<Empty>	Provides a human-readable description of the APN.
APNName	W	string(100)	<Mandatory>	A 3GPP APN is used to do a DNS lookup for the appropriate GGSN. *APNName* must not be "" if *Enable* is true.
ResolvedGGSNIP	W	IPv4Address	Empty(0.0.0.0)	Resolved GGSN IP address of APN. When *ResolvedGGSNIP* is present, DNS lookup on *APNName* will not be performed and the specified IP address will be used.
WalledGardenClassificationGroup	W	unsignedInt	Empty(0)	Walled gardens consist of special networks that are only available from within the mobile carrier network. Locally switched IPv4 traffic would be unable to reach these networks even from the Internet. This classification group is used to intercept IPv4 walled garden traffic and send it directly to the carrier core. All traffic matching this classification group is treated as *PassThrough*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup*. table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.

FAPService.{i}.APN.{i}.WalledGardenDomainNames.{i}.

Parameters relating to mobile carrier network walled garden services.

Parameter	W	Type	Default	Description

Enable	W	boolean	false	Enables or disables this walled garden domain. A disabled domain cannot be considered as a walled garden service for the mobile carrier network.
DomainName	W	spanUnsignedInt	<Mandatory>	The domain name of a walled garden server in the mobile carrier network. A valid domain name contains only alphanumeric characters and the special characters '.' and '-'. The '.' is the label separator and each label length is between 1 and 63 characters. Each label starts with a letter and ends with a letter or a digit. The wildcards supported are '?'(matches single character) or '*'(matches zero or more characters). The wildcards can be used anywhere within the name. *DomainName* must not be "" if *Enable* is true.

FAPService.{i}.UMTS.

This object contains UMTS specific parameters.

Parameter	W	Type	Default	Description
MaxNumberOfZones	-	unsignedInt	-	Maximum number of Zones supported by the system.
NumberOfZones	-	unsignedInt	-	The number of Zones operational in the system.
RANAPNumberOfEntries	-	unsignedInt	-	Number of RANAP table entries.

FAPService.{i}.UMTS.Zone.{i}.

This object contains all parameters for the specified Zone.

Parameter	W	Type	Default	Description
Description	W	string(255)	<Empty>	Describes the specified Zone. This description can be used to identify the Zone's intended usage.
Type	W	enum	UnknownZone	Specify the type of the Zone. Enumeration of: • *UnknownZone* (Zone type is not specified.) • *SONConfigAndScanZone* (A SONConfigAndScan Zone possesses all capabilities of a SONScan Zone. It can also be used to configure the operational parameters of all the cells in that Zone.) • *SONScanZone* (A SONScan Zone can only be used to excecute a REM Scan on cells in that Zone.) .
CellList	W	unsignedInt[1:]{256}	<Empty>	List of cells in this Zone. A cell needs to be a member of a single SONConfigAndScan Zone. By default it is a member of Zone 0. The cell can be a member of multiple SONScan Zones. Array of *unsignedInt* items (maximum number of items 256).

FAPService.{i}.UMTS.Zone.{i}.SONConfig.

Configuration space for the Self Organizating Network (SON) operated by the SONConfigAndScan Zone.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.Zone.{i}.SONConfig.NeighborList.

Parameters related to the NeighborList of cells in the Zone

Parameter	W	Type	Default	Description
NeighborListLockEnable	W	boolean	false	Locks or unlocks the neighbor list of all cells in the Zone.

FAPService.{i}.UMTS.Zone.{i}.SONConfig.SelfConfig.

This object is used for configuring the operational parameters of cells in the Zone. This object is only valid for SONConfigAndScan Zones.

Parameter	W	Type	Default	Description

PrimaryScramblingCode	W	spanUnsignedInt{0:50}	<Empty>	Array of *string* items (minimum number of items 0, maximum number of items 50). Each item is a Primary DL Scrambling Code used by the FDD mode cell with a numeric range between 0 and 511 inclusive.
				[3GPP-TS.25.433] Section 9.2.2.34
				Self-configuration for PSC is controlled by *.FAPControl.UMTS.SelfConfig.NeighborListSelfConfigEnable*.
				If enabled, this parameter MAY contain more than one item and the system is expected to select one from the list for *PrimaryScramblingCodeInUse*. This list is used for cells configured with *Cell.CellConfig.UMTS.RAN.FDDFAP.RF.UseSelfConfigAlternatePSC* set to *false*.
				If the self-configuration capability is not available or not enabled, then this parameter SHOULD be "".
				The multiplicity of the PSC values can also be expressed by defining a range using ".." (two periods) between two values. In this case, the combination of two values defines the lower-bound and upper-bound of the range inclusive.
				The following are examples of valid PSC string:
				• "20"
				  ○ (explicitly specifies a single PSC value)
				• "20,30,40"
				  ○ (specifies 3 possible PSC values to select from)
				• "20..40"
				  ○ (specifies 21 possible values between 20 and 40, inclusive)
				• "20..40,50"
				  ○ (specifies 22 possible values between 20 and 40 inclusive and a single value 50)
				The order of the items has no significance.

PrimaryScramblingCodeLockEnable	W	boolean	false	When *true*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_PrimaryScramblingCodeConfigured* is locked for all cells in the Zone and cannot be changed by the user nor by Self Organizing Network (SON) Management.
MaxFAPTxPower	W	spanInt	-101	Defines the maximum transmission power allowed on the FAP, maximum value for the linear sum of the power of all downlink physical channels, that is allowed to be used in a cell. *MaxFAPTxPower* is expressed as a range of allowed maximum power levels with ".." (two periods) between the upper and lower values, i.e. "<Pmax_low>..<Pmax_high>". *MaxFAPTxPower* identifies the limits between which the FAP can self-configure its maximum transmit power. Self-configuration for maximum transmission power is controlled by *.Capabilities.UMTS.SelfConfig.MaxFAPTxPowerConfig* from an availability perspective and *.FAPControl.UMTS.SelfConfig.MaxFAPTxPowerSelfConfigEnable* from an enabled perspective. <Pmax_low> and <Pmax_high> are measured in dBm and have a range of 0.0 to 20.0 incremented by 0.1 dB. [3GPP-TS.32.642] Section 6.3.9 [3GPP-TS.25.104] Section 6.2.1 Note: In the current release, the upper end of the range is restricted to a maximum of 24.0 dBm. Note: In the current release, the lower end of the range must be -10.0 dBm.
MaxFAPTxPowerLockEnable	W	boolean	false	When *true*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_MaxFAPTxPowerConfigured* is locked for all cells in the system and cannot be changed by the user nor by Self Organizing Network (SON) Management.
RFLockEnable	W	boolean	false	When *true*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_MaxFAPTxPowerConfigured*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_PrimaryScramblingCodeConfigured* and the neighbor list of all cells in the Zone is locked and cannot be changed by the user nor by Self Organizing Network (SON) Management.

SelfConfigAlternatePSC	W	spanUnsignedInt{0:50}	<Empty>	Array of *string* items (minimum number of items 0, maximum number of items 50). Each item is a Primary DL Scrambling Code used by the FDD mode cell with a numeric range between 0 and 511 inclusive.
				[3GPP-TS.25.433] Section 9.2.2.34
				Self-configuration for PSC is controlled by *.FAPControl.UMTS.SelfConfig.NeighborListSelfConfigEnable*.
				If enabled, this parameter MAY contain more than one item and the system is expected to select one from the list for *PrimaryScramblingCodeInUse*. This alternate list is used for cells configured with *Cell.CellConfig.UMTS.RAN.FDDFAP.RF.UseSelfConfigAlternatePSC* set to *true*. This set and *PrimaryScramblingCode* must not have any elements in common.
				If the self-configuration capability is not available or not enabled, then this parameter SHOULD be "".
				The multiplicity of the PSC values can also be expressed by defining a range using ".." (two periods) between two values. In this case, the combination of two values defines the lower-bound and upper-bound of the range inclusive.
				The following are examples of valid PSC string:
				• "20"
				  o (explicitly specifies a single PSC value)
				• "20,30,40"
				  o (specifies 3 possible PSC values to select from)
				• "20..40"
				  o (specifies 21 possible values between 20 and 40, inclusive)
				• "20..40,50"
				  o (specifies 22 possible values between 20 and 40 inclusive and a single value 50)

				The order of the items has no significance.

FAPService.{i}.UMTS.Zone.{i}.SONConfig.InterFreqMeas.

This object is used for controlling the Inter-Frequency measurements of all cells in the Zone. This object is only valid for SONConfigAndScan Zones.

Parameter	W	Type	Default	Description
MeasurementQuantity	W	enum	Empty(QUANT_INVALID)	Measurement quantoty choice between CPICH EC/NO and CPICH RSCP Enumeration of: • *QUANT_INVALID* • *CPICH Ec/No* • *CPICH RSCP*
ThresholdUsedFrequencyEvent2b	W	int[ranges]	Empty(65535)	Defines the reporting threshold for inter-freq HO measurement when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Each valid value of *MeasurementQuantity* has a different valid range. *CPICH RSCP* has a range of -120 dBm to -25 dBm *CPICH Ec/No* has a range of -24 dB to 0 dB Possible values: • *-120 to 0* • *65535*
ThresholdNonUsedFrequencyEvent2b	W	int[ranges]	Empty(65535)	Defines the reporting threshold for inter-freq HO measurement when the UE is in Cell-DCH state. This is the "Threshold non-used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Each valid value of *MeasurementQuantity* has a different valid range. *CPICH RSCP* has a range of -120 dBm to -25 dBm *CPICH Ec/No* has a range of -24 dB to 0 dB Possible values: • *-120 to 0* • *65535*
ThresholdUsedFrequencyEvent2d	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2D inter-freq HO measurement based on CPICH Ec/No when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values:

				• *-24 to 0* • *65535*
ThresholdUsedFrequencyEvent2f	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2F inter-freq HO measurement based on CPICH Ec/No when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values: • *-24 to 0* • *65535*
ThresholdUsedFrequencyEvent2dRscp	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2D inter-freq HO measurement based on CPICH RSCP when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values: • *-120 to -25* • *65535*
ThresholdUsedFrequencyEvent2fRscp	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2F inter-freq HO measurement based on CPICH RSCP when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values: • *-120 to -25* • *65535*

FAPService.{i}.UMTS.Zone.{i}.SONConfig.Coverage.

This object is used for controlling the coverage provided by all cells in the Zone. This object is only valid for SONConfigAndScan Zones.

Parameter	W	Type	Default	Description
FAPCoverageTargetMinBase	W	int	-900	Minimum background interference level used to establish the deployment coverage target in units of *0.1 dBm*. The Zone scans and measures the external interference level. The Zone uses the maximum of: • the measured external interference level • *FAPCoverageTargetMinBase* to set the base for its deployment coverage target.

FAPCoverageTargetValue1	W	int	50	Value in *0.1 dB* that is added to the base coverage target to establish the final deployment coverage target for all cells in the Zone.
PeriodicTxPwrRefresh	W	boolean	false	Enables or disables the Zone's periodic power assignment update. When *.FAPControl.UMTS.SelfConfig.NeighborListSelfConfigEnable* is enabled, a power assignment update is performed after every REM scan. In addition to these occasions, additional power assignment updates are scheduled periodically using *PeriodicTxPwrRefresh* and *PeriodicTxPwrRefreshInterval*. *PeriodicTxPwrRefresh* is considered only when *.FAPControl.UMTS.SelfConfig.NeighborListSelfConfigEnable* is *true*.
PeriodicTxPwrRefreshInterval	W	unsignedInt[1:31536000]	86400	When enabled, this value indicates the interval in *seconds* where power assignment updates are performed. These occasions are in addition to the power assignment updates performed after every REM scan. The local time reference for periodic power assignment udpates is *PeriodicTxPwrRefreshTime*.
PeriodicTxPwrRefreshTime	W	dateTime	1970-01-04T00:00:00Z	When enabled, this value indicates the local time reference for initiating the Zone's periodic transmit power refresh.

FAPService.{i}.UMTS.Zone.{i}.SONConfig.AccessMgmt.

Parameters related to Access management of cells in the Zone

Parameter	W	Type	Default	Description
IMSIWhitelistEnforcementEnable	W	boolean	false	Enable or disable IMSI Whitelist enforcement. If enabled, an IMSI is allowed access only if it has been configured in *FAPService.{i}.AccessMgmt.MemberDetail.{i}.* and it is allowed by the Policy configuration. This value applies to all cells in the zone.

FAPService.{i}.UMTS.Zone.{i}.SONScan.

This object is used for controlling the REM behavior of the Self Organizing Network (SON) operated by the Zone. This object is valid for SONConfigAndScan and SONScan Zones.

Parameter	W	Type	Default	Description
UMTSExtIntraFreqREMScanEnable	W	boolean	true	Enables or disables scanning of external intra-frequency UMTS cells during the Zone's REM operations. If *UMTSExtIntraFreqREMScanEnable* is *false*, the Zone's previously scanned external UMTS intra-frequency cells (if available) are used by Self Organizing Network (SON) Management. If *UMTSExtIntraFreqREMScanEnable* is *true*, external intra-frequency UMTS cells are scanned as part of the Zone's REM operations.
UMTSExtInterFreqREMScanEnable	W	boolean	true	Enables or disables scanning of external inter-frequency UMTS cells during the Zone's REM operations. If *UMTSExtInterFreqREMScanEnable* is *false*, the Zone's previously scanned external UMTS inter-frequency cells (if available) are used by Self Organizing Network (SON) Management. If *UMTSExtInterFreqREMScanEnable* is *true*, external inter-frequency UMTS cells are scanned as part of the Zone's REM operations.

GSMREMScanEnable	W	boolean	true	Enables or disables scanning of external GSM cells during the Zone's REM operations. If *GSMREMScanEnable* is *false*, the Zone's previously scanned external GSM cells (if available) are used by Self Organizing Network (SON) Management. If *GSMREMScanEnable* is *true*, external GSM cells are scanned as part of the Zone's REM operations.
InternalTopologyDiscoveryEnable	W	boolean	true	Enables or disables internal topology discovery during the Zone's REM operations. If *InternalTopologyDiscoveryEnable* is *false*, the Zone's previously discovered internal topology (if available) is used by Self Organizing Network (SON) Management. If *InternalTopologyDiscoveryEnable* is *true*, internal topology discovery is performed as part of the Zone's REM operations.
ReferenceListStatus	-	enum	Absent	Status of the Zone's reference cell neighborhood list. Enumeration of: • *Absent* (Reference cell neighborhood does not exist, no cell neighborhood faults will arise) • *Present* (Reference cell neighborhood exists, faults may arise if member cells are missing or new non-member neighbor cells are found) In order for these events to be generated: • *NEIGHBORHOOD_CELL_UNEXPECTED* • *NEIGHBORHOOD_CELL_MISSING* • *NEIGHBORHOOD_CELL_MATCH* and for this fault to be set/cleared: • *NEIGHBORHOOD_REFERENCE_DELTA* the following is required: • *ReferenceListStatus* must have a value of *Present*
ScanPeriodically	W	boolean	false	Enables or disables the Zone's periodic Radio Environment Measurement (REM) scanning.
PeriodicInterval	W	unsignedInt[1:31536000]	86400	Indicates the interval in *seconds* when REM is performed.
PeriodicTime	W	dateTime	1970-01-04T00:00:00Z	Local time reference for initiating periodic REM.
ScanStatus	-	enum	REMStatusIdle	The status of the Zone's REM scan. Enumeration of: • *REMStatusIdle* (Self Organizing Network (SON) Management is not active.) • *REMStatusGsmScan* (Self Organizing Network (SON) Management is executing a GSM scan.) • *REMStatusUmtsIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra

				Frequency scan.) • *REMStatusUmtsInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan.) • *REMStatusUmtsScan* (Self Organizing Network (SON) Management is executing an UMTS scan.) • *REMStatusInternalTopoDiscovery* (Self Organizing Network (SON) Management is executing internal topology discovery.) • *REMStatusAddCycleGsmScan* (Self Organizing Network (SON) Management is executing a GSM scan on a cell being added into the system.) • *REMStatusAddCycleUmtsIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra Frequency scan on a cell being added into the system.) • *REMStatusAddCycleUmtsInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan on a cell being added into the system.) • *REMStatusAddCycleUmtsScan* (Self Organizing Network (SON) Management is executing an UMTS scan on a cell being added into the system.) • *REMStatusLteIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra Frequency scan.) • *REMStatusLteInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan.) • *REMStatusLteScan* (Self Organizing Network (SON) Management is executing an LTE scan.) • *REMStatusAddCycleLteScan* (Self Organizing Network (SON) Management is executing an LTE scan on a cell being added into the system.) .

FAPService.{i}.UMTS.Zone.{i}.SONScan.WCDMAFDD.

Parameters relating to the Zone's Radio Environment Measurement (REM) scanning for UMTS neighbors.

Parameter	W	Type	Default	Description
UARFCNDLList	W	unsignedInt[ranges]{16}	Empty(0)	Array of *unsignedInt* items (maximum number of items 16). Each entry is a UARFCN in the DL direction to measure. If 0 or 0, then the Zone will not scan any DL UARFCN other than the system DL UARFCN (see *.CellConfig.UMTS.RAN.FDDFAP.RF.UARFCNDL*). Possible values for each list item: • *0* • *412* • *437* • *462* • *487* • *512* • *537* • *562* • *587* • *612*

				• *637* • *662* • *687* • *1007* • *1012* • *1032* • *1037* • *1062* • *1087* • *1537 to 1738* • *1887* • *1912* • *1937* • *1962* • *1987* • *2012* • *2037* • *2062* • *2087* • *2937 to 3088* • *4357 to 4458* • *9662 to 9938* • *10562 to 10838*

FAPService.{i}.UMTS.Zone.{i}.SONScan.GSM.

Parameters relating to the Zone's Radio Environment Measurement (REM) scanning for GSM neighbors.

Parameter	W	Type	Default	Description
REMBandList	W	enum{}	<Empty>	Each entry is a GSM band to scan. If "", then *ARFCNList* must also be "". Array of *string* items. Each list item is an enumeration of: • *T-GSM380* • *T-GSM410* • *GSM450* • *GSM480* • *GSM710* • *GSM750* • *T-GSM810*

				• *GSM850* • *P-GSM900* • *E-GSM900* • *R-GSM900* • *T-GSM900* • *GSM900* • *DCS1800* • *PCS1900*

ARFCNList	W	spanUnsignedInt{0:127}	<Empty>	Each entry is a GSM absolute radio frequency channel numbers (ARFCN) to scan, or an ARFCN range.
				For each band in *REMBandList*, the intersection of:
				• the ARFCN list for that band
				• the ARFCN list represented by *ARFCNList*
				is choosen for scan.
				REMBandList and *ARFCNList* **must** have at least one ARFCN in common.
				Examples of valid strings:
				• "26"
				  o (explicitly specifies an ARFCN)
				• "26 27 29"
				  o (explicitly specifies 3 ARFCNs)
				• "26..29"
				  o (specifies 4 ARFCNs between 26 and 29, inclusive)
				• "26..29 31"
				  o (specifies 4 ARFCNs between 26 and 29, inclusive, and ARFCN 31)
				• "26..29 31..33"
				  o (specifies 4 ARFCNs between 26 and 29, inclusive, and 3 ARFCNs between 31 and 33, inclusive)
				The order of the items has no significance.
				Array of *string* items (minimum number of items 0, maximum number of items 127).

FAPService.{i}.UMTS.CurrentStatus.

Parameters relating to the current status of the UMTS sub-system.

Parameter	W	Type	Default	Description
NumCellsConfigured	-	unsignedInt	-	Number of cells configured for a given {{FAP}}.
NumCellsProvisioned	-	unsignedInt	-	Number of *Cell.{i}* objects provisioned for this {{FAP}}.

NumCellsActive	-	unsignedInt	-	Number of cells in this {{FAP}} that are servicing at least one active session.
NumCellsAtAdmissionCtrlLimit	-	unsignedInt	-	Number of cells for this {{FAP}} that are at session initiation limit. Such cells are overloaded and cannot initiate a new session without invoking admission control procedures. Either uplink or downlink resource constraints can result in a cell being declared as overloaded.
EmergencyCallActive	-	boolean	-	Indicates whether an emergency call active in the system.
NumActiveSessions	-	unsignedInt	-	Number of active sessions in the system.
NumActiveMRAB	-	unsignedInt	-	Number of active sessions in MRAB in the system.
NumActiveCellFACH	-	unsignedInt	-	Number of active sessions in Cell_FACH in the system.
NumActiveCellPCH	-	unsignedInt	-	Number of active sessions in Cell_PCH in the system.
NumPeakSessions	-	unsignedInt	-	Peak number of sessions in the system.
NumUniqueIMSI	-	unsignedInt	-	Number of UEs that have connected to the system in the specified duration. The duration is configurable.

FAPService.{i}.UMTS.CurrentStatus.ActiveCSSessions.

This object provides a detailed view of the active session load on the system.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of active CS sessions.

FAPService.{i}.UMTS.CurrentStatus.ActiveCSSessions.Type.

Types of active CS sessions.

Parameter	W	Type	Default	Description
EmergencyCall	-	unsignedInt	-	Number of active emergency sessions.
Voice	-	unsignedInt	-	Number of active voice and SMS sessions.
VideoTelephony	-	unsignedInt	-	Number of active video telephony sessions.
SMS	-	unsignedInt	-	Note: SMS Counters are included in *FAPService.{i}.UMTS.CurrentStatus.ActiveCSSessions.Type.Voice*.

Registration	-	unsignedInt	-	Number of active registration sessions.

FAPService.{i}.UMTS.CurrentStatus.ActivePSSessions.

Parameters relating to active session load on the system.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of active PS sessions.

FAPService.{i}.UMTS.CurrentStatus.ActivePSSessions.Type.

Types of active PS sessions.

Parameter	W	Type	Default	Description
R99Data	-	unsignedInt	-	Number of active R99 data sessions.
HSDPA	-	unsignedInt	-	Number of active HSDPA sessions.
HSUPA	-	unsignedInt	-	Number of active HSUPA sessions.
Registration	-	unsignedInt	-	Number of active PS registration sessions.

FAPService.{i}.UMTS.CurrentStatus.PeakCSSessions.

This object provides a detailed view of the peak session load on the system.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Peak number of CS sessions.

FAPService.{i}.UMTS.CurrentStatus.PeakCSSessions.Type.

Types of peak CS sessions.

Parameter	W	Type	Default	Description
EmergencyCall	-	unsignedInt	-	Peak number of emergency sessions.

Voice	-	unsignedInt	-	Peak number of voice and SMS sessions.
VideoTelephony	-	unsignedInt	-	Peak number of video telephony sessions.
SMS	-	unsignedInt	-	Note: SMS Counters are included in *FAPService.{i}.UMTS.CurrentStatus.PeakCSSessions.Type.Voice*.
Registration	-	unsignedInt	-	Peak number of registration sessions.

FAPService.{i}.UMTS.CurrentStatus.PeakPSSessions.

Parameters relating to peak session load on the system.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Peak number of PS sessions.

FAPService.{i}.UMTS.CurrentStatus.PeakPSSessions.Type.

Types of peak PS sessions.

Parameter	W	Type	Default	Description
R99Data	-	unsignedInt	-	Peak number of R99 data sessions.
HSDPA	-	unsignedInt	-	Peak number of HSDPA sessions.
HSUPA	-	unsignedInt	-	Peak number of HSUPA sessions.
Registration	-	unsignedInt	-	Peak number of PS registration sessions.

FAPService.{i}.UMTS.SessionManagement.

Session creation and deletion statistics.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.SessionManagement.MasterSessionCreation.

Parameters relating to master session creation.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of master sessions created.
MaxRate	-	unsignedInt	-	Max Rate at at which sessions were created in the system. The monitoring interval is 6 seconds.
RateHist	-	unsignedInt{10}	-	Histogram of the rate at which sessions were created in the system, interval: *[0:15:135+] per 15 secs*. The monitoring interval is 6 seconds. Array of *unsignedInt* items (maximum number of items 10).
MaxTransitionRate	-	unsignedInt	-	Max Rate at at which RRC state transitions were triggered in the system. The monitoring interval is 6 seconds.
TransitionRateHist	-	unsignedInt{10}	-	Histogram of the rate at which RRC transition events were created in the system, interval: *[0:15:135+] per 15 secs*. The monitoring interval is 6 seconds. Array of *unsignedInt* items (maximum number of items 10).
MaxDelay	-	unsignedInt	-	Max delay in activation time seen system. The monitoring interval is 6 seconds.
DelayHist	-	unsignedInt{10}	-	Histogram of the delays in activation time seen in the system, interval: *[0:15:135+] per 15 secs*. The monitoring interval is 6 seconds. Array of *unsignedInt* items (maximum number of items 10).
RRCReleaseVersion	-	unsignedInt{10}	-	Total number of RRC Connection Request messages received for each RRC release version. Index 0 represents number of RRC Connection Request messages for release version R99, index 1 represents number of RRC Connection Request messages for release version R4, index 2 represents number of RRC Connection Request messages for release version R5 and so on. Array of *unsignedInt* items (maximum number of items 10).

FAPService.{i}.UMTS.SessionManagement.MasterSessionCreation.Cause.

Cause indicated in the RRC connection request message (or otherwise) when the session was initially created.

Parameter	W	Type	Default	Description
EmergencyCall	-	unsignedInt	-	Number of sessions established for emergency call.
Voice	-	unsignedInt	-	Number of sessions established for a voice call and SMS.
VideoTelephony	-	unsignedInt	-	Number of sessions established for video telephony.
SMS	-	unsignedInt	-	Note: SMS Counters are included in *FAPService.{i}.UMTS.SessionManagement.MasterSessionCreation.Cause.Voice*.
R99Data	-	unsignedInt	-	Number of R99 session established for PS data.
HSDPA	-	unsignedInt	-	Number of HSDPA session established for PS data.

HSUPA	-	unsignedInt	-	Number of HSUPA session established for PS data.
HardHandIn	-	unsignedInt	-	Number of sessions established due to hard hand-in.
Registration	-	unsignedInt	-	Number of sessions established for registration with the core network.

FAPService.{i}.UMTS.SessionManagement.MasterSessionDeletion.

Parameters relating to master session deletion.

Parameter	W	Type	Default	Description
NormalRelease	-	unsignedInt	-	Number of master sessions terminated due to core network or UE indicated disconnect.
Sum	-	unsignedInt	-	Total number of master sessions terminated.

FAPService.{i}.UMTS.SessionManagement.MasterSessionDeletion.AbnormalRelease.

Number of master sessions that are terminated due to event triggers from the system and not by core network or UE indication.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of master sessions terminated due to event triggers from the system.

FAPService.{i}.UMTS.SessionManagement.MasterSessionDeletion.AbnormalRelease.Cause.

Parameters relating to abnormal release events by cause.

Parameter	W	Type	Default	Description
CNDisconnected	-	unsignedInt	-	Number of instances of sessions deleted due to loss of connectivity with the core network.
CNDiscDomainFail	-	unsignedInt	-	Number of instances of internal error while disconnecting RABs for the domain.
CNIDTFail	-	unsignedInt	-	Number of instances of internal error while sending initial direct transfer message to cnctrlmod daemon.
CNUDTFail	-	unsignedInt	-	Number of instances of internal error while sending uplink direct transfer message to cnctrlmod daemon.
CNInvalidSecurityCfg	-	unsignedInt	-	Number of instances of core network security configuration mismatch. i.e.: The choice of configurations from the CS and PS core do not match the supported algorithms.

CNSecurityModeFail	-	unsignedInt	-	Number of instances of internal error while sending security mode fail to cnctrlmod daemon.
RRCSecurityModeTimeout	-	unsignedInt	-	Number of instances of timeout while waiting for response to security mode command from the UE.
CNRBSetupFail	-	unsignedInt	-	Number of instances of failed to receive radio bearer setup complete or received radio bearer setup failure.
CNRBReCfgFail	-	unsignedInt	-	Number of instances of failed to receive radio bearer reconfiguration complete or received radio bearer reconfiguration failure.
InvalidConnReq	-	unsignedInt	-	Number of instances of session deleted because an RRC connection request is received from UE in connected state. This RRC connection request only cleans up the old session. Another RRC connection request from the UE will trigger the creation of a new session.
RRCConnTimeout	-	unsignedInt	-	Number of instances of RRC connection procedure timed out while waiting for RRC connection setup complete from the UE.
InvalidEstabCause	-	unsignedInt	-	Number of instances of unsupported establishment cause.
InvalidInitUEID	-	unsignedInt	-	Number of instances of unsupported initial UE identity. Only the following UE Identities are supported: IMSI, TMSI, P-TMSI, IMEI.
SessionCreateFail	-	unsignedInt	-	Number of instances of master session create failed.
SessionAuthFail	-	unsignedInt	-	Number of instances of master session authentication failed due to users not in the white list attempting to camp on system. Note: This implies that the system is operating in Closed Subscriber Group mode
SessionDeleted	-	unsignedInt	-	Number of instances of master session deleted. Currently unsupported.
AdminCleared	-	unsignedInt	-	Number of instances of number of sessions cleared by the {{ACS}}. Note: This is the same as UE cleared in the UE enum.
RLFail	-	unsignedInt	-	Number of instances of number of sessions deleted due to radiolink failure on all the radiolinks in the active set of the UE.
RLCReset	-	unsignedInt	-	Number of instances of sessions deleted due to RLC max-reset on the downlink.
ConnCfgFail	-	unsignedInt	-	Number of instances of internal error at RRC layer while provisioning the UE.
ConnRecfgFail	-	unsignedInt	-	Number of instances of internal error at RRC layer while reprovisioning the UE.
RBRecfgFail	-	unsignedInt	-	Number of instances of disconnect on receiving radio bearer reconfiguration fail from the UE.
RBReleaseFail	-	unsignedInt	-	Number of instances of disconnect on receiving RRC radio bearer release fail from the UE.
RABCreateFail	-	unsignedInt	-	Number of instances of disconnect due to internal error, including admission control failure, while creating a new RAB for the session.
RABModifyFail	-	unsignedInt	-	Number of instances of disconnect due to internal error, including admission control failure, while modifying an existing RAB for the session.

RLCfgFail	-	unsignedInt	-	Number of instances of internal error while configuring a radiolink.
RLProvFail	-	unsignedInt	-	Number of instances of failure to provision an radiolink for the session. There are various reasons for a radiolink provisioning failure but the most likely reason is loading too many radiolinks on a cell with the same tau-DCH value.
RLReprovFail	-	unsignedInt	-	Number of instances of failure to reprovisioning any radiolink in the radiolink set of a session. There are various reasons for a radiolink provisioning failure but the most likely reason is loading too many radiolinks on a cell with the same tau-DCH value.
RLNotfound	-	unsignedInt	-	Number of instances of internal error discovering an radiolink in the active set of a session.
TFCfgFail	-	unsignedInt	-	Number of instances of internal error generating transport format configuration.
SRBCfgFail	-	unsignedInt	-	Number of instances of internal error creating signaling radio bearers.
AdmissionCtrlFail	-	unsignedInt	-	Number of instances of sessions that were prevented from conenction due to admission control policies.
SHOActiveSetUpdateFail	-	unsignedInt	-	Number of instances of failed to send activ set update message or received active set update failure from the UE.
SHORBRecfgFail	-	unsignedInt	-	Number of instances of received radio bearer reconfiguration failure from the UE.
SHOUpdateServCellFail	-	unsignedInt	-	Number of instances of internal error attempting to transmit serving cell update message.
SHOSrvCellNotFound	-	unsignedInt	-	Number of instances of internal error looking up current serving cell while triggering a serving cell change.
SHOTimedOut	-	unsignedInt	-	Number of instances of session termination due to the active set update complete not being received before timer expiry.
HHOProvFail	-	unsignedInt	-	Number of instances of internal error during provisioning for a session being handed in.
AdmissionCtrlDisconnect	-	unsignedInt	-	Number of instances of number of sessions that were deleted after RABs were established due to admission control policies.
ConnCellChange	-	unsignedInt	-	Number of instances of UE moved to a different cell during RRC connection setup procedure.
CellDragging	-	unsignedInt	-	Number of sessions deleted due to excess cell dragging.
HHOInTimeout	-	unsignedInt	-	Number of instances of session disconnect on timeout while waiting for radio bearer reconfiguration complete for a UE that is being handed in.
HHOOutTimeout	-	unsignedInt	-	Number of instances of session disconnect on timeout while waiting for Iu release after sending radio bearer reconfiguration to UE on a handout.
RRCStateTransitionFailure	-	unsignedInt	-	Number of instances of disconnect due to RRC state transition failure.
CellFACHT305Expiry	-	unsignedInt	-	Number of instances of disconnect due to Cell_FACH keep alive timer expiry (i.e.: Periodic cell update timer expired).
PSIRATHandoutNotSupported	-	unsignedInt	-	Number of instances of disconnect due to no GSM handout for a PS only session that reported an Event 3A. Since handover of a PS session is not supported, an E3A is ignored.

PCRecfgFail	-	unsignedInt	-	Number of instances of disconnect on receiving physical channel reconfiguration fail from the UE.
CellFACHAdmissionFail	-	unsignedInt	-	Number of instances of disconnect due to Cell_FACH admission failure. This can happen when a UE in Cell_FACH selects a new cell but new cell is at capacity for Cell_FACH users.
CellUpdateError	-	unsignedInt	-	Number of instances of disconnect due to failure or unrecoverable error received in cell update message.
RRCPagingTimeout	-	unsignedInt	-	Number of instances of disconnect on paging timeout when UE is in Cell_FACH or Cell_PCH state.
CellFACHInactivity	-	unsignedInt	-	Number of instances of disconnect due to inactivity timer *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellFACH.DisconnectInactivityTimer* expiry.
PSHandoutNotSupported	-	unsignedInt	-	Number of instances of disconnect due to no UMTS handout for a PS only session after reporting an Event 2D. If UMTS handover for PS session is disabled, an E2D is ignored and compressed mode is not activated.
RBSetupTimeout	-	unsignedInt	-	Number of instances of disconnect due to radio bearer setup timeout when waiting for radio bearer setup complete from the UE.
RBReleaseTimeout	-	unsignedInt	-	Number of instances of disconnect due to radio bearer release timeout when waiting for radio bearer release complete from the UE.
PhychRecfgTimeout	-	unsignedInt	-	Number of instances of disconnect due to physical channel reconfiguration timeout when waiting for physical channel reconfiguration Complete from UE.
BlindHandoutFail	-	unsignedInt	-	Number of instances of forced disconnect due to failure to blind handout. Sessions that fail on the 1st blind handout attempt are disconnected.
RegistrationForcedRelease	-	unsignedInt	-	Number of instances of disconnect due to inactivity on control plane during registration. Note: The inactivity period is not configurable.
ClearedDueToSessionLimitCheck	-	unsignedInt	-	Number of sessions cleared due to session limit check. Sessions are cleared when the number of UMTS sessions in the system reaches the maximum session limit. At this point a certain number of data sessions (as a % of maximum session limit) are cleared to make room for higher priority sessions like Voice and E911. These sessions are cleared without sending a Release message to the UE.
DisconnectDueToSessionLimitCheck	-	unsignedInt	-	Number of sessions disconnected due to session limit check. Sessions are disconnected when the number of UMTS sessions in the system crosses a certain % of the maximum session limit. At this point a certain number of sessions in Cell_PCH state are disconnected by sending a Release message to the UE.
PolicyBasedRRCRedirect	-	unsignedInt	-	Number of sessions disconnected due to redirection to macro based on policy.

FAPService.{i}.UMTS.SessionManagement.NASSessionCreation.

Parameters relating to the number of signaling connection establishments per domain per the UE.

In other words, the number of times either the CS domain or PS domain is in RRC Connected State on a per UE/per session basis.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of signaling connection establishments per UEs

FAPService.{i}.UMTS.SessionManagement.NASSessionCreation.CS.

Parameters relating to signaling connection establishments on the CS domain

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of NAS-CS signaling connections created.

FAPService.{i}.UMTS.SessionManagement.NASSessionCreation.CS.Type.

Parameters relating to NAS-CS signaling connection creation by session type.

Parameter	W	Type	Default	Description
EmergencyCall	-	unsignedInt	-	The number of NAS-CS signaling connections created for emergency calls.
Voice	-	unsignedInt	-	The number of NAS-CS signaling connections created for regular voice calls and SMS.
VideoTelephony	-	unsignedInt	-	The number of NAS-CS signaling connections created for video telephony.
SMS	-	unsignedInt	-	Note: SMS Counters are included in *FAPService.{i}.UMTS.SessionManagement.NASSessionCreation.CS.Type.Voice.*
Registration	-	unsignedInt	-	The number of NAS-CS signaling connections created for registration with the core network.

FAPService.{i}.UMTS.SessionManagement.NASSessionCreation.PS.

Parameters relating to signaling connection establishments on the PS domain

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of NAS-PS signaling connections established

FAPService.{i}.UMTS.SessionManagement.NASSessionCreation.PS.Type.

Parameters relating to NAS-PS signaling connection creation by session type.

Parameter	W	Type	Default	Description
R99Data	-	unsignedInt	-	The number of NAS-PS signaling connections created with an R99 RAB.

HSDPA	-	unsignedInt	-	The number of NAS-PS signaling connections created with a HSDPA RAB.
HSUPA	-	unsignedInt	-	The number of NAS-PS signaling connections created with a HSUPA RAB.
Registration	-	unsignedInt	-	The number of NAS-PS signaling connections created for registration with the core network.

FAPService.{i}.UMTS.SessionManagement.NASSessionDeletion.

Parameters relating to NAS signaling connection deletion.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of NAS signaling connections deleted.

FAPService.{i}.UMTS.SessionManagement.NASSessionDeletion.CS.

Parameters relating to NAS-CS signaling connection deletion.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of NAS-CS signaling connections deleted.

FAPService.{i}.UMTS.SessionManagement.NASSessionDeletion.PS.

Parameters relating to NAS-PS signaling connection deletion.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of NAS-PS signaling connections deleted.

FAPService.{i}.UMTS.SessionManagement.NASSessionDuration.

Parameters relating to NAS data session connection duration.

Parameter	W	Type	Default	Description
CS	-	unsignedLong	-	The total time, in seconds, that a CS RAB was present for a user accumulated across all RABs and all users.

PS	-	unsignedLong	-	The total time, in seconds, that a PS RAB was present for a user accumulated across all RABs and all users.

FAPService.{i}.UMTS.SessionManagement.SessionLoad.

Parameters relating to session load and session rate limiting.

Parameter	W	Type	Default	Description
NumMaxSessionRateExceededEvents	-	unsignedInt	-	Number of times the incoming UMTS session rate exceeded the maximum session rate. The incoming session rate is calculated over 10 observation windows of 6 seconds each. If the number of incoming session requests during this period of 1 minute exceeds *FAPService.{i}.AccessMgmt.SessionRateLimiting.MaximumSessionRate*, an smf event is posted (and a condition is raised) and this counter will be incremented. The counter will be incremented again only the next time this condition is raised after being cleared. The condition is cleared when the incoming session count in each of 10 contiguous observation windows does not exceed *FAPService.{i}.AccessMgmt.SessionRateLimiting.MaximumSessionRate*/10
NumSessionRateThresholdExceededEvents	-	unsignedInt	-	Number of times the incoming UMTS session rate exceeded the maximum session rate. The incoming session rate is calculated over 10 observation windows of 6 seconds each. If the number of incoming session requests during this period of 1 minute exceeds *FAPService.{i}.AccessMgmt.SessionRateLimiting.MaximumSessionRate**FAPService.{i}.AccessMgmt.SessionRateLimiting.SessionRateThreshold*/100, an smf event is posted (and a condition is raised) and this counter will be incremented. The counter will be incremented again only the next time this condition is raised after being cleared. The condition is cleared when the incoming session count in each of 10 contiguous observation windows does not exceed (*FAPService.{i}.AccessMgmt.SessionRateLimiting.MaximumSessionRate**FAPService.{i}.AccessMgmt.SessionRateLimiting.SessionRateThreshold*/100)/10
NumMaxSessionRateRejects	-	unsignedInt	-	Number of UMTS sessions rejected due to session rate exceeding the maximum session rate. This is done in an observation window of 6 seconds. Once the number of incoming sessions in this observation window exceeds *FAPService.{i}.AccessMgmt.SessionRateLimiting.MaximumSessionRate*/10, all incoming data sessions during this window are rejected through an RRC Connection Reject message.
NumSessionRateThresholdRejects	-	unsignedInt	-	Number of UMTS sessions rejected due to session rate exceeding the session rate threshold. This is done in an observation window of 6 seconds. Once the number of incoming sessions in this observation window exceeds (*FAPService.{i}.AccessMgmt.SessionRateLimiting.MaximumSessionRate**FAPService.{i}.AccessMgmt.SessionRateLimiting.MaximumSessionRate*/100)/10, all incoming low priority data sessions during this window are rejected through an RRC Connection Reject message.
NumMaxSessionLimitRejects	-	unsignedInt	-	Number of UMTS sessions rejected due to the system reaching maximum concurrent session limit. All incoming sessions are rejected through an RRC Connection Reject message if the system is at maximum concurrent session limit.
NumPCHSessionsCleared	-	unsignedInt	-	Number of UMTS sessions in Cell_PCH cleared due to session limit check. Session limit check is performed when the number of concurrent sessions in the system reaches the maximum session limit. A Release message is not sent to the UE in this case.
NumFACHSessionsCleared	-	unsignedInt	-	Number of UMTS sessions in Cell_FACH cleared due to session limit check. Session limit check is performed when the number of concurrent sessions in the system reaches the maximum session limit. A Release message is not sent to the UE in this case.
NumSessionsRBCfgHighDelay	-	unsignedInt	-	Number of instances of RB configurations with a high delay. This is the delay in configuration of the lower layers for a new Radio Bearer.

FAPService.{i}.UMTS.HNBAP.

Parameters relating to the signaling activity over HNBAP.

Note: Should be sent and received, as in case of direct transfer.

Parameter	W	Type	Default	Description
HNBRegisterRequest	-	unsignedInt	-	Number of HNB register request messages sent by system to HNBGW to register a HNB at the HNBGW.
HNBRegisterAccept	-	unsignedInt	-	Number of HNB register accept messages received by system as successful response to HNB register request messages.
HNBRegisterReject	-	unsignedInt	-	Number of HNB register accept messages received by system as an unsuccessful response to HNB register request messages.
UERegisterRequest	-	unsignedInt	-	Number of UE register request messages sent by system to HNBGW to register a UE for service.
UERegisterAccept	-	unsignedInt	-	Number of UE register accept messages received by system as successful response to UE registration request messages.
UERegisterReject	-	unsignedInt	-	Number of UE register accept messages received by system as an unsuccessful response to UE registration request messages.

FAPService.{i}.UMTS.HNBAP.HNBDeRegister.

Parameters relating to HNB de-registration.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of HNB de-register request messages sent by system to HNBGW to de-register a HNB.
Received	-	unsignedInt	-	Number of HNB de-register request messages received by system from HNBGW to de-register a HNB.

FAPService.{i}.UMTS.HNBAP.UEDeRegister.

Parameters relating to UE de-registration.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of UE de-register request messages sent by system to HNBGW to de-register a UE.
Received	-	unsignedInt	-	Number of UE de-register request messages received by system from HNBGW to de-register a UE.

FAPService.{i}.UMTS.HNBAP.ErrorIndication.

Parameters relating to error indication.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of error indications sent by system to HNBGW to indicate an error.
Received	-	unsignedInt	-	Number of error indications received by system from HNBGW to indicate an error.

FAPService.{i}.UMTS.HNBAP.PrivateMessage.

Parameters relating to private-message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of private-message sent by system to HNBGW.
Received	-	unsignedInt	-	Number of private-message received by system from HNBGW.

FAPService.{i}.UMTS.SABP.

Parameters relating to the signaling activity over Service Area Broadcast Protocol (SABP)

Parameter	W	Type	Default	Description
WriteReplaceReceived	-	unsignedInt	-	Number of write-replace request messages received by system from HNBGW for starting broadcast of a new message or for replacing a message already being broadcast.
WriteReplaceCompleteSent	-	unsignedInt	-	Number of write-replace-complete messages sent by system as successful response to write-replace request messages.
WriteReplaceFailureSent	-	unsignedInt	-	Number of write-replace-failure messages sent by system as an unsuccessful response to write-replace-request messages.
KillReceived	-	unsignedInt	-	Number of kill request messages received by system from HNBGW for stopping broadcast of a particular message.
KillCompleteSent	-	unsignedInt	-	Number of kill-complete messages sent by system as successful response to kill request messages.
KillFailureSent	-	unsignedInt	-	Number of kill-failure messages sent by system as an unsuccessful response to kill-request messages.
LoadQueryReceived	-	unsignedInt	-	Number of load-query request messages received by system from HNBGW for obtaining the current bandwidth available for broadcast usage.
LoadQueryCompleteSent	-	unsignedInt	-	Number of load-query-complete messages sent by system as successful response to load-query request messages.

LoadQueryFailureSent	-	unsignedInt	-	Number of load-query-failure messages sent by system as an unsuccessful response to load-query messages.
MessageQueryReceived	-	unsignedInt	-	Number of message-query request messages received by system from HNBGW for obtaining status of a broadcast message.
MessageQueryCompleteSent	-	unsignedInt	-	Number of message-query-complete messages sent by system as successful response to message-query request messages.
MessageQueryFailureSent	-	unsignedInt	-	Number of message-query-failure messages sent by system as an unsuccessful response to message-query messages.
ResetReceived	-	unsignedInt	-	Number of reset request messages received by system from HNBGW for stopping broadcast of all messages.
ResetCompleteSent	-	unsignedInt	-	Number of reset-complete messages sent by system as successful response to reset request messages.
ResetFailureSent	-	unsignedInt	-	Number of reset-failure messages sent by system as an unsuccessful response to reset-request messages.
Restart	-	unsignedInt	-	Number of restart messages sent by system as an indication of restart situations in service areas under broadcast.
Failure	-	unsignedInt	-	Number of failure messages sent by system as an indication of error situations in service areas under broadcast.
ErrorIndication	-	unsignedInt	-	Number of error-indication messages sent by system to report errors in incoming SABP messages.

FAPService.{i}.UMTS.RUA.

Parameters relating to the signaling activity over RUA.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.RUA.ConnectionlessTransfer.

Parameters relating to connectionlessTransfer.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of connectionless transfer messages sent by system to HNBGW from transport connectionless RANAP messages.
Received	-	unsignedInt	-	Number of connectionless transfer messages received by system from HNBGW to transport connectionless RANAP messages.

FAPService.{i}.UMTS.RUA.ErrorIndication.

Parameters relating to error indication.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of error indications sent by system to HNBGW to indicate an error.
Received	-	unsignedInt	-	Number of error indications received by system from HNBGW to indicate an error.

FAPService.{i}.UMTS.RUA.CS.

Parameters relating to CS.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.RUA.CS.Connect.

Parameters relating to connect.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of connect messages sent by system to establish a signaling connection with HNBGW and to carry RANAP messages.
Received	-	unsignedInt	-	Number of connect messages received by system to establish a signaling connection with HNBGW and to carry RANAP messages.

FAPService.{i}.UMTS.RUA.CS.DirectTransfer.

Parameters relating to directTransfer.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of direct transfer messages sent by system to HNBGW to transport connection-oriented RANAP messages.
Received	-	unsignedInt	-	Number of direct transfer messages received by system from HNBGW to transport connection-oriented RANAP messages.

FAPService.{i}.UMTS.RUA.CS.Disconnect.

Parameters relating to disconnect.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of disconnect messages sent by system to close a signaling connection with HNBGW.

Received	-	unsignedInt	-	Number of disconnect messages received by system to close a signaling connection with HNBGW.

FAPService.{i}.UMTS.RUA.PS.

Parameters relating to PS.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.RUA.PS.Connect.

Parameters relating to connect.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of connect messages sent by system to establish a signaling connection with HNBGW and to carry RANAP messages.
Received	-	unsignedInt	-	Number of connect messages received by system to establish a signaling connection with HNBGW and to carry RANAP messages.

FAPService.{i}.UMTS.RUA.PS.DirectTransfer.

Parameters relating to directTransfer.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of direct transfer messages sent by system to HNBGW to transport connection-oriented RANAP messages.
Received	-	unsignedInt	-	Number of direct transfer messages received by system from HNBGW to transport connection-oriented RANAP messages.

FAPService.{i}.UMTS.RUA.PS.Disconnect.

Parameters relating to disconnect.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of disconnect messages sent by system to close a signaling connection with HNBGW.
Received	-	unsignedInt	-	Number of disconnect messages received by system to close a signaling connection with HNBGW.

FAPService.{i}.UMTS.RANAP.{i}.

Parameters relating to RANAP messages on each domain.

Parameter	W	Type	Default	Description
Domain	-	enum	-	Domain for which statictics are reported. Can be either CS domain or PS domain. Enumeration of: • *CS Domain* (CS domain) • *PS Domain* (PS domain) • *UNKNOWN* (Unknown domain)
MsgsSent	-	unsignedInt	-	The total number of RANAP messages corresponding to core network domain sent from system to core network.
MsgsReceived	-	unsignedInt	-	The total number of RANAP messages corresponding to core network domain received at system from core network.
CoreConnectDuration	-	unsignedLong	-	Total time that a connction existed to specific core domain.
RelocationRequired	-	unsignedInt	-	Number of relocation required messages sent from source system to infrom core network that a relocation is to be performed.
RelocationRequest	-	unsignedInt	-	Number of relocation request messages sent from core network to request target system to allocate necessary resources for a relocation.
RelocationRequestAcknowledge	-	unsignedInt	-	Number of relocation request ack messages sent from target system to infrom core network about successful resource allocation for a relocation.
RelocationCommand	-	unsignedInt	-	Number of relocation command messages sent from core network to source RNC to infrom that resources for relocation are allocated in the target system.
RelocationDetect	-	unsignedInt	-	Number of relocation detect messages sent from target RNC to infrom core network that relocation execution trigger has been received. This is sent on the successful radiolink setup between target system and target node-B.
RelocationComplete	-	unsignedInt	-	Number of relocation complete messages sent from target system to infrom core network that relocation is completed.
RelocationCancelAcknowledge	-	unsignedInt	-	Number of relocation cancel messages sent from core network to source system when the relocation has been cancelled.
SRNSContextRequest	-	unsignedInt	-	Not currently supported by system.
SRNSContextResponse	-	unsignedInt	-	Not currently supported by system.
SRNSDataForwardCommand	-	unsignedInt	-	Not currently supported by system.
ForwardSRNSContextSent	-	unsignedInt	-	Not currently supported by system.
ForwardSRNSContextReceived	-	unsignedInt	-	Not currently supported by system.

CommonID	-	unsignedInt	-	Number of common ID messages sent by the core network to infrom system about the permanent NAS UE identity.
CNInvokeTrace	-	unsignedInt	-	Not currently supported by system.
SecurityModeCommand	-	unsignedInt	-	Number of security mode command messages received by system to trigger integrity and ciphering functions over the radio interface.
SecurityModeComplete	-	unsignedInt	-	Number of security mode complete messages sent by system as a successful response to security mode command.
SecurityModeReject	-	unsignedInt	-	Number of security mode reject messages sent by system as an unsuccessful response to security mode command.
LocationReportingControl	-	unsignedInt	-	Number of location report control messages received by RNC from core network, to initiate, modify or stop location reporting from system to core network.
LocationReport	-	unsignedInt	-	Number of location report messages sent by system to infrom core network about the UE location.
DataVolumeReportRequest	-	unsignedInt	-	Not currently supported by system.
DataVolumeReport	-	unsignedInt	-	Not currently supported by system.
InitialUEMessage	-	unsignedInt	-	Number of initial UE messages sent by system to transfer radio interface initial layer 3 message to core network.
DirectTransferSent	-	unsignedInt	-	Number of direct transfer messages sent by system to core network used for carrying NAS signaling messages over Iu interface.
DirectTransferReceived	-	unsignedInt	-	Number of direct transfer messages sent by core network to system used for carrying NAS signaling messages over Iu interface.
OverloadSent	-	unsignedInt	-	Not currently supported by system.
OverloadReceived	-	unsignedInt	-	Not currently supported by system.
ResetSent	-	unsignedInt	-	Number of reset messages sent by system to core network to release the resources for all signaling connections over this Iu interface.
ResetReceived	-	unsignedInt	-	Number of reset messages received by system from core network to release the resources for all signaling connections over this Iu interface.
ResetAckSent	-	unsignedInt	-	Number of reset ack messages sent by system to core network as response to reset messages.
ResetAckReceived	-	unsignedInt	-	Number of reset ack messages received by system from core network as response to reset messages.
ErrorIndicationSent	-	unsignedInt	-	Not currently supported by system.
ErrorIndicationReceived	-	unsignedInt	-	Not currently supported by system.
CNDeactivateTrace	-	unsignedInt	-	Not currently supported by system.

RANAPRelocationInformation	-	unsignedInt	-	Not currently supported by system.
ResetResourceSent	-	unsignedInt	-	Number of reset resource messages sent by system to release the resources associated with Iu signaling connection specified in message.
ResetResourceReceived	-	unsignedInt	-	Number of reset resource messages received by system to release the resources associated with Iu signaling connection specified in message.
ResetResourceAckSent	-	unsignedInt	-	Number of reset resource ack messages sent by system as response to resource reset messages.
ResetResourceAckReceived	-	unsignedInt	-	Number of reset resource ack messages received by system as response to resource reset messages.
RABModifyRequest	-	unsignedInt	-	Not currently supported by system.
LocationRelatedDataRequest	-	unsignedInt	-	Not currently supported by system.
LocationRelatedDataResponse	-	unsignedInt	-	Not currently supported by system.
LocationRelatedDataFailure	-	unsignedInt	-	Not currently supported by system.
InformationTransferIndication	-	unsignedInt	-	Not currently supported by system.
InformationTransferConfirmation	-	unsignedInt	-	Not currently supported by system.
InformationTransferFailure	-	unsignedInt	-	Not currently supported by system.
UESpecificInformationIndication	-	unsignedInt	-	Not currently supported by system.
DirectInformationTransferSent	-	unsignedInt	-	Not currently supported by system.
DirectInformationTransferReceived	-	unsignedInt	-	Not currently supported by system.
UplinkInformationExchangeRequest	-	unsignedInt	-	Not currently supported by system.
UplinkInformationExchangeResponse	-	unsignedInt	-	Not currently supported by system.
UplinkInformationExchangeFailure	-	unsignedInt	-	Not currently supported by system.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.

Parameters relating to RAB assignment requests.

Parameter	W	Type	Default	Description

Sum	-	unsignedInt	-	Number of RAB assignment request messages received for corresponding core network domain from the core network.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.Create.

Parameters relating to RAB create requests.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Number of RAB create events received by the system.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.Create.TrafficClass.

Traffic class of RAB create requests.

These statistics are counted per RAB.

Parameter	W	Type	Default	Description
Conv	-	unsignedInt	-	Number of conversational RAB create requests.
Strm	-	unsignedInt	-	Number of streaming RAB create requests.
Intact	-	unsignedInt	-	Number of interactive RAB create requests.
Bgrd	-	unsignedInt	-	Number of background RAB create requests.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.Modify.

Parameters relating to RAB modify requests.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Number of RAB modify events received by the system.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.Modify.TrafficClass.

Traffic class of RAB modify requests.

These statistics are counted per RAB.

Parameter	W	Type	Default	Description
Conv	-	unsignedInt	-	Number of conversational RABs modified.
Strm	-	unsignedInt	-	Number of streaming RABs modified.
Intact	-	unsignedInt	-	Number of interactive RABs modified.
Bgrd	-	unsignedInt	-	Number of background RABs modified.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.Release.

Parameters relating to RAB release requests.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for RAB release requests. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Number of RAB release requests received by the system.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.

Parameters relating to RAB assignment response.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of RAB assignment response messages sent for corresponding core network domain from system to the core network.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.

Parameters relating to successful RAB assignment responses.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of successful RAB assignment responses.
CumulativeTime	-	unsignedInt	-	Total time spent in RAB creation and RAB modification. Note that the time spent in RAB deletion is not counted in the parameter.
MaxTime	-	unsignedInt	-	Maximum time required for a RAB creation or RAB modification.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.Create.

Parameters relating to successful RAB creations.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Number of RAB create events received by the system.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.Create.TrafficClass.

Traffic class of successful RAB creations.

These statistics are counted per RAB.

Parameter	W	Type	Default	Description
Conv	-	unsignedInt	-	Number of successful conversational RAB creations.
Strm	-	unsignedInt	-	Number of successful streaming RAB creations.
Intact	-	unsignedInt	-	Number of successful interactive RAB creations.
Bgrd	-	unsignedInt	-	Number of successful background RAB creations.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.Modify.

Parameters relating to successful RAB modifications.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of successful RAB modifications.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.Modify.TrafficClass.

Traffic class of successful RAB creations.

These statistics are counted per RAB.

Parameter	W	Type	Default	Description

Conv	-	unsignedInt	-	Number of successful conversational RAB modifications.
Strm	-	unsignedInt	-	Number of successful streaming RAB modifications.
Intact	-	unsignedInt	-	Number of successful interactive RAB modifications.
Bgrd	-	unsignedInt	-	Number of successful background RAB modifications.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.Release.

Parameters relating to successful RAB releases.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for successful RAB releases. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Total number of successful RAB releases.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Failure.

Parameters relating to unsuccessful RAB assignment responses.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of unsuccessful RAB assignment responses.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Failure.Create.

Parameters relating to unsuccessful RAB creations.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for unsuccessful RAB creations. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Total number of unsuccessful RAB creations.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Failure.Modify.

Parameters relating to unsuccessful RAB modifications.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for unsuccessful RAB modifications. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Total number of unsuccessful RAB modifications.

FAPService.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Failure.Release.

Parameters relating to unsuccessful RAB releases.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for unsuccessful RAB releases. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Total number of unsuccessful RAB releases.

FAPService.{i}.UMTS.RANAP.{i}.RABReleaseRequest.

Parameters relating to the RAB release requests from the system.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for the RAB release requests from the system. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Total number of RAB release requests from the system.

FAPService.{i}.UMTS.RANAP.{i}.IuReleaseRequest.

Parameters relating to the Iu release requests from the system.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for Iu release request command. Array of *unsignedInt* items (maximum number of items 117).

Sum	-	unsignedInt	-	Total number of Iu release requests sent.
PreRABEstablishment	-	unsignedInt	-	Number of UTRAN initiated disconnects after RRC establishment for a particular domain and before receiving RAB assignment request from that domain. The expectation of a RAB assignment is based on the establishmentCause in the RRC connection request message. As a result, call drops when establishing an MRAB will not peg this counter on the new domain, and may cause the counter to peg on the 2nd RAB addition for the same domain. This is okay. For CS domain: Causes 1,6,10 are tracked. For PS domain: Causes 2,3,4,5,7,8,9,15,18 are tracked.
CellDCH	-	unsignedInt	-	Number of IU Release Requests sent from UTRAN to the given domain. The UE was in Cell DCH state.
CellFACH	-	unsignedInt	-	Number of IU Release Requests sent from UTRAN to the given domain. The UE was in Cell FACH state.
CellPCH	-	unsignedInt	-	Number of IU Release Requests sent from UTRAN to the given domain. The UE was in Cell PCH state.

FAPService.{i}.UMTS.RANAP.{i}.IuReleaseRequest.TrafficClass.

Traffic class of Iu release request.

These statistics are counted per RAB.

Parameter	W	Type	Default	Description
Conv	-	unsignedInt	-	Number of conversational Iu release requests.
Strm	-	unsignedInt	-	Number of streaming Iu release requests.
Intact	-	unsignedInt	-	Number of interactive Iu release requests.
Bgrd	-	unsignedInt	-	Number of background Iu release requests.

FAPService.{i}.UMTS.RANAP.{i}.IuReleaseCommand.

Parameters relating to Iu release command.

Parameter	W	Type	Default	Description

Cause	-	unsignedInt{117}	-	Causes for Iu release command. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of Iu release command messages sent from core network to order system to release all resources related to Iu connection corresponding to core network domain.
PreRABEstablishment	-	unsignedInt	-	Number of UTRAN and core network initiated disconnects after RRC establishment for a particular domain and before receiving RAB assignment request from that domain. The expectation of a RAB assignment is based on the establishmentCause in the RRC connection request message. As a result, call drops when establishing an MRAB will not peg this counter on the new domain, and may cause the counter to peg on the 2nd RAB addition for the same domain. This is okay. For CS domain: Causes 1,6,10 are tracked. For PS domain: Causes 2,3,4,5,7,8,9,15,18 are tracked.

FAPService.{i}.UMTS.RANAP.{i}.IuReleaseComplete.

Parameters relating to Iu release complete.

Parameter	W	Type	Default	Description
CumulativeTime	-	unsignedInt	-	Total time spent in processing Iu release.
MaxTime	-	unsignedInt	-	Maximum time required for processing one Iu release.
Cause	-	unsignedInt{117}	-	Causes for Iu release complete. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of iu release complete messages sent from system as a response to Iu release command messages.

FAPService.{i}.UMTS.RANAP.{i}.RelocationPreparationFailure.

Parameters relating to relocation preparation failure.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for relocation preparation failure. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of relocation preparation failure messages sent from core network to infrom source RNC that resource allocation for relocation has failed at target system.

FAPService.{i}.UMTS.RANAP.{i}.RelocationFailure.

Parameters relating to relocation failure.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for relocation failure. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of relocation failure messages sent from target system to infrom core network that requested resource allocation has failed.

FAPService.{i}.UMTS.RANAP.{i}.RelocationCancel.

Parameters relating to relocation cancel.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for relocation cancel. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of relocation cancel messages sent from source system to core network to cancel an ongoing relocation.

FAPService.{i}.UMTS.RANAP.{i}.Paging.

Parameters relating to paging message received from the core network.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Cause for paging. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Total number of paging messages received.

FAPService.{i}.UMTS.NAS.

Parameters relating to NAS messages on CS and PS domains.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.NAS.Uplink.

Parameters relating to NAS messages on the uplink received from UEs.

Parameter	W	Type	Default	Description
UnknownProtocolDiscriminator	-	unsignedInt	-	Number of NAS messages received from UEs with Unknown Protocol Descriminator.
Sum	-	unsignedInt	-	Total number of NAS messages received from UEs.

FAPService.{i}.UMTS.NAS.Uplink.CC.

Parameters relating to call control messages received from UEs.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of call control messages received from UEs.

FAPService.{i}.UMTS.NAS.Uplink.CC.Type.

Types of call control messages known to the system.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of messages with unknown CC message type received from the UE.
Alerting	-	unsignedInt	-	Number of messages sent by the called mobile station to the network, to indicate that the called user alerting has been initiated.
CallConfirmed	-	unsignedInt	-	Number of messages sent by the called mobile station to confirm an incoming call request.
Connect	-	unsignedInt	-	Number of messages sent by the called mobile station to the network to indicate call acceptance by the called user.
ConnectAcknowledge	-	unsignedInt	-	Number of messages sent by the calling mobile station to the network to acknowledge the offered connection.
Disconnect	-	unsignedInt	-	Number of messages sent by the mobile station to request the network to clear an end-to-end connection.
EmergencySetup	-	unsignedInt	-	Number of messages sent from the mobile station to initiate emergency call establishment.
Facility	-	unsignedInt	-	Number of messages sent by the mobile station to the network to request or acknowledge a supplementary service. The supplementary service to be invoked and its associated parameters are specified in the facility information element.

Hold	-	unsignedInt	-	Number of messages sent by the mobile station to request the network to hold an existing call.
Modify	-	unsignedInt	-	Number of messages sent by the mobile station to the network to request a change in bearer capability for a call.
ModifyComplete	-	unsignedInt	-	Number of messages sent by the mobile station to the network to indicate completion of a request to change bearer capability for a call.
ModifyReject	-	unsignedInt	-	Number of messages sent by the mobile station to the network to indicate failure of a request to change the bearer capability for a call.
Notify	-	unsignedInt	-	Number of messages sent either from the mobile station or from the network to indicate information pertaining to a call, such as user suspended.
EstablishmentConfirmed	-	unsignedInt	-	Number of messages sent by the mobile station to the network to indicate the requested channel characteristics for the call which may be initiated by the mobile station.
Release	-	unsignedInt	-	Number of messages sent from the mobile station to the network to indicate that the mobile station intends to release the transaction identifier, and that the receiving equipment shall release the transaction identifier after sending RELEASE COMPLETE.
ReleaseComplete	-	unsignedInt	-	Number of messages sent from the mobile station to the network to indicate that the mobile station has released the transaction identifier and that the network shall release the transaction identifier.
Retrieve	-	unsignedInt	-	Number of messages sent by the mobile station to the network to retrieve the held call.
Setup	-	unsignedInt	-	Number of messages sent from the mobile station to the network to initiate a mobile originating call establishment.
StartCC	-	unsignedInt	-	Number of messages sent by the mobile station to the network to open a call control transaction which the network has requested the mobile station to open.
StartDTMF	-	unsignedInt	-	Number of messages sent by the mobile station to the network and contains the digit the network should reconvert back into a DTMF tone which is then applied towards the remote user.
Status	-	unsignedInt	-	Number of messages sent by the mobile station at any time during a call to report certain error conditions listed in clause 8. It shall also be sent in response to a STATUS ENQUIRY message.
StatusEnquiry	-	unsignedInt	-	Number of messages sent by the mobile station at any time to solicit a STATUS message from the peer layer 3 entity. Sending of STATUS message in response to a STATUS ENQUIRY message is mandatory.
StopDTMF	-	unsignedInt	-	Number of messages sent by a mobile station to the network and is used to stop the DTMF tone sent towards the remote user.
UserInformation	-	unsignedInt	-	Number of messages sent by the mobile station to the network to transfer information to the remote user. this message is also sent by the network to the mobile station to deliver information transferred from the remote user. This message is used if the user-to-user transfer is part of an allowed information transfer as defined in 3GPP TS 24.010.

FAPService.{i}.UMTS.NAS.Uplink.MM.

Parameters relating to mobility management messages received from UEs.

Parameter	W	Type	Default	Description

Sum	-	unsignedInt	-	Total number of mobility management messages received from UEs.

FAPService.{i}.UMTS.NAS.Uplink.MM.Type.

Types of mobility management messages known to the system.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of messages with unknown MM message type received from the UE.
AuthenticationResponse	-	unsignedInt	-	Number of messages sent by the mobile station to the network to deliver a calculated response to the network.
AuthenticationFailure	-	unsignedInt	-	Number of messages sent by the mobile station to the network to indicate that authentication of the network has failed.
CMReestablishmentRequest	-	unsignedInt	-	Number of messages sent by the mobile station to the network to request re-establishment of a connection if the previous one has failed.
CMServiceAbort	-	unsignedInt	-	Number of messages sent by the mobile station to the network to request the abortion of the first MM connection establishment in progress and the release of the RR connection.
CMServiceRequest	-	unsignedInt	-	Number of messages sent by the mobile station to the network to request a service for the connection management sub layer entities, e.g. Circuit switched connection establishment, supplementary services activation, short message transfer, location services.
IdentityResponse	-	unsignedInt	-	Number of messages sent by the mobile station to the network in response to an IDENTITY REQUEST message providing the requested identity.
IMSIDetachIndication	-	unsignedInt	-	Number of messages sent by the mobile station to the network to set a deactivation indication in the network.
LocationUpdatingRequest	-	unsignedInt	-	Number of messages sent by the mobile station to the network either to request update of its location file (normal updating or periodic updating) or to request IMSI attach.
Status	-	unsignedInt	-	Number of messages sent by the mobile station at any time to report certain error conditions listed in clause 8.
TMSIReallocationComplete	-	unsignedInt	-	Number of messages sent by the mobile station to the network to indicate that reallocation or deletion of a TMSI has taken place.
Null	-	unsignedInt	-	This message is not used on the radio interface. When received by the network it shall be ignored. The introduction of this message solves interworking issues.

FAPService.{i}.UMTS.NAS.Uplink.L3RR.

Parameters relating to radio resource L3 layer messages received from UEs.

Parameter	W	Type	Default	Description

Sum	-	unsignedInt	-	Total number of radio resource L3 layer messages received from UEs.

FAPService.{i}.UMTS.NAS.Uplink.L3RR.Type.

Types of radio resource L3 layer messages known to the system.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of messages with unknown RR message type received from the UE.
PagingResponse	-	unsignedInt	-	Number of RR paging response received by system.

FAPService.{i}.UMTS.NAS.Uplink.GMM.

Parameters relating to GPRS mobility management messages received from UEs.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of GPRS mobility management messages received from UEs.
PagingResponse	-	unsignedInt	-	Total number of GPRS mobility management messages which are paging responses received from UEs.

FAPService.{i}.UMTS.NAS.Uplink.GMM.Type.

Types of GPRS mobility management messages known to the system.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of messages with unknown GMM message type received from the UE.
AttachRequest	-	unsignedInt	-	Number of messages sent by the MS to the network in order to perform a GPRS or combined GPRS attach.
AttachComplete	-	unsignedInt	-	Number of messages sent by the MS to the network if at least one of the following conditions is fulfilled: -a P-TMSI and/or a TMSI was included within the attach accept message; or. -the network has requested the MS to provide feature-related information.
DetachRequest	-	unsignedInt	-	Number of messages sent by the MS to request the release of a GMM context.
DetachAccept	-	unsignedInt	-	Number of messages sent by the MS to indicate that the detach procedure has been completed.

PTMSIReallocationComplete	-	unsignedInt	-	Number of messages sent by the MS to the network to indicate that reallocation of a P-TMSI has taken place.
AuthenticationCipheringResponse	-	unsignedInt	-	Number of messages sent by the MS to the network in response to an authentication and ciphering request message.
AuthenticationCipheringFailure	-	unsignedInt	-	Number of messages sent by the mobile station to the network to indicate that authentication of the network has failed.
IdentityResponse	-	unsignedInt	-	Number of messages sent by the MS to the network in response to an identity request message providing the requested identity.
RoutingAreaUpdateRequest	-	unsignedInt	-	Number of messages sent by the MS to the network either to request an update of its location file or to request an IMSI attach for non-GPRS services.
RoutingAreaUpdateComplete	-	unsignedInt	-	This message shall be sent by the MS to the network in response to a routing area update accept message if at least one of the following conditions is fulfilled: - a P-TMSI and/or a TMSI has been assigned;. - there are established LLC connections; or - the network has requested the MS to provide feature-related information.
Status	-	unsignedInt	-	Number of messages sent by the MS at any time to report certain error conditions listed in clause 8.
ServiceRequest	-	unsignedInt	-	Number of messages sent by the MS to transfer to establish logical association between the MS and the network.

FAPService.{i}.UMTS.NAS.Uplink.GSM.

Parameters relating to GPRS session management messages received from UEs.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of GPRS session management messages received from UEs.

FAPService.{i}.UMTS.NAS.Uplink.GSM.Type.

Types of GPRS session management messages known to the system.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of messages with unknown GSM message type received from the UE.
ActivatePDPContextRequest	-	unsignedInt	-	Number of messages sent by the MS to the network to request activation of a PDP context.
ActivateSecondaryPDPContextRequest	-	unsignedInt	-	Number of messages sent by the MS to the network to request activation of an additional PDP context associated with the same PDP address and APN as an already active PDP context.
RequestPDPContextActivationReject	-	unsignedInt	-	Number of messages sent by the MS to the network to reject initiation of a PDP context activation.

ModifyPDPContextRequest	-	unsignedInt	-	Number of messages sent by the MS to the network to request modification of an active PDP context.
ModifyPDPContextAccept	-	unsignedInt	-	Number of messages sent by the MS to the network to acknowledge the modification of an active PDP context.
DeactivatePDPContextRequest	-	unsignedInt	-	Number of messages sent to request deactivation of an active PDP context or an active MBMS context.
DeactivatePDPContextAccept	-	unsignedInt	-	Number of messages sent to acknowledge deactivation of the PDP context requested in the corresponding deactivate PDP context request message.
RequestSecondaryPDPContextActivationReject	-	unsignedInt	-	Number of messages sent by the MS to the network to reject the request of a secondary PDP context activation.
SMStatus	-	unsignedInt	-	Number of messages sent by the MS to pass information on the status of the indicated context and report certain error conditions (e.g. As listed in clause 8).
ActivateMBMSContextRequest	-	unsignedInt	-	Number of messages sent by the MS to the network as an explicit response to a request MBMS context activation message.
RequestMBMSContextActivationReject	-	unsignedInt	-	Number of messages sent by the MS to the network to reject initiation of an MBMS context activation.

FAPService.{i}.UMTS.NAS.Downlink.

Parameters relating to NAS messages on the downlink received from the core network.

Parameter	W	Type	Default	Description
UnknownProtocolDiscriminator	-	unsignedInt	-	Number of NAS messages received from core network with Unknown Protocol Descriminator.
Sum	-	unsignedInt	-	Total number of NAS messages received from the core network.

FAPService.{i}.UMTS.NAS.Downlink.CC.

Parameters relating to call control messages received from the core network.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of call control messages received from the core network.

FAPService.{i}.UMTS.NAS.Downlink.CC.Type.

Types of call control messages known to the system.

Parameter	W	Type	Default	Description

UnknownMessage	-	unsignedInt	-	The number of messages with unknown CC message type received from the core network.
Alerting	-	unsignedInt	-	The number of messages sent by the network to a calling UE to indicate that the called user alerting has been initiated.
CallProceeding	-	unsignedInt	-	The number of messages sent by the network to a calling UE to indicate that the requested call establishment information has been received, and no more call establishment information will be accepted.
CongestionControl	-	unsignedInt	-	The number of messages sent by the network to indicate the establishment or termination of flow control on the transmission of USER INFORMATION messages.
Connect	-	unsignedInt	-	The number of messages sent by the network to a calling UE to indicate call acceptance by the called user.
ConnectAcknowledge	-	unsignedInt	-	The number of messages sent by the network to a called UE to indicate that a UE has been awarded the call. It shall also be sent by a calling UE to the network to acknowledge the offered connection.
Disconnect	-	unsignedInt	-	The number of messages sent by the network to indicate that the end-to-end connection is cleared.
Facility	-	unsignedInt	-	The number of messages sent by the network to a UE to request or acknowledge a supplementary service. The supplementary service to be invoked and its associated parameters are specified in the facility information element.
HoldAcknowledge	-	unsignedInt	-	The number of messages sent by the network to a UE to indicate that the hold function for an existing call has been successfully performed.
HoldReject	-	unsignedInt	-	The number of messages sent by the network to a UE to indicate that the hold function requested by the mobile station cannot be performed.
Modify	-	unsignedInt	-	The number of messages sent by the network to a UE to request a change in bearer capability for a call.
ModifyComplete	-	unsignedInt	-	The number of messages sent by the network to a UE to indicate completion of a request to change bearer capability for a call.
ModifyReject	-	unsignedInt	-	Number of messages sent by the network to the mobile station to indicate failure of a request to change the bearer capability for a call.
Notify	-	unsignedInt	-	Number of messages sent from the network to indicate information pertaining to a call, such as user suspended.
Progress	-	unsignedInt	-	Number of messages sent from the network to the mobile station to indicate the progress of a call in the event of interworking or in connection with the provision of in-band information/patterns.

Establishment	-	unsignedInt	-	Number of messages sent from the network to the mobile station to provide information on the call that the mobile station should attempt to establish.
Release	-	unsignedInt	-	This message is sent, from the network to the mobile station to indicate that the network intends to release the transaction identifier, and that the receiving equipment shall release the transaction identifier after sending RELEASE COMPLETE.
Recall	-	unsignedInt	-	Number of messages sent from the network to the mobile station to initiate the sending of the SETUP message. In addition it provides information for user notification.
ReleaseComplete	-	unsignedInt	-	Number of messages sent from the network to the mobile station to indicate that the network has released the transaction identifier and that the mobile station shall release the transaction identifier.
RetrieveAcknowledge	-	unsignedInt	-	The number of messages sent by network to a UE to indicate that the retrieve function has been successfully performed.
RetrieveReject	-	unsignedInt	-	The number of messages sent by network to a UE that requested retrieve function for a call that could not be successfully performed.
Setup	-	unsignedInt	-	The number of messages sent by the network to a UE to initiate a mobile terminated call establishment.
StartDTMFAcknowledge	-	unsignedInt	-	The number of messages sent by the network to a UE to indicate the successful initiation of the action requested by the START DTMF message (conversion of the digit contained in this message into a DTMF tone).
StartDTMFReject	-	unsignedInt	-	Number of messages sent by the network to the mobile station, if the network cannot accept the START DTMF message.
Status	-	unsignedInt	-	Number of messages sent by the network at any time during a call to report certain error conditions listed in clause 8. It shall also be sent in response to a STATUS ENQUIRY message.
StatusEnquiry	-	unsignedInt	-	Number of messages sent by the network at any time to solicit a STATUS message from the peer layer 3 entity. Sending of STATUS message in response to a STATUS ENQUIRY message is mandatory.
StopDTMFAcknowledge	-	unsignedInt	-	Number of messages sent by the network to the mobile station to indicate that the sending of the DTMF tone has been stopped.
UserInformation	-	unsignedInt	-	Number of messages sent by the network to the mobile station to deliver information transferred from the remote user. This message is used if the user-to-user transfer is part of an allowed information transfer as defined in 3GPP TS 24.010.

FAPService.{i}.UMTS.NAS.Downlink.MM.

Parameters relating to mobility management messages received from the core network.

Parameter	W	Type	Default	Description

Sum	-	unsignedInt	-	Total number of mobility management messages received from the core network.

FAPService.{i}.UMTS.NAS.Downlink.MM.Type.

Types of mobility management messages known to the system.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of messages with unknown MM message type received from the core network.
AuthenticationReject	-	unsignedInt	-	Number of messages sent by the network to the mobile station to indicate that authentication has failed (and that the receiving mobile station shall abort all activities).
AuthenticationRequest	-	unsignedInt	-	Number of messages sent by the network to the mobile station to initiate authentication of the mobile station identity.
CMServiceAccept	-	unsignedInt	-	Number of messages sent by the network to the mobile station to indicate that the requested service has been accepted.
CMServicePrompt	-	unsignedInt	-	Number of messages sent by the network to the mobile station to request the mobile to establish a service for the specified CM protocol using the specified SAPI, e.g. Circuit switched connection establishment on SAPI 0, supplementary services activation on SAPI 0, or short message transfer on SAPI 3.
CMServiceReject	-	unsignedInt	-	Number of messages sent by the network to the mobile station to indicate that the requested service cannot be provided.
Abort	-	unsignedInt	-	Number of messages sent by the network to the mobile station to initiate the abortion of all MM connections and to indicate the reason for the abortion.
IdentityRequest	-	unsignedInt	-	Number of messages sent by the network to the mobile station to request a mobile station to submit the specified identity to the network.
LocationUpdatingAccept	-	unsignedInt	-	Number of messages sent by the network to the mobile station to indicate that updating or IMSI attach in the network has been completed.
LocationUpdatingReject	-	unsignedInt	-	Number of messages sent by the network to the mobile station to indicate that updating or IMSI attach has failed.
Information	-	unsignedInt	-	Number of messages sent by the network to the mobile station to provide the mobile station with subscriber specific information.
Status	-	unsignedInt	-	Number of messages sent by the network at any time to report certain error conditions listed in clause 8.
TMSIReallocationCommand	-	unsignedInt	-	Number of messages sent by the network to the mobile station to reallocate or delete a TMSI.

FAPService.{i}.UMTS.NAS.Downlink.GMM.

Parameters relating to GPRS mobility management messages received from the core network.

Parameter	W	Type	Default	Description

Sum	-	unsignedInt	-	Total number of GPRS mobility management messages received from the core network.

FAPService.{i}.UMTS.NAS.Downlink.GMM.Type.

Types of GPRS mobility management messages known to the system.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of messages with unknown GMM message type received from the core network.
AttachAccept	-	unsignedInt	-	Number of messages sent by the network to the MS to indicate that the corresponding attach request has been accepted.
AttachReject	-	unsignedInt	-	Number of messages sent by the network to the MS to indicate that the corresponding attach request has been rejected.
DetachRequest	-	unsignedInt	-	Number of messages sent by the network to request the release of a GMM context.
DetachAccept	-	unsignedInt	-	Number of messages sent by the network to indicate that the detach procedure has been completed.
PTMSIReallocationCommand	-	unsignedInt	-	Number of messages sent by the network to the MS to reallocate a P-TMSI.
AuthenticationCipheringRequest	-	unsignedInt	-	Number of messages sent by the network to the MS to initiate authentication of the MS identity. Additionally, the ciphering mode is set, indicating whether ciphering will be performed or not.
AuthenticationCipheringReject	-	unsignedInt	-	Number of messages sent by the network to the MS to indicate that authentication has failed (and that the receiving MS shall abort all activities).
IdentityRequest	-	unsignedInt	-	Number of messages sent by the network to the MS to request submission of the MS identity according to the specified identity type.
RoutingAreaUpdateAccept	-	unsignedInt	-	Number of messages sent by the network to the MS to provide the MS with GPRS mobility management related data in response to a routing area update request message.
RoutingAreaUpdateReject	-	unsignedInt	-	Number of messages sent by the network to the MS in order to reject the routing area update procedure.
Status	-	unsignedInt	-	Number of messages sent by the network at any time to report certain error conditions listed in clause 8.
Information	-	unsignedInt	-	Number of messages sent by the network at any time to sent certain information to the MS.
ServiceAccept	-	unsignedInt	-	Number of messages sent by the network in response to a service request message.
ServiceReject	-	unsignedInt	-	Number of messages sent by the network to the UE in order to reject the service request procedure.

FAPService.{i}.UMTS.NAS.Downlink.GSM.

Parameters relating to GPRS session management messages received from the core network.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of GPRS session management messages received from the core network.

FAPService.{i}.UMTS.NAS.Downlink.GSM.Type.

Types of GPRS session management messages known to the system.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of messages with unknown GSM message type received from the core network.
ActivatePDPContextAccept	-	unsignedInt	-	Number of messages sent by the network to the MS to acknowledge activation of a PDP context.
ActivatePDPContextReject	-	unsignedInt	-	Number of messages sent by the network to the MS to reject activation of a PDP context.
ActivateSecondaryPDPContextAccept	-	unsignedInt	-	Number of messages sent by the network to the MS to acknowledge activation of an additional PDP context associated with the same PDP address and APN as an already active PDP context.
ActivateSecondaryPDPContextReject	-	unsignedInt	-	Number of messages sent by the network to the UE to reject activation of an additional PDP context associated with the same PDP address and APN as an already active PDP context.
RequestPDPContextActivation	-	unsignedInt	-	Number of messages sent by the network to the MS to initiate activation of a PDP context.
ModifyPDPContextRequest	-	unsignedInt	-	Number of messages sent by the network to the MS to request modification of an active PDP context.
ModifyPDPContextAccept	-	unsignedInt	-	Number of messages sent by the network to the MS to acknowledge the modification of an active PDP context.
ModifyPDPContextReject	-	unsignedInt	-	Number of messages sent by the network to the UE to reject the requested modification of the TFT. the network should not send a MODIFY PDP CONTEXT REJECT message only if the requested qoS is not available. If a TFT modification was requested and the requested new TFT is not available then MODIFY PDP CONTEXT REJECT shall be sent.
DeactivatePDPContextRequest	-	unsignedInt	-	Number of messages sent to request deactivation of an active PDP context or an active MBMS context.
DeactivatePDPContextAccept	-	unsignedInt	-	Number of messages sent to acknowledge deactivation of the PDP context requested in the corresponding deactivate PDP context request message.
RequestSecondaryPDPContextActivation	-	unsignedInt	-	Number of messages sent by the network to the MS to request activation of a secondary PDP context.
Notification	-	unsignedInt	-	Number of messages sent by the network to infrom the MS about events which are relevant for the upper layer using the PDP context or having requested a session management procedure.
SMStatus	-	unsignedInt	-	Number of messages sent by the network to pass information on the status of the indicated context and report certain error conditions (e.g. As listed in clause 8).

ActivateMBMSContextAccept	-	unsignedInt	-	Number of messages sent by the network to the MS to acknowledge activation of an MBMS context.
ActivateMBMSContextReject	-	unsignedInt	-	Number of messages sent by the network to the MS to reject activation of a MBMS context.
RequestMBMSContextActivation	-	unsignedInt	-	Number of messages sent by the network to the MS to initiate activation of an MBMS context.

FAPService.{i}.UMTS.RRC.

Parameters relating to RRC messages sent and received by the system.

Note: These parameters are counted once per event and are not based on the number of cells

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of messages with unknown RRC message type received from the UE. This also includes the RRC messages received from UE which failed integrity protection check.
ULIntegrityCheckFailure	-	unsignedInt	-	Number of uplink RRC messages that failed integrity check.
ASNDecodeFailure	-	unsignedInt	-	Number of RRC messages that failed ASN decoding.
CellUpdateConfirm	-	unsignedInt	-	Number of cell update confirmation messages to UEs.
DownlinkDirectTransfer	-	unsignedInt	-	Number of downlink direct transfer messages from the core network.
HandoverFromUTRANCommand	-	unsignedInt	-	The number of Handover From UTRAN Command messages sent to UEs during Inter-RAT handover procedures to handover a UE from UMTS to another system.
InitialDirectTransfer	-	unsignedInt	-	Number of initial direct transfer messages received by system from UEs to establish connection with corresponding core network domain and to carry NAS messages.
PhysicalChannelReconfiguration	-	unsignedInt	-	Number of physical channel reconfiguration requests sent by system.
PhysicalChannelReconfigurationComplete	-	unsignedInt	-	Number of physical channel reconfiguration completes received by system.
RadioBearerRelease	-	unsignedInt	-	Number of radio bearer release messages sent to the UE.
RadioBearerReleaseComplete	-	unsignedInt	-	Number of radio bearer release complete messages received from the UE.
RRCConnectionReleaseComplete	-	unsignedInt	-	Number of RRC connection release complete messages received from the UE.
SecurityModeCommand	-	unsignedInt	-	Number of security mode commands sent to the UE.

SecurityModeComplete	-	unsignedInt	-	Number of security mode complete messages received from the UE.
SignallingConnectionRelease	-	unsignedInt	-	Number of signaling connection release messages sent by system to UE to indicate that signaling connection to corresponding core network domain has been released.
SignallingConnectionReleaseIndication	-	unsignedInt	-	Number of signaling connection release indication messages sent by UEs to indicate the release of an existing signaling connection.
SystemInformationChangeIndication	-	unsignedInt	-	Not currently supported by system.
UplinkDirectTransfer	-	unsignedInt	-	Number of uplink direct transfer messages received by system from UEs to carry NAS messages.

FAPService.{i}.UMTS.RRC.ActiveSetUpdate.

Parameters relating to Active Set Update messages sent to UEs.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of Active Set Update messages sent to UEs.

FAPService.{i}.UMTS.RRC.ActiveSetUpdate.RLOperation.

Parameters relating to radiolink operations in Active Set Update messages.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.RRC.ActiveSetUpdate.RLOperation.Add.

Parameters relating to radiolink additions.

Parameter	W	Type	Default	Description
HSUPA	-	unsignedInt	-	The number of radiolink addition attempts where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolink addition attempts where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolink addition attempts including HSDPA, HSUPA and non-HSPA links.

FAPService.{i}.UMTS.RRC.ActiveSetUpdate.RLOperation.Delete.

Parameters relating to radiolink deletions.

Parameter	W	Type	Default	Description
HSUPA	-	unsignedInt	-	The number of radiolink deletion attempts where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolink deletion attempts where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolink deletion attempts including HSDPA, HSUPA and non-HSPA links.

FAPService.{i}.UMTS.RRC.ActiveSetUpdateComplete.

Parameters relating to Active Set Update Complete messages received from UEs.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of Active Set Update Complete messages received from UEs.

FAPService.{i}.UMTS.RRC.ActiveSetUpdateComplete.RLOperation.

Parameters relating to radiolink operations in Active Set Update Complete messages.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.RRC.ActiveSetUpdateComplete.RLOperation.Add.

Parameters relating to radiolink additions.

Parameter	W	Type	Default	Description
HSUPA	-	unsignedInt	-	The number of radiolinks successfully added where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolinks successfully added where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolinks successfully added including HSDPA, HSUPA and non-HSPA links.

FAPService.{i}.UMTS.RRC.ActiveSetUpdateComplete.RLOperation.Delete.

Parameters relating to radiolink deletions.

Parameter	W	Type	Default	Description

HSUPA	-	unsignedInt	-	The number of radiolinks successfully deleted where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolinks successfully deleted where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolinks successfully deleted including HSDPA, HSUPA and non-HSPA links.

FAPService.{i}.UMTS.RRC.ActiveSetUpdateFailure.

Parameters relating to Active Set Update Failure messages received from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of Active Set Update Failure messages received from UEs per Failure Cause type defined in TS 25.331. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	The total number of Active Set Update Failure messages received from UEs.

FAPService.{i}.UMTS.RRC.ActiveSetUpdateFailure.RLOperation.

Parameters relating to the radiolink operations in Active Set Update Failure messages.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.RRC.ActiveSetUpdateFailure.RLOperation.Add.

Parameters relating to radiolink additions that failed.

Parameter	W	Type	Default	Description
HSUPA	-	unsignedInt	-	The number of radiolink addition attempts that failed where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolink addition attempts that failed where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolink additions that failed including HSDPA, HSUPA and non-HSPA links.

FAPService.{i}.UMTS.RRC.ActiveSetUpdateFailure.RLOperation.Delete.

Parameters relating to radiolink deletions that failed.

Parameter	W	Type	Default	Description
HSUPA	-	unsignedInt	-	The number of radiolink deletion attempts that failed where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolink deletion attempts that failed where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolink deletions that failed including HSDPA, HSUPA and non-HSPA links.

FAPService.{i}.UMTS.RRC.CellUpdate.

Parameters relating to cell update messages from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for cell update message received from UEs. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of cell update messages from UEs.
UnknownLocalURNTI	-	unsignedInt	-	Total number of cell update messages for which there was no existing session with that URNTI and URNTI is local. Determination whether URNTI is local or not is made by matching the SRNCID bits of the URNTI with the RNCID configured on the SN.
UnknownExternalURNTI	-	unsignedInt	-	Total number of cell update messages for which there was no existing session with that URNTI and URNTI is not local. Determination whether URNTI is local or not is made by matching the SRNCID bits of the URNTI with the RNCID configured on the SN.

FAPService.{i}.UMTS.RRC.HandoverFromUTRANFailure.

Parameters relating to Handover From UTRAN Failure messages received from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of Handover From UTRAN Failure messages received per Inter-RAT Handover Failure Cause type defined in TS 25.331. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	The total number of Handover From UTRAN Failure messages received from UEs.

FAPService.{i}.UMTS.RRC.MeasurementControl.

Parameters relating to measurement control messages sent to UEs.

Parameter	W	Type	Default	Description
MeasIdentity	-	unsignedInt{16}	-	Histogram of the number of measurement control message sent per measurement ID. Each measurement ID can be mapped back to a specific number of measurement jobs that are configured on the UEs. Array of *unsignedInt* items (maximum number of items 16).
Sum	-	unsignedInt	-	Total number of measurement control messages sent to UEs.

FAPService.{i}.UMTS.RRC.MeasurementControlFailure.

Parameters relating to measurement control failure messages received from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for the measurement control failure messages. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of measurement control failure messages received from UEs.

FAPService.{i}.UMTS.RRC.MeasurementReport.

Parameters relating to measurement report messages received from UEs.

Parameter	W	Type	Default	Description
MeasIdentity	-	unsignedInt{16}	-	Histogram of the number of MRM received from UEs per measurement identity, range: *[0:15]*. Array of *unsignedInt* items (maximum number of items 16).
Evt2DForRSCP	-	unsignedInt	-	Number of event 2D received from the UE due to RSCP condition.
Evt2DForEcIo	-	unsignedInt	-	Number of event 2D received from the UE due to EcIo conditions.
Sum	-	unsignedInt	-	Total number of measurement report messages received from UEs.
MaxRate	-	unsignedInt	-	Max Rate at which Measurement Reports were received by the system. The monitoring interval is 15 seconds.
RateHist	-	unsignedInt{10}	-	Histogram of the rate at which Measurement Reports are received by the system, interval: *[0:50:450+] per 15 secs*. The monitoring interval is 15 seconds. Array of *unsignedInt* items (maximum number of items 10).

FAPService.{i}.UMTS.RRC.MeasurementReport.EventID.

EventIDs indicated in the MRM reports from UEs.

Parameter	W	Type	Default	Description
Evt1A	-	unsignedInt	-	Number of event 1A received from the UE.
Evt1B	-	unsignedInt	-	Number of event 1B received from the UE.
Evt1C	-	unsignedInt	-	Number of event 1C received from the UE.
Evt1D	-	unsignedInt	-	Number of event 1D received from the UE.
Evt2A	-	unsignedInt	-	Number of event 2A received from the UE.
Evt2B	-	unsignedInt	-	Number of event 2B received from the UE.
Evt2C	-	unsignedInt	-	Number of event 2C received from the UE.
Evt2D	-	unsignedInt	-	Number of event 2D received from the UE.
Evt2E	-	unsignedInt	-	Number of event 2E received from the UE.
Evt2F	-	unsignedInt	-	Number of event 2F received from the UE.
Evt3A	-	unsignedInt	-	Number of event 3A received from the UE.
Evt3B	-	unsignedInt	-	Number of event 3B received from the UE.
Evt3C	-	unsignedInt	-	Number of event 3C received from the UE.
Evt3D	-	unsignedInt	-	Number of event 3D received from the UE.
Evt4A	-	unsignedInt	-	Number of event 4A received from the UE.
Evt4B	-	unsignedInt	-	Number of event 4B received from the UE.
Unknown	-	unsignedInt	-	Number of unknown events received from the UE.

FAPService.{i}.UMTS.RRC.PagingType1.

Parameters relating to paging type 1 messages sent to the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{7}	-	Cause indicated in core network initiated paging messages sent to the UE. Note: RNC initiated paging messages do not carry a cause Array of *unsignedInt* items (maximum number of items 7).
UTRANOriginated	-	unsignedInt	-	Number system initiated paging of messages sent.
Sum	-	unsignedInt	-	Total number core network as well as system initiated paging of messages sent.

FAPService.{i}.UMTS.RRC.PagingType2.

Parameters relating to paging type 1 messages sent to the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{7}	-	Cause indicated in message sent to the UE. Array of *unsignedInt* items (maximum number of items 7).
Sum	-	unsignedInt	-	Total number of messages sent.

FAPService.{i}.UMTS.RRC.PagingType1Retry.

Parameters relating to CN originated paging type 1 messages retransmitted to the UE by system.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{7}	-	Cause indicated in core network initiated paging messages sent to the UE. Array of *unsignedInt* items (maximum number of items 7).
Sum	-	unsignedInt	-	Total number of core network initiated paging messages retransmitted by system.

FAPService.{i}.UMTS.RRC.PhysicalChannelReconfigurationFailure.

Parameters relating to the PCR failure message received from the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause indicated by UE for failure.

				Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of messages received from the UE.

FAPService.{i}.UMTS.RRC.RadioBearerReconfiguration.

Parameters relating to the radio bearer reconfiguration message sent to UEs.

Parameter	W	Type	Default	Description
HSDPABearerAdded	-	unsignedInt	-	Number of reconfigurations in which at least one radio bearer is reconfigured to HSDPA. Note: This statistic is counted per radio bearer.
HSUPABearerAdded	-	unsignedInt	-	Number of reconfigurations in which at least one radio bearer is reconfigured to HSUPA. Note: This statistic is counted per radio bearer.
ULRateUpgrade	-	unsignedInt	-	Number of reconfigurations in which uplink R99 rate was upgraded.
ULRateDowngrade	-	unsignedInt	-	Number of reconfigurations in which uplink R99 rate was downgraded.
OVSFReconfig	-	unsignedInt	-	Number of OVSF code reconfigurations after hand-in.
HSUPARecfgTo2ms	-	unsignedInt	-	Number of reconfigurations in which HSUPA was upgraded from 10ms to 2ms TTI.
HSUPARecfgTo10ms	-	unsignedInt	-	Number of reconfigurations in which HSUPA was downgraded from 2ms to 10ms TTI.
Sum	-	unsignedInt	-	Total number of radio bearer reconfiguration messages sent to the UE.

FAPService.{i}.UMTS.RRC.RadioBearerReconfiguration.StateTransitions.

Parameters relating to the state transition triggered by the radio bearer reconfiguration message.

Note: These statistics are counted per message.

Parameter	W	Type	Default	Description
FACHToR99DCH	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB in R99.
FACHToHSDPA	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB on HS-DSCH.
RACHToHSUPA	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB on E-DCH.

R99DCHToFACH	-	unsignedInt	-	Number of state transitions from Cell_DCH to Cell_FACH with at least one RAB previously n R99.
HSDPAToFACH	-	unsignedInt	-	Number of state transitions from Cell_DCH to Cell_FACH with at least one RAB previously on HS-DSCH.
HSUPAToRACH	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB previously on E-DCH.

FAPService.{i}.UMTS.RRC.RadioBearerReconfigurationComplete.

Parameters relating to the radio bearer reconfiguration complete message.

Parameter	W	Type	Default	Description
HSDPABearerAdded	-	unsignedInt	-	Number of reconfigurations in which at least one radio bearer is reconfigured to HSDPA. Note: This statistic is counted per radio bearer.
HSUPABearerAdded	-	unsignedInt	-	Number of reconfigurations in which at least one radio bearer is reconfigured to HSUPA. Note: This statistic is counted per radio bearer.
RRCReestablished	-	unsignedInt	-	Number of radio bearer reconfiguration complete *messages* received for RRC reestablishment
ULRateUpgrade	-	unsignedInt	-	Number of reconfigurations in which uplink R99 rate was upgraded.
ULRateDowngrade	-	unsignedInt	-	Number of reconfigurations in which uplink R99 rate was downgraded.
OVSFReconfig	-	unsignedInt	-	Number of OVSF code reconfigurations after hand-in.
HSUPARecfgTo2ms	-	unsignedInt	-	Number of reconfigurations in which HSUPA was upgraded from 10ms to 2ms TTI.
HSUPARecfgTo10ms	-	unsignedInt	-	Number of reconfigurations in which HSUPA was downgraded from 2ms to 10ms TTI.
Sum	-	unsignedInt	-	Total number of radio bearer reconfiguration messages sent to the UE.

FAPService.{i}.UMTS.RRC.RadioBearerReconfigurationComplete.StateTransitions.

Parameters relating to the state transition acknowledged by the radio bearer reconfiguration complete message.

Note: These statistics are counted per message.

Parameter	W	Type	Default	Description
FACHToR99DCH	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB in R99.

FACHToHSDPA	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB on HS-DSCH.
RACHToHSUPA	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB on E-DCH.
R99DCHToFACH	-	unsignedInt	-	Number of state transitions from Cell_DCH to Cell_FACH with at least one RAB previously n R99.
HSDPAToFACH	-	unsignedInt	-	Number of state transitions from Cell_DCH to Cell_FACH with at least one RAB previously on HS-DSCH.
HSUPAToRACH	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB previously on E-DCH.

FAPService.{i}.UMTS.RRC.RadioBearerReconfigurationFailure.

Parameters relating to the radio bearer reconfiguration failure messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause for radio bearer reconfiguration failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of radio bearer reconfiguration messages received from the UE.

FAPService.{i}.UMTS.RRC.RadioBearerReconfigurationFailure.HSDPA.

Parameters relating to failed HSDPA radio bearer reconfigurations.

Note: These statistics are counted per radio bearer.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of HSDPA radio bearer reconfiguration failures received.

FAPService.{i}.UMTS.RRC.RadioBearerReconfigurationFailure.HSUPA.

Parameters relating to failed HSUPA radio bearer reconfigurations.

Note: These statistics are counted per radio bearer.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of HSUPA radio bearer reconfiguration failures received.

FAPService.{i}.UMTS.RRC.RadioBearerReleaseFailure.

Parameters relating to the radio bearer release failure messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause for radio bearer release failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of radio bearer release failure messages received from the UE.

FAPService.{i}.UMTS.RRC.RadioBearerSetup.

Parameters relating to the radio bearer setup message.

Parameter	W	Type	Default	Description
HSDPABearerAdded	-	unsignedInt	-	Number of setups in which at least one radio bearer is setup as HSDPA. Note: This statistic is counted per radio bearer.
HSUPABearerAdded	-	unsignedInt	-	Number of setups in which at least one radio bearer is setup as HSUPA. Note: This statistic is counted per radio bearer.
Sum	-	unsignedInt	-	Total number of radio bearer setup messages sent to the UE.

FAPService.{i}.UMTS.RRC.RadioBearerSetupComplete.

Parameters relating to the radio bearer setup complete message.

Parameter	W	Type	Default	Description
HSDPABearerAdded	-	unsignedInt	-	Number of setups in which at least one radio bearer is setup as HSDPA.

				Note: This statistic is counted per radio bearer.
HSUPABearerAdded	-	unsignedInt	-	Number of setups in which at least one radio bearer is setup as HSUPA. Note: This statistic is counted per radio bearer.
Sum	-	unsignedInt	-	Total number of radio bearer setup messages sent to the UE.

FAPService.{i}.UMTS.RRC.RadioBearerSetupFailure.

Parameters relating to the radio bearer setup failure messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause for radio bearer setup failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of radio bearer setup failure messages received from the UE.

FAPService.{i}.UMTS.RRC.RadioBearerSetupFailure.HSUPA.

Parameters relating to failed HSDPA radio bearer setups.

Note: These statistics are counted per radio bearer.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of HSDPA radio bearer setup failures received.

FAPService.{i}.UMTS.RRC.RadioBearerSetupFailure.HSDPA.

Parameters relating to failed HSUPA radio bearer setups.

Note: These statistics are counted per radio bearer.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure.

				Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of HSUPA radio bearer setup failures received.

FAPService.{i}.UMTS.RRC.RRCConnectionReject.

Parameters relating to the RRC connection reject messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{2}	-	Cause for RRC connection reject messages. Array of *unsignedInt* items (maximum number of items 2).
EstablishmentCause	-	unsignedInt{33}	-	Establishment cause received in the RRC connection request for which the RRC reject was generated. Array of *unsignedInt* items (maximum number of items 33).
Sum	-	unsignedInt	-	Total number of RRC connection reject messages sent to the UE.

FAPService.{i}.UMTS.RRC.RRCConnectionRelease.

Parameters relating to the RRC connection release messages.

Parameter	W	Type	Default	Description
CSFBRedirectionToEUTRA	-	unsignedInt	-	Total number of RRC connection release request messages sent to the UE with the redirection info the LTE cell because of CS fallback.
Sum	-	unsignedInt	-	Total number of RRC connection reject messages sent to the UE.

FAPService.{i}.UMTS.RRC.RRCConnectionRelease.DCCH.

Parameters relating to the use of DCCH for signaling the RRC connection release.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause for RRC connection release message on DCCH. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	RRC connection release signaled on the DCCH.

FAPService.{i}.UMTS.RRC.RRCConnectionRelease.CCCH.

Parameters relating to the use of CCCH for signaling the RRC connection release.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause for RRC connection release message on CCCH. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	RRC connection release signaled on the CCCH.

FAPService.{i}.UMTS.RRC.RRCConnectionRequest.

Parameters relating to the RRC connection request messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	Cause for RRC connection request messages. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	Total number of RRC connection request messages received from the UE.

FAPService.{i}.UMTS.RRC.RRCConnectionRequest.Duplicate.

Parameters relating to the duplicate RRC connection request messages. RRC connection request messages are considered as duplicates when the UTRAN receives multiple copies of RRC connection request for the same attempt of RRC connection establishment.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	Cause present in the duplicated RRC connection request messages. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	Total number of RRC connection request messages received from the UE that are considered as duplicates.

FAPService.{i}.UMTS.RRC.RRCConnectionRequest.DropCount.

Parameters relating to the dropped RRC connection request messages. RRC connection request messages are dropped on reaching max workqueue threshold, if the threshold is set to a non-zero value.

Parameter	W	Type	Default	Description

Cause	-	unsignedInt{32}	-	Cause present in the dropped RRC connection request messages. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	Total number of RRC connection request messages received from the UE that are considered duplicates.

FAPService.{i}.UMTS.RRC.RRCConnectionSetup.

Parameters relating to the RRC connection setup messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	Cause for RRC connection setup message. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	Total number of RRC connection setup messages sent to the UE.

FAPService.{i}.UMTS.RRC.RRCConnectionSetupComplete.

Parameters relating to the RRC connection setup complete messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	Cause for RRC connection setup complete message. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	Total number of RRC connection setup complete messages received from the UE.

FAPService.{i}.UMTS.RRC.RRCConnectionSetupComplete.CumulativeTime.

Parameters relating to the average time required for RRC connection setup.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	Total time require for RRC establishment split by cause. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	Total time required across all RRC connection setups.

FAPService.{i}.UMTS.RRC.RRCConnectionSetupComplete.MaxTime.

Parameters relating to the maximum time required for RRC connection setup.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	Maximum time require for RRC establishment split by cause. Array of *unsignedInt* items (maximum number of items 32).
OverallMaximum	-	unsignedInt	-	Maximum time required for a RRC connection setup.

FAPService.{i}.UMTS.RRC.SecurityModeFailure.

Parameters relating to the security mode failure message sent by the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of failure messages received.

FAPService.{i}.UMTS.RRC.SignallingConnectionReleaseIndicationMsg.

Parameters relating to the signalling connection release indication message sent by the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for signalling connection release indication. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of signalling connection release indication messages received.

FAPService.{i}.UMTS.RRC.UTRANMobilityInformationConfirm.

Parameters relating to the UTRAN mobility information confirm message from the UE.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of UTRAN mobility information confirm messages sent by UEs to confirm the new mobility related information.

FAPService.{i}.UMTS.RRC.UTRANMobilityInformationFailure.

Parameters relating to the UTRAN mobility information failure message from the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of failure messages received.

FAPService.{i}.UMTS.Flow.

Parameters relating to the cumulative performance of data flows originating from UMTS sessions

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.Flow.RTP.

Parameters relating to the data traffic over RTP.

Parameter	W	Type	Default	Description
Inbound	-	unsignedLong	-	Total number of inbound packets.
Outbound	-	unsignedLong	-	Total number of outbound packets.
InboundBytes	-	unsignedLong	-	Total number of inbound bytes.
OutboundBytes	-	unsignedLong	-	Total number of outbound bytes.

FAPService.{i}.UMTS.Flow.GTPU.

Parameters relating to the data traffic over the user plane on GTP.

Parameter	W	Type	Default	Description
Inbound	-	unsignedLong	-	Total number of inbound packets.
Outbound	-	unsignedLong	-	Total number of outbound packets.

InboundBytes	-	unsignedLong	-	The total number of inbound bytes received over the GTP user plane.
OutboundBytes	-	unsignedLong	-	The total number of outbound bytes sent over the GTP user plane.

FAPService.{i}.UMTS.Flow.LS.

Parameters relating to the data traffic from UMTS sessions that is locally switched.

Parameter	W	Type	Default	Description
Inbound	-	unsignedLong	-	Total number of inbound packets.
Outbound	-	unsignedLong	-	Total number of outbound packets.
InboundBytes	-	unsignedLong	-	The total number of inbound bytes received for locally switched UMTS sessions.
OutboundBytes	-	unsignedLong	-	The total number of outbound bytes sent for locally switched UMTS sessions.

FAPService.{i}.UMTS.RadioBearer.

Parameters relating to the performance of the different types of radio bearers.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.RadioBearer.RLCAM.

Parameters relating to the performance of the RLC AM layer in the system.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.RadioBearer.RLCAM.Downlink.

Parameters relating to the performance of the RLC AM layer on the downlink.

Parameter	W	Type	Default	Description
SDUsIngress	-	unsignedLong	-	Total number of SDUs sent to RLC in AM.
SDUsDropped	-	unsignedInt	-	SDUs dropped due to window full.

DataBytesSent	-	unsignedLong	-	The number of bytes sent to UEs using RLC acknowledge mode not including any retransmissions.
DataPDUsSent	-	unsignedLong	-	Number of transmitted data PDUs, including new transmissions only.

FAPService.{i}.UMTS.RadioBearer.RLCAM.Downlink.StatusPDUInformation.

Parameters relating to the status PDUs received.

Parameter	W	Type	Default	Description
NumPDUsReceived	-	unsignedLong	-	Total number of RLC STATUS PDUs received.

FAPService.{i}.UMTS.RadioBearer.RLCAM.Downlink.StatusPDUInformation.AMDPDUCounts.

AMD PDU acknowledgement information.

Parameter	W	Type	Default	Description
Nack	-	unsignedLong	-	Total number of nacks received for RLC AMD PDUs, counted per PDU.
Ack	-	unsignedLong	-	Total number of unique acks received for RLC AMD PDUs, counted at most once per PDU.

FAPService.{i}.UMTS.RadioBearer.RLCAM.Downlink.DataPDUsResent.

Parameters relating to the retransmission of data PDUs.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of data PDUs resent.

FAPService.{i}.UMTS.RadioBearer.RLCAM.Downlink.DataPDUsResent.Cause.

Cause for retransmission of data PDUs.

Parameter	W	Type	Default	Description
TimerExpiry	-	unsignedInt	-	Number of data PDUs resent due to timer expiry.

Nack	-	unsignedInt	-	Number of data PDUs resent due to nack.
ServingCellChange	-	unsignedInt	-	Number of data PDUs resent due to serving cell change.

FAPService.{i}.UMTS.RadioBearer.RLCAM.Downlink.ResetsSent.

Parameters relating to the resets on RLC AM.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of times an RLC AM sender transmitted a RESET control PDU, including retransmissions. This includes DL RLC AM retransmissions of RLC RESET PDUs.

FAPService.{i}.UMTS.RadioBearer.RLCAM.Downlink.ResetsSent.Cause.

Cause for RLC AM resets.

Parameter	W	Type	Default	Description
MaxDAT	-	unsignedInt	-	Reset triggered on reaching maximum retransmissions for downlink PDUs.
SequenceNumberError	-	unsignedInt	-	Reset triggered when invalid nack received.
Timeout	-	unsignedInt	-	Reset triggered due to reset timer expiry for the UE.
Reassembly	-	unsignedInt	-	Reset triggered due to bad uplink data PDUs.

FAPService.{i}.UMTS.RadioBearer.RLCAM.Uplink.

Parameters relating to the performance of the RLC AM layer on the uplink.

Parameter	W	Type	Default	Description
DataBytesReceived	-	unsignedLong	-	The number of bytes received from UEs using RLC acknowledge mode excluding any duplicates and errors.
DataPDUsReceived	-	unsignedLong	-	Number of data PDUs received, including duplicates and errors. Note that de-duplication due to R99 uplink macro-diversity reception is done at MAC and is not included.
ResetsReceived	-	unsignedLong	-	Number of uplink resets.

FAPService.{i}.UMTS.RadioBearer.RLCAM.Uplink.StatusPDUInformation.

Parameters relating to the status PDUs sent.

Parameter	W	Type	Default	Description
NumPDUsSent	-	unsignedLong	-	Total number of RLC STATUS PDUs transmitted.

FAPService.{i}.UMTS.RadioBearer.RLCAM.Uplink.StatusPDUInformation.AMDPDUCounts.

AMD PDU acknowledgement information.

Parameter	W	Type	Default	Description
Nack	-	unsignedLong	-	Total number of nacks sent for RLC AMD PDUs, counted per PDU.
Ack	-	unsignedLong	-	Total number of unique acks sent for RLC AMD PDUs, counted at most once per PDU.

FAPService.{i}.UMTS.HandOut.

Parameters relating to the handout performance on the system.

Parameter	W	Type	Default	Description
CMActivationAttempts	-	unsignedInt	-	The number of compressed mode activations attempted for all UEs on the system.
CMDeactivationAttempts	-	unsignedInt	-	The number of compressed mode deactivations attempted for all UEs on the system. Note: When sessions are cleanly released while a UE is in compressed mode this count is not incremented.
CMCallDrops	-	unsignedInt	-	The number of calls dropped while a UE is in compressed mode and having an established CS RAB.

FAPService.{i}.UMTS.HandOut.EventTrigger.

Parameters relating to the event triggers for handout.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.HandOut.EventTrigger.Attempts.

Parameters relating to the attempts for handout by event trigger type.

Parameter	W	Type	Default	Description
BlindForOffload	-	unsignedInt	-	The number of attempts for blind handout triggered due to admission control.
CellDragging	-	unsignedInt	-	The number of attempts for blind handout due to cell dragging check.
MeasuredForEmergencyOffload	-	unsignedInt	-	The number of attempts for compressed mode based handout triggered for emergency call offload.
MeasuredForCoverage	-	unsignedInt	-	The number of attempts for compressed mode based handout triggered at system coverage edge.
IntraFrequency	-	unsignedInt	-	The number of attempts for intra-frequency handout triggered at system coverage edge.
Sum	-	unsignedInt	-	The total number of attempts for handout.

FAPService.{i}.UMTS.HandOut.EventTrigger.Successes.

Parameters relating to the successes for handout by event trigger type.

Parameter	W	Type	Default	Description
BlindForOffload	-	unsignedInt	-	The number of successful blind handouts that were initiated due to admission control.
CellDragging	-	unsignedInt	-	The number of successful handouts that were initiated due to cell dragging threshold.
MeasuredForEmergencyOffload	-	unsignedInt	-	The number of successful handouts that were initiated for emergency call offload.
MeasuredForCoverage	-	unsignedInt	-	The number of successful handouts that were initiated due to edge coverage.
IntraFrequency	-	unsignedInt	-	The number of successful intra-frequency handouts that were initiated due to edge coverage.
Sum	-	unsignedInt	-	The total number of successful handouts.

FAPService.{i}.UMTS.HandOut.InterUMTS.

Parameters relating to inter-UMTS handout when the UE is involved.

Parameter	W	Type	Default	Description
UEAttempts	-	unsignedInt	-	The number of handover command messages sent to UEs where a handover command may be one of several specific

				RRC messages, e.g. RRC Physical Channel Reconfiguration, containing the new radio link configuration for the UE.

FAPService.{i}.UMTS.HandOut.InterUMTS.UEInvolved.

Parameters relating to inter-UMTS handout when the UE is involved.

Parameter	W	Type	Default	Description
CNAttemptsCS	-	unsignedInt	-	The number of Relocation Required messages sent to the core network CS domain for inter-UMTS handout.
CNSuccessesCS	-	unsignedInt	-	The number of Relocation Command messages received from the core network CS domain.
CNAttemptsPS	-	unsignedInt	-	The number of Relocation Required messages sent to the core network PS domain for inter-UMTS handout.
CNSuccessesPS	-	unsignedInt	-	The number of Relocation Command messages received from the core network PS domain.

FAPService.{i}.UMTS.HandOut.InterUMTS.UEInvolved.CNFailuresCS.

Parameters relating to a RANAP failure message received from the inter-UMTS system during handout.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	The number of Relocation Preparation Failure messages received from the CS domain per the RANAP Cause types defined in TS 24.413. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of Relocation Preparation Failure messages received from the CS domain.

FAPService.{i}.UMTS.HandOut.InterUMTS.UEInvolved.CNFailuresPS.

Parameters relating to a RANAP failure message received from the inter-UMTS system during handout.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	The number of Relocation Preparation Failure messages received from the PS domain per the RANAP Cause types defined in TS 25.413. Array of *unsignedInt* items (maximum number of items 117).

Sum	-	unsignedInt	-	The total number of Relocation Preparation Failure messages received from the PS domain.

FAPService.{i}.UMTS.HandOut.InterUMTS.UEFailures.

Parameters relating to the handout attempts that failed at the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	The number of RRC messages, e.g. RRC Physical Channel Reconfiguration Failure, per Failure Cause types defined in TS 25.331 received from UEs indicating a failure response to a handover command message. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	The total number of RRC messages, e.g. RRC Physical Channel Reconfiguration Failure, received from UEs indicating a failure response to a handover command message.

FAPService.{i}.UMTS.HandOut.InterUMTS.UESuccesses.

Parameters relating to the successful completion of a handout. This is defined as the condition that the system received an Iu Release from the core network indicating a successful handout (or as implemented, after the handout message was sent to the UE and before a handout failure was received from the UE, or before the system generated an Iu release request).

Dev Note: This stat does not account for the case where the core signals a Iu release instead of relocation command.

Parameter	W	Type	Default	Description
CS	-	unsignedInt	-	Number of successful handouts that had at least one CS RAB.
PS	-	unsignedInt	-	Number of successful handouts that had at least one PS RAB.
Sum	-	unsignedInt	-	Total number of inter-UMTS handouts that were successful.

FAPService.{i}.UMTS.HandOut.InterRAT.

Parameters relating to the inter-RAT handoff performance in the system.

Parameter	W	Type	Default	Description

CNAttemptsCS	-	unsignedInt	-	The number of Relocation Required messages sent to the core network CS domain for inter-RAT handout.
CNSuccessesCS	-	unsignedInt	-	The number of Relocation Command messages received from the core network CS domain.
UEAttempts	-	unsignedInt	-	The number of Handover From UTRAN Command messages sent to UEs.

FAPService.{i}.UMTS.HandOut.InterRAT.CNFailuresCS.

Parameters relating to a RANAP failure message received from the inter-RAT system during handout.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	The number of Relocation Preparation Failure messages received from the CS domain per the RANAP Cause types defined in TS 24.413. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of Relocation Preparation Failure messages received from the CS domain.

FAPService.{i}.UMTS.HandOut.InterRAT.UEFailures.

Parameters relating to Handover From UTRAN Failure messages received from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	The number of Handover From UTRAN Failure messages received per Inter-RAT Handover Failure Cause type defined in TS 25.331. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	The total number of Handover From UTRAN Failure messages received from UEs.

FAPService.{i}.UMTS.HandOut.InterRAT.UESuccesses.

Parameters relating to the successful completion of a handout. This is defined as the condition that the system received an IU Release from the core network indicating a successful handout (or as implemented, after the handout message was sent to the UE and before a handout failure was received from the UE, or before the system generated an IU release request).

Dev Note: This stat does not account for the case where the core signals a IU release instead of relocation command.

Parameter	W	Type	Default	Description
CS	-	unsignedInt	-	Number of successful handouts that had at least one CS RAB.
Sum	-	unsignedInt	-	Total number of inter-RAT handouts that were successful.

FAPService.{i}.UMTS.HandIn.

Parameters relating to hand-in performance of the cell.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.HandIn.InterUMTS.

Parameters relating to inter-UMTS hand-in.

Parameter	W	Type	Default	Description

FAPService.{i}.UMTS.HandIn.InterUMTS.UEInvolved.

Parameters relating to inter-UMTS hand-in when the UE is involved.

Parameter	W	Type	Default	Description
CNAttemptsCS	-	unsignedInt	-	The number of Relocation Request messages received from the core network CS domain initiated by a UMTS RAN for hand-in.
CNSuccessesCS	-	unsignedInt	-	The number of Relocation Request Acknowledge messages sent to the core network CS domain indicating successful relocation preparations for inter-UMTS hand-in.
CNAttemptsPS	-	unsignedInt	-	The number of Relocation Request messages received from the core network PS domain initiated by a UMTS RAN for hand-in.
CNSuccessesPS	-	unsignedInt	-	The number of Relocation Request Acknowledge messages sent to the core network PS domain indicating successful relocation preparations for inter-UMTS hand-in.
CNAttemptsCSAndPS	-	unsignedInt	-	The number of Relocation Request messages received from the core network on both CS

				and PS domains initiated by a UMTS RAN for hand-in for the same session. This can happen if the source RNC initiates a relocation procedure coordinated over both Iu connections.
CNSuccessesCSAndPS	-	unsignedInt	-	The number of Relocation Request Acknowledge messages sent to the core network CS and PS domains indicating successful relocation preparations for inter-UMTS hand-in involving a muli-RAB session.
CNSuccessesCSAndPSRelease	-	unsignedInt	-	The number of Relocation Request Acknowledge messages sent to the core network CS and PS domains indicating successful relocation preparation for the CS domain with the release of all PS bearers when the associated Relocation Request was for a multi-RAB session.

FAPService.{i}.UMTS.HandIn.InterUMTS.UEInvolved.CNFailuresCS.

Parameters relating to a failed inter-UMTS hand-in on CS domain.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Cause specified by RNC in a failed interrupts hand-in for CS domain. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Total number of interrupts hand-ins failed during RANAP signaling on CS domain.

FAPService.{i}.UMTS.HandIn.InterUMTS.UEInvolved.CNFailuresPS.

Parameters relating to a failed hand-in on PS domain.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Cause specified by RNC in a failed hand-in for PS domain. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Total number of hand-ins failed during RANAP signaling on PS domain.

FAPService.{i}.UMTS.HandIn.InterUMTS.UEInvolved.CNFailuresCSAndPS.

Parameters relating to a failed hand-in coordinated on both CS and PS domains.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Cause specified by RNC in a failed hand-in coordinated on both CS and PS domains.

				Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Total number of hand-ins failed during RANAP signaling on both CS and PS domains.

FAPService.{i}.UMTS.HandIn.InterUMTS.UESuccesses.

Parameters relating to the successful completion of a hand-in.

Parameter	W	Type	Default	Description
CS	-	unsignedInt	-	The number of successful inter-UMTS hand-ins that included at least one CS RAB.
PS	-	unsignedInt	-	The number of successful inter-UMTS hand-ins that included at least one PS RAB.
CSAndPS	-	unsignedInt	-	The number of successful inter-UMTS hand-ins that included a CS RAB and at least one PS RAB.
CSAndPSRelease	-	unsignedInt	-	The number of inter-UMTS hand-ins involving coordinated multi-RAB session where a CS RAB was successfully transferred and PS RABs were released.
Sum	-	unsignedInt	-	The total number of inter-UMTS hand-ins that were successful.

FAPService.{i}.LTE.

This object contains LTE specific parameters.

Parameter	W	Type	Default	Description
NumberOfZones	-	unsignedInt	-	The number of Zones operational in the system.

FAPService.{i}.LTE.Zone.{i}.

This object contains all parameters for the specified Zone.

Parameter	W	Type	Default	Description
Description	W	string(255)	<Empty>	Human-readable description for this zone.
Type	W	enum	SONConfigAndScanZone	Specify the type of the Zone. Enumeration of: • *UnknownZone* (Zone type is not specified.)

				• *SONConfigAndScanZone* (A SONConfigAndScan Zone possesses all capabilities of a SONScan Zone. It can also be used to configure the operational parameters of all the cells in that Zone.) • *SONScanZone* (A SONScan Zone can only be used to excecute a REM Scan on cells in that Zone.) .
CellList	W	unsignedInt[1:]{256}	<Empty>	List of cells in this Zone. A cell needs to be a member of a single SONConfigAndScan Zone or ConfigZone. By default it is a member of Zone 0. The cell can be a member of multiple SONScan Zones. Array of *unsignedInt* items (maximum number of items 256).

FAPService.{i}.LTE.Zone.{i}.Config.

Configuration parameters for all cells that belong to this Zone.

Parameter	W	Type	Default	Description
Priority	W	unsignedInt[ranges]	32767	The priority of the Zone can be of value 1 to 31 both inclusive, 1 being the lowest priority. Value can also be 32767 which is defined as invalid priority and in such case the zone is considered disabled. Possible values: • *1 to 127* • *32767*

FAPService.{i}.LTE.Zone.{i}.Config.RAN.

RAN configuration parameters for all cells that belong to this Zone.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.Zone.{i}.Config.RAN.RF.

This object contains all parameters relating to RF ([3GPP-TS.32.592] Section 6.1.7.1) for the specified Zone.

Parameter	W	Type	Default	Description
EARFCNDL	W	unsignedInt[ranges]	65535	E-UTRA Absolute Radio Frequency Channel Number in the downlink direction. Corresponds to parameter NDL specified in [3GPP-TS.36.104] Table 5.7.3.1. Possible values: • *0 to 65535*

				• *65535*

EARFCNUL	W	unsignedInt[ranges]	65535	E-UTRA Absolute Radio Frequency Channel Number in the uplink direction. Corresponds to parameter NUL specified in [3GPP-TS.36.104] Table 5.7.3.1. Possible values: • *0 to 65535* • *65535*
DLBandwidth	W	unsignedInt[ranges]	4294967295	Downlink transmission bandwidth, specified in number of Resource Blocks. Valid values are 15, 25, 50, 75, and 100 RBs for 3, 5, 10, 15, and 20 MHz, respectively. Corresponds to parameter dl_Bandwidth in MIB (Master Information Block) in [3GPP-TS.36.331] Section 6.2.2 and to parameter NRB in [3GPP-TS.36.101] Table 5.6-1. Possible values: • *15* • *25* • *50* • *75* • *100* • *4294967295*
ULBandwidth	W	unsignedInt[ranges]	4294967295	Uplink transmission bandwidth, specified in number of Resource Blocks. Valid values are 15, 25, 50, 75, and 100 RBs for 3, 5, 10, 15, and 20 MHz, respectively. Corresponds to parameter ul_Bandwidth in SIB2 in [3GPP-TS.36.331] Section 6.3.1 and to parameter NRB in [3GPP-TS.36.101] Table 5.6-1. Possible values: • *15* • *25* • *50* • *75* • *100* • *4294967295*
ReferenceSignalPower	W	spanInt	127	Downlink reference-signal transmit power range, specified in *dBm* per resource element, used by the system to configure the Reference Signal Powers of all cells.
PhyCellID	W	spanUnsignedInt{1:512}	65535	List of physical cell identities LTE FAP to choose from Array of *string* items (minimum number of items 1, maximum number of items 512).
PSCHPowerOffset	W	int[ranges]	32767	Power offset dB, of the Primary Synchronization Channel with respect to the ReferenceSignalPower. If the cell is part of a zone, then *PSCHPowerOffset* value is the zone value *FAPService.{i}.LTE.Zone.{i}.RF.PSCHPowerOffset*. If the zone value is set to its invalid value or the cell is not part of a zone, then *PSCHPowerOffset* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.RF.PSCHPowerOffset*. The value of *PSCHPowerOffset* divided by 10 yields the actual value.

				Possible values: • *-350 to 150* • *32767*
SSCHPowerOffset	W	int[ranges]	32767	Power offset in dB, of the Secondary Synchronization Channel with respect to the ReferenceSignalPower. If the cell is part of a zone, then *SSCHPowerOffset* value is the zone value *FAPService.{i}.LTE.Zone.{i}.RF.SSCHPowerOffset*. If the zone value is set to its invalid value or the cell is not part of a zone, then *SSCHPowerOffset* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.RF.SSCHPowerOffset*. The value of *SSCHPowerOffset* divided by 10 yields the actual value. Possible values: • *-350 to 150* • *32767*
PBCHPowerOffset	W	int[ranges]	32767	Power offset in dB, of the Physical Broadcast Channel with respect to the ReferenceSignalPower. If the cell is part of a zone, then *PBCHPowerOffset* value is the zone value *FAPService.{i}.LTE.Zone.{i}.RF.PBCHPowerOffset*. If the zone value is set to its invalid value or the cell is not part of a zone, then *PBCHPowerOffset* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.RF.PBCHPowerOffset*. The value of *PBCHPowerOffset* divided by 10 yields the actual value. Possible values: • *-350 to 150* • *32767*

FAPService.{i}.LTE.Zone.{i}.Config.RAN.RF.OTASync.

This object contains all parameters related to over the air synchronization configuration for all cells included in this Zone.

Parameter	W	Type	Default	Description
Enable	W	enum	Invalid	Enable or disable over the air time and frequency synchronization in all cells of this zone (set to FALSE to disable). Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
MacroDonorThresholdLowRSRP	W	int[ranges]	127	Low threshold of macro donor in RSRP below which internal cells are considered as probable donors. Possible values:

				• *-140 to -44* • *127*
HystMacroSyncedDonor	W	unsignedInt[ranges]	255	The value above the low RSRP threshold of macro donor cell over which an internal macro synced cell is preferred over macro cell as a donor. Possible values: • *0 to 50* • *255*
HystInternalSyncedLev1Donor	W	unsignedInt[ranges]	255	The value above the low RSRP threshold of macro donor cell over which an internal level 1 synced cell is preferred over macro cell as a donor. Possible values: • *0 to 50* • *255*
HystInternalSyncedLev2Donor	W	unsignedInt[ranges]	255	The value above the low RSRP threshold of macro donor cell over which an internal level 2 synced cell is preferred over level 1 synced cell as a donor. Possible values: • *0 to 50* • *255*
HystInternalSyncedLev3Donor	W	unsignedInt[ranges]	255	The value above the low RSRP threshold of macro donor cell over which an internal level 3 synced cell is preferred over level 2 synced cell as a donor. Possible values: • *0 to 50* • *255*
MaxInternalSyncHopLevLimit	W	unsignedInt[ranges]	255	Maximum hops allowed for over the air time and frequency synchronization synchronization. Possible values: • *1 to 4* • *255*

FAPService.{i}.LTE.Zone.{i}.Config.RAN.RF.OTASync.MacroDonor.{i}.

This object contains all parameters related to over the air synchronization configuration for all cells included in this Zone.

Parameter	W	Type	Default	Description
EARFCNDL	W	unsignedInt[ranges]	65535	The downlink operating frequency of the donor macro cell. Possible values: • *0 to 65535* • *65535*
PhyCellID	W	unsignedInt[ranges]	4294967295	The Physical Cell ID (PCI) of the donor macro cell. Possible values: • *0 to 503* • *4294967295*

FAPService.{i}.LTE.Zone.{i}.Config.RAN.PHY.

This object contains all parameters relating to PHY.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.Zone.{i}.Config.RAN.PHY.PRACH.

This object contains all parameters relating to PRACH.

Parameter	W	Type	Default	Description
RootSequenceIndexList	W	spanUnsignedInt{1:20}	2147483647	Root Sequence index to be used by the cells in this Zone. Array of *string* items (minimum number of items 1, maximum number of items 20).

FAPService.{i}.LTE.Zone.{i}.Config.RAN.PHY.EMBMS.

EMBMS related parameters for LTE RAN configuration in this zone.

Parameter	W	Type	Default	Description

Enable	W	enum	Invalid	Enable or disable all EMBMS related configuration. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
MBSFNAreaNumberOfEntries	-	unsignedInt[0:8]	-	Number of MBSFN area entries.
NeighCellConfig	W	unsignedInt[0:3]	0	Defines the information related to MBSFN configuration of neighbour cells (FDD only). Corresponds to NeighCellConfig IE specified in [Section 6.3.6/3GPP-TS.36.331]. Value 0: Not all neighbour cells have the same MBSFN sub-frame allocation as serving cell. Value 1: No MBSFN sub-frames are present in all neighbour cells. Value 2: The MBSFN sub-frame allocations of all neighbour cells are identical to or subsets of that in the serving cell.

FAPService.{i}.LTE.Zone.{i}.Config.RAN.PHY.EMBMS.MBSFNAreaList.{i}.

This object contains parameters relating to the MBSFN (Multimedia Broadcast multicast service Single Frequency Network) configuration for an MBSFN area in this zone.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this entry.
MBSFNAreaID	W	unsignedInt[0:255]	0	Identifier of the MBSFN area.
ServiceAreaIDList	W	unsignedInt[0:65535]{}	<Empty>	List of MBMS Service Areas for this MBSFN Area. Array of *unsignedInt* items.
MaxSFConfigListEntries	-	unsignedInt	-	Maximum number of entries in the SFConfigList table.
SFConfigListNumberOfEntries	-	unsignedInt	-	Number of entries in the SFConfigList table.

FAPService.{i}.LTE.Zone.{i}.Config.RAN.PHY.EMBMS.MBSFNAreaList.{i}.SFConfigList.{i}.

This object contains parameters relating to the sub-frame that are reserved for MBSFN (Multimedia Broadcast multicast service Single Frequency Network) in downlink direction.

For FDD mode, only one entry can exist in this table.

At most one enabled entry in this table can exist with all the same values for RadioFrameAllocationPeriod, RadioframeAllocationOffset and RadioFrameAllocationSize.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this entry.
RadioFrameAllocationPeriod	W	unsignedInt[ranges]	1	Defines the period where MBSFN sub-frames occur in the radio frames. Radio frames contain MBSFN sub-frame when the following condition is met: ((SFN mod RadioFrameAllocationPeriod) = RadioframeAllocationOffset). The value of 1 and 2 are only meaningful when the value of RadioFrameAllocationSize parameter is 1. Corresponds to radioFrameAllocationPeriod IE specified in [Section 6.3.1/3GPP-TS.36.331]. Possible values: • *1 to 2* • *4* • *8* • *16* • *32*
RadioframeAllocationOffset	W	unsignedInt[0:7]	0	Defines the offset where MBSFN sub-frames occur in the radio frames. Radio frames contain MBSFN sub-frame when the following condition is met: ((SFN mod RadioFrameAllocationPeriod) = RadioframeAllocationOffset). Corresponds to radioFrameAllocationOffset IE specified in [Section 6.3.1/3GPP-TS.36.331].
RadioFrameAllocationSize	W	unsignedInt[ranges]	1	Defines the number of consecutive frames that the MBSFN allocation pertains to defined by the combination of RadioFrameAllocationPeriod and RadioframeAllocationOffset parameters. Possible values: • *1* • *4*
SubFrameAllocations	W	unsignedInt[ranges]{}<64>	0	List (maximum list length 64) of unsigned integers (value 0, or 1). The value of "1" indicates the position of sub-frames that is allocated to MBSFN within the radio frame. First item defines the MBSFN allocation for sub-frame #1, second item for #2, third item for #3, fourth item for #6, fifth item for #7, sixth item for #8. If the value of RadioFrameAllocationSize is 4, then this pattern repeats in the sequence of the four radio frames. The actual size of this parameter depends on the value of RadioFrameAllocationSize parameter. If the value of RadioFrameAllocationSize is 1, then the size of this

				parameter is 6; if the size RadioFrameAllocationSize is 4, then the size of this parameter is 24. Corresponds to subframeAllocation IE specified in [Section 6.3.1/3GPP-TS.36.331]. Array (maximum length as string 64) of *unsignedInt* items. Possible values for each list item: • *0* • *1*

FAPService.{i}.LTE.Zone.{i}.Config.RAN.MAC.

This object contains all parameters relating to the MAC (Medium Access Control) configuration ([3GPP-TS.32.592] Section 6.1.2.1) for the specified Zone.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.Zone.{i}.Config.RAN.MAC.CarrierAggregation.

This object contains all parameters relating to Carrier Aggregation.

Parameter	W	Type	Default	Description
SCellA1ThresholdRSRP	W	int[ranges]	127	RSRP threshold to be used in EUTRA measurement report triggering condition for secondary cell event A1. Possible values: • *-140 to -44* • *127*
SCellA2ThresholdRSRP	W	int[ranges]	127	RSRP threshold to be used in EUTRA measurement report triggering condition for secondary cell event A2. Possible values: • *-140 to -44* • *127*

FAPService.{i}.LTE.Zone.{i}.Config.RAN.CellRestriction.

This object contains all parameters relating to cell restriction configuration for the specified Zone.

Parameter	W	Type	Default	Description

CellBarred	W	enum	Invalid	Indicates whether the cell is barred or not. If true, the cell is barred. If false, the cell is not barred. Corresponds to parameter CellBarred specified in SIB1 in [3GPP-TS.36.331] Section 6.2.2. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
BarringForEmergency	W	enum	Invalid	Indicates whether the is barred for Access Class 10 or not. If true, the cell is barred for Access Class 10. If false, the cell is not barred for Access Class 10. Corresponds to parameter ac-BarringForEmergency specified in SIB2 in [3GPP-TS.36.331] Section 6.2.2. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
IntraFreqReselection	W	enum	Invalid	Used to control cell reselection to intra-frequency cells when the highest ranked cell is barred, or treated as barred by the UE, as specified in [3GPP-TS.36.304] Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
ACBarringForMOSignallingEnable	W	enum	Invalid	Enables or disables access class barring for mobile originated signalling. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
ACBarringFactorMOSignalling	W	unsignedInt[ranges]	255	If the random number drawn by the UE is lower than this value, access is allowed. Otherwise the access is barred. The values are interpreted in the range [0,1): p00 = 0, p05 = 0.05, p10 = 0.10,.,p95 = 0.95. Values other than 0 can only be set if *X_002448_ACBarringForSpecialACMOSignalling* is empty. Possible Values: 0, 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 75, 80, 85, 90, 95 Possible values:

				• *0* • *5* • *10* • *15* • *20* • *25* • *30* • *40* • *50* • *60* • *70* • *75* • *80* • *85* • *90* • *95* • *255*

ACBarringTimeMOSignalling	W	unsignedInt[ranges]	65535	Mean access barring time value in seconds. Used to calculate the absolute barring time. Possible Values: 4, 8, 16, 32, 64, 128, 256, 512 Possible values: • *4* • *8* • *16* • *32* • *64* • *128* • *256* • *512* • *65535*
ACBarringSpecialACMOSignalling	W	unsignedInt[11:15]{}	<Empty>	Access class barring for AC 11 to 15 for mobile originated signalling. If an access class is included in the list, it indicates that access class barring is enabled for that access class for mobile orignated signalling connections. Array of *unsignedInt* items.
ACBarringForMODataEnable	W	enum	Invalid	Enables or disables access class barring for mobile originated data. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
ACBarringFactorMOData	W	unsignedInt[ranges]	255	If the random number drawn by the UE is lower than this value, access is allowed. Otherwise the access is barred. The values are interpreted in the range [0,1): p00 = 0, p05 = 0.05, p10 = 0.10,.,p95 = 0.95. Values other than 0 can only be set if *X_002448_ACBarringForSpecialACMOSignalling* is empty. Possible Values: 0, 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 75, 80, 85, 90, 95 Possible values: • *0* • *5* • *10* • *15* • *20* • *25* • *30* • *40* • *50*

				• *60* • *70* • *75* • *80* • *85* • *90* • *95* • *255*
ACBarringTimeMOData	W	unsignedInt[ranges]	65535	Mean access barring time value in seconds. Used to calculate the absolute barring time. Possible Values: 4, 8, 16, 32, 64, 128, 256, 512 Possible values: • *4* • *8* • *16* • *32* • *64* • *128* • *256* • *512* • *65535*
ACBarringSpecialACMOData	W	unsignedInt[11:15]{}	<Empty>	Access class barring for AC 11 to 15 for mobile originated data. If an access class is included in the list, it indicates that access class barring is enabled for that access class for mobile orignated data connections. Array of *unsignedInt* items.

FAPService.{i}.LTE.Zone.{i}.Config.RAN.Mobility.

This object contains all parameters relating to intra-frequency cell reselection for the specified Zone.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.Zone.{i}.Config.RAN.Mobility.ConnMode.

This object contains parameters relating to the UE's mobility while it is in connected mode (handover).

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.Zone.{i}.Config.RAN.Mobility.ConnMode.EUTRA.

Parameters relating to UE EUTRA Mobility in connected mode

Parameter	W	Type	Default	Description
A1ThresholdRSRP	W	int[ranges]	127	RSRP threshold to be used in EUTRA measurement report triggering condition for event A1. Corresponds to parameter a1-Threshold:threshold-RSRP specified in ReportConfigEUTRA IE in [3GPP-TS.36.331] Section 6.3.5. Possible values: • *-140 to -44* • *127*
A1ThresholdRSRQ	W	int[ranges]	127	RSRQ threshold to be used in EUTRA measurement report triggering condition for event A1. Possible values: • *-19 to -3* • *127*
A2ThresholdRSRP	W	int[ranges]	127	RSRP threshold to be used in EUTRA measurement report triggering condition for event A2. Corresponds to parameter a2-Threshold:threshold-RSRP specified in ReportConfigEUTRA IE in [3GPP-TS.36.331] Section 6.3.5. Possible values: • *-140 to -44* • *127*
A2ThresholdRSRQ	W	int[ranges]	127	RSRQ threshold to be used in EUTRA measurement report triggering condition for event A2. Possible values: • *-19 to -3* • *127*
A3Offset	W	int[ranges]	127	Offset to be used in evaluation of EUTRA measurement report triggering condition for event A3 for E-RAN internal cells, with a numeric range between -30 and 30 inclusive. Mapping to actual values is specified in [3GPP-TS.36.133]. Corresponds to parameter a3-Offset specified in ReportConfigEUTRA IE in [3GPP-TS.36.331] Section 6.3.5. Possible values: • *-30 to 30*

				• *127*

A5Threshold1RSRP	W	int[ranges]	127	RSRP threshold1 to be used in EUTRA measurement report triggering condition for event A5. Corresponds to parameter a5-Threshold1:threshold-RSRP specified in ReportConfigEUTRA IE in [3GPP-TS.36.331] Section 6.3.5. Possible values: • *-140 to -44* • *127*
A5Threshold2RSRP	W	int[ranges]	127	RSRP threshold2 to be used in EUTRA measurement report triggering condition for event A5. Corresponds to parameter a5-Threshold2:threshold-RSRP specified in ReportConfigEUTRA IE in [3GPP-TS.36.331] Section 6.3.5. Possible values: • *-140 to -44* • *127*
IntrafreqHandOutEnabled	W	enum	Invalid	Enables/disables intra-frequency handout to macro LTE cell. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
InterfreqHandOutEnabled	W	enum	Invalid	Enables/disables inter-frequency handout to macro LTE cell. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
HandInEnabled	W	enum	Invalid	Enables/disables hand-in from macro LTE cell. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
PeriodicReportingEnabled	W	enum	Invalid	Enables/disables Intra-frequency Periodic Reporting. When enabled, all UEs in connected mode send intra-frequency periodic reports. Enumeration of:

				• *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
ANREnabled	W	enum	Invalid	Enables/disables ANR using CGI reporting. When enabled, {{System}} uses CGI reporting from UE to detect neighboring EUTRA cells. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
X1InterfreqHandoverEnabled	W	enum	Invalid	Enables/disables X1 inter-frequency handover functionality. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)

FAPService.{i}.LTE.Zone.{i}.Config.RAN.Mobility.IdleMode.

This object contains all parameters relating to intra-frequency cell reselection for the specified Zone.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.Zone.{i}.Config.RAN.Mobility.IdleMode.IntraFreq.

This object contains all parameters relating to intra-frequency cell reselection for the specified Zone.

Parameter	W	Type	Default	Description
QRxLevMinSIB1	W	int[ranges]	127	RSRP threshold for serving cell. Possible values: • *-70 to -22* • *127*

QRxLevMinSIB3	W	int[ranges]	127	RSRP threshold for candidate intra-frequency cells. Possible values: • *-70 to -22* • *127*
QRxLevMinOffset	W	unsignedInt[ranges]	4	RSRP offset for candidate cells for reselection to higher priority PLMN. Possible values: • *1 to 8* • *255*
SIntrasearch	W	unsignedInt[ranges]	255	Threshold on RSRP of serving cell for intra-frequency measurements. The value of (*SIntrasearch* * 2) is the actual value used by the UE. Possible values: • *0 to 31* • *255*
TReselectionEUTRA	W	unsignedInt[ranges]	255	Time interval in *seconds* in which criteria must stay fulfilled for a UE to trigger a cell reselection. Possible values: • *0 to 7* • *255*
SNonIntraSearch	W	unsignedInt[ranges]	255	Threshold in on RSRP of current cell for inter-frequency and inter-rat measurements. The value of (*SNonIntraSearch* * 2) is the actual value used by the UE. Possible values: • *0 to 31* • *255*
CellReselectionPriority	W	unsignedInt[ranges]	255	Absolute priority of this E-UTRA frequency carrier. Possible values: • *0 to 7* • *255*

PMax	W	int[ranges]	127	Expected maximum power of UEs camping on this cell. Possible values: • *-30 to 33* • *127*
ThreshServingLow	W	unsignedInt[ranges]	4294967295	Threshold used for cell reselection to lower priority neighbors. Possible values: • *0 to 31* • *4294967295*

FAPService.{i}.LTE.Zone.{i}.Config.RAN.Mobility.IdleMode.InterFreq.

This object contains all parameters relating to inter-frequency cell reselection for the specified Zone.

Parameter	W	Type	Default	Description
CarrierListEnable	W	enum	Invalid	Enable or disable carriers defined in the inter-freq carrier list. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)

FAPService.{i}.LTE.Zone.{i}.Config.RAN.Mobility.IdleMode.InterFreq.Carrier.{i}.

This object contains all parameters relating to inter-frequency cell reselection for the specified Zone.

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Indicates whether inter-frequency cell reselection is enabled or not.
EUTRACarrierARFCN	W	unsignedInt[0:65535]	0	E-UTRA Absolute Radio Frequency Channel Number of this entry.
QRxLevMinSIB5	W	int[-60:-13]	-60	RSRP threshold for candidate intra-frequency cells on this carrier.

QOffsetFreq	W	int[ranges]	0	Bias against reselection to an inter-frequency neighbor cell on this carrier. Possible values: • *-24* • *-22* • *-20* • *-18* • *-16* • *-14* • *-12* • *-10 to -8* • *-6 to 6* • *8* • *10* • *12* • *14* • *16* • *18* • *20* • *22* • *24*
TReselectionEUTRA	W	unsignedInt[0:7]	1	Time interval in *seconds* in which criteria must stay fulfilled for a UE to trigger a cell reselection.
CellReselectionPriority	W	unsignedInt[0:7]	4	Absolute priority of this E-UTRA frequency carrier.
PMax	W	int[-30:33]	23	Expected maximum power of UEs camping on any cell on this carrier.
ThreshXHigh	W	unsignedInt[0:31]	0	Threshold used when this E-UTRAN frequency is higher priority than the serving cell. ThreshXHigh alone determines reselection.
ThreshXLow	W	unsignedInt[0:31]	10	Threshold used when this E-UTRAN frequency is lower priority than the serving cell.
MultiBandInfoList	W	unsignedInt[1:64]{8}	<Empty>	Indicates the list of additional frequency bands of the carrier. Array of *unsignedInt* items (maximum number of items 8).

FAPService.{i}.LTE.Zone.{i}.Config.NeighborList.

Parameters related to the neighbor list of LTECells in a SONConfigAndScan zone.

Parameter	W	Type	Default	Description

NeighborListLockEnable	W	enum	Invalid	Locks or unlocks the neighbor lists of all the LTECells in the zone. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)

FAPService.{i}.LTE.Zone.{i}.Config.AccessMgmt.

Access management parameters in a SONConfigAndScan zone.

Parameter	W	Type	Default	Description
IMSIWhitelistEnforcementEnable	W	enum	Invalid	Enable or disable IMSI Whitelist enforcement. If enabled, an IMSI is allowed access only if it has been configured in *FAPService.{i}.AccessMgmt.MemberDetail.{i}.* and it is allowed by the Policy configuration. This value applies to all LTECells in the zone. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)

FAPService.{i}.LTE.Zone.{i}.Config.SelfConfig.

Parameters related to the operational parameters of the LTECells in a SONConfigAndScan zone.

Parameter	W	Type	Default	Description
PhyCellIDLockEnable	W	enum	Invalid	Locks or unlocks the physical cell identifiers of all the LTECells in the zone. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
RefSignalTxPowerLockEnable	W	enum	Invalid	Locks or unlocks the reference signal transmit powers of all the LTECells in the zone. Enumeration of:

				• *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
RootSequenceLockEnable	W	enum	Invalid	Locks or unlocks the root sequence indexes of all the LTECells in the zone. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
CellAddProcedureEnable	W	enum	Invalid	Enables or disables the add procedure. If *CellAddProcedureEnable* is *false*, then the add process is NOT started for a newly added LTE cell or an LTE cell that is faulted during the REM procedure. If *CellAddProcedureEnable* is *true*, then the add procedure is periodically started until the LTE cell is successfully added to the system. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)

FAPService.{i}.LTE.Zone.{i}.SONScan.

This object is used for controlling the REM behavior of the Self Organizing Network (SON) operated by the Zone. This object is valid for SONConfigAndScan and SONScan Zones.

Parameter	W	Type	Default	Description
LTEExtIntraFreqREMScanEnable	W	boolean	true	Enables or disables scanning of external intra-frequency LTE cells during the Zone's REM operations. If *LTEExtIntraFreqREMScanEnable* is *false*, the Zone's previously scanned external LTE intra-frequency cells (if available) are used by Self Organizing Network (SON) Management. If *LTEExtIntraFreqREMScanEnable* is *true*, external intra-frequency LTE cells are scanned as part of the Zone's REM operations.
LTEExtInterFreqREMScanEnable	W	boolean	true	Enables or disables scanning of external inter-frequency LTE cells during the Zone's REM operations. If *LTEExtInterFreqREMScanEnable* is *false*, the Zone's previously scanned external LTE inter-frequency cells (if available) are used by Self Organizing Network (SON) Management. If *LTEExtInterFreqREMScanEnable* is *true*, external inter-frequency LTE cells are scanned as part of the Zone's REM operations.
UMTSREMScanEnable	W	boolean	true	Enables or disables scanning of external UMTS cells.

				If *UMTSREMScanEnable* is *false*, previously scanned external UMTS cells (if available) are used by Self Organizing Network (SON) Management. If *UMTSREMScanEnable* is *true*, external UMTS cells are scanned as part of REM scans.
GSMREMScanEnable	W	boolean	true	Enables or disables scanning of external GSM cells during the Zone's REM operations. If *GSMREMScanEnable* is *false*, the Zone's previously scanned external GSM cells (if available) are used by Self Organizing Network (SON) Management. If *GSMREMScanEnable* is *true*, external GSM cells are scanned as part of the Zone's REM operations.
InternalTopologyDiscoveryEnable	W	boolean	true	Enables or disables internal topology discovery during the Zone's REM operations. If *InternalTopologyDiscoveryEnable* is *false*, the Zone's previously discovered internal topology (if available) is used by Self Organizing Network (SON) Management. If *InternalTopologyDiscoveryEnable* is *true*, internal topology discovery is performed as part of the Zone's REM operations.
ReferenceListStatus	-	enum	Absent	Status of the Zone's reference cell neighborhood list. Enumeration of: • *Absent* (Reference cell neighborhood does not exist, no cell neighborhood faults will arise) • *Present* (Reference cell neighborhood exists, faults may arise if member cells are missing or new non-member neighbor cells are found) In order for these events to be generated: • *NEIGHBORHOOD_CELL_UNEXPECTED* • *NEIGHBORHOOD_CELL_MISSING* • *NEIGHBORHOOD_CELL_MATCH* and for this fault to be set/cleared: • *NEIGHBORHOOD_REFERENCE_DELTA* the following is required: • *ReferenceListStatus* must have a value of *Present*
ScanPeriodically	W	boolean	false	Enables or disables the Zone's periodic Radio Environment Measurement (REM) scanning.
PeriodicInterval	W	unsignedInt[1:31536000]	86400	Indicates the interval in *seconds* when REM is performed.
PeriodicTime	W	dateTime	1970-01-04T00:00:00Z	Local time reference for initiating periodic REM.
ScanStatus	-	enum	REMStatusIdle	The status of the Zone's REM scan. Enumeration of:

				• *REMStatusIdle* (Self Organizing Network (SON) Management is not active.) • *REMStatusGsmScan* (Self Organizing Network (SON) Management is executing a GSM scan.) • *REMStatusUmtsIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra Frequency scan.) • *REMStatusUmtsInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan.) • *REMStatusUmtsScan* (Self Organizing Network (SON) Management is executing an UMTS scan.) • *REMStatusInternalTopoDiscovery* (Self Organizing Network (SON) Management is executing internal topology discovery.) • *REMStatusAddCycleGsmScan* (Self Organizing Network (SON) Management is executing a GSM scan on a cell being added into the system.) • *REMStatusAddCycleUmtsIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra Frequency scan on a cell being added into the system.) • *REMStatusAddCycleUmtsInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan on a cell being added into the system.) • *REMStatusAddCycleUmtsScan* (Self Organizing Network (SON) Management is executing an UMTS scan on a cell being added into the system.) • *REMStatusLteIntraFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Intra Frequency scan.) • *REMStatusLteInterFrequencyScan* (Self Organizing Network (SON) Management is executing an UMTS Inter Frequency scan.) • *REMStatusLteScan* (Self Organizing Network (SON) Management is executing an LTE scan.) • *REMStatusAddCycleLteScan* (Self Organizing Network (SON) Management is executing an LTE scan on a cell being added into the system.) .

FAPService.{i}.LTE.Zone.{i}.SONScan.WCDMAFDD.

This object is used for controlling the REM behavior of the Self Organizing Network (SON) operated by the Zone. This object is valid for SONConfigAndScan and SONScan Zones.

Parameter	W	Type	Default	Description
UARFCNDLList	W	unsignedInt[ranges]{16}	Empty(0)	List of DL UARFCN's to scan during REM. Array of *unsignedInt* items (maximum number of items 16). Possible values for each list item: • *0* • *412* • *437* • *462* • *487* • *512*

				• *537* • *562* • *587* • *612* • *637* • *662* • *687* • *1007* • *1012* • *1032* • *1037* • *1062* • *1087* • *1537 to 1738* • *1887* • *1912* • *1937* • *1962* • *1987* • *2012* • *2037* • *2062* • *2087* • *2937 to 3088* • *4357 to 4458* • *9662 to 9938* • *10562 to 10838*

FAPService.{i}.LTE.Zone.{i}.SONScan.GSM.

This object is used for controlling the REM behavior of the Self Organizing Network (SON) operated by the Zone. This object is valid for SONConfigAndScan and SONScan Zones.

Parameter	W	Type	Default	Description
REMBandList	W	enum{}	<Empty>	Each entry is a GSM band to scan. If "", then *ARFCNList* must also be "". Array of *string* items. Each list item is an enumeration of: • *T-GSM380* • *T-GSM410*

				• *GSM450* • *GSM480* • *GSM710* • *GSM750* • *T-GSM810* • *GSM850* • *P-GSM900* • *E-GSM900* • *R-GSM900* • *T-GSM900* • *GSM900* • *DCS1800* • *PCS1900*

ARFCNList	W	spanUnsignedInt{0:127}	<Empty>	Each entry is a GSM absolute radio frequency channel numbers (ARFCN) to scan, or an ARFCN range.
				For each band in *REMBandList*, the intersection of:
				• the ARFCN list for that band
				• the ARFCN list represented by *ARFCNList*
				is choosen for scan.
				REMBandList and *ARFCNList* **must** have at least one ARFCN in common.
				Examples of valid strings:
				• "26"
				  o (explicitly specifies an ARFCN)
				• "26 27 29"
				  o (explicitly specifies 3 ARFCNs)
				• "26..29"
				  o (specifies 4 ARFCNs between 26 and 29, inclusive)
				• "26..29 31"
				  o (specifies 4 ARFCNs between 26 and 29, inclusive, and ARFCN 31)
				• "26..29 31..33"
				  o (specifies 4 ARFCNs between 26 and 29, inclusive, and 3 ARFCNs between 31 and 33, inclusive)
				The order of the items has no significance.
				Array of *string* items (minimum number of items 0, maximum number of items 127).

FAPService.{i}.LTE.Zone.{i}.SONScan.LTE.

This object contains parameters relating to REM (Radio Environment Measurement)

Parameter	W	Type	Default	Description
EUTRACarrierARFCNDLList	W	unsignedInt{16}	<Empty>	Array of *unsignedInt* items (maximum number of items 16). Each entry is a EARFCN in the DL direction to measure. If "" or 0, then the system will not scan any DL EARFCN other than the system DL EARFCN (see *.CellConfig.LTE.RAN.RF.EARFCNDL*).

FAPService.{i}.LTE.Session.{i}.

This object contains statistics for a particular session.

Parameter	W	Type	Default	Description
CellHandle	-	unsignedInt	-	Indicates the internal identifier used to reference this cell.
UEHandle	-	unsignedInt	-	Indicates the internal identifier used to reference this UE.
IMSI	-	string	-	Indicates the IMSI of the UE, or 0 if not known.
STMSI	-	string	-	Indicates the STMSI of the UE, or 0 if not known.
CRNTI	-	unsignedInt	-	Indicates the CRNTI of the UE, or 0 if not known.
RRCState	-	string	-	Indicates the RRC state of the session.
RRCConnState	-	string	-	Indicates the RRC connection state of the session.
RRCConnConfState	-	string	-	Indicates the RRC connection configuration state of the session.
RRCConnReconfState	-	string	-	Indicates the RRC connection reconfiguration state of the session.
NumDRB	-	unsignedInt	-	Indicates the number of data bearers established for the session.
S1PeerId	-	unsignedInt	-	The S1 Peer Index to which this session is connected.
ConnectTime	-	dateTime	-	Time at which the RRC session was created.
DisconnectTime	-	dateTime	-	Time at which the RRC session disconnected.
IsHistorical	-	boolean	-	If set, indicates that this session has expired. There may or may not be a newer session associated with the UE.
ConnectCause	-	string	-	The reason for which RRC session was established.
DisconnectCause	-	string	-	The reason for which RRC session was terminated.

RRCProcState	-	string	-	Indicates the current RRC procedure state of the session.
SCellState	-	string	-	Indicates the current state of the secondary cell usage for the session.

FAPService.{i}.LTE.RecordInfo.

Parameters relating to archival of FAPService LTE statistics.

Parameter	W	Type	Default	Description
TimeOfLastStatsReset	-	dateTime	-	Timestamp of the last reset of FAPService LTE statistics by {{ACS}}.
TimeOfLastStatsUpdate	-	dateTime	-	Timestamp of the last update of FAPService LTE statistics by system.

FAPService.{i}.LTE.CurrentStatus.

Parameters relating to current status of the LTE subsystem of the system.

Parameter	W	Type	Default	Description
NumCellsConfigured	-	unsignedInt	-	Total number of *LTECell.{i}* that are configured in the system.
NumCellsProvisioned	-	unsignedInt	-	Total number of *LTECell.{i}* that are provisioned in the system.
NumCellsActive	-	unsignedInt	-	Number of *LTECell.{i}* that are servicing at least one active session.
NumActiveSessions	-	unsignedInt	-	Number of active LTE UE sessions in the system.
NumPeakSessions	-	unsignedInt	-	Peak number of active LTE UE sessions in the system.
NumBearersPerQCI	-	unsignedInt{10}	-	Number of simultaneous inital and additional bearers per QCI. Array of *unsignedInt* items (maximum number of items 10).
NumSCellProvisionedSessions	-	unsignedInt	-	The number of active LTE UE sessions in the system which have a provisioned, though not enabled, SCell.
NumSCellEnabledSessions	-	unsignedInt	-	The number of active LTE UE sessions in the system which have an enabled SCell.

FAPService.{i}.LTE.SessionManagement.

Parameters relating to LTE session management of the system.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.SessionManagement.MasterSessionCreation.

Parameters relating to LTE master session creation in the system.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.SessionManagement.MasterSessionCreation.Cause.

Parameters relating to cause of LTE master session creation in the system.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Number of master sessions created for the LTE UE sessions in the system.

FAPService.{i}.LTE.SessionManagement.MasterSessionDeletion.

Parameters relating to the deletion LTE master sessions in the system.

Parameter	W	Type	Default	Description
NormalRelease	-	unsignedInt	-	Number of master sessions deleted normally for the LTE UE sessions in the system.

FAPService.{i}.LTE.SessionManagement.MasterSessionDeletion.AbnormalRelease.

Parameters relating to abnormal deletion of LTE master sessions in the system.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.SessionManagement.MasterSessionDeletion.AbnormalRelease.Cause.

Parameters relating to cause of abnormal deletion of LTE master sessions in the system.

Parameter	W	Type	Default	Description
Unspecified	-	unsignedInt	-	Number of UE sessions deleted with unspecified reason.

SecurityModeFail	-	unsignedInt	-	Number of UE sessions deleted due to RRC Security mode procedure failure.
RLFail	-	unsignedInt	-	Number of UE sessions deleted due to Radio Link failure.
AdmissionCtrlFail	-	unsignedInt	-	Number of UE sessions deleted due to admission control failure.
RRCRecfgFail	-	unsignedInt	-	Number of UE sessions deleted due to RRC Reconfiguration failure.
InvalidConnReq	-	unsignedInt	-	Number of UE sessions deleted due to invalid RRC Connection Request.
UEInactivity	-	unsignedInt	-	Number of UE sessions deleted due to user inactivity.
ConnCellChange	-	unsignedInt	-	Number of UE sessions deleted after receiving RRC Connection Request on a different cell.
SRBCfgFail	-	unsignedInt	-	Number of UE sessions deleted due to SRB configuration failure.
RLCreateFail	-	unsignedInt	-	Number of UE sessions deleted due to Radio Link creation failure.
RLProvFail	-	unsignedInt	-	Number of UE sessions deleted due to Radio Link provisioning failure.
RLReprovFail	-	unsignedInt	-	Number of UE sessions deleted due to Radio Link reprovisioning failure.
RRCConnTimeout	-	unsignedInt	-	Number of UE sessions deleted due to RRC connection setup procedure timeout.
MasterSessionCreationFail	-	unsignedInt	-	Number of UE sessions deleted due to master session creation failure.
MasterSessionAuthFail	-	unsignedInt	-	Number of UE sessions deleted due to master session authentication failure.
SHOFail	-	unsignedInt	-	Number of UE sessions deleted due to soft handover failure.
RRCConnRecfgTimeout	-	unsignedInt	-	Number of UE sessions deleted due to RRC Connection reconfiguration timeout.
RRCSecurityModeTimeout	-	unsignedInt	-	Number of UE sessions deleted due to RRC Security mode procedure timeout.
RRCProcedureTimeout	-	unsignedInt	-	Number of UE sessions deleted due to RRC procedure timeout.
UECleared	-	unsignedInt	-	Number of UE sessions deleted on clearing UE sessions from the CLI.
InvalidReestablishmentRequest	-	unsignedInt	-	Number of UE sessions deleted due to invalid RRC connection reestablishment request.
ReestablishmentFail	-	unsignedInt	-	Number of UE sessions deleted due to failure of RRC connection reestablishment procedure.
S1HOTimeout	-	unsignedInt	-	Number of UE sessions deleted due to S1 handover procedure timeout.

S1HOProvFail	-	unsignedInt	-	Number of UE sessions deleted due to provisioning failure for S1 handover.
S1HandInTimeout	-	unsignedInt	-	Number of UE sessions deleted due to timeout on S1 hand-in procedure.
S1HandInProvFail	-	unsignedInt	-	Number of UE sessions deleted due to provisioning failure for S1 hand-in.
S1HODone	-	unsignedInt	-	Number of UE sessons deleted due to successful S1 handover.
FEProvFail	-	unsignedInt	-	Number of UE sessons deleted due to FE provisioning failure.
S1HandInPDCPStatusMissing	-	unsignedInt	-	Number of UE sessons deleted due to PDCP status missing in S1AP message Handover request.
RLCMaxReTransmit	-	unsignedInt	-	Number of UE sessions deleted due to maximum retransmissions of an RLC PDU.
IntegrityFail	-	unsignedInt	-	Number of UE sessions deleted due to integrity failure.
CipheringFail	-	unsignedInt	-	Number of UE sessions deleted due to ciphering failure.
InternalError	-	unsignedInt	-	Number of UE sessions deleted due to internal error.
ForCSFallback	-	unsignedInt	-	Number of UE sessions deleted due to CS Fallback.
AdminCtrlDisconnect	-	unsignedInt	-	Number of UE sessions deleted due to admission control disconnect.
EpcmRelNone	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr with cause none.
EpcmRelUnspecified	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr with cause unspecified.
EpcmRelGen	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr with cause general.
SessionManagerInterrupt	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr due to session manger interruption.
EpcmRelMemUnavailable	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr with cause memory unavailable.
S1PeerNotFound	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr with cause no S1 peer found.
S1PeerNotConnected	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr because MME connection does not exist.
InitUEMsgInUEConnect	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr on receiving an invalid InitialUE message.
ERABCreateFail	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr because ERAB creation failed.

S1ConnReset	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr because of S1AP Reset from the EPC.
FlowManagerFail	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr due to flow manager failure.
SessionManagerFail	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr due to session manager failure.
S1ConnectionTerminated	-	unsignedInt	-	Number of UE sessions deleted due to release triggered from epcmgr on S1 connection termination.
PolicyBasedRRCRedirect	-	unsignedInt	-	Number of sessions disconnected due to redirection to macro based on policy.
InvalidPLMN	-	unsignedInt	-	Number of sessions disconnected due to an invalid PLMN selected by the UE during rrc connection setup procedure.
X2PeerNotConnected	-	unsignedInt	-	Number of sessions disconnected due to an X2 peer that is not connected.
X2HandoverCancelReceived	-	unsignedInt	-	Number of sessions disconnected due to X2 Handover cancel message received.
PathSwitchRequestFailed	-	unsignedInt	-	Number of sessions disconnected due to S1AP Path switch request failure message received.
X2Handout	-	unsignedInt	-	Number of sessions disconnected due to successful X2 handout.
X2HandoutTimeout	-	unsignedInt	-	Number of sessions disconnected due to X2 handout procedure timeout.
X2HandoutProvisioningFailed	-	unsignedInt	-	Number of sessions disconnected due to X2 handout provisioning failed.
X2HandinTimeOut	-	unsignedInt	-	Number of sessions disconnected due to X2 hand-in procedure timeout.
X2HandinProvisioningFailed	-	unsignedInt	-	Number of sessions disconnected due to X2 hand-in provisioning failed.
Sum	-	unsignedInt	-	Number of master sessions deleted abnormally for LTE UE sessions in the system.

FAPService.{i}.LTE.RRC.

Parameters relating to LTE RRC messages sent and received by the system.

Note: These parameters are counted once per event and are not based on the number of cells

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of unknown RRC message type received from the UEs.
CounterCheck	-	unsignedInt	-	Number of Counter check messages sent to the UEs.

CounterCheckResponse	-	unsignedInt	-	Number of Counter check responses messages received from the UEs.
CSFBParametersRequestCDMA2000	-	unsignedInt	-	Number of CSFB parameters request CDMA 2000 messages received from the UEs.
CSFBParametersResponseCDMA2000	-	unsignedInt	-	Number of CSFB parameters response CDMA 2000 messages sent to the UEs.
DLInformationTransfer	-	unsignedInt	-	Number of DL information transfer messages sent to the UEs.
HandoverFromEUTRAPreparationRequest	-	unsignedInt	-	Number of Handover from EUTRA preparation request messages sent to the UEs.
InterFreqRSTDMeasurementIndication	-	unsignedInt	-	Number of Inter freq RSTD measurement indication messages received from the UEs.
LoggedMeasurementConfiguration	-	unsignedInt	-	Number of Logged measurement configuration messages sent to the UEs.
MeasurementReport	-	unsignedInt	-	Number of Measurement report messages received from the UEs.
MobilityFromEUTRACommand	-	unsignedInt	-	Number of Mobility from EUTRA command messages sent to the UEs.
Paging	-	unsignedInt	-	Number of Paging messages sent to the UEs.
ProximityIndication	-	unsignedInt	-	Number of Proximity indication messages received from the UEs.
RNReconfiguration	-	unsignedInt	-	Number of RN reconfiguration messages sent to the UEs.
RNReconfigurationComplete	-	unsignedInt	-	Number of RN reconfiguration complete messages received from the UEs.
RRCConnectionReconfiguration	-	unsignedInt	-	Number of RRC connection reconfiguration messages sent to the UEs.
RRCConnectionReconfigurationComplete	-	unsignedInt	-	Number of RRC connection reconfiguration complete messages received from the UEs.
RRCConnectionReestablishment	-	unsignedInt	-	Number of RRC connection reestablishment messages sent to the UEs.
RRCConnectionReestablishmentComplete	-	unsignedInt	-	Number of RRC connection reestablishment complete messages received from the UEs.
RRCConnectionReestablishmentReject	-	unsignedInt	-	Number of RRC connection reestablishment reject messages received from the UEs.
RRCConnectionReestablishmentRequest	-	unsignedInt	-	Number of RRC connection reestablishment request messages received from the UEs.
SecurityModeCommand	-	unsignedInt	-	Number of Security mode command messages sent to the UEs.
SecurityModeComplete	-	unsignedInt	-	Number of Security mode complete messages received from the UEs.
SecurityModeFailure	-	unsignedInt	-	Number of Security mode failure messages received from the UEs.

UECapabilityEnquiry	-	unsignedInt	-	Number of UE capability enquiry messages sent to the UEs.
UECapabilityInformation	-	unsignedInt	-	Number of UE capability information messages received from the UEs.
UEInformationRequest	-	unsignedInt	-	Number of UE information response messages sent to the UEs.
UEInformationResponse	-	unsignedInt	-	Number of UE information response messages received from the UEs.
ULHandoverPrepationTransfer	-	unsignedInt	-	Number of UL handover prepation Transfer messages received from the UEs.
ULInformationTransfer	-	unsignedInt	-	Number of UL information transfer messages received from the UEs.

FAPService.{i}.LTE.RRC.RRCConnectionRequest.

Parameters relating to RRC Connection Request messages received from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of RRC Connection Request messages received from UEs per the EstablishmentCause information element defined in TS 36.331. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	The total number of RRC Connection Request messages received from UEs.

FAPService.{i}.LTE.RRC.RRCConnectionSetup.

Parameters relating to RRC Connection Setup messages sent to UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of RRC Connection Setup messages sent to UEs per the EstablishmentCause information element defined in TS 36.331. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	The total number of RRC Connection Setup messages sent to UEs.

FAPService.{i}.LTE.RRC.RRCConnectionSetupComplete.

Parameters relating to RRC Connection Setup Complete messages received from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of RRC Connection Setup Complete messages received from UEs per the associated EstablishmentCause defined in TS 36.331. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	The total number of RRC Connection Setup Complete messages received from UEs.

FAPService.{i}.LTE.RRC.RRCConnectionReject.

Parameters relating to RRC Connection Reject messages sent to UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of RRC Connection Reject messages sent to UEs per the EstablishmentCause types defined in TS 32.425. Array of *unsignedInt* items (maximum number of items 8).
Congestion	-	unsignedInt	-	The number of RRC Connection Reject messages sent to UEs due to congestion at a radio node.
Unspecified	-	unsignedInt	-	The number of RRC Connection Reject messages sent to UEs due to an unspecified cause.
EnergySaving	-	unsignedInt	-	The number of RRC Connection Reject messages sent to UEs due to a radio node going to Energy Saving mode.
Sum	-	unsignedInt	-	The total number of RRC Connection Reject messages sent to UEs.

FAPService.{i}.LTE.RRC.RRCConnectionRelease.

Parameters relating to RRC Connection Release messages sent to UEs.

Parameter	W	Type	Default	Description
UMTSRedirectionForCSFB	-	unsignedInt	-	The number of RRC Connection Release messages sent with UMTS cell information for CS fallback.
GSMRedirectionForCSFB	-	unsignedInt	-	The number of RRC Connection Release messages sent with GSM cell information for CS fallback.
CDMA2000RedirectionForCSFB	-	unsignedInt	-	The number of RRC Connection Release messages sent with CDMA2000 cell information for CS fallback.
Sum	-	unsignedInt	-	The total number of RRC Connection Release messages sent to UEs.

FAPService.{i}.LTE.RRC.RRCConnectionReestabReject.

Parameters relating to RRC Connection Reestablishment Reject messages sent to UEs.

Parameter	W	Type	Default	Description
UnknownPCI	-	unsignedInt	-	Number of RRC Connection Reestablishment Reject messages sent to UEs due to an unknown PCI in the request

FAPService.{i}.LTE.M3AP.

Parameters relating to M3AP messages sent to the MME or received from the MME.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	The number of messages with unknown M3AP message type received from the MME.
MBMSSessionStart	-	unsignedInt	-	The Number of MBMS session start messages received from the MME.
MBMSSessionStartResponse	-	unsignedInt	-	The Number of MBMS session start response messages sent to the MME.
MBMSSessionStartFailure	-	unsignedInt	-	The Number of MBMS session start failure messages sent to the MME.
MBMSSessionStop	-	unsignedInt	-	The Number of MBMS session stop messages received from the MME.
MBMSSessionStopResponse	-	unsignedInt	-	The Number of MBMS session stop response messages sent to the MME.
MBMSSessionUpdate	-	unsignedInt	-	The Number of MBMS session update messages received from the MME.
MBMSSessionUpdateResponse	-	unsignedInt	-	The Number of MBMS session update response messages sent to the MME.
MBMSSessionUpdateFailure	-	unsignedInt	-	The Number of MBMS session update failure messages sent to the MME.

FAPService.{i}.LTE.M3AP.ErrorIndication.

Parameters relating to error indication messages sent to the MME or received from the MME.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	The number of Error indication messages sent to the MME.
Received	-	unsignedInt	-	The Number of Error indication messages received from the MME.

FAPService.{i}.LTE.M3AP.Reset.

Parameters relating to Reset messages sent to the MME or received from the MME.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	The number of Reset messages sent to the MME.
Received	-	unsignedInt	-	The Number of Reset messages received from the MME.

FAPService.{i}.LTE.M3AP.ResetAcknowledge.

Parameters relating to Reset acknowledge messages sent to the MME or received from the MME.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	The number of Reset acknowledge messages sent to the MME.
Received	-	unsignedInt	-	The Number of Reset acknowledge messages received from the MME.

FAPService.{i}.LTE.S1AP.

Parameters relating to S1AP messages sent to the EPC or received from the EPC.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	The number of messages with unknown S1AP message type received from the EPC.
ERABModifyRequest	-	unsignedInt	-	The Number of ERAB Modify Request messages received from the EPC.
ERABModifyResponse	-	unsignedInt	-	The Number of ERAB Modify Response messages sent to the EPC.
ERABReleaseCommand	-	unsignedInt	-	The number of ERAB Release Command messages received from the EPC.
ERABReleaseResponse	-	unsignedInt	-	The number of ERAB Release Response messages sent to the EPC.
UEContextReleaseCommand	-	unsignedInt	-	The number of UE Context Release Command messages received from the EPC.
UEContextReleaseComplete	-	unsignedInt	-	The number of UE Context Release Complete messages sent to the EPC.
UEContextModificationFailure	-	unsignedInt	-	The number of UE Context Modification Failure messages sent to the EPC.

HandoverRequired	-	unsignedInt	-	The number of Handover Required messages sent to the EPC.
HandoverCommand	-	unsignedInt	-	The number of Handover Command messages received from the EPC.
HandoverPreparationFailure	-	unsignedInt	-	The number of Handover Preparation Failure messages received from the EPC.
HandoverRequest	-	unsignedInt	-	The number of Handover Request messages received from the EPC.
HandoverRequestAcknowledge	-	unsignedInt	-	The number of Handover Request Acknowledge messages sent to the EPC.
HandoverFailure	-	unsignedInt	-	The number of Handover Failure messages sent to the EPC.
HandoverNotify	-	unsignedInt	-	The number of Handover Notify messages sent to the EPC.
PathSwitchRequest	-	unsignedInt	-	The number of Path Switch Request messages sent to the EPC.
PathSwitchRequestAcknowledge	-	unsignedInt	-	The number of Path Switch Request Acknowledge messages received from the EPC.
PathSwitchRequestFailure	-	unsignedInt	-	The number of Path Switch Request Failure messages received from the EPC.
HandoverCancel	-	unsignedInt	-	The number of Handover Cancel messages sent to the EPC.
HandoverCancelAcknowlege	-	unsignedInt	-	The number of Handover Cancel Acknowledge messages received from the EPC.
ENBStatusTransfer	-	unsignedInt	-	The number of eNB Status Transfer messages sent to the EPC.
MMEStatusTransfer	-	unsignedInt	-	The number of MME Status Transfer messages received from the EPC.
InitialUEMessage	-	unsignedInt	-	The number of Initial UE Message messages sent to the EPC.
DownlinkNASTransport	-	unsignedInt	-	The number of Downlink NAS Transport messages received from the EPC.
UplinkNASTransport	-	unsignedInt	-	The number of Uplink NAS Transport messages sent to the EPC.
NASNonDeliveryIndication	-	unsignedInt	-	The number of NAS Non Delivery Indication messages sent to the EPC.
Reset	-	unsignedInt	-	The number of Reset messages sent to the EPC or received from the EPC.
ResetAcknowledge	-	unsignedInt	-	The number of Reset Acknowledge messages sent to the EPC or received from the EPC.
ErrorIndication	-	unsignedInt	-	The number of Error Indication messages sent to the EPC or received from the EPC.
S1SetupRequest	-	unsignedInt	-	The number of S1 Setup Request messages sent to the EPC.

S1SetupResponse	-	unsignedInt	-	The number of S1 Setup Response messages received from the EPC.
S1SetupFailure	-	unsignedInt	-	The number of S1 Setup Failure messages received from the EPC.
ENBConfigurationUpdate	-	unsignedInt	-	The number of ENB Configuration Update messages sent to the EPC.
ENBConfigurationUpdateAcknowledge	-	unsignedInt	-	The number of ENB Configuration Update Acknowledge messages received from the EPC.
ENBConfigurationUpdateFailure	-	unsignedInt	-	The number of ENB Configuration Update Failure messages received from the EPC.
MMEConfigurationUpdate	-	unsignedInt	-	The number of MME Configuration Update messages received from the EPC.
MMEConfigurationUpdateAcknowledge	-	unsignedInt	-	The number of MME Configuration Update Acknowledge messages sent to the EPC.
MMEConfigurationUpdateFailure	-	unsignedInt	-	The number of MME Configuration Update Failure messages sent to the EPC.
OverloadStart	-	unsignedInt	-	The number of Overload Start messges received from the EPC.
OverloadStop	-	unsignedInt	-	The number of Overload Stop messages received from the EPC.
DownlinkS1CDMA2000Tunneling	-	unsignedInt	-	The number of Downlink S1 CDMA 2000 Tunneling messages received from the EPC.
UplinkS1CDMA2000Tunneling	-	unsignedInt	-	The number of Uplink S1 CDMA 2000 Tunneling messages sent to the EPC.
UECapabilityInfoIndication	-	unsignedInt	-	The number of UE Capability Info Indication messages sent to the EPC.
TraceStart	-	unsignedInt	-	The number of Trace Start messages received from the EPC.
TraceFailureIndication	-	unsignedInt	-	The number of Trace Failure Indication messages sent to the EPC.
DeactivateTrace	-	unsignedInt	-	The number of Deactivate Trace messages from the EPC.
LocationReportingControl	-	unsignedInt	-	The number of Location Reporting Control messages received from the EPC.
LocationReportFailureIndication	-	unsignedInt	-	The number of Location Reporting Failure Indication messages sent to the EPC.
LocationReport	-	unsignedInt	-	The number of Location Report messages sent to the EPC.
WriteReplaceWarningRequest	-	unsignedInt	-	The number of Write Replace Warning Request messages from the EPC.
WriteReplaceWarningResponse	-	unsignedInt	-	The number of Write Replace Warning Response messages sent to the EPC.
KillRequest	-	unsignedInt	-	The number of Kill Request messages received from the EPC.

KillResponse	-	unsignedInt	-	The number of Kill Response messages sent to the EPC.
ENBDirectInformationTransfer	-	unsignedInt	-	The number of eNB Direct Information Transfer messages sent to the EPC.
MMEDirectInformationTransfer	-	unsignedInt	-	The number of MME Direct Information Transfer messages from the EPC.
ENBConfigurationTransfer	-	unsignedInt	-	The number of eNB Configuration Transfer messages sent to the EPC.
MMEConfigurationTransfer	-	unsignedInt	-	The number of MME Configuration Transfer messages received from the EPC.
CellTrafficTrace	-	unsignedInt	-	The number of Cell Traffic Trace messages sent to the EPC.
DownlinkUEAssociatedLPPATransport	-	unsignedInt	-	The number of Downlink UE associated LPPA Transport messages received from the EPC.
UplinkUEAssociatedLPPATransport	-	unsignedInt	-	The number of Uplink UE Associated LPPA Transport messages sent to the EPC.
DownlinkNonUEAssociatedLPPATransport	-	unsignedInt	-	The number of Downlink Non UE Associated LPPA Transport messages received from the EPC.
UplinkNonUEAssociatedLPPATransport	-	unsignedInt	-	The number of Uplink Non UE Associated LPPA Transport messages sent to the EPC.
S1SignalingConnectionEstablishmentSuccesses	-	unsignedInt	-	The number of successful S1AP signaling connections made by UEs. This counter is incremented on receipt of the first downlink S1AP message from the EPC for a UE session which previously sent an Initial UE Message. This first downlink S1AP message can be Initial Context Setup Request or a Downlink NAS Transport message containing any of the following NAS messages: UE Identity Request, Authentication Request, or Security Mode Command.

FAPService.{i}.LTE.S1AP.InitialContextSetupRequest.

Parameters relating to Initial Context Setup Request messages received from the EPC.

Parameter	W	Type	Default	Description
CSFBRequest	-	unsignedInt	-	The number of Initial Context Setup Request messages received from the EPC that contain the CS Fallback Indicator information element.
Sum	-	unsignedInt	-	The total number of Initial Context Setup Request messages received from the EPC.

FAPService.{i}.LTE.S1AP.InitialContextSetupRequest.ERABSetupAtts.

Parameters relating to ERAB setup attempts due to receipt of Initial Context Setup Request

messages from the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs which are attempted to be setup per QCI due to receipt of Initial Context Setup Request messages from the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs attempted to be setup due to receipt of Initial Context Setup Request messages from the EPC.

FAPService.{i}.LTE.S1AP.InitialContextSetupResponse.

Parameters relating to Initial Context Setup Response messages sent to the EPC.

Parameter	W	Type	Default	Description
CSFBResponse	-	unsignedInt	-	The number of Initial Context Setup Response messages sent to the EPC associated with UE Contexts setup that are subject to CS Fallback.
Sum	-	unsignedInt	-	The total number of Initial Context Setup Response messages sent to the EPC.

FAPService.{i}.LTE.S1AP.InitialContextSetupResponse.ERABSetupSuccess.

Parameters relating to ERABs which are successfully established as reported in the Initial Context

Setup Response messages sent to the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs successfully established per QCI as reported in Initial Context Setup Response messages sent to the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs successfully established as reported in Initial Context Setup Response messages sent to the EPC.

FAPService.{i}.LTE.S1AP.InitialContextSetupResponse.ERABSetupFailed.

Parameters relating to ERABs which failed to be established as reported in Initial Context

Setup Response messages sent to the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs which failed to be established per QCI as reported in Initial Context Setup Response messages sent to the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs which failed to be established as reported in Initial Context Setup Response messages sent to the EPC.

FAPService.{i}.LTE.S1AP.InitialContextSetupFailure.

Parameters relating to Initial Context Setup Failure messages sent to the EPC.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of Initial Context Setup Failure messages sent to the EPC.

FAPService.{i}.LTE.S1AP.InitialContextSetupFailure.ERABSetupFailed.

Parameters relating to ERABs which failed to be established associated with sending an Initial Context

Setup Failure messages to the EPC.

Note: An Initial Context Setup Failure message is sent when all of the ERABs requested to be established by the

EPC fail to be established.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs which failed to be established per QCI as associated with sending an Initial Context Setup Failure message to the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).

Sum	-	unsignedInt	-	The total number of ERABs which failed to be established associated with sending an Initial Context Setup Failure message to the EPC.

FAPService.{i}.LTE.S1AP.ERABSetupRequest.

Parameters relating to ERAB Setup Request messages received from the EPC.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of ERAB Setup Request messages received from the EPC.

FAPService.{i}.LTE.S1AP.ERABSetupRequest.ERABSetupAtts.

Parameters relating to ERAB setup attempts due to receipt of ERAB Setup Request messages

from the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs which are attempted to be setup per QCI due to receipt of ERAB Setup Request messages from the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs attempted to be setup due to receipt of ERAB Setup Request messages from the EPC.

FAPService.{i}.LTE.S1AP.ERABSetupResponse.

Parameters relating to ERAB Setup Response messages sent to the EPC.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of ERAB Setup Response messages sent to the EPC.

FAPService.{i}.LTE.S1AP.ERABSetupResponse.ERABSetupSuccess.

Parameters relating to ERABs which are successfully established as reported in ERAB Setup

Response messages sent to the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs successfully established per QCI as reported in ERAB Setup Response messages sent to the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs successfully established as reported in ERAB Setup Response messages sent to the EPC.

FAPService.{i}.LTE.S1AP.ERABSetupResponse.ERABSetupFailed.

Parameters relating to ERABs which failed to be established associated with sending an ERAB

Setup Response message to the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs which failed to be established per QCI as associated with sending an ERAB Setup Response message to the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs which failed to be established associated with sending an ERAB Setup Response message to the EPC.

FAPService.{i}.LTE.S1AP.UEContextReleaseRequest.

Parameters relating to UE Context Release Request messages sent to the EPC.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of UE Context Release Requests messages sent to the EPC.
NumERABsReleased	-	unsignedInt	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC.
NumERABsReleasedPerQCI	-	unsignedInt{10}	-	The number of ERABs released per QCI associated with sending a UE Context Release Request message to the EPC. Array of *unsignedInt* items (maximum number of items 10).

FAPService.{i}.LTE.S1AP.UEContextReleaseRequest.RN.

Parameters relating to UE Context Release Request mesages sent to the EPC containing a

Radio Network Layer Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI1ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 1 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI2ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 2 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI3ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 3 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI4ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 4 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI5ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 5 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI6ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 6 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI7ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 7 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI8ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 8 released associated with sending a UE Context Release Request message to the EPC

				per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI9ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 9 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI10ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI other than 1 to 9 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
Cause	-	unsignedInt{36}	-	The number of UE Context Release Request messages sent per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
Sum	-	unsignedInt	-	The total number of UE Context Release Request messages sent with one of the Radio Network Layer Cause types defined in TS 36.413.

FAPService.{i}.LTE.S1AP.UEContextReleaseRequest.TL.

Parameters relating to UE Context Release Request mesages sent to the EPC containing a

Tansport Layer Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{2}	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC per each Transport Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 2).
Cause	-	unsignedInt{2}	-	The number of UE Context Release Request messages sent per each Transport Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 2).
Sum	-	unsignedInt	-	The total number of UE Context Release Request messages sent with one of the Transport Layer Cause types defined in TS 36.413.

FAPService.{i}.LTE.S1AP.UEContextReleaseRequest.NAS.

Parameters relating to UE Context Release Request mesages sent to the EPC containing a

NAS Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{4}	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC per each NAS Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 4).
Cause	-	unsignedInt{4}	-	The number of UE Context Release Request messages sent per each NAS Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 4).
Sum	-	unsignedInt	-	The total number of UE Context Release Request messages sent with one of the NAS Cause types defined in TS 36.413.

FAPService.{i}.LTE.S1AP.UEContextReleaseRequest.Protocol.

Parameters relating to UE Context Release Request mesages sent to the EPC containing a

Protocol Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{7}	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC per each Protocol Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 7).
Cause	-	unsignedInt{7}	-	The number of UE Context Release Request messages sent per each Protocol Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 7).
Sum	-	unsignedInt	-	The total number of UE Context Release Request messages sent with one of the Protocol Cause types defined in TS 36.413.

FAPService.{i}.LTE.S1AP.UEContextReleaseRequest.Miscellaneous.

Parameters relating to UE Context Release Request mesages sent to the EPC containing a

Miscellaneous Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{6}	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC per each Miscellaneous Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 6).
Cause	-	unsignedInt{6}	-	The number of UE Context Release Request messages sent per each Miscellaneous Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 6).
Sum	-	unsignedInt	-	The total number of UE Context Release Request messages sent with one of the Miscellaneous Cause types defined in TS 36.413.

FAPService.{i}.LTE.S1AP.ERABReleaseIndication.

Parameters relating to ERAB Release Indication messages sent to the EPC.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of ERAB Release Indications messages sent to the EPC.
NumERABsReleased	-	unsignedInt	-	The number of ERABs released as contained in the ERAB Released List information element.
NumERABsReleasedPerQCI	-	unsignedInt{10}	-	The number of ERABs released per QCI upon sending an ERAB Release Indication message to the EPC. Array of *unsignedInt* items (maximum number of items 10).

FAPService.{i}.LTE.S1AP.ERABReleaseIndication.RN.

Parameters relating to ERAB Release Indication mesages sent to the EPC containing a

Radio Network Layer Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI1ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 1 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413.

				Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI2ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 2 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI3ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 3 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI4ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 4 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI5ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 5 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI6ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 6 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI7ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 7 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI8ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 8 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI9ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 9 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI10ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI other than 1 to 9 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
Cause	-	unsignedInt{36}	-	The number of ERAB Release Indication messages sent per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).

Sum	-	unsignedInt	-	The total number of ERAB Release Indication messages sent for which at least one ERAB in the ERAB Released List has one of the Radio Network Layer Cause types defined in TS 36.413.

FAPService.{i}.LTE.S1AP.ERABReleaseIndication.TL.

Parameters relating to ERAB Release Indication mesages sent to the EPC containing a

Tansport Layer Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{2}	-	The number of ERABs in the ERAB Released List information element per each Transport Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 2).
Cause	-	unsignedInt{2}	-	The number of ERAB Release Indication messages sent per each Transport Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 2).
Sum	-	unsignedInt	-	The total number of ERAB Release Indication messages sent for which at least one ERAB in the ERAB Released List has one of the Transport Layer Cause types defined in TS 36.413.

FAPService.{i}.LTE.S1AP.ERABReleaseIndication.NAS.

Parameters relating to ERAB Release Indication mesages sent to the EPC containing a

NAS Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{4}	-	The number of ERABs in the ERAB Released List information element per each NAS Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 4).
Cause	-	unsignedInt{4}	-	The number of ERAB Release Indication messages sent per each NAS Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 4).

Sum	-	unsignedInt	-	The total number of ERAB Release Indication messages sent for which at least one ERAB in the ERAB Released List has one of the NAS Cause types defined in TS 36.413.

FAPService.{i}.LTE.S1AP.ERABReleaseIndication.Protocol.

Parameters relating to ERAB Release Indication mesages sent to the EPC containing a

Protocol Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{7}	-	The number of ERABs in the ERAB Released List information element per each Protocol Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 7).
Cause	-	unsignedInt{7}	-	The number of ERAB Release Indication messages sent per each Protocol Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 7).
Sum	-	unsignedInt	-	The total number of ERAB Release Indication messages sent for which at least one ERAB in the ERAB Released List has one of the Protocol Cause types defined in TS 36.413.

FAPService.{i}.LTE.S1AP.ERABReleaseIndication.Miscellaneous.

Parameters relating to ERAB Release Indication mesages sent to the EPC containing a

Miscellaneous Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{6}	-	The number of ERABs in the ERAB Released List information element per each Miscellaneous Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 6).
Cause	-	unsignedInt{6}	-	The number of ERAB Release Indication messages sent per each Miscellaneous Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 6).

Sum	-	unsignedInt	-	The total number of ERAB Release Indication messages sent for which at least one ERAB in the ERAB Released List has one of the Miscellaneous Cause types defined in TS 36.413.

FAPService.{i}.LTE.S1AP.UEContextModificationRequest.

Parameters relating to UE Context Modification Request messages received from the EPC.

Parameter	W	Type	Default	Description
CSFBAndSecurityKey	-	unsignedInt	-	The number of UE Context Modification Request messages received from the EPC containing the CS Fallback Indicator and Security Key information elements.
CSFBRequest	-	unsignedInt	-	The number of UE Context Modification Request messages received from the EPC containing the CS Fallback Indicator information element.
Sum	-	unsignedInt	-	The total number of UE Context Modification Request messages received from the EPC.

FAPService.{i}.LTE.S1AP.UEContextModificationResponse.

Parameters relating to UE Context Modification Response messages sent to the EPC.

Parameter	W	Type	Default	Description
CSFBResponse	-	unsignedInt	-	The number of UE Context Modification Response messages sent to the EPC associated with CS Fallback.
Sum	-	unsignedInt	-	The total number of UE Context Modification Response messages sent to the EPC.

FAPService.{i}.LTE.S1AP.Paging.

Parameters relating to Paging messages received from the EPC.

Parameter	W	Type	Default	Description
CNDomainCS	-	unsignedInt	-	The number of Paging messages received from the EPC with Core Network Domain information element having a value of CS.
Sum	-	unsignedInt	-	The total number of Paging messages received from the EPC.

FAPService.{i}.LTE.S1AP.CSFallback.

Parameters relating to CS Fallback procedure.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	The number of CS Fallback attempts initiated from the EPC by sending an Initial Context Setup Request or UE Context Modification Request message with CS Fallback indicator.
Releases	-	unsignedInt	-	The number of UE sessions released by the EUTRAN for CS Fallback procedure. The EUTRAN shall redirect the UE to an IRAT network and release the session.

FAPService.{i}.LTE.S1AP.LPPA.

Parameters relating to LPPA messages sent to the EPC or received from the EPC.

Parameter	W	Type	Default	Description
ECIDMeasurementInitiationRequest	-	unsignedInt	-	The number of ECID Measurement Initiation Request messages received from the EPC.
ECIDMeasurementInitiationResponse	-	unsignedInt	-	The number of ECID Measurement Initiation Response messages sent to the EPC.
ECIDMeasurementInitiationFailure	-	unsignedInt	-	The number of ECID Measurement Initiation Failure messages sent to the EPC.
ECIDMeasurementFailureIndication	-	unsignedInt	-	The number of ECID Measurement Failure Indication messages sent to the EPC.
ECIDMeasurementReport	-	unsignedInt	-	The number of ECID Measurement Report messages sent to the EPC.
ECIDMeasurementTerminationCommand	-	unsignedInt	-	The number of ECID Measurement Termination Command messages received from the EPC.
ErrorIndicationDownlink	-	unsignedInt	-	The number of Error Indication messages received from the EPC.
ErrorIndicationUplink	-	unsignedInt	-	The number of Error Indication messages sent to the EPC.
OTDOAInformationRequest	-	unsignedInt	-	The number of OTDOA Information Request messages received from the EPC.
OTDOAInformationResponse	-	unsignedInt	-	The number of OTDOA information Response messages sent to the EPC.
OTDOAInformationFailure	-	unsignedInt	-	The number of OTDOA Information Failure messages sent to the EPC.

FAPService.{i}.LTE.S1AP.X2PeerDiscovery.

Statistics relating to LTE X2 peer discovery procedures.

Parameter	W	Type	Default	Description
NumberOfAttempts	-	unsignedInt	-	Number of X2 peer discovery attempts.
NumberOfSuccesses	-	unsignedInt	-	Number of times the X2 tunnel IP of the peer is successfully determined.
NumberOfFailures	-	unsignedInt	-	Number of times the X2 tunnel IP of the peer is not discovered.

FAPService.{i}.LTE.X2AP.

Parameters relating to sent and received X2AP messages.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.X2AP.CellActivationFailure.

Parameters relating to Cell Activation Failure message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Cell Activation Failure messages sent.
Received	-	unsignedInt	-	Number of Cell Activation Failure messages received.

FAPService.{i}.LTE.X2AP.CellActivationRequest.

Parameters relating to Cell Activation Request message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Cell Activation Request messages sent.
Received	-	unsignedInt	-	Number of Cell Activation Request messages received.

FAPService.{i}.LTE.X2AP.CellActivationResponse.

Parameters relating to Cell Activation Response message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Cell Activation Response messages sent.
Received	-	unsignedInt	-	Number of Cell Activation Response messages received.

FAPService.{i}.LTE.X2AP.ENBConfigurationUpdate.

Parameters relating to ENB Configuration Update message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of ENB Configuration Update messages sent.
Received	-	unsignedInt	-	Number of ENB Configuration Update messages received.

FAPService.{i}.LTE.X2AP.ENBConfigurationUpdateAcknowledge.

Parameters relating to ENB Configuration Update Acknowledge message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of ENB Configuration Update Acknowledge messages sent.
Received	-	unsignedInt	-	Number of ENB Configuration Update Acknowledge messages received.

FAPService.{i}.LTE.X2AP.ENBConfigurationUpdateFailure.

Parameters relating to ENB Configuration Update Failure message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of ENB Configuration Update Failure messages sent.
Received	-	unsignedInt	-	Number of ENB Configuration Update Failure messages received.

FAPService.{i}.LTE.X2AP.ErrorIndication.

Parameters relating to Error Indication message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Error Indication messages sent.
Received	-	unsignedInt	-	Number of Error Indication messages received.

FAPService.{i}.LTE.X2AP.HandoverCancel.

Parameters relating to Handover Cancel message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Handover Cancel messages sent.
Received	-	unsignedInt	-	Number of Handover Cancel messages received.

FAPService.{i}.LTE.X2AP.HandoverPreparationFailure.

Parameters relating to Handover Preparation Failure message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Handover Preparation Failure messages sent.
Received	-	unsignedInt	-	Number of Handover Preparation Failure messages received.

FAPService.{i}.LTE.X2AP.HandoverReport.

Parameters relating to Handover Report message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Handover Report messages sent.
Received	-	unsignedInt	-	Number of Handover Report messages received.

FAPService.{i}.LTE.X2AP.HandoverRequest.

Parameters relating to Handover Request message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Handover Request messages sent.
Received	-	unsignedInt	-	Number of Handover Request messages received.

FAPService.{i}.LTE.X2AP.HandoverRequestAcknowledge.

Parameters relating to Handover Request Acknowledge message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Handover Request Acknowledge messages sent.
Received	-	unsignedInt	-	Number of Handover Request Acknowledge messages received.

FAPService.{i}.LTE.X2AP.LoadInformation.

Parameters relating to Load Information message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Load Information messages sent.
Received	-	unsignedInt	-	Number of Load Information messages received.

FAPService.{i}.LTE.X2AP.MobilityChangeAcknowledge.

Parameters relating to Mobility Change Acknowledge message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Mobility Change Acknowledge messages sent.
Received	-	unsignedInt	-	Number of Mobility Change Acknowledge messages received.

FAPService.{i}.LTE.X2AP.MobilityChangeFailure.

Parameters relating to Mobility Change Failure message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Mobility Change Failure messages sent.
Received	-	unsignedInt	-	Number of Mobility Change Failure messages received.

FAPService.{i}.LTE.X2AP.MobilityChangeRequest.

Parameters relating to Mobility Change Request message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Mobility Change Request messages sent.
Received	-	unsignedInt	-	Number of Mobility Change Request messages received.

FAPService.{i}.LTE.X2AP.ResetRequest.

Parameters relating to Reset Request message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Reset Request messages sent.
Received	-	unsignedInt	-	Number of Reset Request messages received.

FAPService.{i}.LTE.X2AP.ResetResponse.

Parameters relating to Reset Response message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Reset Response messages sent.
Received	-	unsignedInt	-	Number of Reset Response messages received.

FAPService.{i}.LTE.X2AP.ResourceStatusFailure.

Parameters relating to Resource Status Failure message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Resource Status Failure messages sent.
Received	-	unsignedInt	-	Number of Resource Status Failure messages received.

FAPService.{i}.LTE.X2AP.ResourceStatusRequest.

Parameters relating to Resource Status Request message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Resource Status Request messages sent.
Received	-	unsignedInt	-	Number of Resource Status Request messages received.

FAPService.{i}.LTE.X2AP.ResourceStatusResponse.

Parameters relating to Resource Status Response message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Resource Status Response messages sent.
Received	-	unsignedInt	-	Number of Resource Status Response messages received.

FAPService.{i}.LTE.X2AP.ResourceStatusUpdate.

Parameters relating to Resource Status Update message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of Resource Status Update messages sent.
Received	-	unsignedInt	-	Number of Resource Status Update messages received.

FAPService.{i}.LTE.X2AP.RLFIndication.

Parameters relating to RLF Indication message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of RLF Indication messages sent.
Received	-	unsignedInt	-	Number of RLF Indication messages received.

FAPService.{i}.LTE.X2AP.SNStatusTransfer.

Parameters relating to SN Status Transfer message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of SN Status Transfer messages sent.
Received	-	unsignedInt	-	Number of SN Status Transfer messages received.

FAPService.{i}.LTE.X2AP.UEContextRelease.

Parameters relating to UE Context Release message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of UE Context Release messages sent.
Received	-	unsignedInt	-	Number of UE Context Release messages received.

FAPService.{i}.LTE.X2AP.X2SetupFailure.

Parameters relating to X2 Setup Failure message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of X2 Setup Failure messages sent.
Received	-	unsignedInt	-	Number of X2 Setup Failure messages received.

FAPService.{i}.LTE.X2AP.X2SetupRequest.

Parameters relating to X2 Setup Request message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of X2 Setup Request messages sent.
Received	-	unsignedInt	-	Number of X2 Setup Request messages received.

FAPService.{i}.LTE.X2AP.X2SetupResponse.

Parameters relating to X2 Setup Response message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	Number of X2 Setup Response messages sent.
Received	-	unsignedInt	-	Number of X2 Setup Response messages received.

FAPService.{i}.LTE.HandOut.

Parameters relating to LTE handout procedures.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.HandOut.IntraEUTRAN.

Parameters relating to intra-EUTRAN handout procedures.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.HandOut.IntraEUTRAN.IntraFreq.

Parameters relating to intra-EUTRAN handout to an intra-frequency macro cell.

Parameter	W	Type	Default	Description
CNAttempts	-	unsignedInt	-	The number of Handover Required messages sent to the EPC for initiating handover to an intra-frequency macro cell.
CNFailures	-	unsignedInt	-	The number of Handover Preparation Failure messages received from the EPC during handover to an intra-frequency macro cell.
CNSuccesses	-	unsignedInt	-	The number of Handover Command messages received from the EPC during handover to an intra-frequency macro cell.

UEAttempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for doing handover to an intra-frequency macro cell.
UEFailures	-	unsignedInt	-	The number of handout attempts that fail after sending a RRC Connection Reconfiguration to a UE while handing out to an intra-frequency macro cell. This count is incremented if a handout timer expires before before receiving a UE Context Release message from the target cell or if a RRC Connection Reestablishment message is received from the UE.
UESuccesses	-	unsignedInt	-	The number of intra-frequency handover successes to a macro cell as indicated by receiving a UE Context Release after a RRC Connection Reconfiguration message for handover has been sent to a UE.
ERABAttemptsPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI in the Handover Required messages sent to the EPC during LTE intra-frequency handout. Array of *unsignedInt* items (maximum number of items 10).
ERABSuccessesPerQCI	-	unsignedInt{10}	-	Number of ERABs per QCI measured upon receiving UE Context Release Command from EPC during LTE intra-frequency handout. Array of *unsignedInt* items (maximum number of items 10).

FAPService.{i}.LTE.HandOut.IntraEUTRAN.InterFreq.

Parameters relating to intra-EUTRAN handout to an inter-frequency macro cell.

Parameter	W	Type	Default	Description
CNAttempts	-	unsignedInt	-	The number of Handover Required messages sent to the EPC for initiating handover to an inter-frequency macro cell.
CNFailures	-	unsignedInt	-	The number of Handover Preparation Failure messages received from the EPC during handover to an inter-frequency macro cell.
CNSuccesses	-	unsignedInt	-	The number of Handover Command messages received from the EPC during handover to an inter-frequency macro cell.
UEAttempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for doing handover to an inter-frequency macro cell.
UEFailures	-	unsignedInt	-	The number of handout attempts that fail after sending a RRC Connection Reconfiguration to a UE while handing out to an inter-frequency macro cell. This count is incremented if a handout timer expires before before receiving a UE Context Release message from the target cell or if a RRC Connection Reestablishment message is received from the UE.
UESuccesses	-	unsignedInt	-	The number of inter-frequency handover successes to a macro cell as indicated by receiving a UE Context Release after a RRC Connection Reconfiguration message for handover has been sent to a UE.

ERABAttemptsPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI in the Handover Required messages sent to the EPC during LTE inter-frequency handout. Array of *unsignedInt* items (maximum number of items 10).
ERABSuccessesPerQCI	-	unsignedInt{10}	-	Number of ERABs per QCI measured upon receiving UE Context Release Command from EPC during LTE inter-frequency handout. Array of *unsignedInt* items (maximum number of items 10).

FAPService.{i}.LTE.HandOut.InterRAT.

Parameters relating to inter-RAT handout procedures.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.HandOut.InterRAT.UMTS.

Parameters relating to inter-RAT handout to an UMTS cell.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.HandOut.InterRAT.UMTS.SRVCC.

Parameters relating to inter-RAT handout to an UMTS cell for SRVCC.

Parameter	W	Type	Default	Description
CNAttempts	-	unsignedInt	-	The number of Handover Required messages sent to the EPC for initiating inter-RAT handout to an UMTS cell.
CNFailures	-	unsignedInt	-	The number of Handover Preparation Failure messages received from the EPC during handout to an UMTS cell.
CNSuccesses	-	unsignedInt	-	The number of Handover Command messages received from the EPC during handout to an UMTS cell.
UEAttempts	-	unsignedInt	-	The number of Mobility From EUTRA Command messages sent to UEs for handout to an UMTS cell.
UEFailures	-	unsignedInt	-	The number of handout attempts to an UMTS cell that failed after sending a Mobility From EUTRA Command to a UE. This could be either due to expiry of handover timer or a RRC Connection Reestablishment message is received from the UE.
UESuccesses	-	unsignedInt	-	The number of successful inter-RAT handouts to an UMTS cell as indicated by receiving a UE Context Release after a Mobility From Eutra Command message has been sent to a UE.

FAPService.{i}.LTE.HandOut.InterRAT.GSM.

Parameters relating to inter-RAT handout to a GSM cell.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.HandOut.InterRAT.GSM.SRVCC.

Parameters relating to inter-RAT handout to a GSM cell for SRVCC.

Parameter	W	Type	Default	Description
CNAttempts	-	unsignedInt	-	The number of Handover Required messages sent to the EPC for initiating inter-RAT handout to a GSM cell.
CNFailures	-	unsignedInt	-	The number of Handover Preparation Failure messages received from the EPC during handout to a GSM cell.
CNSuccesses	-	unsignedInt	-	The number of Handover Command messages received from the EPC during handout to a GSM cell.
UEAttempts	-	unsignedInt	-	The number of Mobility From EUTRA Command messages sent to UEs for handout to a GSM cell.
UEFailures	-	unsignedInt	-	The number of handout attempts to a GSM cell that failed after sending a Mobility From EUTRA Command to a UE. This could be either due to expiry of handover timer or a RRC Connection Reestablishment message is received from the UE.
UESuccesses	-	unsignedInt	-	The number of successful inter-RAT handouts to a GSM cell as indicated by receiving a UE Context Release Command message after a Mobility From Eutra Command message has been sent to a UE.

FAPService.{i}.LTE.HandOut.X2AP.

Parameters relating to X2AP handout to the macro cells.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.HandOut.X2AP.IntraFreq.

Parameters relating to X2AP intra-frequency handout to the macro cells.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	Number of Handover request messages sent to the macro cells during intra-frequency handout.

PreparationFailures	-	unsignedInt	-	Number of Handover preparation failures messages received from the macro cells during intra-frequency handout.
PreparationSuccesses	-	unsignedInt	-	Number of Handover request acknowledge messages received from a macro cell during intra-frequency handout.
UEAttempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for handover to an intra-frequency macro cell.
UEFailures	-	unsignedInt	-	The number of handout attempts that fail after sending a RRC Connection Reconfiguration to a UE while handing out to an intra-frequency macro cell. This count is incremented if a handout timer expires before before receiving a UE Context Release message from the target cell or if a RRC Connection Reestablishment message is received from the UE.
UESuccesses	-	unsignedInt	-	The number of intra-frequency handover successes to a macro cell as indicated by receiving a UE Context Release after a RRC Connection Reconfiguration message for handover has been sent to a UE.

FAPService.{i}.LTE.HandOut.X2AP.InterFreq.

Parameters relating to X2AP inter-frequency handout to the macro cells.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	Number of Handover request messages sent to the macro cells during inter-frequency handout.
PreparationFailures	-	unsignedInt	-	Number of Handover preparation failures messages received from the macro cells during inter-frequency handout.
PreparationSuccesses	-	unsignedInt	-	Number of Handover request acknowledge messages received from the macro cells during inter-frequency handout.
UEAttempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for doing handover to an inter-frequency macro cell.
UEFailures	-	unsignedInt	-	The number of handout attempts that fail after sending a RRC Connection Reconfiguration to a UE while handing out to an inter-frequency macro cell. This count is incremented if a handout timer expires before before receiving a UE Context Release message from the target cell or if a RRC Connection Reestablishment message is received from the UE.
UESuccesses	-	unsignedInt	-	The number of intra-frequency handover successes to a macro cell as indicated by receiving a UE Context Release after a RRC Connection Reconfiguration message for handover has been sent to a UE. This counter is incremented on the serving cell for the UE.

FAPService.{i}.LTE.Handover.

Parameters relating to LTE handover procedures.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.Handover.X1.

Parameters relating to handover over the X1 interface of the system.

These are handovers between radio nodes connected to the same service node.

Parameter	W	Type	Default	Description
InterruptionTime	-	unsignedInt	-	The total time taken in milliseconds for handovers over the X1 interface. This is calculated as the time difference between sending a RRC Connection Reconfiguration message to the UE from the source cell, to the time when a RRC Connection Reconfiguration Complete message is received from the UE on the target cell.
Attempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for executing X1 handover.
UESuccesses	-	unsignedInt	-	The number of X1 handover attempts successfully completed.

FAPService.{i}.LTE.Handover.X1.IntraFreq.

Parameters relating to X1 intra-frequency handover.

These are handovers between radio nodes connected to the same service node.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for executing intra-frequency X1 handover.
UESuccesses	-	unsignedInt	-	The number of intra-frequency X1 handover attempts successfully completed.
ERABAttemptsPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI in the RRC Connection Reconfiguration messages sent to UEs for executing intra-frequency X1 handover. Array of *unsignedInt* items (maximum number of items 10).
ERABSuccessesPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI as indicated in the RRC Connection Reconfiguration Complete messages received from the UEs during intra-frequency X1 handover. Array of *unsignedInt* items (maximum number of items 10).

FAPService.{i}.LTE.Handover.X1.InterFreq.

Parameters relating to X1 inter-frequency handover.

These are handovers between radio nodes connected to the same service node.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for executing inter-frequency X1 handover.
UESuccesses	-	unsignedInt	-	The number of inter-frequency X1 handover attempts successfully completed.
ERABAttemptsPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI in the RRC Connection Reconfiguration messages sent to UEs for executing inter-frequency X1 handover. Array of *unsignedInt* items (maximum number of items 10).
ERABSuccessesPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI as indicated in the RRC Connection Reconfiguration Complete messages received from the UEs during inter-frequency X1 handover. Array of *unsignedInt* items (maximum number of items 10).

FAPService.{i}.LTE.HandIn.

Parameters relating to hand-in procedures.

Parameter	W	Type	Default	Description
ERANToMacroToERANUEAttempts	-	unsignedInt	-	The number of Handover Request messages on the E-RAN cell for which the following condition is satisfied: The UE was earlier on an E-RAN cell before moving to the macro cell and then attempting to hand-in to an E-RAN cell.

FAPService.{i}.LTE.HandIn.X2AP.

Parameters relating to X2AP hand-in from the macro cells.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	Number of Handover request messages received from the macro cells during the hand-in.
PreparationFailures	-	unsignedInt	-	Number of Handover preparation failures messages sent to the macro cells during the hand-in.

PreparationSuccesses	-	unsignedInt	-	Number of Handover request acknowledge messages sent to the macro cells during the hand-in.
UESuccesses	-	unsignedInt	-	Number of RRC connection reconfiguration complete message received from the UE during the hand-in.
Successes	-	unsignedInt	-	Number of UE context release messages sent to the macro cell during the hand-in.

FAPService.{i}.LTE.HandIn.IntraEUTRAN.

Parameters relating to S1 handin from the LTE macro cells.

Parameter	W	Type	Default	Description
ERABAttemptsPerQCI	-	unsignedInt{10}	-	Number of ERABs per QCI as indicated in the Handover Request messages received from the LTE macro cells during handin. Array of *unsignedInt* items (maximum number of items 10).
ERABSuccessesPerQCI	-	unsignedInt{10}	-	Number of ERABs per QCI as indicated in the RRC Connection Reconfiguration Complete messages received from the UE during the Intra EUTRAN handin. Array of *unsignedInt* items (maximum number of items 10).
Attempts	-	unsignedInt	-	Number of Handover Request messages received from the LTE macro cells during the handin.
UESuccesses	-	unsignedInt	-	Number of RRC Connection Reconfiguration Complete messages received from the UE during LTE handin.

FAPService.{i}.LTE.GTP.

Parameters relating to GTP packets sent or received.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.GTP.Uplink.

Parameters relating to GTP packetes in the uplink direction.

Parameter	W	Type	Default	Description
NumSDUs	-	unsignedLong	-	The number of uplink GTP SDU packets sent.
NumBytes	-	unsignedLong	-	The number of bytes in uplink GTP SDU packets sent.

FAPService.{i}.LTE.GTP.Downlink.

Parameters relating to GTP packets in the downlink direction.

Parameter	W	Type	Default	Description
NumSDUs	-	unsignedLong	-	The number of downlink GTP SDU packets received.
NumBytes	-	unsignedLong	-	The number of bytes in downlink GTP SDU packets received.

FAPService.{i}.LTE.MAC.

Parameters relating to the MAC layer.

Parameter	W	Type	Default	Description

FAPService.{i}.LTE.MAC.CarrierAggregation.

Parameters relating to the MAC Carrier Aggregation functionality.

Parameter	W	Type	Default	Description
NumSCellAddAttempts	-	unsignedInt	-	Number of times the SCell-Add procedure was attempted for an active UE session.
NumSCellAddSuccesses	-	unsignedInt	-	Number of times the SCell-Add procedure was successful for an active UE session.
NumSCellDeleteAttempts	-	unsignedInt	-	Number of times the SCell-Delete procedure was attempted for an active UE session.
NumSCellDeleteSuccesses	-	unsignedInt	-	Number of times the SCell-Delete procedure was successful for an active UE session.
NumSCellEnableAttempts	-	unsignedInt	-	Number of times the SCell-Enable procedure was attempted for an active UE session.
NumSCellEnableSuccesses	-	unsignedInt	-	Number of times the SCell-Enable procedure was successful for an active UE session.
NumSCellDisableAttempts	-	unsignedInt	-	Number of times the SCell-Disable procedure was attempted for an active UE session.
NumSCellDisableSuccesses	-	unsignedInt	-	Number of times the SCell-Disable procedure was successful for an active UE session.

FAPService.{i}.ServiceAvailability.

Parameters relating to archival of FAPService Service Availability.

Parameter	W	Type	Default	Description
ServicesNodeAvailablityStartTime	-	dateTime	-	The reference start time used for Service Availability KPIs calculated by {{ACS}}. If the service availability KPI reset command is not executed the value of this parameter will be zero.
ServicesNodeMaintenanceStartTime	-	dateTime	-	The time when the services node entered into maintenance mode. If the services node is not in a maintenance window the value of this parameter will be zero.
ServicesNodeMaintenanceDuration	-	unsignedLong	-	The cumulative time in seconds in which the services node was in maintenance mode.
ServicesNodeUnscheduledDownTime	-	unsignedLong	-	The cumulative time in seconds the services node spends in an unscheduled outage. The time during which the services node is in a reboot state excluding any time during which the services node was in maintenance mode.
ServiceUpTime	-	unsignedLong	-	The cumulative time in seconds since the service availability KPI reset command was executed or since the services node was rebooted with the clean configuration option.

FAPService.{i}.ServiceAvailability.UMTS.

Parameters relating UMTS Service Availability.

Parameter	W	Type	Default	Description
CSServiceDownTimeDuration	-	unsignedLong	-	The cumulative time in seconds during which the services node had no connection to the UMTS CS core network and was not in maintenance mode.
PSServiceDownTimeDuration	-	unsignedLong	-	The cumulative time in seconds during which the services node had no connection to the UMTS PS core network and was not in maintenance mode.

FAPService.{i}.ServiceAvailability.LTE.

Parameters relating to LTE Service Availability.

Parameter	W	Type	Default	Description
EPCConnectionDownTimeDuration	-	unsignedLong	-	The cumulative time in seconds during which the services node had no connection to the EPC and was not in maintenance mode.

FAPService.{i}.RecordInfo.

Parameters relating to archival of FAPService statistics.

Parameter	W	Type	Default	Description
TimeOfLastStatsReset	-	dateTime	-	Timestamp of the last reset of statistics by {{ACS}}.
TimeOfLastStatsUpdate	-	dateTime	-	Timestamp of the last update of statistics by system.

Cell.{i}.

Table containing the configured system cell list.

Each *Cell* encompasses the cell specific parameters found in *FAPService.{i}.*

as identified in [TR-196].

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enable or disable *Cell*. If *true* the cell is enabled. If *false* the cell is disabled.
BypassAlarms	W	enum{4}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 4). Each list item is an enumeration of: • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process) • *RFMGMT_FAULTED_MAJOR* (The cell was faulted by RF management) • *CELL_MAX_TX_POWER_DELTA_EXCEED_MINOR* (MaxTxPowerInUse of cell has exceeded to MaxTxPowerRerefence)
Name	W	regex(32)	<Empty>	Name of this *Cell* Possible patterns: • `^$` • `^[0-9a-zA-Z]([0-9a-zA-Z_-])*$`
LocationType	W	enum{}	Empty(Interior)	Description of the location where this *Cell* is installed Array of *string* items. Each list item is an enumeration of: • *Interior* (The cell is internal to the SCW installation. Non SCW deployment users are not expected to see this cell.)

				• *Exterior* (The cell is external facing. Non SCW deployment users are expected to see this cell.) • *Elevator* (The cell is close to an elevator.) • *Atrium* (The cell is located in/close to the attrium of the building.) • *Cafeteria* (The cell is located in/close to the cafeteria.) • *MeetingRoom* (The cell is located in a meeting room.) • *Egress* (The cell is located near a ingress/egress path.) • *Basement* (The cell is located in a basement.) • *HandIn* (The cell is located in Hand-In zone.) • *Boundary* (The cell is a boundary cell. Note that each cell is dynamically auto-identified as either a boundary cell or a non-boundary cell. As such, a cell identified by the user as a non-boundary cell can later on be auto-identified as a boundary cell and vice versa.)

Description	W	string(128)	<Empty>	Description of this *Cell*.
RadioNode	W	unsignedInt	Mandatory(0)	The index of the *RadioNode.{i}.* associated with this *Cell* entry. Each *Cell* in this table must be associated with a *RadioNode.{i}.Radio.{i}.*. *RadioNode* must not be 0 if *Enable* is true.
Radio	W	unsignedInt[0:2]	Mandatory(0)	The index of the *RadioNode.{i}.Radio.{i}.* associated with this *Cell* entry. Each *Cell* in this table must be associated with a *RadioNode.{i}.Radio.{i}.*. *Radio* must not be 0 if *Enable* is true.
ConfState	-	string	-	Configured state of the *Cell*. This parameter tracks the high-level provisioned state of the *Cell*. The high-level provisioned state changes when *Enable* is changed, when *Mode* is changed and when the RadioNode state changes with respect to its ability to handle a provisioned cell.
OperState	-	enum	-	The operational state of the *Cell*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT*

				• *MAINT-RFMGMT*
ProvState	-	string	-	Provisioned state of the *Cell*. The provisioned state is a substate of *ConfState*. This parameter is updated as the *Cell* goes through the provisioning state machine.
ProvTime	-	dateTime	-	The time when the *Cell* last began the provisioning process.

Cell.{i}.AccessMgmt.

This object contains parameters relating to Access Management (ACL, CSG, LIA).

Closed Subscriber Group (CSG) service behavior is specified in [3GPP-TS.22.011].

Note: Cell barring and 3GPP access class parameters are contained in *.CellConfig.UMTS.RAN.FDDFAP.CellRestriction.*

Parameter	W	Type	Default	Description
IMSIWhitelistEnforcementEnable	-	boolean	-	Indicates whether IMSI Whitelist enforcement is enabled or disabled. If enabled, an IMSI is allowed access only if it has been configured in *FAPService.{i}.AccessMgmt.MemberDetail.{i}.* and it is allowed by the Policy configuration. This parameter is inherited from the UMTS Zone to which the cell belongs.

Cell.{i}.AccessMgmt.AdmissionControl.

Admission control configuration

Parameter	W	Type	Default	Description
MobilityLinkReservation	W	unsignedInt[0:10]	5	This parameter has been deprecated.

Cell.{i}.CellConfig.

This object contains parameters relating to configuring the FAP.

Parameter	W	Type	Default	Description
LocationReportingEnable	W	boolean	false	Enable or disable proximity detection on this cell. If *true* proximity detection is enabled and a syslog event is generated when a UE session is detected on this cell. If *false* proximity detection is disabled and a syslog event is not generated when a UE session is detected on this cell.

Cell.{i}.CellConfig.UMTS.

This object contains parameters relating to configuring UMTS system specific information.

Parameter	W	Type	Default	Description

Cell.{i}.CellConfig.UMTS.CN.

This object contains parameters relating to configuring UMTS CN.

Parameter	W	Type	Default	Description
SAC	W	unsignedInt[0:65535]	Empty(0)	Service Area Code (SAC) [3GPP-TS.23.003]. The concatenation of PLMN ID (MCC+MNC), LAC, and SAC uniquely identifies the Service Area ID (SAI).
LACRAC	W	string(128)	<Empty>	Location and Routing Area Codes of proximity detector cell.

Cell.{i}.CellConfig.UMTS.RAN.

This object contains parameters relating to the RAN-level configuration.

Parameter	W	Type	Default	Description
CellID	W	unsignedInt[ranges]	Empty(4294967295)	Indicates the Cell Identifier (C-Id) for the cell. Possible values: • *less than 268435455* • *4294967295*
UCID	-	unsignedInt[0:4294967295]	-	Indicates the Cell Identity (UC-Id) for the cell.
CID	-	unsignedInt[0:65535]	-	Indicates the Cell Identifier (C-Id) for the cell.

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.

This object contains parameters relating to the cell-level configuration for FDD mode FAP.

Parameter	W	Type	Default	Description

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.InterFreqMeas.

This object contains parameters relating to the inter-freq HO related control parameters.

Parameter	W	Type	Default	Description
MeasurementQuantity	W	enum	Empty(QUANT_INVALID)	Defines the measurement quantity for inter-freq HO measurement when the UE is in Cell-DCH state. Enumeration of: Enumeration of: • *QUANT_INVALID* • *CPICH Ec/No* • *CPICH RSCP* [3GPP-TS.25.331] Section 10.3.7.18
ThresholdUsedFrequencyEvent2b	W	int[ranges]	Empty(65535)	Defines the reporting threshold for inter-freq HO measurement when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Each valid value of *MeasurementQuantity* has a different valid range. *CPICH RSCP* has a range of -120 dBm to -25 dBm *CPICH Ec/No* has a range of -24 dB to 0 dB Possible values: • *-120 to 0* • *65535*
ThresholdUsedFrequencyEvent2d	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2D inter-freq HO measurement based on CPICH Ec/No when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values: • *-24 to 0* • *65535*
ThresholdUsedFrequencyEvent2f	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2F inter-freq HO measurement based on CPICH Ec/No when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values: • *-24 to 0* • *65535*

MeasurementQuantityInUse	-	enum	-	Defines the current measurement quantity being used by the cell for inter-freq HO measurements (E2B) Enumeration of: • *QUANT_INVALID* • *CPICH Ec/No* • *CPICH RSCP*
ThresholdNonUsedFrequencyEvent2b	W	int[ranges]	Empty(65535)	Defines the reporting threshold for inter-freq HO measurement when the UE is in Cell-DCH state. This is the "Threshold non-used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Each valid value of *MeasurementQuantity* has a different valid range. *CPICH RSCP* has a range of -120 dBm to -25 dBm *CPICH Ec/No* has a range of -24 dB to 0 dB Possible values: • *-120 to 0* • *65535*
ThresholdUsedFrequencyEvent2dRscp	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2D inter-freq HO measurement based on CPICH RSCP when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values: • *-120 to -25* • *65535*
ThresholdUsedFrequencyEvent2fRscp	W	int[ranges]	Empty(65535)	Defines the reporting threshold for Event 2F inter-freq HO measurement based on CPICH RSCP when the UE is in Cell-DCH state. This is the "Threshold used frequency" as defined in [3GPP-TS.25.331] Section 10.3.7.19. Possible values: • *-120 to -25* • *65535*
ThresholdUsedFrequencyEvent2bInUse	-	int[ranges]	-	Defines the current threshold for inter-freq HO measurement when the UE is in Cell-DCH state. Possible values: • *-120 to 0* • *65535*

ThresholdNonUsedFrequencyEvent2bInUse	-	int[ranges]	-	Defines the reporting threshold for inter-freq HO measurement when the UE is in Cell-DCH state. Possible values: • *-120 to 0* • *65535*
ThresholdUsedFrequencyEvent2dInUse	-	int[ranges]	-	Defines the reporting threshold for Event 2D inter-freq HO measurement based on CPICH Ec/No when the UE is in Cell-DCH state. Possible values: • *-24 to 0* • *65535*
ThresholdUsedFrequencyEvent2fInUse	-	int[ranges]	-	Defines the reporting threshold for Event 2F inter-freq HO measurement based on CPICH Ec/No when the UE is in Cell-DCH state. Possible values: • *-24 to 0* • *65535*
ThresholdUsedFrequencyEvent2dRscpInUse	-	int[ranges]	-	Defines the reporting threshold for Event 2D inter-freq HO measurement based on CPICH RSCP when the UE is in Cell-DCH state. Possible values: • *-120 to -25* • *65535*
ThresholdUsedFrequencyEvent2fRscpInUse	-	int[ranges]	-	Defines the reporting threshold for Event 2F inter-freq HO measurement based on CPICH RSCP when the UE is in Cell-DCH state. Possible values: • *-120 to -25* • *65535*

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.

This object contains parameters relating to the RF configuration.

Parameter	W	Type	Default	Description
UARFCNDL	W	unsignedInt[ranges]{1:1}	Mandatory(0)	Array of *unsignedInt* items (minimum number of items 1, maximum number of items 1). Each item is a DL UTRA Absolute Radio Frequency Channel Number (UARFCN) in an FDD mode cell. [3GPP-TS.25.433] Section 9.2.1.65 Self-configuration for UARFCN is controlled by *.Capabilities.UMTS.SelfConfig.UARFCNConfig* from an availability perspective and *.FAPControl.UMTS.SelfConfig.UARFCNSelfConfigEnable* from an enabled perspective. If the FAP's self-configuration capability for UARFCN is available and enabled, this parameter MAY contain more than one item and the FAP is expected to select one from the list for *UARFCNDLInUse*. If the self-configuration capability is not available or not enabled, then this parameter SHOULD contain only a single item. The UARFCN values supplied to the list are derived based on the formula defined in [3GPP-TS.25.104] Section 5.4.3 The order of the UARFCN entries has no significance. The carrier spacing in FDD mode is fixed as defined in [3GPP-TS.25.104]. Therefore, the FAP can unambiguously derive the UL UARFCN value based on the selected DL UARFCN. Possible values for each list item: • *0* • *412* • *437* • *462* • *487* • *512* • *537* • *562* • *587* • *612* • *637* • *662* • *687* • *1007* • *1012* • *1032* • *1037* • *1062* • *1087* • *1537 to 1738* • *1887* • *1912* • *1937* • *1962* • *1987* • *2012* • *2037*

				• *2062* • *2087* • *2237 to 2563* • *2587* • *2612* • *2637* • *2662* • *2687* • *2712* • *2737* • *2762* • *2787* • *2812* • *2837* • *2862* • *2887* • *2912* • *4357 to 4458* • *9662 to 9938* • *10562 to 10838* *UARFCNDL* must not be 0 if *FAPService.{i}.FAPControl.AdminState* is true.

UARFCNDLInUse	-	unsignedInt	-	The DL UARFCN being used by the FAP. Self-configuration for UARFCN is controlled by *.Capabilities.UMTS.SelfConfig.UARFCNConfig* from an availability perspective and *.FAPControl.UMTS.SelfConfig.UARFCNSelfConfigEnable* from an enabled perspective. If the self-configuration capability is available and enabled, this parameter indicates the value selected by the FAP among the choices provided in *UARFCNDL*. If the self-configuration capability is not available or not enabled, then this parameter contains the first value in *UARFCNDL*.
UARFCNULInUse	-	unsignedInt	-	The UL UARFCN being used by the FAP. The UL UARFCN that corresponds to *UARFCNDLInUse*.

PrimaryScramblingCode	W	spanUnsignedInt{1:50}	0..511	Array of *string* items (minimum number of items 1, maximum number of items 50). Each item is a Primary DL Scrambling Code used by the FDD mode cell with a numeric range between 0 and 511 inclusive.
				[3GPP-TS.25.433] Section 9.2.2.34
				Self-configuration for PSC is controlled by *.Capabilities.UMTS.SelfConfig.PrimaryScramblingCodeConfig* from an availability perspective and *.FAPControl.UMTS.SelfConfig.PrimaryScramblingCodeSelfConfigEnable* from an enabled perspective.
				If the FAP's self-configuration capability for *PrimaryScramblingCode* is available and enabled, this parameter MAY contain more than one item and the FAP is expected to select one from the list for *PrimaryScramblingCodeInUse*.
				If the self-configuration capability is not available or not enabled, then this parameter SHOULD contain only a single item.
				The multiplicity of the PSC values can also be expressed by defining a range using ".." (two periods) between two values. In this case, the combination of two values defines the lower-bound and upper-bound of the range inclusive.
				The following are examples of valid PSC string:
				• "20"
				  o (explicitly specifies a single PSC value)
				• "20,30,40"
				  o (specifies 3 possible PSC values to select from)
				• "20..40"
				  o (specifies 21 possible values between 20 and 40, inclusive)
				• "20..40,50"
				  o (specifies 22 possible values between 20 and 40 inclusive and a single value 50)
				The order of the items has no significance.

PrimaryScramblingCodeInUse	-	unsignedInt	-	The *PrimaryScramblingCodeInUse* is the final Primary Scrambling Code choosen for this cell.
MaxFAPTxPower	W	spanInt	-100..240	Defines the maximum transmission power allowed on the FAP, maximum value for the linear sum of the power of all downlink physical channels, that is allowed to be used in a cell. *MaxFAPTxPower* is expressed as a range of allowed maximum power levels with ".." (two periods) between the upper and lower values, i.e. "<Pmax_low>..<Pmax_high>". *MaxFAPTxPower* identifies the limits between which the FAP can self-configure its maximum transmit power. Self-configuration for maximum transmission power is controlled by *.Capabilities.UMTS.SelfConfig.MaxFAPTxPowerConfig* from an availability perspective and *.FAPControl.UMTS.SelfConfig.MaxFAPTxPowerSelfConfigEnable* from an enabled perspective. <Pmax_low> and <Pmax_high> are measured in dBm and have a range of 0.0 to 20.0 incremented by 0.1 dB.

				[3GPP-TS.32.642] Section 6.3.9 [3GPP-TS.25.104] Section 6.2.1
MaxFAPTxPowerInUse	-	int[-270:240]	-	The *MaxFAPTxPowerInUse* is the final Transmit power choosen for this cell.
DLCFreqInUse	-	unsignedInt	-	Absolute center frequency in *0.1 MHz* of the DL UARFCN in use by the cell.
ULCFreqInUse	-	unsignedInt	-	Absolute center frequency in *0.1 MHz* of the UL UARFCN in use by the cell.
UseSelfConfigAlternatePSC	W	boolean	false	When *.FAPControl.UMTS.SelfConfig.NeighborListSelfConfigEnable* is *true*: If *true*, cell is assigned a DL Primary Scrambling Code from *FAPService.CellConfig.UMTS.RAN.FDDFAP.RF.SelfConfigAlternatePSC*. If *false*, cell is assigned a DL Primary Scrambling Code from *FAPService.CellConfig.UMTS.RAN.FDDFAP.RF.PrimaryScramblingCode*.
PrimaryScramblingCodeConfigured	W	unsignedInt[0:511]	0	The *PrimaryScramblingCodeConfigured* can be configured by the user or by Self Organizing Network (SON) Management only when *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_PrimaryScramblingCodeLockEnable* is *false*.
PrimaryScramblingCodeLockEnable	W	boolean	false	When *true*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_PrimaryScramblingCodeConfigured* is locked and cannot be changed by the user or by Self Organizing Network (SON) Management.
MaxFAPTxPowerConfigured	W	int[-270:240]	0	The *MaxFAPTxPowerConfigured* can be configured by the user or by Self Organizing Network (SON) Management only when *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_MaxFAPTxPowerLockEnable* is *false*.
MaxFAPTxPowerLockEnable	W	boolean	false	When *true*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.X_002448_MaxFAPTxPowerConfigured* is locked and cannot be changed by the user nor by Self Organizing Network (SON) Management.
RFLockEnable	W	boolean	false	When *true*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.MaxFAPTxPowerConfigured*, *.Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.PrimaryScramblingCodeConfigured* and the neighbor list configured for the cell is locked and cannot be changed by the user nor Self Organizing Network (SON) Management.
ResetMode	W	boolean	Empty(true)	DEPRECATED. This parameter has been deprecated. Use *Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.Mode* instead.
Mode	W	enum	UMTSNetmon	Intended cell mode. Enumeration of: • *UMTSNodeB* (Operational mode) • *UMTSNetmon* (UMTS scan mode) • *GSMNetmon* (GSM scan mode) • *LTENetmon* (LTE scan mode)
ModeInUse	-	enum	-	Current cell mode. Enumeration of: • *UMTSNodeB* (Operational mode)

				• *UMTSNetmon* (UMTS scan mode) • *GSMNetmon* (GSM scan mode) • *LTENetmon* (LTE scan mode)
MaxFAPTxPowerInUseAlarmReference	W	int[ranges]	Empty(65535)	A known good reference value for *MaxFAPTxPowerInUse*. The delta between *MaxFAPTxPowerInUseAlarmReference* and *MaxFAPTxPowerInUse* is what is used to decide if system faults are present. See *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.RF.MaxFAPTxPowerInUseAlarmDelta* for details. Possible values: • *-100 to 240* • *65535*

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.

This object contains parameters relating to the neighbor list.

Parameter	W	Type	Default	Description
IntraFreqCellNumberOfEntries	-	unsignedInt	-	The number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}.* table.
InterFreqCellNumberOfEntries	-	unsignedInt	-	The number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}.* table.
NeighborListLockEnable	W	boolean	false	Locks or unlocks the neighbor list of *Cell.{i}.*
ProximityListNumberOfEntries	-	unsignedInt	-	The number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.X_002448_ProximityList.{i}.* table.

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}.

IntraFreqCell.{i} refers to the entry in *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell* with the same index.

Parameter	W	Type	Default	Description
InclusionMode	W	enum	MustInclude	The specified Neighbor must always be included, or it must always be excluded or it should be included only if it is found during REM scan. If *IntraFreqCell.{i}* refers to *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}* then *InclusionMode* superceeds the value in *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}.X_002448_InclusionMode*. Enumeration of: • *IncludeIfFound* (Include in specified neighbor list if found during REM)

				• *MustInclude* (Must include this neighbor in specified neighbor list) • *MustExclude* (Must exclude this neighbor from specified neighbor list)
CPICHRSCP	W	int[ranges]	-85	The CPICH RSCP in *dBm* to be associated with the corresponding intra-frequency neighbor in *.FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell* Possible values: • *-120 to -25* • *0*

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}.

InterFreqCell.{i} refers to the entry in *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell* with the same index.

Parameter	W	Type	Default	Description
InclusionMode	W	enum	MustInclude	The specified Neighbor must always be included, or it must always be excluded or it should be included only if it is found during REM scan. If *InterFreqCell.{i}* refers to *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}* then *InclusionMode* superceeds the value in *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}.X_002448_InclusionMode*. Enumeration of: • *IncludeIfFound* (Include in specified neighbor list if found during REM) • *MustInclude* (Must include this neighbor in specified neighbor list) • *MustExclude* (Must exclude this neighbor from specified neighbor list)
CPICHRSCP	W	int[ranges]	-85	The CPICH RSCP in *dBm* to be associated with the corresponding inter-frequency neighbor in *.FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell* Possible values: • *-120 to -25* • *0*

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.

The inter-RAT cell lists separated by technology. [3GPP-TS.25.331] Section 10.3.7.23

Parameter	W	Type	Default	Description

GSMNumberOfEntries	-	unsignedInt	-	Number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}.* table.

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}.

InterRATCell.GSM.{i} refers to the entry in *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM* with the same index.

Parameter	W	Type	Default	Description
InclusionMode	W	enum	MustInclude	The specified Neighbor must always be included, or it must always be excluded or it should be included only if it is found during REM scan. If *InterRATCell.GSM.{i}* refers to *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}* then *InclusionMode* superceeds *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}.X_002448_InclusionMode*. Enumeration of: • *IncludeIfFound* (Include in specified neighbor list if found during REM) • *MustInclude* (Must include this neighbor in specified neighbor list) • *MustExclude* (Must exclude this neighbor from specified neighbor list)
RSSI	W	int[ranges]	-85	The RSSI in *dBm* to be associated with the corresponding Inter RAT GSM Neighbor *.FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM* Possible values: • *-120 to -25* • *0*

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborList.ProximityList.{i}.

X_002448_ProximityList.{i} refers to the entry in *Cell* with the same index.

Parameter	W	Type	Default	Description
PathLoss	W	unsignedInt	60	The assumed path loss in *1dB* from *.Cell.{i}*
InclusionMode	W	enum	MustInclude	The specified *.cell.{i}* must always be included as a neighbor, or it must always be excluded or it should be included only if it is found during REM scan. Enumeration of: • *IncludeIfFound* (Include in specified neighbor list if found during REM) • *MustInclude* (Must include this neighbor in specified neighbor list) • *MustExclude* (Must exclude this neighbor from specified neighbor list)

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborListInUse.

This object contains parameters relating to the neighbor list used by the FAP based on its self-configuration capability and *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.* configuration of adding and excluding cells.

Parameter	W	Type	Default	Description
MaxIntraFreqCellEntries	-	unsignedInt	32	The maximum number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}.* table.
MaxInterFreqCellEntries	-	unsignedInt	32	The maximum number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}.* table.
IntraFreqCellNumberOfEntries	-	unsignedInt	-	The number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.IntraFreqCell.{i}.* table.
InterFreqCellNumberOfEntries	-	unsignedInt	-	The number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterFreqCell.{i}.* table.

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborListInUse.IntraFreqCell.{i}.

Table containing the intra-frequency cell list.

Parameter	W	Type	Default	Description
PLMNID	-	string(6)	<Empty>	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
RNCID	-	unsignedInt[0:65535]	0	RNC-ID of an intra-freq neighbor cell. It uniquely identifies an RNC within a PLMN. Normally, RNC-ID consists of 12 bits (i.e. a range of [0:4095]). However, if the value is larger than 4095, then Extended RNC-ID (range of [4096:65535]) is used in RANAP. The RNC-ID and Extended RNC-ID are combined into a single parameter here as there is no explicit need to have them separated. [3GPP-TS.25.413] Section 9.2.1.39
CID	-	unsignedInt[0:65535]	-	C-ID of the intra-freq neighbour cell [3GPP-TS.25.401] Section 6.1.5. If *RNCID* is larger than 4095, then *CID* will be 12 bits (i.e. a range of [0:4095]), else *CID* is 16 bits long (i.e. range of [4096:65535]). This is needed to facilitate Femto to Macro handover. Used in [3GPP-TS.25.413] Section 9.2.1.28 as part of Target Cell ID.
LAC	-	unsignedInt[0:65535]	0	Location Area Code (LAC). The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the Location Area ID (LAI). [3GPP-TS.23.003] Section 4.1 [3GPP-TS.25.413] Section 9.2.3.6
RAC	-	unsignedInt[0:255]	0	Routing Area Code (RAC). The concatenation of PLMN ID (MCC+MNC), LAC, and RAC uniquely identifies the Routing Area ID (RAI).

				[3GPP-TS.23.003] Section 4.2 [3GPP-TS.25.413] Section 9.2.3.7
URA	-	unsignedInt[0:65535]	0	UTRAN Registration Area (URA) [3GPP-TS.23.401]. Indicates to the UE which *URA* it shall use in case of overlapping URAs. [3GPP-TS.25.331] Section 10.3.2.6
PCPICHScramblingCode	-	unsignedInt[0:511]	0	Primary CPICH scrambling code.
Tier	-	unsignedInt	-	The tier of the neighbor indicates the degree of neighbor relationship of this neighbor with *InternetGatewayDevice.Services.Cell.{i}*. All neighbors that were detected by *InternetGatewayDevice.Services.Cell.{i}* during REM scan or manually provisioned to be neighbors of all cells, will have a tier value of 1. All neighbor entries in this list that are derived from tier 1 neighbors of *InternetGatewayDevice.Services.Cell.{i}* will have a tier value of 2 and so on. The *InternetGatewayDevice.Services.Cell.{i}* (serving cell) itself will be present in its own Intra-frequency neighbor list with a tier value of 0.
CPICHRSCP	-	int	-	For tier 1 neighbors, this indicates the signal strength of this neighbor detected during REM Scan or configured during manual provisioning of this neighbor. For other tier neighbors, this value is not defined.

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborListInUse.InterFreqCell.{i}.

Table containing the inter-frequency cell list.

Parameter	W	Type	Default	Description
PLMNID	-	string(6)	<Empty>	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
RNCID	-	unsignedInt[0:65535]	0	RNC-ID of an intra-freq neighbor cell. It uniquely identifies an RNC within a PLMN. Normally, RNC-ID consists of 12 bits (i.e. a range of [0:4095]). However, if the value is larger than 4095, then Extended RNC-ID (range of [4096:65535]) is used in RANAP. The RNC-ID and Extended RNC-ID are combined into a single parameter here as there is no explicit need to have them separated. [3GPP-TS.25.413] Section 9.2.1.39
CID	-	unsignedInt[0:65535]	-	C-ID of the intra-freq neighbour cell [3GPP-TS.25.401] Section 6.1.5. If *RNCID* is larger than 4095, then *CID* will be 12 bits (i.e. a range of [0:4095]), else *CID* is 16 bits long (i.e. range of [4096:65535]). This is needed to facilitate Femto to Macro handover. Used in [3GPP-TS.25.413] Section 9.2.1.28 as part of Target Cell ID.
LAC	-	unsignedInt[0:65535]	0	Location Area Code (LAC). The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the Location Area ID (LAI). [3GPP-TS.23.003] Section 4.1 [3GPP-TS.25.413] Section 9.2.3.6
RAC	-	unsignedInt[0:255]	0	Routing Area Code (RAC). The concatenation of PLMN ID (MCC+MNC), LAC, and RAC uniquely identifies the Routing Area ID (RAI).

				[3GPP-TS.23.003] Section 4.2 [3GPP-TS.25.413] Section 9.2.3.7
URA	-	unsignedInt[0:65535]	0	UTRAN Registration Area (URA) [3GPP-TS.23.401]. Indicates to the UE which *URA* it shall use in case of overlapping URAs. [3GPP-TS.25.331] Section 10.3.2.6
UARFCNUL	-	unsignedInt[0:16383]	-	The UL UTRA Absolute Radio Frequency Channel Number (UARFCN) in an FDD mode cell. [3GPP-TS.25.433]
UARFCNDL	-	unsignedInt[0:16383]	-	The DL UTRA Absolute Radio Frequency Channel Number (UARFCN) in an FDD mode cell. [3GPP-TS.25.433]
PCPICHScramblingCode	-	unsignedInt[0:511]	0	Primary CPICH scrambling code.
Tier	-	unsignedInt	-	The tier of the neighbor indicates the degree of neighbor relationship of this neighbor with *InternetGatewayDevice.Services.Cell.{i}*. All neighbors that were detected by *InternetGatewayDevice.Services.Cell.{i}* during REM scan or manually provisioned to be neighbors of all cells, will have a tier value of 1. All neighbor entries in this list that are derived from tier 1 neighbors of *InternetGatewayDevice.Services.Cell.{i}* will have a tier value of 2 and so on.
CPICHRSCP	-	int	-	For tier 1 neighbors, this indicates the signal strength of this neighbor detected during REM Scan or configured during manual provisioning of this neighbor. For other tier neighbors, this value is not defined.

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborListInUse.InterRATCell.

The inter-RAT cell lists separated by technology. [3GPP-TS.25.331] Section 10.3.7.23

Parameter	W	Type	Default	Description
MaxGSMEntries	-	unsignedInt	-	The maximum number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}.* table.
GSMNumberOfEntries	-	unsignedInt	-	Number of entries in the *.CellConfig.UMTS.RAN.FDDFAP.NeighborList.InterRATCell.GSM.{i}.* table.

Cell.{i}.CellConfig.UMTS.RAN.FDDFAP.NeighborListInUse.InterRATCell.GSM.{i}.

Table containing the inter-RAT cell list for GSM.

Parameter	W	Type	Default	Description
PLMNID	-	string(6)	<Empty>	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
LAC	-	unsignedInt[0:65535]	0	Location Area Code (LAC). The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the Location Area ID (LAI).

				[3GPP-TS.23.003] Section 4.1 [3GPP-TS.25.413] Section 9.2.3.6
BSIC	-	unsignedInt[0:255]	-	BSIC of the cell per [3GPP-TS.23.003], consisting of: • Bit 7:6 - not used ("00") • Bit 5:3 - NCC (PLMN Color Code) • Bit 2:0 - BCC (BS color code) For example, if NCC is 7 and BCC is 2 you would have 00111010 (binary) or 0x3A (hex), and the value of this parameter would be 58.
CI	-	unsignedInt[0:65535]	-	Cell ID of the cell per [3GPP-TS.23.003] Section 4.3.1.
BandIndicator	-	enum	<Empty>	Indicates how to interpret the BCCH ARFCN. Enumeration of: • *GSM 850* • *GSM 900* • *DCS 1800* • *PCS 1900*
BCCHARFCN	-	unsignedInt[0:1023]	-	ARFCN of this cell.
Tier	-	unsignedInt	-	The tier of the neighbor indicates the degree of neighbor relationship of this neighbor with *InternetGatewayDevice.Services.Cell.{i}*. All neighbors that were detected by *InternetGatewayDevice.Services.Cell.{i}* during REM scan or manually provisioned to be neighbors of all cells, will have a tier value of 1. All neighbor entries in this list that are derived from tier 1 neighbors of *InternetGatewayDevice.Services.Cell.{i}* will have a tier value of 2 and so on.
RSSI	-	int	-	For tier 1 GSM neighbors, this indicates the signal strength of this neighbor detected during REM Scan or configured during manual provisioning of this neighbor. For other tier GSM neighbors, this value is not defined.

Cell.{i}.REM.

This object contains parameters relating to REM (Radio Environment Measurement).

Parameter	W	Type	Default	Description

Cell.{i}.REM.WCDMAFDD.

This object contains parameters relating to radio environment measurement capabilities for the UMTS system.

Parameter	W	Type	Default	Description
MaxCellEntries	-	unsignedInt	-	The maximum number of entries available in the *.REM.WCDMAFDD.Cell.{i}.* table.

CellNumberOfEntries	-	unsignedInt	-	The number entries in the *.REM.WCDMAFDD.Cell.{i}.* table..

Cell.{i}.REM.WCDMAFDD.Cell.{i}.

Table indicating the components of the discovered cells.

Parameter	W	Type	Default	Description
ZoneId	-	unsignedInt	-	Index of the Zone in which *Cell.{i}.REM.WCDMAFDD.Cell.{i}.* was discovered by *Cell.{i}.*

Cell.{i}.REM.WCDMAFDD.Cell.{i}.RF.

Table indicating the RF aspect of the discovered cells.

Parameter	W	Type	Default	Description
UARFCNDL	-	unsignedInt[0:16383]	-	The UTRA Absolute Radio Frequency Channel Number (UARFCN) in the DL direction of an FDD mode cell. [3GPP-TS.25.433]
CPICHRSCP	-	int[-120:-25]	-	Received signal level in *dBm* of the CPICH channel. (Ref. 3GPP TS 25.133)
PrimaryScramblingCode	-	unsignedInt[0:511]	-	Primary scrambling code.

Cell.{i}.REM.WCDMAFDD.Cell.{i}.BCCH.

Table containing the system information broadcast in the BCCH logical channel.

Parameter	W	Type	Default	Description
PLMNID	-	string(6)	-	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
LAC	-	unsignedInt[0:65535]	-	Location Area Code (LAC) as defined in SIB 1 [3GPP-TS.25.331]. The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the LAI (Location Area ID) [3GPP-TS.23.003].
RAC	-	unsignedInt[0:255]	-	Routing Area Code (RAC) as defined in SIB 1 [3GPP-TS.25.331]. The concatenation of PLMN ID (MCC+MNC), LAC, and RAC uniquely identifies the RAI (Routing Area ID) [3GPP-TS.23.003].
CellID	-	unsignedInt[268435455]	-	Cell Identity (UC-Id) as defined in SIB3 [3GPP-TS.25.331] Section10.3.2.2. [3GPP-TS.24.008]

PCPICHTxPower	-	int[-10:50]	-	Primary Common Pilot Channel (CPICH) power level on SIB 5/6 [3GPP-TS.25.331] Section10.3.6.55.
SIBListNumberOfEntries	-	unsignedInt[0:65535]	-	Actual number of SIB entries broadcast by the scanned cell and scanned by REM.

Cell.{i}.REM.WCDMAFDD.Cell.{i}.BCCH.SIBList.{i}.

Actual list of SIB entries broadcast by the scanned cell and scanned by REM.

Parameter	W	Type	Default	Description
RawData	-	string	-	Scanned SIB Raw data of the neighbor.
RawDataLen	-	unsignedInt[0:65535]	-	Scanned SIB data length of the neighbor.
FormattedTextNumEntries	-	unsignedInt[0:65535]	-	Number of decoded SIB parameters.

Cell.{i}.REM.WCDMAFDD.Cell.{i}.BCCH.SIBList.{i}.FormattedText.{i}.

Parameter value for decoded sib.

Parameter	W	Type	Default	Description
Text	-	string	-	Parameter value for decoded sib.

Cell.{i}.REM.WCDMAFDD.Cell.{i}.BCCH.AlternatePSCList.{i}.

Actual list of SIB entries broadcast by the scanned cell and scanned by REM.

Parameter	W	Type	Default	Description
AltPSC	-	unsignedInt[0:65535]	-	Configured Alternate PSC.
Presence	-	string	-	Presence info for AltPSC in the scanned cell.

Cell.{i}.REM.GSM.

This object contains parameters relating to GSM REM capabilities.

Parameter	W	Type	Default	Description

MaxCellEntries	-	unsignedInt	-	The maximum number of entries allowed in the *.REM.GSM.Cell.{i}.* table.
CellNumberOfEntries	-	unsignedInt	-	The number of entries in the *.REM.GSM.Cell.{i}.* table.

Cell.{i}.REM.GSM.Cell.{i}.

Table indicating the components of the discovered cells.

Parameter	W	Type	Default	Description
BandIndicator	-	enum	-	Indicates how to interpret the BCCH ARFCN. Enumeration of: • *GSM 850* • *GSM 900* • *DCS 1800* • *PCS 1900*
ARFCN	-	unsignedInt[0:1023]	-	Absolute Radio Frequency Channel Number (ARFCN) [3GPP-TS.05.05].
BSIC	-	unsignedInt[0:63]	-	Base Station Identity Code [3GPP-TS.03.03].
PLMNID	-	string(6)	-	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of the PLMNID is 5.
LAC	-	unsignedInt[1:65535]	-	Location Area Code (LAC) as defined in SIB1 [3GPP-TS.25.331]. The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the LAI (Location Area ID) [3GPP-TS.23.003].
RAC	-	unsignedInt[255]	-	Routing Area Code (RAC) consists of up to 3 numerical characters. The concatenation of PLMN ID (MCC+MNC), LAC, and RAC uniquely identifies the Routing Area ID (RAI). [3GPP-TS.23.003] Section 4.2 [3GPP-TS.25.413] Section 9.2.3.7
CI	-	unsignedInt[63999]	-	Cell Identity. [3GPP-TS.25.331] Section 10.3.2.2
RSSI	-	int[-110:48]	-	Received signal level in *dBm* of the BCCH carrier.
ZoneId	-	unsignedInt	-	Index of the Zone in which *Cell.{i}.REM.GSM.Cell.{i}.* was discovered by *Cell.{i}.*

Cell.{i}.ZoneMembership.

Specifies the Cell's Zone memberships.

Parameter	W	Type	Default	Description
SONConfigAndScanZone	-	unsignedInt{}	<Empty>	The index of the *FAPService.{i}.X_002448_UMTS.Zone.{i}.* which serves as the SONConfigAndScan Zone of this *ZoneMembership*. Array of *unsignedInt* items.
SONScanZones	-	unsignedInt{}	<Empty>	The indices of all the SONScan Zones that this *ZoneMembership* is a part of. Array of *unsignedInt* items.

Cell.{i}.RecordInfo.

Parameters relating to archival of cell statistics.

Parameter	W	Type	Default	Description
TimeOfLastStatsReset	-	dateTime	-	Timestamp of the last reset of statistics by {{ACS}}.
TimeOfLastStatsUpdate	-	dateTime	-	Timestamp of the last update of statistics by system.

Cell.{i}.UMTS.

Parameters relating to the UMTS subsystem on the cell.

Parameter	W	Type	Default	Description

Cell.{i}.UMTS.CurrentStatus.

Parameters relating to the current status of the cell.

Parameter	W	Type	Default	Description
IsProvisioned	-	boolean	-	Indicates whether cell is currently provisioned.
EmergencyCallActive	-	boolean	-	Indication of an emergency call active on the cell.
NumActiveRadiolinks	-	unsignedInt	-	Number of active radiolinks on the cell.
NumRadiolinksInCM	-	unsignedInt	-	Number of active radiolinks on the cell in compressed mode.

NumHSDPAUsers	-	unsignedInt	-	Number of served HSDPA users. Note: By definition, this also includes Rel-6 devices that are operating in HSUPA on the uplink.
NumCellFACHUsers	-	unsignedInt	-	Number of users in cell-FACH state.
NumCellPCHUsers	-	unsignedInt	-	Number of users in cell-PCH state.
ULTokenUsage	-	unsignedInt	-	Uplink token usage of the cell.
AdmissionPriorityGroupUsersNumberOfEntries	-	unsignedInt	-	Number of AdmissionPriorityGroupUsers table entries.

Cell.{i}.UMTS.CurrentStatus.NumHSUPAUsers.

Parameters relating to active HSUPA users.

Parameter	W	Type	Default	Description
Num10msTTIUsersInCell	-	unsignedInt	-	Number of served 10ms TTI users.
Num2msTTIUsersInCell	-	unsignedInt	-	Number of served 2ms TTI users.
Num10msTTIUsersNS	-	unsignedInt	-	Number of non-served 10ms TTI users.
Num2msTTIUsersNS	-	unsignedInt	-	Number of non-served 2ms TTI users.

Cell.{i}.UMTS.CurrentStatus.DLCodesInUseOnPSC.

Parameters relating to downlink OVSF code usage on the primary scrambling code.

Parameter	W	Type	Default	Description
OVSF000To031	-	string(32)	-	Bitmask of usage OVSF codes 0-31 at SF256.
OVSF032To063	-	string(32)	-	Bitmask of usage OVSF codes 32-63 at SF256.
OVSF064To095	-	string(32)	-	Bitmask of usage OVSF codes 64-95 at SF256.
OVSF096To127	-	string(32)	-	Bitmask of usage OVSF codes 96-127 at SF256.
OVSF128To159	-	string(32)	-	Bitmask of usage OVSF codes 128-159 at SF256.

OVSF160To191	-	string(32)	-	Bitmask of usage OVSF codes 160-191 at SF256.
OVSF192To223	-	string(32)	-	Bitmask of usage OVSF codes 192-223 at SF256.
OVSF224To255	-	string(32)	-	Bitmask of usage OVSF codes 224-255 at SF256.

Cell.{i}.UMTS.CurrentStatus.DLCodesInUseOnSSC.

Parameters relating to downlink OVSF code usage on the secondary scrambling code.

Parameter	W	Type	Default	Description
OVSF000To031	-	string(32)	-	Bitmask of usage OVSF codes 0-31 at SF256.
OVSF032To063	-	string(32)	-	Bitmask of usage OVSF codes 32-63 at SF256.
OVSF064To095	-	string(32)	-	Bitmask of usage OVSF codes 64-95 at SF256.
OVSF096To127	-	string(32)	-	Bitmask of usage OVSF codes 96-127 at SF256.
OVSF128To159	-	string(32)	-	Bitmask of usage OVSF codes 128-159 at SF256.
OVSF160To191	-	string(32)	-	Bitmask of usage OVSF codes 160-191 at SF256.
OVSF192To223	-	string(32)	-	Bitmask of usage OVSF codes 192-223 at SF256.
OVSF224To255	-	string(32)	-	Bitmask of usage OVSF codes 224-255 at SF256.

Cell.{i}.UMTS.CurrentStatus.AdmissionPriorityGroupUsers.{i}.

Parameters relating to the number of current users per admission priority group.

This includes users that are in soft handover as well as users in Cell_FACH and Cell_PCH states.

MRAB users are pegged only against the highest priority session type for each admission priority group.

Parameter	W	Type	Default	Description
DefaultEntry	-	boolean	-	Indicates if this represents the default Admission Priority Group.
Emergency	-	unsignedInt	-	Number of active emergency sessions.

Voice	-	unsignedInt	-	Number of active voice sessions.
HSDPA	-	unsignedInt	-	Number of active Rel-5 data sessions in RRC connected state. This includes sessions in Cell_FACH and Cell_PCH state.
HSUPA	-	unsignedInt	-	Number of active Rel-6 data sessions in RRC connected state. This includes sessions in Cell_FACH and Cell_PCH state.
R99Data	-	unsignedInt	-	Number of active sessions for Rel-99 users in RRC connected state. This includes sessions in Cell_FACH and Cell_PCH state.

Cell.{i}.UMTS.CellProvisioning.

Parameters relating to cell provisioning.

Parameter	W	Type	Default	Description
NumReprovSuccesses	-	unsignedInt	-	Number of successful (re)provisions.
NumReprovFailures	-	unsignedInt	-	Number of failed (re)provisions.
NumDeprovSuccesses	-	unsignedInt	-	Number of successful deprovisions.
NumDeprovFailures	-	unsignedInt	-	Number of failed deprovisions.
CumulativeCellUptime	-	unsignedInt	-	The total time in seconds that the cell is available for service. This is determined by the value of cell's primary operational state and includes the secondary operational state "NETMON".
MaximumTimeForCellReprov	-	unsignedInt	-	Maximum time taken for a cell (re)provision.
StartTime	-	dateTime	-	Timestamp of when the cell was last started.
MaxTxPowerInUse	-	unsignedInt	-	The maximum cell transmit power in use by the cell.
FAPCPICHEcIor	-	unsignedInt	-	The signal to noise and interference ratio (Ec/Io) of pilot channel of the cell.

Cell.{i}.UMTS.NBAP.

Parameters relating to the NBAP signaling protocol.

Parameter	W	Type	Default	Description

CellConfigReq	-	unsignedInt	-	Number of cell configuration requests.
CellConfigRsp	-	unsignedInt	-	Number of cell configuration responses.
CellDeleteReq	-	unsignedInt	-	Number of cell delete requests.
CellDeleteRsp	-	unsignedInt	-	Number of cell delete responses.
CommonMeasurementReportAckPRACHPreamblesMsg	-	unsignedInt	-	Number of acknowledged PRACH preamble measurement messages.
CommonMeasurementReportHSDSCHBitRateMsg	-	unsignedInt	-	Number of HSDSCH bit rate measurement messages.
CommonMeasurementReportHSDSCHReqPwrMsg	-	unsignedInt	-	Number of HSDSCH requested power measurement messages.
CommonMeasurementReportRxTotWBPwrMsg	-	unsignedInt	-	Number of received total wideband power measurement messages.
CommonMeasurementReportTxCarrierPwrMsg	-	unsignedInt	-	Number of transmitted carrier power measurement messages.
CommonMeasurementReq	-	unsignedInt	-	Number of common measurement requests.
CommonTrChDeleteExtReq	-	unsignedInt	-	Number of extended common transport channel delete requests.
CommonTrChDeleteExtRsp	-	unsignedInt	-	Number of extended common transport channel delete responses.
CommonTrChDeleteReq	-	unsignedInt	-	Number of common transport channel delete requests.
CommonTrChDeleteRsp	-	unsignedInt	-	Number of common transport channel delete responses.
CommonTrChPRACHConfigReq	-	unsignedInt	-	Number of PRACH configuration requests.
CommonTrChPRACHConfigRsp	-	unsignedInt	-	Number of PRACH configuration responses.
CommonTrChSCCPCHConfigReq	-	unsignedInt	-	Number of SCCPCH configuration requests.
CommonTrChSCCPCHConfigRsp	-	unsignedInt	-	Number of SCCPCH configuration responses.
CommonTrChConfigReq	-	unsignedInt	-	Number of Common Trch configuration requests.
CommonTrChConfigRsp	-	unsignedInt	-	Number of Common Trch configuration responses.
CompressedModeReq	-	unsignedInt	-	Number of compressed mode requests.
DedicatedMeasurementReportMsg	-	unsignedInt	-	Number of dedicated measurement report messages.

DedicatedMeasurementReq	-	unsignedInt	-	Number of dedicated measurement requests.
DLPwrControlReq	-	unsignedInt	-	Number of downlink power control requests.
DLPwrControlRsp	-	unsignedInt	-	Number of downlink power control responses.
ErrorIndicationMsg	-	unsignedInt	-	Number of error indication messages.
ModemSetupReq	-	unsignedInt	-	Number of modem setup responses.
ModemSetupRsp	-	unsignedInt	-	Number of modem setup requests.
SharedChanConfigReq	-	unsignedInt	-	Number of shared channel configuration requests.
SharedChanConfigRsp	-	unsignedInt	-	Number of shared channel configuration responses.
SysInfoDeleteSIBReq	-	unsignedInt	-	Number of system info delete requests.
SysInfoDeleteSIBRsp	-	unsignedInt	-	Number of system info delete responses.
SysInfoUpdateSIBReq	-	unsignedInt	-	Number of system info update requests.
SysInfoUpdateSIBRsp	-	unsignedInt	-	Number of system info update responses.
RLCommitReq	-	unsignedInt	-	Number of radiolink commit requests.
RLDeleteDCHReq	-	unsignedInt	-	Number of radiolink DCH delete requests.
RLDeleteDCHRsp	-	unsignedInt	-	Number of radiolink DCH delete responses.
RLDeleteReq	-	unsignedInt	-	Number of radiolink delete requests.
RLDeleteRsp	-	unsignedInt	-	Number of radiolink delete responses.
RLDegradeInd	-	unsignedInt	-	Number of radiolink degraded indications.
RLFailureInd	-	unsignedInt	-	Number of radiolink failure indications.
RLImproveInd	-	unsignedInt	-	Number of radiolink improved indications.
RLRestoreInd	-	unsignedInt	-	Number of radiolink restore indications.
RLHSResumeReq	-	unsignedInt	-	Number of high speed (HS) traffic scheduler resume requests after hard handover (HHO) attempt failure

RLHSResumeRsp	-	unsignedInt	-	Number of high speed (HS) traffic scheduler resume responses after hard handover (HHO) attempt failure
RLHSPauseReq	-	unsignedInt	-	Number of high speed (HS) traffic scheduler pause request during hard handover (HHO) attempts
RLHSPauseRsp	-	unsignedInt	-	Number of high speed (HS) traffic scheduler pause response during hard handover (HHO) attempts

Cell.{i}.UMTS.NBAP.RLCommitRsp.

Parameters relating to radiolink commit responses.

Parameter	W	Type	Default	Description
Success	-	unsignedInt	-	Number of radiolink commit success responses.
Sum	-	unsignedInt	-	Total number of radiolink commit responses.

Cell.{i}.UMTS.NBAP.RLCommitRsp.Failure.

Parameters relating to radiolink commit failure responses.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{15}	-	Causes for radiolink commit failures. Array of *unsignedInt* items (maximum number of items 15).
Sum	-	unsignedInt	-	Total number of radiolink commit failure responses.

Cell.{i}.UMTS.NBAP.RLConfigReq.

Parameters relating to radiolink configuration requests.

Parameter	W	Type	Default	Description
HSDPA	-	unsignedInt	-	Number of radiolink (re)configuration event that attempt to add MAC-d flows on HSDPA. Note: This statistic is counted per MAC-d flow.
HSUPA	-	unsignedInt	-	Number of radiolink (re)configuration event that attempt to add MAC-d flows on HSUPA. Note: This statistic is counted per MAC-d flow.
CreateFirstRL	-	unsignedInt	-	Number of RLConfigReq commands sent to create first radiolink for the UE.

				Note: This event pegs the UEs transition into Cell_DCH.
CreateNonFirstRL	-	unsignedInt	-	Number of RLConfigReq commands sent to add radiolinks to the active set of the UE. Note: This event counts the number of soft handoff operations.
ReconfigRL	-	unsignedInt	-	Number of radiolink reconfiguration requests.
Sum	-	unsignedInt	-	Total number of radiolink configuration requests.

Cell.{i}.UMTS.NBAP.RLConfigRsp.

Parameters relating to radiolink configuration responses.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of radiolink configuration responses.

Cell.{i}.UMTS.NBAP.RLConfigRsp.Success.

Parameters relating to radiolink configuration success responses.

Parameter	W	Type	Default	Description
HSDPA	-	unsignedInt	-	Number of radiolink (re)configuration event that result in MAC-d flows added on HSDPA. Note: This statistic is counted per MAC-d flow.
HSUPA	-	unsignedInt	-	Number of radiolink (re)configuration event that result in MAC-d flows added on HSUPA. Note: This statistic is counted per MAC-d flow.
CreateFirstRL	-	unsignedInt	-	Number of successful creation of first radiolink for the UE. Note: This event pegs the UEs transition into Cell_DCH.
CreateNonFirstRL	-	unsignedInt	-	Number of successful additions radiolinks to the active set of the UE. Note: This event counts the number of soft handoff operations.
ReconfigRL	-	unsignedInt	-	Number of radiolink reconfiguration successes.
Sum	-	unsignedInt	-	Total number of radiolink configuration successes.

Cell.{i}.UMTS.NBAP.RLConfigRsp.Failure.

Parameters relating to radiolink configuration failure responses.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{15}	-	Causes for radiolink configuration failure. Array of *unsignedInt* items (maximum number of items 15).
Sum	-	unsignedInt	-	Total number of radiolink configuration failure responses.

Cell.{i}.UMTS.NBAP.RLConfigRsp.Failure.HSDPA.

Parameters relating to a failure when HSDPA configuration is part of message.

Note: This statistic is counted per MAC-d flow.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{15}	-	Causes for radiolink configuration failure when HSDPA configuration is part of the message. Array of *unsignedInt* items (maximum number of items 15).
Sum	-	unsignedInt	-	Total number of radiolink configuration failure responses when HSDPA configuration is a part of the message.

Cell.{i}.UMTS.NBAP.RLConfigRsp.Failure.HSUPA.

Parameters relating to a failure when HSUPA configuration is part of message when HSUPA configuration is part of the message.

Note: This statistic is counted per MAC-d flow.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{15}	-	Causes for radiolink configuration failure when HSUPA configuration is part of the message. Array of *unsignedInt* items (maximum number of items 15).
Sum	-	unsignedInt	-	Total number of radiolink configuration failure responses when HSUPA configuration is a part of the message.

Cell.{i}.UMTS.FramingProtocol.

Parameters relating to the FP layer on the cell.

Parameter	W	Type	Default	Description
ToAHist	-	unsignedInt{32}	-	Histogram of of the arrival time of the FP sycn packetes relative to LTOA. Array of *unsignedInt* items (maximum number of items 32).

Cell.{i}.UMTS.RRCStateManagement.

Parameters relating to RRC state management by Cell_FACH feature.

Parameter	W	Type	Default	Description
ReestabConditionDetected	-	unsignedInt	-	Number of times the system declares a session to be in RRC Reestablishment.

Cell.{i}.UMTS.RRCStateManagement.Transitions.

Types of RRC state transitions.

Parameter	W	Type	Default	Description
DCHToFACH	-	unsignedInt	-	Number of transitions from Cell_DCH to Cell_FACH.
DCHToPCH	-	unsignedInt	-	Number of transitions from Cell_DCH to Cell_PCH.
DCHToIdle	-	unsignedInt	-	Number of transitions from Cell_DCH to idle due to inactivity timer expiry.
FACHToPCH	-	unsignedInt	-	Number of transitions from Cell_FACH to Cell_PCH.
FACHToIdle	-	unsignedInt	-	Number of transitions from Cell_FACH to idle due to inactivity timer expiry.
PCHToIdle	-	unsignedInt	-	Number of transitions from Cell_PCH to idle due to inactivity timer expiry.
PCHToFACH	-	unsignedInt	-	Number of transitions from Cell_PCH to Cell_FACH.
FACHToDCH	-	unsignedInt	-	Number of transitions from Cell_FACH to Cell_DCH.
PCHToDCH	-	unsignedInt	-	Number of transitions from Cell_PCH to Cell_DCH.

Cell.{i}.UMTS.Airlink.

Parameters relating to the airlink of the cell.

Parameter	W	Type	Default	Description

Cell.{i}.UMTS.Airlink.RLManagement.

Parameters relating to radiolink management on the cell.

Parameter	W	Type	Default	Description
RLOccupancyHist	-	unsignedInt{33}	-	The radiolink occupancy on the cell represented as a histogram with bin widths of one and a bin range of [0 - 32]. This helps identify the outage risk on each cell. As a rule of thumb, if the 99% point is less than the admission control limit, there is low risk of call blocking. Array of *unsignedInt* items (maximum number of items 33).
NumCreations	-	unsignedInt	-	Number of radiolink object creation operations in the system.
NumAdmissionCtrlFailures	-	unsignedInt	-	Number of instances a radiolink could not be added or reconfigured on a cell. Does not include the instances that a radiolink was dropped from the cell. Note: This statistic will increment on all the cells in the active set of a UE regardless of whether the cell triggered the admission control failure.
NumProvAttempts	-	unsignedInt	-	Number of radiolink creation attempts sent to the cell. This will also include failures on FP due to running out of ports.
NumProvFailures	-	unsignedInt	-	Number of radiolink creation failures on the cell. This may be due to lack of cell resources, FP transport creation failure or FP transport sync failure.
NumReprovAttempts	-	unsignedInt	-	Number of radiolink reprovisioning attempts on the cell.
NumReprovFailures	-	unsignedInt	-	Number of radiolink reprovisioning failures on the cell.
NumRLFailuresReceived	-	unsignedInt	-	Number of radiolink failures received by the system. Failures are due to degraded UL SIR.
NumDeletes	-	unsignedInt	-	Number of radiolink deletion operations in the system.
UEInCompressedModeHist	-	unsignedInt{33}	-	Histogram of the number of radiolinks concurrently in compressed mode, range: *[0-32]*. Array of *unsignedInt* items (maximum number of items 33).
CSOccupancyHist	-	unsignedInt{33}	-	Histogram of the total number of CS call hosted on the cell, range *[0-32]*. Stat in incremented on each admission control check for that cell.

				Array of *unsignedInt* items (maximum number of items 33).
NumCSAdmissionCtrlDisconnects	-	unsignedInt	-	Number of instances a user with CS RAB was deleted from a cell due to admission control.
NumCSAdmissionCtrlFailures	-	unsignedInt	-	Number of instances CS RAB Setup failed due to admission control on that cell.
NumHSUPASoftLimitCheckFail	-	unsignedInt	-	Number of instances of HSUPA soft limit check failures
NumAdmissionCtrlRejDueToHSUPALimit	-	unsignedInt	-	Number of instances of admission control rejects due to HSUPA limit
NumAdmissionCtrlSHORejDueToHSUPALimit	-	unsignedInt	-	Number of instances of admission control rejects for soft handover due to HSUPA limit
NumAdmissionCtrl2MsSHORejDueToHSUPALimit	-	unsignedInt	-	Number of instances of admission control rejects for soft handover of 2ms session due to HSUPA limit

Cell.{i}.UMTS.Airlink.Acquisition.

Parameters relating to uplink radiolink acquisition on the cell.

Parameter	W	Type	Default	Description
NumInitialAcqFailures	-	unsignedInt	-	(Deprecated) Number of non-soft handoff radiolink acquisition failures. For non-SHO links, the L1 receiver continues acquisition searching until successful or RL cleanup, whichever is earlier.
NumSHOAcqFailures	-	unsignedInt	-	Number of soft handoff radiolink acquisition failures.
NumAcqTimingFalseDetects	-	unsignedInt	-	Number of false detections of timing during radiolink acquisition. This is measured as the number of radiolinks that are acquired but never achieve good SIR.
NumInSyncToFailureEvents	-	unsignedInt	-	Number of acquired radiolinks that fail. This is measured as the number of radiolinks that go inSync due to good SIR, but subsequently fail due to poor SIR.

Cell.{i}.UMTS.Airlink.MobilityManagement.

Parameters relating to the management of mobility events for the session.

Parameter	W	Type	Default	Description
NumServingCellChangeAttempts	-	unsignedInt	-	The number of attempts across all session to make this cell the HS-DSCH serving cell for a UE.
NumServingCellChangeSuccesses	-	unsignedInt	-	The number of successes across all sessions to make this cell the HS-DSCH serving

				cell for a UE.
UnknownIntraFrequencyPSCReported	-	unsignedInt	-	Number of times the system is not able to identify the target cell reported by the UE on the same frequency. This corresponds to the instances the UE reports an intra-frequency cell from the UE detected set in the event results list. This stat is only incremented on the serving cell of the UE.
NumActiveSetAddsUnknownPSC	-	unsignedInt	-	Number of active set addition attempts which add a cell where the reported PSC is not in the neighbor list.

Cell.{i}.UMTS.Airlink.MobilityManagement.UnknownIntraFrequencyPSC.{i}.

Parameters relating to an intra frequency PSC reported by the UE that is uknown to the system.

Parameter	W	Type	Default	Description
PSC	-	unsignedInt	-	PSC of the unknown co channel cell reported by UEs. This stat is only incremented on the serving cell of the UE, and is reset when the cell is reproved, independent of the statsMgr framework.
Count	-	unsignedInt	-	Number of times a particular cochannel cell was reported by UEs. This stat is only incremented on the serving cell of the UE, and is reset when the cell is reproved, independent of the statsMgr framework.

Cell.{i}.UMTS.Airlink.Downlink.

Parameters relating to the downlink of the cell.

Parameter	W	Type	Default	Description
NumPagingIndicationsSent	-	unsignedInt	-	Number of paging indications sent.
TotalTxPowerHist	-	unsignedInt{36}	-	The total downlink power usage relative to the cell transmit power. The power usage is represented as a histogram having uniform bin widths of 0.1 dB and bin upper ranges of [-3.0 to 0.5]dB. Array of *unsignedInt* items (maximum number of items 36).
TxSaturationRateHist	-	unsignedInt{31}	-	Histogram of the per-10ms sample saturation ratio, range: *[0:0.01:0.3]%* The target is to keep this ratio below 0.1%. Array of *unsignedInt* items (maximum number of items 31).

PowerCapHist	-	unsignedInt{11}	-	Histogram of per-radiolink power cap, range: *[-15:1:-5]dB Relative to cell Tx Power*. The histogram is updated once per frame iff at least one RL is power capped during the frame. Array of *unsignedInt* items (maximum number of items 11).
ServingCellCPICHEcIoHist	-	unsignedInt{49}	-	Histogram of the CPICH EcIo reported by a UE in Cell_DCH for the serving cell. The histogram is updated based on payload in periodic reports, Event 1A and Event 1C. Array of *unsignedInt* items (maximum number of items 49).
ServingCellCPICHRSCPHist	-	unsignedInt{91}	-	Histogram of the CPICH RSCP reported by a UE in Cell_DCH for the serving cell. The histogram is updated based on payload in periodic reports, Event 1A and Event 1C. Array of *unsignedInt* items (maximum number of items 91).

Cell.{i}.UMTS.Airlink.Downlink.TotalTxPower.

Parameters relating to the transmitted carrier power of the cell.

Note: The value is reported in range of 0:100 per Table 9.43 of 25.133.

As implemented, the sampling period is 160ms.

Parameter	W	Type	Default	Description
CumulativeSum	-	unsignedLong	-	Sum of all the observations sampled at a rate of one per 160ms. Note: The ratio of this quantity to the Count yields the average value over the observation period.
Max	-	unsignedInt	-	Maximum value over all observations, range: *[0:1:100]% Relative to Max cell Tx Power.*
Count	-	unsignedInt	-	Number of observations.

Cell.{i}.UMTS.Airlink.Downlink.DCHRLPower.

Parameters relating to the radiolink transmitted code power of the cell.

Note: The value is reported in range of 10:122 per Table 9.46 of 25.133.

As implemented, the parameter indicates the total DCH power in the cell and the sampling period is 160ms.

Parameter	W	Type	Default	Description
CumulativeSum	-	unsignedLong	-	Sum of all the observations sampled at a rate of one per 160ms.

				Note: The ratio of this quantity to the Count yields the average value over the observation period.
Max	-	unsignedInt	-	Maximum value over all observations, range: *[10:1:122] corresponding to [-10:0.5:46]dBm*.
Count	-	unsignedInt	-	Number of observations.

Cell.{i}.UMTS.Airlink.Uplink.

Parameters relating to the uplink of the cell.

Parameter	W	Type	Default	Description
NumPRACHPreamblesDetects	-	unsignedInt	-	Number of PRACH preambles detected.
NumPRACHSACKed	-	unsignedInt	-	Number of PRACH preamble affirmative acknowledgements. Preambles may not be acknowledged due to resource restrictions on the cell.
TokenUsageHist	-	unsignedInt{16}	-	Histogram of uplink token usage of the cell. The system may downgrade the uplink rate of some users when the token usage is high. range: *[0:1000:15000]*. Array of *unsignedInt* items (maximum number of items 16).

Cell.{i}.UMTS.Airlink.Uplink.RLFailureTokenUsageHist.

Parameters relating to uplink token usage histogram and RoT indication (expressed in percentage) in RL Failures.

Parameter	W	Type	Default	Description
TokenUsageULROTLevel00	-	unsignedInt{16}	-	Token usage histogram when ROT level indicated in RL Failure is 0 - 19. range: *[0:1000:15000]*. Array of *unsignedInt* items (maximum number of items 16).
TokenUsageULROTLevel20	-	unsignedInt{16}	-	Token usage histogram when ROT level indicated in RL Failure is 20 - 39. range: *[0:1000:15000]*. Array of *unsignedInt* items (maximum number of items 16).
TokenUsageULROTLevel40	-	unsignedInt{16}	-	Token usage histogram when ROT level indicated in RL Failure is 40 - 59. range: *[0:1000:15000]*. Array of *unsignedInt* items (maximum number of items 16).
TokenUsageULROTLevel60	-	unsignedInt{16}	-	Token usage histogram when ROT level indicated in RL Failure is 60 - 79. range: *[0:1000:15000]*. Array of *unsignedInt* items (maximum number of items 16).
TokenUsageULROTLevel80	-	unsignedInt{16}	-	Token usage histogram when ROT level indicated in RL Failure is 80 - 100. range: *[0:1000:15000]*. Array of *unsignedInt* items (maximum number of items 16).

Cell.{i}.UMTS.R99.

Parameters relating to R99 operation on the cell.

Parameter	W	Type	Default	Description
PSBytesSent	-	unsignedLong	-	The number of R99 PS DTCH bytes sent by the cell.
PSPDUsSent	-	unsignedLong	-	Number of R99 PS RLC PDUs sent by the cell.
PSBytesReceived	-	unsignedLong	-	Number of R99 PS DTCH bytes received by the cell. Only successful decodes are counted.
PSPDUsReceived	-	unsignedLong	-	Number of R99 PS RLC PDUs received by the cell. Only successful decodes are counted.

Cell.{i}.UMTS.HSDPA.

Parameters relating to the operation of the HSDPA scheduler on the cell.

Parameter	W	Type	Default	Description
HSPowerAvailHist	-	unsignedInt{21}	-	Histogram of power available for HS-PDSCH transmissions relative to CPICH power, range: *[-1:0.5:9]dB*. Array of *unsignedInt* items (maximum number of items 21).
HSPowerTxHist	-	unsignedInt{21}	-	The total power used for HS-PDSCH transmissions relative to CPICH power. Values are represented as a histogram having bin widths of 0.5 dB with a range of -1 dB to 9 dB relative to CPICH power. Dummy transmissions are excluded. Array of *unsignedInt* items (maximum number of items 21).
DPCHPowerSpikeHist	-	unsignedInt{10}	-	Histogram of the spike in the total DPCH power above the reference level determined by the configured values for CPICH power plus TotDPCHPowerThreshold, range: *[0.5:0.5:5]dB*. Note: TotDPCHPowerThreshold is a configured value. This statistic is updated every 2ms, only if the DPCH spikes above the reference level. Array of *unsignedInt* items (maximum number of items 10).
ReTxHSPowerGapHist	-	unsignedInt{10}	-	Histogram of the discrepancy between required power for retransmission of HSDPA versus the available power, range: *[0.5:0.5:5]dB*. This statistic is updated only for retransmissions when the discrepancy in requirements is greater than 0.5dB. Array of *unsignedInt* items (maximum number of items 10).
ServedUserHist	-	unsignedInt{33}	-	The number of concurrent HSDPA users that have the given cell as serving cell. The user count is represented as a histogram having bins widths of unity (1) with a range of [0-32]. Array of *unsignedInt* items (maximum number of items 33).

Cell.{i}.UMTS.HSDPA.LinkAdaptation.

Parameters relating to transport block selection.

Parameter	W	Type	Default	Description
CQIReportedHist	-	unsignedInt{39}	-	Histogram of decoded CQI reports accounting every decode, range: *[0:38]*. Array of *unsignedInt* items (maximum number of items 39).
CQIModifiedHist	-	unsignedInt{39}	-	Histogram of filtered CQI reports with adjustments, accounting those UEs with data scheduled, range: *[0:38]*. Array of *unsignedInt* items (maximum number of items 39).
CQITxHist	-	unsignedInt{39}	-	Histogram of link adaptation CQI choice, accounting for HS configuration and UE class, and accounting those UEs with data scheduled, range: *[0:38]*. Array of *unsignedInt* items (maximum number of items 39).
CQISelectHist	-	unsignedInt{39}	-	Histogram of final CQI values applied based on CQI transmitted and buffer depth, and accounting those UEs with data scheduled, range: *[0:38]*. Array of *unsignedInt* items (maximum number of items 39).

Cell.{i}.UMTS.HSDPA.Modulation.

Parameters relating to physical layer modulation in the cell.

Parameter	W	Type	Default	Description
QPSK	-	unsignedInt	-	Number of TTI that used QPSK modulation, excluding dummy transmissions.
QAM16	-	unsignedInt	-	Number of TTI that used 16-QAM modulation, excluding dummy transmissions.
QAM64	-	unsignedInt	-	Number of TTI that used 64-QAM modulation, excluding dummy transmissions.

Cell.{i}.UMTS.HSDPA.HSSCCHUtilization.

Parameters relating to HS-SCCH utilization for the cell.

Parameter	W	Type	Default	Description
SharedChannelAvailabilityCount	-	unsignedInt	-	The number of TTI the shared channel is valid and available.
NumNewTx	-	unsignedInt	-	The number of HARQ new transmissions scheduled to a UE.
NumReTx	-	unsignedInt	-	The number of HARQ retransmissions scheduled to a UE.

UserScheduledCount	-	unsignedInt	-	The number of TTI with data scheduled for a UE in the cell.
NumObservations	-	unsignedInt	-	The number of TTI over which this object has been accumulated.

Cell.{i}.UMTS.HSDPA.DataInOut.

Parameters relating to downlink airlink queues for the cell.

Parameter	W	Type	Default	Description
NumHSDPAPDUsSent	-	unsignedLong	-	The number of PDUs contained in HARQ new transmissions scheduled in the cell.
NumHSDPAOctetsSent	-	unsignedLong	-	The number of octets of data contained in HARQ new transmissions scheduled in the cell.
NumFlushOperations	-	unsignedInt	-	The number of queue flush operations performed on airlink queues in the cell.
NumPDUsDiscarded	-	unsignedInt	-	The number of PDUs discarded at the ingress of the airlink queues.
PHYRateHist	-	unsignedInt{30}	-	The physical layer data rate in kilobits per second. Each sample is the sum of HS-DSCH transport block sizes transmitted in non-overlapping one second intervals excluding dummy transmissions. The data rates are represented as a histogram having bins widths of 10, 100, or 2000 kbps with bin upper ranges of: [0 10 20 30 40 50 60 70 80 90 100 200 300 400 500 600 700 800 900 1000 3000 5000 7000 9000 11000 13000 15000 17000 19000 21000]kbps. Array of *unsignedInt* items (maximum number of items 30).
BufferOccupancyHist	-	unsignedInt{64}	-	A histogram with bin size 50 of number of PDUs enqueued, updated when an FP frame is processed with the information for the target queue. Note: This is not updated at a regular tick, so is biased. Array of *unsignedInt* items (maximum number of items 64).

Cell.{i}.UMTS.HSDPA.DataInOut.HSDPAPDUsRx.

Parameters relating to the number of data PDUs received for the airlink queue.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of PDUs received.

Cell.{i}.UMTS.HSDPA.DataInOut.HSDPAPDUsRx.Type.

Parameters relating to the type of HSDPA PDUs received.

Parameter	W	Type	Default	Description
UM	-	unsignedInt	-	Number of UM PDUs received.
AMNew	-	unsignedInt	-	Number of new AM PDUs received.
AMReTx	-	unsignedInt	-	Number of AM retransmit PDUs received.
AmCtrl	-	unsignedInt	-	Number of AM control PDUs received.

Cell.{i}.UMTS.HSDPA.DataInOut.FPMsgsRx.

Parameters relating to the number of FP frames received with data for the airlink queue.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of frames received.

Cell.{i}.UMTS.HSDPA.DataInOut.FPMsgsRx.Type.

Parameters relating to the type of FP frames received.

Parameter	W	Type	Default	Description
UM	-	unsignedInt	-	Number of UM frames received.
AMNew	-	unsignedInt	-	Number of new AM frames received.
AMReTx	-	unsignedInt	-	Number of AM retransmit frames received.
AmCtrl	-	unsignedInt	-	Number of AM control frames received.

Cell.{i}.UMTS.HSDPA.HSDPCCHDecode.

Parameters relating to HS-DPCCH decodes.

Parameter	W	Type	Default	Description

Ack	-	unsignedInt	-	Number of HARQ ACKs decoded for HARQ transmissions in the cell.
Nack	-	unsignedInt	-	Number of HARQ NACKs decoded for HARQ transmissions in the cell.
DTXLowSIR	-	unsignedInt	-	Number of HARQ decode indications for which DPCCH SIR decoding threshold not met.
DTXLowCorrelation	-	unsignedInt	-	Number of HARQ decode indications for which decode correlation threshold not met.

Cell.{i}.UMTS.HSDPA.HARQ.

Parameters relating to HARQ transmissions per transaction in the cell.

Parameter	W	Type	Default	Description
HARQNumTxHist	-	unsignedInt{6}	-	Histogram of number of HARQ transmissions per HARQ transaction, range: *[1:6]*. Array of *unsignedInt* items (maximum number of items 6).
HARQGiveup	-	unsignedInt	-	Number of HARQ transaction failures.

Cell.{i}.UMTS.HSDPA.RLCFlowControl.

Parameters relating to RLC flow control mechanism in the cell

Parameter	W	Type	Default	Description
NumActiveFlows	-	unsignedInt	-	Number of active flows (HS queues) configured on the cell at the current instant
NumConstrainedFlows	-	unsignedInt	-	Number of constrained flows i.e., those flows that are credit limited at the RLC layer
NumCreditFreezeLimitReached	-	unsignedInt	-	Number of times in which the RLC data buffer occupancy has passed the high water mark limit.
NumGlobalPDUdropLimitReached	-	unsignedInt	-	Number of times that global RLC data capacity has reached and new incoming DL PDUs have been dropped.
NumCreditMsgsPerSubframeHist	-	unsignedInt{8}	-	Histogram of number of credit messages sent from this cell to the {{ServicesNode}} per subframe, range: *[0:7]* Array of *unsignedInt* items (maximum number of items 8).

Cell.{i}.UMTS.HSDPA.ConditionalAccess.

Parameters relating to conditional access on the cell.

Parameter	W	Type	Default	Description
ClassServiceHist	-	unsignedInt{2}	-	Histogram of number of HARQ new transmissions scheduled to a user within each class, range: *[1:2]*. Array of *unsignedInt* items (maximum number of items 2).

Cell.{i}.UMTS.HSUPA.

Parameters relating to the performance of the HSUPA module on the cell.

Parameter	W	Type	Default	Description

Cell.{i}.UMTS.HSUPA.ServingLinks.

Parameters relating to the performance of the served HSUPA links on the cell.

Parameter	W	Type	Default	Description
ETFCIDecodeDiscards	-	unsignedInt	-	The number of ETFCIs discarded due to invalid values.
ETFCIDecodeLate	-	unsignedInt	-	The number of ETFCI decodes that do not arrive in time for the corresponding HICH.
ETFCIOfRSN0Hist	-	unsignedInt{125}	-	A histogram of ETFCIs received with RSN 0 i.e., first transmission ETFCI. Array of *unsignedInt* items (maximum number of items 125).
ETFCIOfRSN1Hist	-	unsignedInt{125}	-	A histogram of ETFCIs received with RSN 1 i.e., second transmission ETFCI. Array of *unsignedInt* items (maximum number of items 125).
HARQNumRxHist	-	unsignedInt{4}	-	A histogram of rsn0, rsn1, rsn2, and rsn3 decodes from all the served UEs in a cell, range: *[0:3]*. Array of *unsignedInt* items (maximum number of items 4).
TEBSHist	-	unsignedInt{32}	-	A histogram of the total E-DCH buffer size reports received from all the served UEs in the cell, range: *[0:31]*. Array of *unsignedInt* items (maximum number of items 32).
UPHHist	-	unsignedInt{32}	-	A histogram of the UE uplink power headroom reports received from all the served UEs in the cell, range: *[0:31]*. Array of *unsignedInt* items (maximum number of items 32).

Cell.{i}.UMTS.HSUPA.ServingLinks.MACDPDUsReceived.

Parameters relating to the MAC-d PDUs received.

Parameter	W	Type	Default	Description
DTCH	-	unsignedLong	-	The number of MAC-d PDUs received and successfully decoded on the DTCH.
DCCH	-	unsignedLong	-	The number of MAC-d PDUs received and successfully decoded on the DCCH.
NumOctetsReceived	-	unsignedLong	-	Number of MAC-d PDU octets received on DTCH or DCCH.

Cell.{i}.UMTS.HSUPA.NonServingLinks.

Parameters relating to the performance of the non-served HSUPA links on the cell.

Parameter	W	Type	Default	Description
ETFCIDecodeDiscards	-	unsignedInt	-	The number of ETFCIs discarded due to invalid values.
ETFCIDecodeLate	-	unsignedInt	-	The number of ETFCI decodes that arrived beyond the HICH processing constraint.
ETFCIOfRSN0Hist	-	unsignedInt{125}	-	A histogram of ETFCIs received with RSN 0 i.e., first transmission ETFCI. Array of *unsignedInt* items (maximum number of items 125).
ETFCIOfRSN1Hist	-	unsignedInt{125}	-	A histogram of ETFCIs received with RSN 1 i.e., second transmission ETFCI. Array of *unsignedInt* items (maximum number of items 125).
HARQNumRxHist	-	unsignedInt{4}	-	A histogram of number of rsn0, rsn1, rsn2, and rsn3 decodes from all the non-served UEs in a cell, range: *[0:3]*. Array of *unsignedInt* items (maximum number of items 4).
TEBSHist	-	unsignedInt{32}	-	A histogram of the total E-DCH buffer size reports received from all the non-served UEs in the cell, range: *[0:31]*. Array of *unsignedInt* items (maximum number of items 32).
UPHHist	-	unsignedInt{32}	-	A histogram of the UE uplink power headroom reports received from all the non-served UEs in the cell, range: *[0:31]*. Array of *unsignedInt* items (maximum number of items 32).

Cell.{i}.UMTS.HSUPA.NonServingLinks.MACDPDUsReceived.

Parameters relating to the MAC-d PDUs received.

Parameter	W	Type	Default	Description
DTCH	-	unsignedLong	-	The number of MAC-d PDUs received and successfully decoded on the DTCH.
DCCH	-	unsignedLong	-	The number of MAC-d PDUs received and successfully decoded on the DCCH.
NumOctetsReceived	-	unsignedLong	-	Number of MAC-d PDU octets received on DTCH or DCCH.

Cell.{i}.UMTS.HSUPA.FrontEnd.

Parameters relating to the performance of the receive frontend that drives the HSUPA scheduler.

Parameter	W	Type	Default	Description
RoTHist	-	unsignedInt{32}	-	Histogram of Rise-over-Thermal, a measure of total received power on a cell, range: *[0:31]dB.* Array of *unsignedInt* items (maximum number of items 32).
NsToTotEDCHPwrRatioHist	-	unsignedInt{20}	-	Histogram of ratio of total non-served E-DCH power to total E-DCH power in percentage, range: *[0:0.05:0.95]*. Array of *unsignedInt* items (maximum number of items 20).

Cell.{i}.UMTS.HSUPA.FrontEnd.RTWP.

Parameters relating to the received total wideband power of the cell.

Note: The value is reported in range of 0:621 per Table 9.37 of 25.133.

Parameter	W	Type	Default	Description
CumulativeSum	-	unsignedLong	-	Sum of all the observations. Note: The ratio of this quantity to the Count yields the average value over the observation period.
Max	-	unsignedInt	-	Maximum value over all observations, range: *[0:1:621] corresponding to [-112:0.1:-50]dBm.*
Count	-	unsignedInt	-	Number of observations.

Cell.{i}.UMTS.HSUPA.Scheduler.

Parameters relating to the performance of the HSUPA scheduler.

Parameter	W	Type	Default	Description
InCellBackoffHist	-	unsignedInt{30}	-	Histogram of inCell high grant backoff, range: *[0:29]*. Array of *unsignedInt* items (maximum number of items 30).
NumActive10msTTIs	-	unsignedInt	-	Number of 10ms TTIs in which a MAC-d PDU was received on DTCH or DCCH.

Cell.{i}.UMTS.HSUPA.Scheduler.Grants.

Parameters relating to the performance of grant allocation in the HSUPA scheduler.

Parameter	W	Type	Default	Description
High	-	unsignedInt	-	Number of subframes in which at least one UE has a high grant.
Low	-	unsignedInt	-	Number of subframes in which at least one UE has a low grant.
Zero	-	unsignedInt	-	Number of subframes in which at least one UE has a zero grant.
NumObservations	-	unsignedInt	-	Number of 2ms intervals over which grants are computed.

Cell.{i}.UMTS.HSUPA.Scheduler.AverageHighSchedDelay.

Parameters relating to the performance of the high grant allocation mechanism.

Parameter	W	Type	Default	Description
CumulativeSum	-	unsignedInt	-	Number of subframes from reception of TEBS report indicating large E-DCH buffer to allocation of high grant.
NumObservations	-	unsignedInt	-	Number of high grant allocations from the cell.

Cell.{i}.UMTS.HSUPA.Scheduler.HighGrantValueHist.

Parameters relating to the performance of the high grant distribution.

Parameter	W	Type	Default	Description
TTI10ms	-	unsignedInt{32}	-	Histogram of high grant allocated to 10ms TTI users, range: *[0:31]*. Array of *unsignedInt* items (maximum number of items 32).

TTI2ms	-	unsignedInt{32}	-	Histogram of high grant allocated to 2ms TTI users, range: *[0:31]*. Array of *unsignedInt* items (maximum number of items 32).

Cell.{i}.UMTS.HSUPA.Scheduler.Events.

Parameters relating to the performance of AGCH utilization.

Parameter	W	Type	Default	Description
A1	-	unsignedInt	-	Number of high grant retransmission backoffs.
A2	-	unsignedInt	-	Number of low-to-zero grant transitions.
A3	-	unsignedInt	-	Number of zero-to-low grant transitions.
A4	-	unsignedInt	-	Number of transitions to high grant.
A5	-	unsignedInt	-	Number of retransmissions of high grant.
A6	-	unsignedInt	-	Number of quells of false high grant decodes.
A7	-	unsignedInt	-	Number of transitions out of high grant.
A8	-	unsignedInt	-	Number of inCell quell events.
A9	-	unsignedInt	-	Number of inCell recovery events.

Cell.{i}.UMTS.HSUPA.Scheduler.RGCH.

Parameters relating to RGCH.

Parameter	W	Type	Default	Description
UPTriggered	-	unsignedInt	-	Number of RGCH UP commands issued on a radiolink.
DOWNTriggered	-	unsignedInt	-	Number of RGCH DOWN commands issued on a radiolink.
NsRGCHTriggered	-	unsignedInt	-	Number of ns-RGCH DOWN commands issued from a cell.

Cell.{i}.UMTS.HSUPA.Scheduler.ConditionalAccess.

Parameters relating to conditional access on the cell.

Parameter	W	Type	Default	Description
ClassServiceHist	-	unsignedInt{2}	-	Histogram of number of HARQ new transmissions scheduled to a user within each class, range: *[1:2]*. Array of *unsignedInt* items (maximum number of items 2).

Cell.{i}.UMTS.RANAP.{i}.

Parameters relating to RANAP messages on each domain. These are updated on all the cells in the active set of the UE except when stated otherwise.

Parameter	W	Type	Default	Description
Domain	-	enum	-	Domain for which statictics are reported. Can be either CS domain or PS domain. Enumeration of: • *CS Domain* (CS domain) • *PS Domain* (PS domain) • *UNKNOWN* (Unknown domain)
SRNSContextRequest	-	unsignedInt	-	Number of successful outgoing, UE controlled, packet switched inter-RAT handovers per cell. Note: Not currently supported by system.

Cell.{i}.UMTS.RANAP.{i}.IuReleaseRequest.

Parameters relating to the Iu release requests from the RNC.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for Iu release request command. Array of *unsignedInt* items (maximum number of items 117).
PreRABEstablishment	-	unsignedInt	-	Number of UTRAN initiated disconnects after RRC establishment for a particular domain and before receiving RAB assignment request from that domain. The expectation of a RAB assignment is based on the establishmentCause in the RRC connection request message. As a result, call drops when establishing an MRAB will not peg this counter on the new domain, and may cause the counter to peg on the 2nd RAB addition for the same domain. This is okay. Note that this counter is pegged only on the cell that the RRC connection was established on regardless

				of whether this cell is still in the active set of the UE. For CS domain: Causes 1,6,10 are tracked. For PS domain: Causes 2,3,4,5,7,8,9,15,18 are tracked.
CellDCH	-	unsignedInt	-	Number of IU Release Requests sent from UTRAN to the given domain. The UE was in Cell DCH state and this cell was in its active set.
CellFACH	-	unsignedInt	-	Number of IU Release Requests sent from UTRAN to the given domain. The UE was in Cell FACH state.
CellPCH	-	unsignedInt	-	Number of IU Release Requests sent from UTRAN to the given domain. The UE was in Cell PCH state.
Sum	-	unsignedInt	-	Total number of Iu release requests sent.

Cell.{i}.UMTS.RANAP.{i}.IuReleaseRequest.TrafficClass.

Traffic class of Iu release request. These statistics are counted per RAB.

Parameter	W	Type	Default	Description
Conv	-	unsignedInt	-	Number of conversational Iu release requests.
Strm	-	unsignedInt	-	Number of streaming Iu release requests.
Intact	-	unsignedInt	-	Number of interactive Iu release requests.
Bgrd	-	unsignedInt	-	Number of background Iu release requests.

Cell.{i}.UMTS.RANAP.{i}.IuReleaseCommand.

Parameters relating to Iu release command.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for Iu release command. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of Iu release command messages sent from core network to order system to release all resources related to Iu connection corresponding to core network domain.

PreRABEstablishment	-	unsignedInt	-	Number of UTRAN and core network initiated disconnects after RRC establishment for a particular domain and before receiving RAB assignment request from that domain. The expectation of a RAB assignment is based on the establishmentCause in the RRC connection request message. As a result, call drops when establishing an MRAB will not peg this counter on the new domain, and may cause the counter to peg on the 2nd RAB addition for the same domain. This is okay. Note that this counter is pegged only on the cell that the RRC connection was established on the on regardless of whether this cell is still in the Aset for the UE. For CS domain: Causes 1,6,10 are tracked. For PS domain: Causes 2,3,4,5,7,8,9,15,18 are tracked.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.

Parameters relating to RAB assignment requests.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Number of RAB assignment requests received for UEs from specified core network, when this cell was in ASET of that UEs.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.Create.

Parameters relating to RAB create requests.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Number of RAB create events received received for UEs from specified core network, when this cell was in ASET of that UEs.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.Create.TrafficClass.

Traffic class of RAB create requests.

These statistics are counted per RAB.

Parameter	W	Type	Default	Description
Conv	-	unsignedInt	-	Number of conversational RAB create requests.
Strm	-	unsignedInt	-	Number of streaming RAB create requests.
Intact	-	unsignedInt	-	Number of interactive RAB create requests.

Bgrd	-	unsignedInt	-	Number of background RAB create requests.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.Modify.

Parameters relating to RAB modify requests received for UEs from specified core network when this cell was in ASET of that UEs.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Number of RAB modify events received by the when this was cell was in the ASET of the UEs.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.Modify.TrafficClass.

Traffic class of RAB modify requests.

These statistics are counted per RAB.

Parameter	W	Type	Default	Description
Conv	-	unsignedInt	-	Number of conversational RABs modified.
Strm	-	unsignedInt	-	Number of streaming RABs modified.
Intact	-	unsignedInt	-	Number of interactive RABs modified.
Bgrd	-	unsignedInt	-	Number of background RABs modified.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentRequest.Release.

Parameters relating to RAB release requests received for UEs from specified core network when this cell was in ASET of that UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for RAB release requests. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Number of RAB release requests received when this cell was in the ASET of the UEs.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.

Parameters relating to RAB assignment responses.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of RAB assignment responses.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.

Parameters relating to successful RAB assignment responses.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of successful RAB assignment responses.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.Create.

Parameters relating to successful RAB creations.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Number of RAB create events received by the system for the UEs from a specific core network while this cell is being in that UEs ASET.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.Create.TrafficClass.

Traffic class of successful RAB creations.

These statistics are counted per RAB.

Parameter	W	Type	Default	Description
Conv	-	unsignedInt	-	Number of successful conversational RAB creations.
Strm	-	unsignedInt	-	Number of successful streaming RAB creations.
Intact	-	unsignedInt	-	Number of successful interactive RAB creations.
Bgrd	-	unsignedInt	-	Number of successful background RAB creations.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.Modify.

Parameters relating to successful RAB modifications.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of successful RAB modifications.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.Modify.TrafficClass.

Traffic class of successful RAB creations.

These statistics are counted per RAB.

Parameter	W	Type	Default	Description
Conv	-	unsignedInt	-	Number of successful conversational RAB modifications.
Strm	-	unsignedInt	-	Number of successful streaming RAB modifications.
Intact	-	unsignedInt	-	Number of successful interactive RAB modifications.
Bgrd	-	unsignedInt	-	Number of successful background RAB modifications.

Cell.{i}.UMTS.RANAP.{i}.RABAssignmentResponse.Success.Release.

Parameters relating to successful RAB releases.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	Causes for successful RAB releases. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	Total number of successful RAB releases.

Cell.{i}.UMTS.RRC.

Parameters relating to RRC messages sent and received by the system. These are updated on all the cells in the active set of the UE except when stated otherwise.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of messages with unknown RRC message type received from the UE.

CellUpdateConfirm	-	unsignedInt	-	Number of cell update confirmation messages sent to UEs.
DownlinkDirectTransfer	-	unsignedInt	-	Number of downlink direct transfer messages from the core network.
HandoverFromUTRANCommand	-	unsignedInt	-	The number of Handover From UTRAN Command messages sent to UEs during Inter-RAT handover procedures to handover a UE from UMTS to another system.
InitialDirectTransfer	-	unsignedInt	-	Number of initial direct transfer messages received by system from UEs to establish connection with corresponding core network domain and to carry NAS messages.
PhysicalChannelReconfiguration	-	unsignedInt	-	Number of physical channel reconfiguration requests sent by system.
PhysicalChannelReconfigurationComplete	-	unsignedInt	-	Number of physical channel reconfiguration completes received by system.
RadioBearerRelease	-	unsignedInt	-	Number of radio bearer release messages sent to the UE.
RadioBearerReleaseComplete	-	unsignedInt	-	Number of radio bearer release complete messages received from the UE.
RRCConnectionReleaseComplete	-	unsignedInt	-	Number of RRC connection release complete messages received from the UE.
SecurityModeCommand	-	unsignedInt	-	Number of security mode commands sent to the UE.
SecurityModeComplete	-	unsignedInt	-	Number of security mode complete messages received from the UE.
SignallingConnectionRelease	-	unsignedInt	-	Number of signaling connection release messages sent by system to UE to indicate that signaling connection to corresponding core network domain has been released.
SignallingConnectionReleaseIndication	-	unsignedInt	-	Number of signaling connection release indication messages sent by UEs to indicate the release of an existing signaling connection.
UplinkDirectTransfer	-	unsignedInt	-	Number of uplink direct transfer messages received by system from UEs to carry NAS messages.

Cell.{i}.UMTS.RRC.ActiveSetUpdate.

Parameters relating to Active Set Update message sent to UEs.

Note: These statistics are counted on all the cells in the active set update message.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of Active Set Update messages sent to UEs.

Cell.{i}.UMTS.RRC.ActiveSetUpdate.RLOperation.

Parameters relating to radiolink operations in Active Set Update messages.

Parameter	W	Type	Default	Description

Cell.{i}.UMTS.RRC.ActiveSetUpdate.RLOperation.Add.

Parameters relating to radiolink additions.

Parameter	W	Type	Default	Description
HSUPA	-	unsignedInt	-	The number of radiolink addition attempts where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolink addition attempts where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolink addition attempts including HSDPA, HSUPA and non-HSPA links.

Cell.{i}.UMTS.RRC.ActiveSetUpdate.RLOperation.Delete.

Parameters relating to radiolink deletions.

Parameter	W	Type	Default	Description
HSUPA	-	unsignedInt	-	The number of radiolink deletion attempts where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolink deletion attempts where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolink deletion attempts including HSDPA, HSUPA and non-HSPA links.

Cell.{i}.UMTS.RRC.ActiveSetUpdateComplete.

Parameters relating to Active Set Update Complete messages received from UEs.

Note: These statistics are counted on all the cells in the associated Active Set Update message.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of Active Set Update Complete messages received from UEs.

Cell.{i}.UMTS.RRC.ActiveSetUpdateComplete.RLOperation.

Parameters relating to radiolink operations in Active Set Update Complete messages.

Parameter	W	Type	Default	Description

Cell.{i}.UMTS.RRC.ActiveSetUpdateComplete.RLOperation.Add.

Parameters relating to radiolink additions.

Parameter	W	Type	Default	Description
HSUPA	-	unsignedInt	-	The number of radiolinks successfully added where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolinks successfully added where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolinks successfully added including HSDPA, HSUPA and non-HSPA links.

Cell.{i}.UMTS.RRC.ActiveSetUpdateComplete.RLOperation.Delete.

Parameters relating to radiolink deletions.

Parameter	W	Type	Default	Description
HSUPA	-	unsignedInt	-	The number of radiolinks successfully deleted where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolinks successfully deleted where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolinks successfully deleted including HSDPA, HSUPA and non-HSPA links.

Cell.{i}.UMTS.RRC.ActiveSetUpdateFailure.

Parameters relating to Active Set Update Failure messages received from UEs.

Note: These statistics are counted on all cells in the associated Active Set Update message.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of Active Set Update Failure messages received from UEs per Failure Cause type defined in TS 25.331. Array of *unsignedInt* items (maximum number of items 8).

Sum	-	unsignedInt	-	The total number of Active Set Update Failure messages received from UEs.

Cell.{i}.UMTS.RRC.ActiveSetUpdateFailure.RLOperation.

Parameters relating to the radiolink operations in Active Set Update Failure messages.

Parameter	W	Type	Default	Description

Cell.{i}.UMTS.RRC.ActiveSetUpdateFailure.RLOperation.Add.

Parameters relating to radiolink additions that failed.

Parameter	W	Type	Default	Description
HSUPA	-	unsignedInt	-	The number of radiolink addition attempts that failed where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolink addition attempts that failed where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolink additions that failed including HSDPA, HSUPA and non-HSPA links.

Cell.{i}.UMTS.RRC.ActiveSetUpdateFailure.RLOperation.Delete.

Parameters relating to radiolink deletions that failed.

Parameter	W	Type	Default	Description
HSUPA	-	unsignedInt	-	The number of radiolink deletion attempts that failed where at least one RAB is on HSUPA.
HSDPA	-	unsignedInt	-	The number of radiolink deletion attempts that failed where at least one RAB is on HSDPA.
Sum	-	unsignedInt	-	The total number of radiolink deletions that failed including HSDPA, HSUPA and non-HSPA links.

Cell.{i}.UMTS.RRC.CellUpdate.

Parameters relating to cell update messages from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for cell update message received from UEs.

				Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of cell update messages from UEs.
UnknownLocalURNTI	-	unsignedInt	-	Total number of cell update messages for which there was no existing session with that URNTI and URNTI is local. Determination whether URNTI is local or not is made by matching the SRNCID bits of the URNTI with the RNCID configured on the SN.
UnknownExternalURNTI	-	unsignedInt	-	Total number of cell update messages for which there was no existing session with that URNTI and URNTI is not local. Determination whether URNTI is local or not is made by matching the SRNCID bits of the URNTI with the RNCID configured on the SN.

Cell.{i}.UMTS.RRC.HandoverFromUTRANFailure.

Parameters relating to Handover From UTRAN Failure messages received from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of Handover From UTRAN Failure messages received per Inter-RAT Handover Failure Cause type defined in TS 25.331. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	The total number of Handover From UTRAN Failure messages received from UEs.

Cell.{i}.UMTS.RRC.MeasurementControl.

Parameters relating to measurement control messages sent to UEs.

Parameter	W	Type	Default	Description
MeasIdentity	-	unsignedInt{16}	-	Histogram of the number of measurement control message sent per measurement ID. Each measurement ID can be mapped back to a specific measurement job that is configured on the UEs. Array of *unsignedInt* items (maximum number of items 16).
Sum	-	unsignedInt	-	Total number of measurement control messages sent to UEs.

Cell.{i}.UMTS.RRC.MeasurementControlFailure.

Parameters relating to measurement control failure messages received from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for the measurement control failure messages. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of measurement control failure messages received from UEs.

Cell.{i}.UMTS.RRC.MeasurementReport.

Parameters relating to measurement report messages received from UEs.

Parameter	W	Type	Default	Description
MeasIdentity	-	unsignedInt{16}	-	Histogram of the number of MRM received from UEs per measurement identity, range: *[0:15]*. Array of *unsignedInt* items (maximum number of items 16).
Evt2DForRSCP	-	unsignedInt	-	Number of event 2D received from the UE due to RSCP condition.
Evt2DForEcIo	-	unsignedInt	-	Number of event 2D received from the UE due to EcIo conditions.
Sum	-	unsignedInt	-	Total number of measurement report messages received from UEs.

Cell.{i}.UMTS.RRC.MeasurementReport.EventID.

EventIDs indicated in the MRM reports from UEs.

Parameter	W	Type	Default	Description
Evt1A	-	unsignedInt	-	Number of event 1A received from the UE.
Evt1B	-	unsignedInt	-	Number of event 1B received from the UE.
Evt1C	-	unsignedInt	-	Number of event 1C received from the UE.
Evt1D	-	unsignedInt	-	Number of event 1D received from the UE.
Evt2A	-	unsignedInt	-	Number of event 2A received from the UE.
Evt2B	-	unsignedInt	-	Number of event 2B received from the UE.
Evt2C	-	unsignedInt	-	Number of event 2C received from the UE.

Evt2D	-	unsignedInt	-	Number of event 2D received from the UE.
Evt2E	-	unsignedInt	-	Number of event 2E received from the UE.
Evt2F	-	unsignedInt	-	Number of event 2F received from the UE.
Evt3A	-	unsignedInt	-	Number of event 3A received from the UE.
Evt3B	-	unsignedInt	-	Number of event 3B received from the UE.
Evt3C	-	unsignedInt	-	Number of event 3C received from the UE.
Evt3D	-	unsignedInt	-	Number of event 3D received from the UE.
Evt4A	-	unsignedInt	-	Number of event 4A received from the UE.
Evt4B	-	unsignedInt	-	Number of event 4B received from the UE.
Unknown	-	unsignedInt	-	Number of unknown events received from the UE.

Cell.{i}.UMTS.RRC.PagingType1.

Parameters relating to paging type 1 messages sent to the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{7}	-	Cause indicated in core network initiated paging messages sent to the UE. Note: RNC initiated paging messages do not carry a cause. Array of *unsignedInt* items (maximum number of items 7).
UTRANOriginated	-	unsignedInt	-	Number system initiated paging of messages sent.
Sum	-	unsignedInt	-	Total number core network as well as system initiated paging of messages sent.

Cell.{i}.UMTS.RRC.PagingType2.

Parameters relating to paging type 2 messages sent to the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{7}	-	Cause indicated in message sent to the UE.

				Array of *unsignedInt* items (maximum number of items 7).
Sum	-	unsignedInt	-	Total number of messages sent.

Cell.{i}.UMTS.RRC.PhysicalChannelReconfigurationFailure.

Parameters relating to the PCR failure message received from the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause indicated by UE for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of messages received from the UE.

Cell.{i}.UMTS.RRC.RadioBearerReconfiguration.

Parameters relating to the radio bearer reconfiguration message sent to UEs.

Parameter	W	Type	Default	Description
HSDPABearerAdded	-	unsignedInt	-	Number of reconfigurations in which at least one radio bearer is reconfigured to HSDPA. Note: This statistic is counted per radio bearer.
HSUPABearerAdded	-	unsignedInt	-	Number of reconfigurations in which at least one radio bearer is reconfigured to HSUPA. Note: This statistic is counted per radio bearer.
ULRateUpgrade	-	unsignedInt	-	Number of reconfigurations in which uplink R99 rate was upgraded.
ULRateDowngrade	-	unsignedInt	-	Number of reconfigurations in which uplink R99 rate was downgraded.
OVSFReconfig	-	unsignedInt	-	Number of OVSF code reconfigurations after hand-in.
HSUPARecfgTo2ms	-	unsignedInt	-	Number of reconfigurations in which HSUPA was upgraded from 10ms to 2ms TTI.
HSUPARecfgTo10ms	-	unsignedInt	-	Number of reconfigurations in which HSUPA was downgraded from 2ms to 10ms TTI.
Sum	-	unsignedInt	-	Total number of radio bearer reconfiguration messages sent to the UE.

Cell.{i}.UMTS.RRC.RadioBearerReconfiguration.StateTransitions.

Parameters relating to the state transition triggered by the radio bearer reconfiguration message.

Note: These statistics are counted per message.

Parameter	W	Type	Default	Description
FACHToR99DCH	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB in R99. Note: Since the current implementation always maps the SRBs to DCH on the downlink, this counter will be incremented for all session transitions
FACHToHSDPA	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB on HS-DSCH.
RACHToHSUPA	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB on E-DCH.
R99DCHToFACH	-	unsignedInt	-	Number of state transitions from Cell_DCH to Cell_FACH with at least one RAB previously on R99. Note: Since the current implementation always maps the SRBs to DCH on the downlink, this counter will be incremented for all session transitions
HSDPAToFACH	-	unsignedInt	-	Number of state transitions from Cell_DCH to Cell_FACH with at least one RAB previously on HS-DSCH.
HSUPAToRACH	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB previously on E-DCH.

Cell.{i}.UMTS.RRC.RadioBearerReconfigurationComplete.

Parameters relating to the radio bearer reconfiguration complete message.

Parameter	W	Type	Default	Description
HSDPABearerAdded	-	unsignedInt	-	Number of reconfigurations in which at least one radio bearer is reconfigured to HSDPA. Note: This statistic is counted per radio bearer.
HSUPABearerAdded	-	unsignedInt	-	Number of reconfigurations in which at least one radio bearer is reconfigured to HSUPA. Note: This statistic is counted per radio bearer.
RRCReestablished	-	unsignedInt	-	Number of Radio Bearer Reconfiguration Complete *messages* received for RRC Reestablishment
ULRateUpgrade	-	unsignedInt	-	Number of reconfigurations in which uplink R99 rate was upgraded.
ULRateDowngrade	-	unsignedInt	-	Number of reconfigurations in which uplink R99 rate was downgraded.
OVSFReconfig	-	unsignedInt	-	Number of OVSF code reconfigurations after hand-in.
HSUPARecfgTo2ms	-	unsignedInt	-	Number of reconfigurations in which HSUPA was upgraded from 10ms to 2ms TTI.

HSUPARecfgTo10ms	-	unsignedInt	-	Number of reconfigurations in which HSUPA was downgraded from 2ms to 10ms TTI.
Sum	-	unsignedInt	-	Total number of radio bearer reconfiguration messages sent to the UE.

Cell.{i}.UMTS.RRC.RadioBearerReconfigurationComplete.StateTransitions.

Parameters relating to the state transition acknowledged by the radio bearer reconfiguration complete message.

Note: These statistics are counted per message.

Parameter	W	Type	Default	Description
FACHToR99DCH	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB in R99. Note: Since the current implementation always maps the SRBs to DCH on the downlink, this counter will be incremented for all session transitions
FACHToHSDPA	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB on HS-DSCH.
RACHToHSUPA	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB on E-DCH.
R99DCHToFACH	-	unsignedInt	-	Number of state transitions from Cell_DCH to Cell_FACH with at least one RAB previously on R99. Note: Since the current implementation always maps the SRBs to DCH on the downlink, this counter will be incremented for all session transitions
HSDPAToFACH	-	unsignedInt	-	Number of state transitions from Cell_DCH to Cell_FACH with at least one RAB previously on HS-DSCH.
HSUPAToRACH	-	unsignedInt	-	Number of state transitions from Cell_FACH to Cell_DCH with at least one RAB previously on E-DCH.

Cell.{i}.UMTS.RRC.RadioBearerReconfigurationFailure.

Parameters relating to the radio bearer reconfiguration failure messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause for radio bearer reconfiguration failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of radio bearer reconfiguration messages received from the UE.

Cell.{i}.UMTS.RRC.RadioBearerReconfigurationFailure.HSDPA.

Parameters relating to failed HSDPA radio bearer reconfigurations.

Note: These statistics are counted per radio bearer.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of HSDPA radio bearer reconfiguration failures received.

Cell.{i}.UMTS.RRC.RadioBearerReconfigurationFailure.HSUPA.

Parameters relating to failed HSUPA radio bearer reconfigurations.

Note: These statistics are counted per radio bearer.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of HSUPA radio bearer reconfiguration failures received.

Cell.{i}.UMTS.RRC.RadioBearerReleaseFailure.

Parameters relating to the radio bearer release failure messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause for radio bearer release failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of radio bearer release failure messages received from the UE.

Cell.{i}.UMTS.RRC.RadioBearerSetup.

Parameters relating to the radio bearer setup message.

Parameter	W	Type	Default	Description

HSDPABearerAdded	-	unsignedInt	-	Number of setups in which at least one radio bearer is setup as HSDPA. Note: This statistic is counted per radio bearer.
HSUPABearerAdded	-	unsignedInt	-	Number of setups in which at least one radio bearer is setup as HSUPA. Note: This statistic is counted per radio bearer.
Sum	-	unsignedInt	-	Total number of radio bearer setup messages sent to the UE.

Cell.{i}.UMTS.RRC.RadioBearerSetupComplete.

Parameters relating to the radio bearer setup complete message.

Parameter	W	Type	Default	Description
HSDPABearerAdded	-	unsignedInt	-	Number of setups in which at least one radio bearer is setup as HSDPA. Note: This statistic is counted per radio bearer.
HSUPABearerAdded	-	unsignedInt	-	Number of setups in which at least one radio bearer is setup as HSUPA. Note: This statistic is counted per radio bearer.
Sum	-	unsignedInt	-	Total number of radio bearer setup messages sent to the UE.

Cell.{i}.UMTS.RRC.RadioBearerSetupFailure.

Parameters relating to the radio bearer setup failure messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause for radio bearer setup failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of radio bearer setup failure messages received from the UE.

Cell.{i}.UMTS.RRC.RadioBearerSetupFailure.HSUPA.

Parameters relating to failed HSDPA radio bearer setups.

Note: These statistics are counted per radio bearer.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of HSDPA radio bearer setup failures received.

Cell.{i}.UMTS.RRC.RadioBearerSetupFailure.HSDPA.

Parameters relating to failed HSUPA radio bearer setups.

Note: These statistics are counted per radio bearer.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of HSUPA radio bearer setup failures received.

Cell.{i}.UMTS.RRC.RRCConnectionReject.

Parameters relating to the RRC connection reject messages.

Parameter	W	Type	Default	Description
EstablishmentCause	-	unsignedInt{33}	-	Establishment cause received in the RRC connection request for which the RRC reject was generated. Array of *unsignedInt* items (maximum number of items 33).
Cause	-	unsignedInt{2}	-	Cause for RRC connection reject messages. Array of *unsignedInt* items (maximum number of items 2).
Sum	-	unsignedInt	-	Total number of RRC connection reject messages sent to the UE.

Cell.{i}.UMTS.RRC.RRCConnectionRelease.

Parameters relating to the RRC connection release messages.

Parameter	W	Type	Default	Description

CSFBRedirectionToEUTRA	-	unsignedInt	-	Total number of RRC connection release request messages sent to the UE with the redirection info the of the LTE cell because of CS fallback.
Sum	-	unsignedInt	-	Total number of RRC connection reject messages sent to the UE.

Cell.{i}.UMTS.RRC.RRCConnectionRelease.DCCH.

Parameters relating to the use of DCCH for signaling the RRC connection release.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause for RRC connection release message on DCCH. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	RRC connection release signaled on the DCCH.

Cell.{i}.UMTS.RRC.RRCConnectionRelease.CCCH.

Parameters relating to the use of CCCH for signaling the RRC connection release.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Cause for RRC connection release message on CCCH. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	RRC connection release signaled on the CCCH.

Cell.{i}.UMTS.RRC.RRCConnectionRequest.

Parameters relating to the RRC connection request messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	Cause for RRC connection request messages. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	Total number of RRC connection request messages received from the UE.

Cell.{i}.UMTS.RRC.RRCConnectionRequest.Duplicate.

Parameters relating to the duplicate RRC connection request messages. RRC connection request messages are considered as duplicates when the UTRAN receives multiple copies of RRC connection request for the same attempt of RRC connection establishment. In the case of a cell change during RRC connection establishment, the messages received at the old cell are marked as duplicate

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	Cause present in the duplicated RRC connection request messages. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	Total number of RRC connection request messages received from the UE that are considered as duplicates.

Cell.{i}.UMTS.RRC.RRCConnectionSetup.

Parameters relating to the RRC connection setup messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	Cause for RRC connection setup message. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	Total number of RRC connection setup messages sent to the UE.

Cell.{i}.UMTS.RRC.RRCConnectionSetupComplete.

Parameters relating to the RRC connection setup complete messages.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	Cause for RRC connection setup complete message. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	Total number of RRC connection setup complete messages received from the UE.

Cell.{i}.UMTS.RRC.RRCConnectionSetupComplete.CumulativeTime.

Parameters relating to the average time required for RRC connection setup.

Parameter	W	Type	Default	Description

Cause	-	unsignedInt{32}	-	Total time require for RRC establishment split by cause. Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	Total time required across all RRC connection setups.

Cell.{i}.UMTS.RRC.RRCConnectionSetupComplete.MaxTime.

Parameters relating to the maximum time required for RRC connection setup.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	Maximum time require for RRC establishment split by cause. Array of *unsignedInt* items (maximum number of items 32).
OverallMaximum	-	unsignedInt	-	Maximum time required for a RRC connection setup.

Cell.{i}.UMTS.RRC.SecurityModeFailure.

Parameters relating to the security mode failure message sent by the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of failure messages received.

Cell.{i}.UMTS.RRC.SignallingConnectionReleaseIndicationMsg.

Parameters relating to the signalling connection release indication message sent by the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for signalling connection release indication. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of signalling connection release indication messages received.

Cell.{i}.UMTS.RRC.UTRANMobilityInformationConfirm.

Parameters relating to the UTRAN mobility information confirm message from the UE.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of UTRAN mobility information confirm messages sent by UEs to confirm the new mobility related information.

Cell.{i}.UMTS.RRC.UTRANMobilityInformationFailure.

Parameters relating to the UTRAN mobility information failure message from the UE.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	Causes for failure. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	Total number of failure messages received.

Cell.{i}.UMTS.HandOut.

Parameters relating to the handout performance on the cell.

Parameter	W	Type	Default	Description
CMActivationAttempts	-	unsignedInt	-	The number of compressed mode activations attempted for all UEs in the cell.
CMDeactivationAttempts	-	unsignedInt	-	The number of compressed mode deactivations attempted for all UEs in the cell.
CMCallDrops	-	unsignedInt	-	The number of calls dropped while a UE is in compressed mode and having an established CS RAB.

Cell.{i}.UMTS.HandOut.EventTrigger.

Parameters relating to the event triggers for handout.

Parameter	W	Type	Default	Description

Cell.{i}.UMTS.HandOut.EventTrigger.Attempts.

Parameters relating to the attempts for handout by event trigger type.

Parameter	W	Type	Default	Description
BlindForOffload	-	unsignedInt	-	The number of attempts for blind handout triggered due to admission control.
MeasuredForEmergencyOffload	-	unsignedInt	-	The number of attempts for compressed mode based handout triggered for emergency call offload.
MeasuredForCoverage	-	unsignedInt	-	The number of attempts for compressed mode based handout triggered at system coverage edge.
IntraFrequency	-	unsignedInt	-	The number of attempts for handout due to cell dragging check.
CellDragging	-	unsignedInt	-	The number of attempts for intra-frequency handout triggered at system coverage edge.
Sum	-	unsignedInt	-	The total number of attempts for handout.

Cell.{i}.UMTS.HandOut.EventTrigger.Successes.

Parameters relating to the successes for handout by event trigger type.

Parameter	W	Type	Default	Description
BlindForOffload	-	unsignedInt	-	The number of successful blind handouts that were initiated due to admission control.
MeasuredForEmergencyOffload	-	unsignedInt	-	The number of successful handouts that were initiated for emergency call offload.
MeasuredForCoverage	-	unsignedInt	-	The number of successful handouts that were initiated due to edge coverage.
CellDragging	-	unsignedInt	-	The number of successful handouts that were initiated due to cell dragging threshold.
IntraFrequency	-	unsignedInt	-	The number of successful intra-frequency handouts that were initiated due to edge coverage.
Sum	-	unsignedInt	-	The total number of successful handouts.

Cell.{i}.UMTS.HandOut.InterRAT.

Parameters relating to the inter-RAT handoff performance in the system.

Parameter	W	Type	Default	Description
CNAttemptsTargetCellIndex	-	unsignedInt{32}	-	The number or Relocation Required messages sent to the core network per inter-RAT cell involved in handout as referenced by the index in the neighborlist. Array of *unsignedInt* items (maximum number of items 32).

CNSuccessTargetCellIndex	-	unsignedInt{32}	-	The number of Relocation Command messages received from the core network per inter-RAT cell involved in handout as referenced by the index in the neighborlist. Array of *unsignedInt* items (maximum number of items 32).
CNFailuresTargetCellIndex	-	unsignedInt{32}	-	The number of Relocation Preparation Failure messages received per inter-RAT cell involved in handout as referenced by the index in the neighborlist. Array of *unsignedInt* items (maximum number of items 32).
UESuccessTargetCellIndex	-	unsignedInt{32}	-	The number of Iu Release Command messages received from the core network after sending a Handover From UTRAN Command message to a UE during an inter-RAT handover. Array of *unsignedInt* items (maximum number of items 32).
CNAttemptsCS	-	unsignedInt	-	The number of Relocation Required messages sent to the core network CS domain for inter-RAT handout when this cell was in the active set of the UE.
CNSuccessesCS	-	unsignedInt	-	The number of Relocation Command messages received from the core network CS domain when this cell was in the active set of the UE.
UEAttempts	-	unsignedInt	-	The number of Handover From UTRAN Command messages sent to UEs.

Cell.{i}.UMTS.HandOut.InterRAT.CNFailuresCS.

Parameters relating to a RANAP failure message received from the inter-RAT system during handout.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	The number of Relocation Preparation Failure messages received from the CS domain per the RANAP Cause types defined in TS 24.413. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of Relocation Preparation Failure messages received from the CS domain.

Cell.{i}.UMTS.HandOut.InterRAT.UEFailures.

Parameters relating to Handover From UTRAN Failure messages received from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{32}	-	The number of Handover From UTRAN Failure messages received per Inter-RAT Handover Failure Cause type defined in TS 25.331.

				Array of *unsignedInt* items (maximum number of items 32).
Sum	-	unsignedInt	-	The total number of Handover From UTRAN Failure messages received from UEs.

Cell.{i}.UMTS.HandOut.InterRAT.UESuccesses.

Parameters relating to the successful completion of a handout. This is defined as the condition that the system received an IU Release from the core network indicating a successful handout (or as implemented, after the handout message was sent to the UE and before a handout failure was received from the UE, or before the system generated an IU release request).

Dev Note: This stat does not account for the case where the core signals a IU release instead of relocation command.

Parameter	W	Type	Default	Description
CS	-	unsignedInt	-	Number of successful handouts that had at least one CS RAB.
Sum	-	unsignedInt	-	Total number of inter-RAT handouts that were successful.

Cell.{i}.UMTS.HandIn.

Parameters relating to hand-in performance of the cell.

Parameter	W	Type	Default	Description

Cell.{i}.UMTS.HandIn.InterUMTS.

Parameters relating to inter-UMTS hand-in.

Parameter	W	Type	Default	Description

Cell.{i}.UMTS.HandIn.InterUMTS.UEInvolved.

Parameters relating to inter-UMTS hand-in when the UE is involved.

Parameter	W	Type	Default	Description

CNAttemptsCS	-	unsignedInt	-	The number of Relocation Request messages received from the core network CS domain initiated by a UMTS RAN for hand-in.
CNSuccessesCS	-	unsignedInt	-	The number of Relocation Request Acknowledge messages sent to the core network CS domain indicating successful relocation preparations for inter-UMTS hand-in.
CNAttemptsPS	-	unsignedInt	-	The number of Relocation Request messages received from the core network PS domain initiated by a UMTS RAN for hand-in.
CNSuccessesPS	-	unsignedInt	-	The number of Relocation Request Acknowledge messages sent to the core network PS domain indicating successful relocation preparations for inter-UMTS hand-in.
CNAttemptsCSAndPS	-	unsignedInt	-	The number of Relocation Request messages received from the core network on both CS and PS domains initiated by a UMTS RAN for hand-in for the same session. This can happen if the source RNC initiates a relocation procedure coordinated over both Iu connections.
CNSuccessesCSAndPS	-	unsignedInt	-	The number of Relocation Request Acknowledge messages sent to the core network CS and PS domains indicating successful relocation preparations for inter-UMTS hand-in involving a muli-RAB session.
CNSuccessesCSAndPSRelease	-	unsignedInt	-	The number of Relocation Request Acknowledge messages sent to the core network CS and PS domains indicating successful relocation preparation for the CS domain with the release of all PS bearers when the associated Relocation Request was for a multi-RAB session.

Cell.{i}.UMTS.HandIn.InterUMTS.UEInvolved.CNFailuresCS.

Parameters relating to a failed inter-UMTS hand-in on CS domain.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	The number of Relocation Failure messages associated with inter-UMTS hand-in sent to the CS domain per RANAP Cause type defined in TS 25.413. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of Relocation Failure messages associated with inter-UMTS hand-in sent to the CS domain.

Cell.{i}.UMTS.HandIn.InterUMTS.UEInvolved.CNFailuresPS.

Parameters relating to a failed hand-in on PS domain.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	The number of Relocation Failure messages associated with inter-UMTS hand-in sent to the PS domain per RANAP Cause type defined in TS 25.413. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of Relocation Failure messages associated with inter-UMTS hand-in sent to the PS domain.

Cell.{i}.UMTS.HandIn.InterUMTS.UEInvolved.CNFailuresCSAndPS.

Parameters relating to a failed hand-in coordinated on both CS and PS domains.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{117}	-	The number of Relocation Failure messages associated with coordinated mult-RAB inter-UMTS hand-in sent to both CS and PS domains per RANAP Cause type defined in TS 25.413. Array of *unsignedInt* items (maximum number of items 117).
Sum	-	unsignedInt	-	The total number of Relocation Failure messages associated with coordinated mult-RAB inter-UMTS hand-in sent to both CS and PS domains.

Cell.{i}.UMTS.HandIn.InterUMTS.UESuccesses.

Parameters relating to the successful completion of a hand-in.

Parameter	W	Type	Default	Description
CS	-	unsignedInt	-	The number of successful inter-UMTS hand-ins that included at least one CS RAB.
PS	-	unsignedInt	-	The number of successful inter-UMTS hand-ins that included at least one PS RAB.
CSAndPS	-	unsignedInt	-	The number of successful inter-UMTS hand-ins that included a CS RAB and at least one PS RAB.
CSAndPSRelease	-	unsignedInt	-	The number of inter-UMTS hand-ins involving coordinated multi-RAB session where a CS RAB was successfully transferred and PS RABs were released.
Sum	-	unsignedInt	-	The total number of inter-UMTS hand-ins that were successful.

Cell.{i}.UMTS.VisitDuration.

Parameters related to UE's visit duration.

Parameter	W	Type	Default	Description
MinutesHist	-	unsignedInt{4}	-	Histogram of visit durations that are small than an hour. Interval between the histogram bins is 15 minutes. Array of *unsignedInt* items (maximum number of items 4).
HoursHist	-	unsignedInt{24}	-	Histogram of visit durations that are greater than an hour. Array of *unsignedInt* items (maximum number of items 24).

Cell.{i}.UMTS.Traffic.

Parameters related to UE established CS or PS RAB traffic.

Parameter	W	Type	Default	Description

Cell.{i}.UMTS.Traffic.CS.

Parameters related to UE established CS traffic.

Parameter	W	Type	Default	Description
UniqueRABs	-	unsignedInt	-	The number of unique CS RABs that established a radiolink on the cell.
CumulativeTime	-	unsignedInt	-	The total connect duration, in seconds, across all radiolinks on the cell for all users that had a CS RAB.

Cell.{i}.UMTS.Traffic.PS.

Parameters related to UE established PS traffic.

Parameter	W	Type	Default	Description
UniqueRABs	-	unsignedInt	-	The number of unique CS RABs that established a radiolink on the cell.
CumulativeTime	-	unsignedInt	-	The total connect duration, in seconds, across all radiolinks on the cell for all users that had a PS RAB.

LTECell.{i}.

Table containing the configured system LTE cell list.

Each *LTECell* encompasses the LTE cell specific parameters found in *FAPService.{i}.*

as identified in [TR-196].

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enables or disables the *LTECell*. If *true* the LTE cell is enabled. If *false* the LTE cell is disabled.
BypassAlarms	W	enum{4}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 4). Each list item is an enumeration of: • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process) • *RFMGMT_FAULTED_MAJOR* (The cell was faulted by RF management) • *CELL_MAX_TX_POWER_DELTA_EXCEED_MINOR* (MaxTxPowerInUse of cell has exceeded to MaxTxPowerRerefence)
Name	W	regex(32)	<Empty>	Name of this *LTECell* Possible patterns: • `^$` • `^[0-9a-zA-Z]([0-9a-zA-Z_-])*$`
LocationType	W	enum{}	Empty(Interior)	Description of the location where this *LTECell* is installed. Array of *string* items. Each list item is an enumeration of: • *Interior* (The cell is internal to the SCW installation. Non SCW deployment users are not expected to see this cell.) • *Exterior* (The cell is external facing. Non SCW deployment users are expected to see this cell.) • *Elevator* (The cell is close to an elevator.) • *Atrium* (The cell is located in/close to the attrium of the building.) • *Cafeteria* (The cell is located in/close to the cafeteria.) • *MeetingRoom* (The cell is located in a meeting room.) • *Egress* (The cell is located near a ingress/egress path.) • *Basement* (The cell is located in a basement.) • *HandIn* (The cell is located in Hand-In zone.) • *Boundary* (The cell is a boundary cell. Note that each cell is dynamically auto-identified as either a boundary cell or a non-boundary cell. As such, a cell identified by the user as a non-boundary cell can later on be auto-identified as a boundary cell and vice versa.)

Description	W	string(128)	<Empty>	Description of this *LTECell*
RadioNode	W	unsignedInt	Mandatory(0)	The index of the *RadioNode.{i}.* associated with this *LTECell* entry. Each *LTECell* in this table must be associated with a *RadioNode.{i}.Radio.{i}.*. *RadioNode* must not be 0 if *Enable* is true.
Radio	W	unsignedInt[0:2]	Mandatory(0)	The index of the *RadioNode.{i}.Radio.{i}.* associated with this *LTECell* entry. Each *LTECell* in this table must be associated with a *RadioNode.{i}.Radio.{i}.*. *Radio* must not be 0 if *Enable* is true.
ConfState	-	string	-	Configured state of the *LTECell*. This parameter tracks the high-level provisioned state of the *LTECell*. The high-level provisioned state changes when *Enable* is changed, when *Mode* is changed and when the RadioNode state changes with respect to its ability to handle a provisioned cell.
OperState	-	enum	-	The operational state of the *LTECell*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT*

				• *MAINT-RFMGMT*
ProvState	-	string	-	Provisioned state of the *LTECell*. The provisioned state is a substate of *ConfState*. This parameter is updated as the *LTECell* goes through the provisioning state machine.
ProvTime	-	dateTime	-	The time when the *LTECell* last began the provisioning process.

LTECell.{i}.AccessMgmt.

Access management related parameters

Parameter	W	Type	Default	Description

LTECell.{i}.AccessMgmt.LTE.

This object contains parameters relating to Access Management, as defined in [3GPP-TS.32.592]/

Closed Subscriber Group (CSG) service behavior is specified in [3GPP-TS.22.011].

Note: Cell barring and 3GPP access class parameters are contained in SIB1 in [3GPP-TS.36.331].

Parameter	W	Type	Default	Description
IMSIWhitelistEnforcementEnable	-	enum	-	*IMSIWhitelistEnforcementEnable* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *IMSIWhitelistEnforcementEnable* should not be changed from its default value. Enable or disable IMSI Whitelist enforcement. If enabled, an IMSI is allowed access only if it has been configured in *FAPService.{i}.AccessMgmt.MemberDetail.{i}.* and it is allowed by the Policy configuration. This parameter is inherited from the LTE zone to which the cell belongs. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)

LTECell.{i}.CellConfig.

This object contains parameters relating to configuring the FAP.

Parameter	W	Type	Default	Description

LTECell.{i}.CellConfig.LTE.

This object contains parameters relating to configuring the LTE FAP.

Parameter	W	Type	Default	Description
LocationReportingEnable	W	boolean	false	Enable or disable proximity detection on this *LTE*. If *true* proximity detection is enabled, a syslog event is generated when a UE session is detected on this cell. If *false* proximity detection is disabled, syslog event is not generated when a UE session is detected on this cell.

LTECell.{i}.CellConfig.LTE.EPC.

This object contains parameters relating to configuring LTE EPC.

Parameter	W	Type	Default	Description
TACConfigured	W	unsignedInt[0:65535]	0	Tracking Area Codes of proximity detector cell.

LTECell.{i}.CellConfig.LTE.RAN.

This object contains parameters relating to the LTE RAN level configuration.

Parameter	W	Type	Default	Description

LTECell.{i}.CellConfig.LTE.RAN.Common.

This object contains parameters relating to the common configuration in LTE RAN.

Parameter	W	Type	Default	Description
CellID	W	unsignedInt[0:255]	0	Cell Identifier. *CellID* represents the lower 8 bits for the 28 bit E-UTRAN cell identity (ECI).
ECI	-	unsignedInt	-	CellIdentity as specified in [3GPP-TS.36.331] Section 6.3.4. Also referred to as E-UTRAN Cell Identity. • ECI (28 bits) = *FAPService.{i}.CellConfig.LTE.RAN.Common.eNodeBID + CellID*

LTECell.{i}.CellConfig.LTE.RAN.RF.

This object contains parameters relating to the RF, see [3GPP-TS.32.592] Section 6.1.7.1.

Parameter	W	Type	Default	Description
EARFCNDL	-	unsignedInt	-	E-UTRA Absolute Radio Frequency Channel Number in the downlink direction. If the cell is part of a zone, then *EARFCNDL* value is the zone value *FAPService.{i}.LTE.Zone.{i}.RF.EARFCNDL*. If the zone value is set to its invalid value or the cell is not part of a zone, then *EARFCNDL* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.RF.EARFCNDL*. Corresponds to parameter NDL specified in [3GPP-TS.36.104] Table 5.7.3.1.
EARFCNDLConfigured	W	unsignedInt[ranges]	Empty(4294967295)	Corresponds to parameter NDL specified in [3GPP-TS.36.104] Table 5.7.3.1. Possible values: • *0 to 65535* • *4294967295*
EARFCNUL	-	unsignedInt	-	E-UTRA Absolute Radio Frequency Channel Number in the uplink direction. If the cell is part of a zone, then *EARFCNUL* value is the zone value *FAPService.{i}.LTE.Zone.{i}.RF.EARFCNUL*. If the zone value is set to its invalid value or the cell is not part of a zone, then *EARFCNUL* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.RF.EARFCNUL*. Corresponds to parameter NUL specified in [3GPP-TS.36.104] Table 5.7.3.1.
EARFCNULConfigured	W	unsignedInt[ranges]	Empty(4294967295)	Corresponds to parameter NUL specified in [3GPP-TS.36.104] Table 5.7.3.1. Possible values: • *0 to 65535* • *4294967295*
FreqBandIndicator	-	unsignedInt	-	Frequency band indicator. If the cell is part of a zone, then *FreqBandIndicator* value is the zone value *FAPService.{i}.LTE.Zone.{i}.RF.FreqBandIndicator*. If the zone value is set to its invalid value or the cell is not part of a zone, then *FreqBandIndicator* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.RF.FreqBandIndicator*. Corresponds to parameter freqBandIndicator in SIB1 in [3GPP-TS.36.331] Section 6.2.2.
DLBandwidth	-	unsignedInt	-	Downlink transmission bandwidth in number of Resource Blocks. Valid values are 15, 25, 50, 75, and 100 RBs for 3, 5, 10, 15, and 20 MHz, respectively. If the cell is part of a zone, then *DLBandwidth* value is the zone value *FAPService.{i}.LTE.Zone.{i}.RF.DLBandwidth*. If the zone value is set to its invalid value or the cell is not part of a zone, then *DLBandwidth* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.RF.DLBandwidth*. Corresponds to parameter dl_Bandwidth in MIB (Master Information Block) in [3GPP-TS.36.331] Section 6.2.2 and to parameter NRB in [3GPP-TS.36.101] Table 5.6-1.
ULBandwidth	-	unsignedInt	-	Uplink transmission bandwidth in number of Resource Blocks. Valid values are 15, 25, 50, 75, and 100 RBs for 3, 5, 10, 15, and 20 MHz, respectively. If the cell is part of a zone, then *ULBandwidth* value is the zone value *FAPService.{i}.LTE.Zone.{i}.RF.ULBandwidth*. If the zone value is set to its invalid value or the cell is not part of a zone, then *ULBandwidth* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.RF.ULBandwidth*. Corresponds to parameter ul_Bandwidth in SIB2 in [3GPP-TS.36.331] Section 6.3.1 and to parameter NRB in [3GPP-TS.36.101] Table 5.6-1.
ReferenceSignalPowerConfigured	W	int[ranges]	Empty(2147483647)	Downlink reference-signal transmit power in dBm per resource element. Defined as the linear average over the power contributions (in W) of all resource elements that carry cell-specific reference signals within the operating system bandwidth. Corresponds to parameter referenceSignalPower in PDSCH-Config IE in [3GPP-TS.36.331]

				Section 6.3.2. Possible values: • *-70 to -1* • *2147483647*
ReferenceSignalPowerInUse	-	int	-	The *ReferenceSignalPowerInUse* is the final Reference Signal Power, in dBm per resource element, chosen for this cell.
PhyCellID	-	spanUnsignedInt{1:512}	-	*PhyCellID* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *PhyCellID* should not be changed from its default value. Array of *string* items (minimum number of items 1, maximum number of items 512).
PhyCellIDInUse	-	unsignedInt	-	The *PhyCellIDInUse* is the final Physical Cell Identity choosen for this cell.
PhyCellIDConfigured	W	unsignedInt[0:503]	0	The *PhyCellIDConfigured* can be configured by the user.
PhyCellIDLockEnable	W	boolean	false	When *true*, *.Cell.{i}.CellConfig.LTE.RAN.RF.X_002448_PhyCellIDConfigured* is locked and cannot be changed by the user or by Self Organizing Network (SON) Management.
PSCHPowerOffset	-	int	-	Power offset dB, of the Primary Synchronization Channel with respect to the ReferenceSignalPower. If the cell is part of a zone, then *PSCHPowerOffset* value is the zone value *FAPService.{i}.LTE.Zone.{i}.RF.PSCHPowerOffset*. If the zone value is set to its invalid value or the cell is not part of a zone, then *PSCHPowerOffset* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.RF.PSCHPowerOffset*. The value of *PSCHPowerOffset* divided by 10 yields the actual value.
SSCHPowerOffset	-	int	-	Power offset in dB, of the Secondary Synchronization Channel with respect to the ReferenceSignalPower. If the cell is part of a zone, then *SSCHPowerOffset* value is the zone value *FAPService.{i}.LTE.Zone.{i}.RF.SSCHPowerOffset*. If the zone value is set to its invalid value or the cell is not part of a zone, then *SSCHPowerOffset* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.RF.SSCHPowerOffset.* The value of *SSCHPowerOffset* divided by 10 yields the actual value.
PBCHPowerOffset	-	int	-	Power offset in dB, of the Secondary Synchronization Channel with respect to the ReferenceSignalPower. If the cell is part of a zone, then *PBCHPowerOffset* value is the zone value *FAPService.{i}.LTE.Zone.{i}.RF.PBCHPowerOffset*. If the zone value is set to its invalid value or the cell is not part of a zone, then *PBCHPowerOffset* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.RF.PBCHPowerOffset*. The value of *PBCHPowerOffset* divided by 10 yields the actual value.
Mode	W	enum	LTEeNodeB	Intended cell mode - scan (LTENetmon) or operational mode (LTEeNodeB). Enumeration of: • *LTEeNodeB* (Operational mode) • *UMTSNetmon* (UMTS scan mode) • *LTENetmon* (LTE scan mode)

ModeInUse	-	enum	-	Current cell mode - scan (LTENetmon) or operational mode (LTEeNodeB). Enumeration of: • *LTEeNodeB* (Operational mode) • *UMTSNetmon* (UMTS scan mode) • *LTENetmon* (LTE scan mode) • *LTEeNodeBCA* (Operational mode with carrier aggregation enabled) • *LTEeNodeBNoCA* (Operational mode that forces the cell to operate in non carrier aggregation mode)

LTECell.{i}.CellConfig.LTE.RAN.RF.OTASync.

Parameters related to over the air synchronization.

Parameter	W	Type	Default	Description
SyncState	-	spanUnsignedInt{0:20}	-	*SyncState* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *SyncState* should not be changed from its default value. Indicates over the air frequency or time synchronized state of the cell. Array of *string* items (minimum number of items 0, maximum number of items 20).
ActiveDonorInformation	-	spanUnsignedInt{0:20}	-	*ActiveDonorInformation* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *ActiveDonorInformation* should not be changed from its default value. Identification of the donor with which the cell is frequency or time synchronized. Array of *string* items (minimum number of items 0, maximum number of items 20).
SyncFailCause	-	spanUnsignedInt{0:20}	-	*SyncFailCause* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *SyncFailCause* should not be changed from its default value. Reason for synchronization failure. Array of *string* items (minimum number of items 0, maximum number of items 20).

LTECell.{i}.CellConfig.LTE.RAN.RF.OTASync.SyncGraph.

Information about probable donors with which the cell can be frequency or time synchronized

Parameter	W	Type	Default	Description

LTECell.{i}.CellConfig.LTE.RAN.RF.OTASync.SyncGraph.DonorIndex.{i}.

List of probable donors with which the cell can be frequency or time synchronized

Parameter	W	Type	Default	Description

Donor	-	spanUnsignedInt{0:20}	-	*Donor* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *Donor* should not be changed from its default value. Identification of the donor with which the cell can be frequency or time synchronized. Array of *string* items (minimum number of items 0, maximum number of items 20).

LTECell.{i}.CellConfig.LTE.RAN.PHY.

This object contains all parameters relating to the Physical layer configuration ([3GPP-TS.32.592] Section 6.1.1).

Parameter	W	Type	Default	Description

LTECell.{i}.CellConfig.LTE.RAN.PHY.PRACH.

This object contains all parameters relating to the PRACH channel ([3GPP-TS.32.592] Section 6.1.1.4).

Parameter	W	Type	Default	Description
RootSequenceIndexList	-	spanUnsignedInt{0:20}	-	*RootSequenceIndexList* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *RootSequenceIndexList* should not be changed from its default value. Array of *string* items (minimum number of items 0, maximum number of items 20).
RootSequenceIndexInUse	-	unsignedInt	-	The *RootSequenceIndexInUse* is the final Root Sequence choosen for this cell.
RootSequenceIndexConfigured	W	unsignedInt[0:837]	0	The *RootSequenceIndexConfigured* can be configured by the user.

LTECell.{i}.CellConfig.LTE.RAN.MAC.

This object contains all parameters relating to the MAC (Medium Access Control) configuration ([3GPP-TS.32.592] Section 6.1.2.1) for the specified Zone.

Parameter	W	Type	Default	Description

LTECell.{i}.CellConfig.LTE.RAN.MAC.RACH.

This object contains parameters relating to the RACH (Random Access Channel) configuration (see [3GPP-TS.32.592] Section 6.1.2.1).

Parameter	W	Type	Default	Description
NumberOfRaPreambles	-	unsignedInt	-	Number of non-dedicated random access preambles. If the cell is part of a zone, then *NumberOfRaPreambles* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.RACH.NumberOfRaPreambles*. If the zone value is set to its invalid value or the cell is not part of a zone, then *NumberOfRaPreambles* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.RACH.NumberOfRaPreambles*.

				Corresponds to parameter numberOfRA-Preambles specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.1.
SizeOfRaGroupA	-	unsignedInt	-	Number of non-dedicated random access preambles in Random Acces Preambles group A. If the cell is part of a zone, then *SizeOfRaGroupA* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.RACH.SizeOfRaGroupA*. If the zone value is set to its invalid value or the cell is not part of a zone, then *SizeOfRaGroupA* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.RACH.SizeOfRaGroupA*. Corresponds to parameter sizeOfRA-PreamblesGroupA specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.1.
MessageSizeGroupA	-	unsignedInt	-	Threshold for preamble selection in bits. If the cell is part of a zone, then *MessageSizeGroupA* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.RACH.MessageSizeGroupA*. If the zone value is set to its invalid value or the cell is not part of a zone, then *MessageSizeGroupA* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.RACH.MessageSizeGroupA*. Defined in [3GPP-TS.36.321] Section 5.1.2. Corresponds to parameter messageSizeGroupA specified in [3GPP-TS.36.331] Section 6.3.2.
MessagePowerOffsetGroupB	-	int	-	Threshold for preamble selection in dB. If the cell is part of a zone, then *MessagePowerOffsetGroupB* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.RACH.MessagePowerOffsetGroupB*. If the zone value is set to its invalid value or the cell is not part of a zone, then *MessagePowerOffsetGroupB* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.RACH.MessagePowerOffsetGroupB*. Defined in [3GPP-TS.36.321] Section 5.1.2. Corresponds to parameter messagePowerOffsetGroupB specified in [3GPP-TS.36.331] Section 6.3.2. Value of -1 indicates "minusinfinity".
PowerRampingStep	-	unsignedInt	-	Power increase factor between subsequent random access preamble transmissions in dB. If the cell is part of a zone, then *PowerRampingStep* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.RACH.PowerRampingStep*. If the zone value is set to its invalid value or the cell is not part of a zone, then *PowerRampingStep* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.RACH.PowerRampingStep*. Corresponds to parameter powerRampingStep specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.3.
PreambleInitialReceivedTargetPower	-	int	-	DEPRECATED. Value used as the baseline for computation for random access transmission power in dBm. Also used as a parameter in the criteria for preamble selection. If the cell is part of a zone, then *PreambleInitialReceivedTargetPower* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.RACH.PreambleInitialReceivedTargetPower*. If the zone value is set to its invalid value or the cell is not part of a zone, then *PreambleInitialReceivedTargetPower* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.RACH.PreambleInitialReceivedTargetPower*. Corresponds to parameter preambleInitialReceivedTargetPower specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.2 and section 5.1.3.
PreambleTransMax	-	unsignedInt	-	Maximum number of random access preamble transmissions. If the cell is part of a zone, then *PreambleTransMax* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.RACH.PreambleTransMax*. If the zone value is set to its invalid value or the cell is not part of a zone, then *PreambleTransMax* value is the *FAPService.{i}.CellConfig.LTE.RAN.MAC.RACH.PreambleTransMax*. Corresponds to parameter preambleTransMax specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.4 and section 5.1.5.
ResponseWindowSize	-	unsignedInt	-	Duration of the random access response window in sub-frames. If the cell is part of a zone, then *ResponseWindowSize* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.RACH.ResponseWindowSize*. If the zone value is set to its invalid value or the cell is not part of a zone, then *ResponseWindowSize* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.RACH.ResponseWindowSize*. Corresponds to parameter ra-ResponseWindowSize specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.4.
ContentionResolutionTimer	-	unsignedInt	-	Contention resolution timer in sub-frames. If the cell is part of a zone, then *ContentionResolutionTimer* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.RACH.ContentionResolutionTimer*. If the zone value is set to its invalid value or the cell is not part of a zone, then *ContentionResolutionTimer* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.RACH.ContentionResolutionTimer*. Corresponds to parameter mac-ContentionResolutionTimer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.1.5.
MaxHARQMsg3Tx	-	unsignedInt	-	Maximum number of Msg3 HARQ transmissions by RRC. If the cell is part of a zone, then *MaxHARQMsg3Tx* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.RACH.MaxHARQMsg3Tx*. If the zone value is set to its invalid value or the cell is not part of a zone, then

				MaxHARQMsg3Tx value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.RACH.MaxHARQMsg3Tx*. Corresponds to parameter maxHARQ-Msg3Tx specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.4.2.2.

LTECell.{i}.CellConfig.LTE.RAN.MAC.DRX.

This object contains parameters relating to the DRX (Discontinuous Reception) configuration (see [3GPP-TS.32.592] Section 6.1.2.2).

Parameter	W	Type	Default	Description
DRXEnabled	-	boolean	-	Indicates if DRX operation is enabled or not. If *true*, DRX operation is enabled. If *false*, DRX operation is not enabled. If the cell is part of a zone, then *DRXEnabled* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.DRX.DRXEnabled*. If the zone value is set to its invalid value or the cell is not part of a zone, then *DRXEnabled* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.DRX.DRXEnabled*. Corresponds to drx-Configuration IE defined in [3GPP-TS.36.331] Section 6.3.2.
OnDurationTimer	-	unsignedInt	-	DRX cycle during which UE actively monitors PDCCH in number of PDCCH sub-frames. If the cell is part of a zone, then *OnDurationTimer* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.DRX.OnDurationTimer*. If the zone value is set to its invalid value or the cell is not part of a zone, then *OnDurationTimer* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.DRX.OnDurationTimer*. Corresponds to parameter onDurationTimer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.7.
DRXInactivityTimer	-	unsignedInt	-	Number of inactive consecutive PDCCH sub-frame(s) that will activate short DRX cycle. If the cell is part of a zone, then *DRXInactivityTimer* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.DRX.DRXInactivityTimer*. If the zone value is set to its invalid value or the cell is not part of a zone, then *DRXInactivityTimer* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.DRX.DRXInactivityTimer*. Corresponds to parameter drx-InactivityTimer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.7.
DRXRetransmissionTimer	-	unsignedInt	-	Maximum number of consecutive PDCCH sub-frame(s) UE MUST remain active expecting a DL retransmission. If the cell is part of a zone, then *DRXRetransmissionTimer* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.DRX.DRXRetransmissionTimer*. If the zone value is set to its invalid value or the cell is not part of a zone, then *DRXRetransmissionTimer* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.DRX.DRXRetransmissionTimer*. The timer is started when a HARQ RTT Timer expires and the data in the soft buffer of the corresponding HARQ process was not successfully decoded. There is one timer for each active HARQ process. Corresponds to parameter drx-RetransmissionTimer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.7.
LongDRXCycle	-	unsignedInt	-	Long DRX Cycle value in number of sub-frames. If the cell is part of a zone, then *LongDRXCycle* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.DRX.LongDRXCycle*. If the zone value is set to its invalid value or the cell is not part of a zone, then *LongDRXCycle* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.DRX.LongDRXCycle*. If shortDRX-Cycle is configured, this value MUST be a multiple of the *ShortDRXCycle* value. Corresponds to longDRX-Cycle parameter specified in [3GPP-TS.36.321] Section 5.7. and longDRX-CycleStartOffset specified in [3GPP-TS.36.331] Section 6.3.2.
DRXStartOffset	-	unsignedInt	-	Starting frame of the DRX cycle within the long DRX cycle. If the cell is part of a zone, then *DRXStartOffset* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.DRX.DRXStartOffset*. If the zone value is set to its invalid value or the cell is not part of a zone, then *DRXStartOffset* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.DRX.DRXStartOffset*. The valid value range is dependent on *LongDRXCycle* parameter which defines the upper bound of this range, i.e., range definition is [0: (*LongDRXCycle*-1)]. Corresponds to drxStartOffset parameter specified in [3GPP-TS.36.321] Section 5.7.
ShortDRXEnabled	-	boolean	-	Specifies whether short DRX cycle operations are enabled or not.

ShortDRXCycle	-	unsignedInt	-	Short DRX Cycle value in number of sub-frames. If the cell is part of a zone, then *ShortDRXCycle* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.DRX.ShortDRXCycle*. If the zone value is set to its invalid value or the cell is not part of a zone, then *ShortDRXCycle* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.DRX.ShortDRXCycle*. If *shortDRX-Cycle* is configured, the value of *LongDRXCycle* MUST be a multiple of the *ShortDRXCycle* value. Corresponds to shortDRX-Cycle parameter specified in [3GPP-TS.36.321] Section 5.7.
DRXShortCycleTimer	-	unsignedInt	-	Duration of the short DRX cycle in multiples of *ShortDRXCycle* parameter in number of sub-frames. If the cell is part of a zone, then *DRXShortCycleTimer* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.DRX.DRXShortCycleTimer*. If the zone value is set to its invalid value or the cell is not part of a zone, then *DRXShortCycleTimer* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.DRX.DRXShortCycleTimer*. Denotes the number of consecutive sub-frame(s)the UE shall follow the short DRX cycle after the DRX Inactivity Timer has expired. Corresponds to drxShortCycleTimer parameter specified in [3GPP-TS.36.321] Section 5.7.

LTECell.{i}.CellConfig.LTE.RAN.MAC.ULSCH.

This object contains parameters relating to the ULSCH (Uplink Shared Channel) configuration (see [3GPP-TS.32.592] Section 6.1.2.3).

Parameter	W	Type	Default	Description
MaxHARQTx	-	unsignedInt	-	Maximum number of UL HARQ transmissions. If the cell is part of a zone, then *MaxHARQTx* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.ULSCH.MaxHARQTx*. If the zone value is set to its invalid value or the cell is not part of a zone, then *MaxHARQTx* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.DRX.MaxHARQTx*. Corresponds to parameter maxHARQ-Tx specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.4.2.2.
PeriodicBSRTimer	-	unsignedInt	-	Timer for Periodic BSR (Buffer Status Report) reporting in number of subframes. If the cell is part of a zone, then *PeriodicBSRTimer* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.ULSCH.PeriodicBSRTimer*. If the zone value is set to its invalid value or the cell is not part of a zone, then *PeriodicBSRTimer* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.ULSCH.PeriodicBSRTimer*. UE transmits periodic BSR at the expiration of this timer. Corresponds to parameter periodicBSR-Timer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.4.5. Value of 0 indicates "infinity."
RetxBSRTimer	-	unsignedInt	-	Timer for Regular BSR reporting in number of subframes. If the cell is part of a zone, then *RetxBSRTimer* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.ULSCH.RetxBSRTimer*. If the zone value is set to its invalid value or the cell is not part of a zone, then *RetxBSRTimer* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.ULSCH.RetxBSRTimer*. UE transmits a Regular BSR at the expiration of this timer if data is available in the buffer. Corresponds to parameter retxBSR-Timer specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.4.5.
TTIBundling	-	boolean	-	Indicates if TTI bundling is enabled or not. If *true*, TTI bundling is enabled. If *false*, TTI bundling is disabled. If the cell is part of a zone, then *TTIBundling* value is the zone value *FAPService.{i}.LTE.Zone.{i}.MAC.ULSCH.TTIBundling*. If the zone value is set to its invalid value or the cell is not part of a zone, then *TTIBundling* value is the FAP value *FAPService.{i}.CellConfig.LTE.RAN.MAC.ULSCH.TTIBundling*. Corresponds to parameter ttiBundling specified in [3GPP-TS.36.331] Section 6.3.2 and in [3GPP-TS.36.321] Section 5.4.2.1.

LTECell.{i}.CellConfig.LTE.RAN.MAC.CarrierAggregation.

This object contains all parameters relating to Carrier Aggregation.

Parameter	W	Type	Default	Description
Enabled	-	boolean	-	Shows whether or not the cell is operating in Carrier Aggregation mode.
SCellA1ThresholdRSRP	-	int	-	RSRP threshold used in EUTRA measurement report triggering condition for secondary cell event A1.
SCellA2ThresholdRSRP	-	int	-	RSRP threshold used in EUTRA measurement report triggering condition for secondary cell event A2.

LTECell.{i}.CellConfig.LTE.RAN.CellRestriction.

This object contains parameters relating to the cell restriction configuration.

Parameter	W	Type	Default	Description
CellBarred	-	enum	-	Indicates whether the cell is barred or not. If true, the cell is barred. If false, the cell is not barred. Corresponds to parameter CellBarred specified in SIB1 in [3GPP-TS.36.331] Section 6.2.2. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
BarringForEmergency	-	enum	-	Indicates whether the is barred for Access Class 10 or not. If true, the cell is barred for Access Class 10. If false, the cell is not barred for Access Class 10. Corresponds to parameter ac-BarringForEmergency specified in SIB2 in [3GPP-TS.36.331] Section 6.2.2. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
IntraFreqReselection	-	enum	-	Used to control cell reselection to intra-frequency cells when the highest ranked cell is barred, or treated as barred by the UE, as specified in [3GPP-TS.36.304] Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)

ACBarringForMOSignallingEnable	-	enum	-	Enables or disables access class barring for mobile originated signalling. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
ACBarringFactorMOSignalling	-	unsignedInt	-	If the random number drawn by the UE is lower than this value, access is allowed. Otherwise the access is barred. The values are interpreted in the range [0,1): p00 = 0, p05 = 0.05, p10 = 0.10,.,p95 = 0.95. Values other than 0 can only be set if *X_002448_ACBarringForSpecialACMOSignalling* is empty. Possible Values: 0, 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 75, 80, 85, 90, 95
ACBarringTimeMOSignalling	-	unsignedInt	-	Mean access barring time value in seconds. Used to calculate the absolute barring time. Possible Values: 4, 8, 16, 32, 64, 128, 256, 512
ACBarringSpecialACMOSignalling	-	unsignedInt{}	-	Access class barring for AC 11 to 15 for mobile originated signalling. If an access class is included in the list, it indicates that access class barring is enabled for that access class for mobile orignated signalling connections. Array of *unsignedInt* items.
ACBarringForMODataEnable	-	enum	-	Enables or disables access class barring for mobile originated data. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
ACBarringFactorMOData	-	unsignedInt	-	If the random number drawn by the UE is lower than this value, access is allowed. Otherwise the access is barred. The values are interpreted in the range [0,1): p00 = 0, p05 = 0.05, p10 = 0.10,.,p95 = 0.95. Values other than 0 can only be set if *X_002448_ACBarringForSpecialACMOSignalling* is empty. Possible Values: 0, 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 75, 80, 85, 90, 95
ACBarringTimeMOData	-	unsignedInt	-	Mean access barring time value in seconds. Used to calculate the absolute barring time. Possible Values: 4, 8, 16, 32, 64, 128, 256, 512
ACBarringSpecialACMOData	-	unsignedInt{}	-	Access class barring for AC 11 to 15 for mobile originated data. If an access class is included in the list, it indicates that access class barring is enabled for that access class for mobile orignated data connections. Array of *unsignedInt* items.

LTECell.{i}.CellConfig.LTE.RAN.Mobility.

This object contains parameters relating to the UE's mobility configuration. It covers both idle mode and connected mode.

Parameter	W	Type	Default	Description

LTECell.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.

This object contains parameters relating to the UE's mobility while it is in idle mode (cell (re-)selection). Parameters under this object determines the content in the SIB (System Information Block) that is broadcast by LTE .

Parameter	W	Type	Default	Description

LTECell.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IntraFreq.

This object contains parameters relating to the idle mode mobility configuration for intra-freq re-selection scenario (see [3GPP-TS.32.592] Section 6.1.5.1.2).

Parameter	W	Type	Default	Description
QRxLevMinSIB1	-	int	-	RSRP threshold for serving cell.
QRxLevMinSIB3	-	int	-	RSRP threshold for candidate intra-frequency cells.
QRxLevMinOffset	-	unsignedInt	-	RSRP offset for candidate cells for reselection to higher priority PLMN.
SIntrasearch	-	unsignedInt	-	Threshold on RSRP of serving cell for intra-frequency measurements. The value of (*SIntrasearch* * 2) is the actual value used by the UE.
TReselectionEUTRA	-	unsignedInt	-	Time interval in seconds in which criteria must stay fulfilled for a UE to trigger a cell reselection.
SNonIntraSearch	-	unsignedInt	-	Threshold in on RSRP of current cell for inter-frequency and inter-rat measurements. The value of (*SNonIntraSearch* * 2) is the actual value used by the UE.
CellReselectionPriority	-	unsignedInt	-	Absolute priority of this E-UTRA frequency carrier.
PMax	-	int	-	Expected maximum power of UEs camping on this cell.
ThreshServingLow	-	unsignedInt	-	This threshold is used in the rules for cell reselection to lower priority neighbors when absolute priorities are used. It specifies the limit for Srxlev in the serving cell below which the UE may perform cell reselection to a cell on a lower absolute priority layer. Specified in seconds, value of (*ThreshServingLow* * 2) yields the actual value.

LTECell.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.InterFreq.

This object contains parameters relating to the idle mode mobility configuration for inter-freq re-selection scenario .

Parameter	W	Type	Default	Description
ColocatedForceRedirect	-	boolean	-	Enable or disable forced redirection to co-located inter-frequecy cell.
CarrierListEnable	-	enum	-	Indicates whether or not all carriers defined in the inter-freq carrier list are enabled. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
CarrierNumberOfEntries	-	unsignedInt	-	Number of carriers defined in the inter-freq carrier list.

LTECell.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.InterFreq.Carrier.{i}.

This object contains parameters relating to the carrier information for inter-freq re-selection scenario (see [3GPP-TS.32.592] Section 6.1.5.1.3).

Parameter	W	Type	Default	Description
Enable	-	boolean	-	Enable or disable *Carrier*.
EUTRACarrierARFCN	-	unsignedInt	-	E-UTRA Absolute Radio Frequency Channel Number of this entry.
QRxLevMinSIB5	-	int	-	RSRP threshold for candidate intra-frequency cells on this carrier.
QOffsetFreq	-	int	-	Bias against reselection to an inter-frequency neighbor cell on this carrier.
TReselectionEUTRA	-	unsignedInt	-	Time interval in seconds in which criteria must stay fulfilled for a UE to trigger a cell reselection.
CellReselectionPriority	-	unsignedInt	-	Absolute priority of this E-UTRA frequency carrier.
ThreshXHigh	-	unsignedInt	-	Threshold used when this E-UTRAN frequency is higher priority than the serving cell. ThreshXHigh alone determines reselection. Specified in seconds, the value of (*ThreshXHigh* * 2) yields the actual value.
ThreshXLow	-	unsignedInt	-	Threshold used when this E-UTRAN frequency is lower priority than the serving cell. *ThreshXLow* along with *FAPService.{i}.CellConfig.LTE.RAN.Mobility.IdleMode.IntraFreq.ThreshServingLow* determines reselection. Specified in seconds, the value of (*ThreshXLow* * 2) yields the actual value.
PMax	-	int	-	Expected maximum power of UEs camping on any cell on this carrier.

LTECell.{i}.CellConfig.LTE.RAN.Mobility.ConnMode.

This object contains parameters relating to the UE's mobility while it is in connected mode (handover). Parameters under this object determines the content in the SIB (System Information Block) that is broadcast by LTE .

Parameter	W	Type	Default	Description

LTECell.{i}.CellConfig.LTE.RAN.Mobility.ConnMode.EUTRA.

This object contains parameters relating to the connected mode mobility (handover) configuration within LTE system (see [3GPP-TS.32.592] Section 6.1.5.2.1).

Parameter	W	Type	Default	Description
A1ThresholdRSRP	-	int	-	*A1ThresholdRSRP* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *A1ThresholdRSRP* should not be changed from its default value.
A1ThresholdRSRQ	-	int	-	*A1ThresholdRSRQ* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *A1ThresholdRSRQ* should not be changed from its default value.
A2ThresholdRSRP	-	int	-	*A2ThresholdRSRP* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *A2ThresholdRSRP* should not be changed from its default value.
A2ThresholdRSRQ	-	int	-	*A2ThresholdRSRQ* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *A2ThresholdRSRQ* should not be changed from its default value.
A3Offset	-	int	-	*A3Offset* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *A3Offset* should not be changed from its default value.
A5Threshold1RSRP	-	int	-	*A5Threshold1RSRP* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *A5Threshold1RSRP* should not be changed from its default value.
A5Threshold2RSRP	-	int	-	*A5Threshold2RSRP* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *A5Threshold2RSRP* should not be changed from its default value.
TimeToTrigger	-	int	-	*TimeToTrigger* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *TimeToTrigger* should not be changed from its default value.
TimeToTriggerExternal	-	int	-	*TimeToTriggerExternal* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *TimeToTriggerExternal* should not be changed from its default value.
IntrafreqHandOutEnabled	-	enum	-	*IntrafreqHandOutEnabled* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *IntrafreqHandOutEnabled* should not be changed from its default value. Enumeration of:

				• *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)

InterfreqHandOutEnabled	-	enum	-	*InterfreqHandOutEnabled* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *InterfreqHandOutEnabled* should not be changed from its default value. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
HandInEnabled	-	enum	-	*HandInEnabled* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *HandInEnabled* should not be changed from its default value. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
ANREnabled	-	enum	-	*ANREnabled* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *ANREnabled* should not be changed from its default value. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
PeriodicReportingEnabled	-	enum	-	*PeriodicReportingEnabled* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *PeriodicReportingEnabled* should not be changed from its default value. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.) • *Invalid* (Invalid value of tri-state.)
X1InterfreqHandoverEnabled	-	enum	-	*X1InterfreqHandoverEnabled* is for internal use and should only be modified by qualified support personnel. In most deployment scenarios, *X1InterfreqHandoverEnabled* should not be changed from its default value. Enumeration of: • *False* (False value of tri-state.) • *True* (True value of tri-state.)

				• *Invalid* (Invalid value of tri-state.)

LTECell.{i}.CellConfig.LTE.RAN.NeighborListInUse.

This object contains parameters relating to the neighbor list used by the FAP based on its self-configuration capability and *.CellConfig.LTE.RAN.NeighborList.* configuration of adding and excluding cells.

Parameter	W	Type	Default	Description
LTECellNumberOfEntries	-	unsignedInt	-	{{numentries}}

LTECell.{i}.CellConfig.LTE.RAN.NeighborListInUse.LTECell.{i}.

Table containing the LTE EUTRA (i.e. intra-RAT) cell list.

Parameter	W	Type	Default	Description
PLMNID	-	string(6)	-	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
CID	-	unsignedInt[1:268435455]	-	Cell Identity. [3GPP-TS.36.331] Section 6.3.4. Combination of *PLMNID* and *CID* constitutes the Cell Global ID (CGI).
EUTRACarrierARFCN	-	unsignedInt[0:65535]	-	Indicates the ARFCN of this carrier frequency. Corresponds to parameter dl-CarrierFreq in SIB5 in [3GPP-TS.36.331] Section 6.3.1, and and parameter NDL in [3GPP-TS.36.101] Section 5.7.3. If the value of *EUTRACarrierARFCN* is the same with the one currently being used by the, then it implies that this neighbor cell is an intra-frequency cell; otherwise, it is an inter-frequency cell.
PhyCellID	-	unsignedInt[0:503]	-	Physical cell ID, as specified in [3GPP-TS.36.211] Section 6.11.
QOffset	-	int[ranges]	-	Indicate a cell-specific offset applicable to a specific neighbouring cell. It is used for evaluating the cell as a candidate for cell re-selection in idle mode. Corresponds to parameter q-OffsetCell broadcast in SIB4 for intra-frequency cells and in SIB5 for inter-frequency cells, specified in [3GPP-TS.36.331] Section 6.3.1. Possible values: • *-24 to -8* • *-6 to 6* • *8 to 24*

CIO	-	int[ranges]	-	Cell individual offset applicable to a specific neighbouring cell. It is used for evaluating triggering conditions for measurement reporting in connected mode. Specified by cellIndividualOffset in MeasObjectEUTRA IE in [3GPP-TS.36.331] Section 6.3.5. Possible values: • *-24 to -8* • *-6 to 6* • *8 to 24*
RSTxPower	-	int[-60:50]	-	The downlink reference-signal transmit power, specified in *dBm*. Defined as the linear average over the power contributions (in W) of all resource elements that carry cell-specific reference signals within the operating system bandwidth. Corresponds to parameter referenceSignalPower in SIB4 as a part of PDSCH-Config IE in [3GPP-TS.36.331] Section 6.3.2.
Blacklisted	-	boolean	-	Indicates whether this neighbor cell is allowed for UEs as handover target or not. If *true*, handover is prohibited towards this cell. If *false*, handover is allowed toward this cell. The *Blacklisted* parameter allows this cell to be prohibited as a handover target, while still allowing this cell to be included in the BCCH SIB4 or 5.
SecondaryPLMNs	-	string(6){5}	-	Secondary PLMNs of this entry. Each item is a PLMN ID. PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *SecondaryPLMNs* is 5. Array of *string* items (maximum number of items 5).
TAC	-	unsignedInt[0:65535]	-	*TAC* displays the Tracking Area Code of the current entry.
Tier	-	unsignedInt	-	The tier of the neighbor indicates the degree of neighbor relationship of this neighbor with *InternetGatewayDevice.Services.LTECell.{i}*. All neighbors that were detected by *InternetGatewayDevice.Services.LTECell.{i}* during REM scan or manually provisioned to be neighbors of all cells, will have a tier value of 1. All neighbor entries in this list that are derived from tier 1 neighbors of *InternetGatewayDevice.Services.LTECell.{i}* will have a tier value of 2 and so on.
RSRP	-	int[ranges]	-	For tier 1 neighbors, this indicates the signal strength of this neighbor detected during REM Scan or configured during manual provisioning of this neighbor. For other tier neighbors, this value is not defined. Possible values: • *-140 to -44* • *0*
DLBandwidth	-	unsignedInt[ranges]	-	Downlink transmission bandwidth, specified in number of Resource Blocks. Valid values are 6, 15, 25, 50, 75, and 100 RBs for 1.4, 3, 5, 10, 15, and 20 MHz, respectively. Possible values: • *6*

				• *15* • *25* • *50* • *75* • *100*
ULBandwidth	-	unsignedInt[ranges]	-	Uplink transmission bandwidth, specified in number of Resource Blocks. Valid values are 6, 15, 25, 50, 75, and 100 RBs for 1.4, 3, 5, 10, 15, and 20 MHz, respectively. Possible values: • *6* • *15* • *25* • *50* • *75* • *100*
MustExclude	-	boolean	false	If true, then the neighbor will not be considered for the purpose of cell reselection.
ConfusingPhyCellID	-	boolean	false	If true, then the neighbor will be considered as a cell creating Physical Cell ID ambiguity for the purposes of cell reselection and measurement reporting.

LTECell.{i}.CellConfig.LTE.RAN.NeighborListInUse.LTECell.{i}.CoverageStats.

Stats used for TX power adjustments.

Parameter	W	Type	Default	Description
A2Events	-	unsignedInt	-	Number of A2 events.
BleedOutEvents	-	unsignedInt	-	Number of detected bleed out events.
CoverageHoleEvents	-	unsignedInt	-	Number of detected coverage hole events.
RRCReestablishments	-	unsignedInt	-	Number of RRC Reestablishment requests.
HandOverAttempts	-	unsignedInt	-	Number of handover attempts.

LTECell.{i}.CellConfig.LTE.RAN.NeighborListInUse.InterRATCell.

Table containing the inter-RAT cell lists separated by technology. [3GPP-TS.36.331] Section 6.3.1 (SIB6, 7, 8).

Parameter	W	Type	Default	Description
UMTSNumberOfEntries	-	unsignedInt	-	{{numentries}}
GSMNumberOfEntries	-	unsignedInt	-	{{numentries}}

LTECell.{i}.CellConfig.LTE.RAN.NeighborListInUse.InterRATCell.UMTS.{i}.

Table containing the inter-RAT cell list for UTRA (UMTS) cell.

Parameter	W	Type	Default	Description
PLMNID	-	string(6)	-	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
RNCID	-	unsignedInt[0:65535]	-	RNC-ID of an intra-RAT UMTS neighbor cell. It uniquely identifies an RNC within a PLMN. Normally, RNC-ID consists of 12 bits (i.e. a range of [0:4095]). However, if the value is larger than 4095, then Extended RNC-ID (range of [4096:65535]) is used in RANAP. The RNC-ID and Extended RNC-ID are combined into a single parameter here as there is no explicit need to have them separated. [3GPP-TS.25.413] Section 9.2.1.39
CID	-	unsignedInt[1:65535]	-	Cell Identifier (C-id) that identifies a cell within an RNS. This Cell Identifier together with the controlling RNC (RNC-ID) constitutes the UTRAN Cell ID (UC-ID) and is used to identify a cell uniquely within UTRAN. C-ID is either 12-bit or 16-bit value. [3GPP-TS.25.401] Section 6.1.5.
LAC	-	unsignedInt[0:65535]	-	Location Area Code (LAC). The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the Location Area ID (LAI). [3GPP-TS.23.003] Section 4.1 [3GPP-TS.25.413] Section 9.2.3.6
RAC	-	unsignedInt[0:255]	-	Routing Area Code (RAC). The concatenation of PLMN ID (MCC+MNC), LAC, and RAC uniquely identifies the Routing Area ID (RAI). [3GPP-TS.23.003] Section 4.2 [3GPP-TS.25.413] Section 9.2.3.7
URA	-	unsignedInt[0:65535]	-	UTRAN Registration Area (URA) [3GPP-TS.23.401]. Indicates to the UE which *URA* it shall use in case of overlapping URAs. [3GPP-TS.25.331] Section 10.3.2.6
UARFCNUL	-	unsignedInt[0:16383]	-	The UL UTRA Absolute Radio Frequency Channel Number (UARFCN) in an FDD mode cell. [3GPP-TS.25.433]
UARFCNDL	-	unsignedInt[0:16383]	-	The DL UTRA Absolute Radio Frequency Channel Number (UARFCN) in an FDD mode cell. [3GPP-TS.25.433]
PCPICHScramblingCode	-	unsignedInt[0:511]	-	Primary CPICH scrambling code.

PCPICHTxPower	-	int[-100:500]	-	Primary CPICH Tx power in *dBm*. Actual values of the power are -10.0 *dBm* to 50.0 *dBm* in steps of 0.1 dB. The value of *PCPICHTxPower* divided by 10 yields the actual value of the power. [3GPP-TS.32.642] Section 6.3.11 [3GPP-TS.25.433] Section 2.2.33
Tier	-	unsignedInt	-	The tier of the neighbor indicates the degree of neighbor relationship of this neighbor with *InternetGatewayDevice.Services.LTECell.{i}*. All neighbors that were detected by *InternetGatewayDevice.Services.LTECell.{i}* during REM scan or manually provisioned to be neighbors of all cells, will have a tier value of 1. All neighbor entries in this list that are derived from tier 1 neighbors of *InternetGatewayDevice.Services.LTECell.{i}* will have a tier value of 2 and so on.
CPICHRSCP	-	int[ranges]	-	For tier 1 neighbors, this indicates the signal strength of this neighbor detected during REM Scan or configured during manual provisioning of this neighbor. For other tier neighbors, this value is not defined. Possible values: • *-120 to -25* • *0*

LTECell.{i}.CellConfig.LTE.RAN.NeighborListInUse.InterRATCell.GSM.{i}.

Table containing the inter-RAT cell list for GERAN (GSM) cell.

Parameter	W	Type	Default	Description
PLMNID	-	string(6)	-	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
LAC	-	unsignedInt[0:65535]	-	Location Area Code (LAC). The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the Location Area ID (LAI). [3GPP-TS.23.003] Section 4.1 [3GPP-TS.25.413] Section 9.2.3.6
BSIC	-	unsignedInt[0:255]	-	BSIC of the cell per [3GPP-TS.23.003], consisting of: • Bit 7:6 - not used ("00") • Bit 5:3 - NCC (PLMN Color Code) • Bit 2:0 - BCC (BS color code) For example, if NCC is 7 and BCC is 2 you would have 00111010 (binary) or 0x3A (hex), and the value of this parameter would be 58.
CI	-	unsignedInt[0:65535]	-	Cell ID of the cell per [3GPP-TS.23.003] Section 4.3.1.
BandIndicator	-	enum	<Empty>	Indicates how to interpret the BCCH ARFCN. Enumeration of:

				• *GSM 850* • *GSM 900* • *DCS 1800* • *PCS 1900*
BCCHARFCN	-	unsignedInt[0:1023]	-	ARFCN of this cell.
Tier	-	unsignedInt	-	The tier of the neighbor indicates the degree of neighbor relationship of this neighbor with *InternetGatewayDevice.Services.LTECell.{i}*. All neighbors that were detected by *InternetGatewayDevice.Services.LTECell.{i}* during REM scan or manually provisioned to be neighbors of all cells, will have a tier value of 1. All neighbor entries in this list that are derived from tier 1 neighbors of *InternetGatewayDevice.Services.LTECell.{i}* will have a tier value of 2 and so on.
RSSI	-	int	-	For tier 1 neighbors, this indicates the signal strength of this neighbor detected during REM Scan or configured during manual provisioning of this neighbor. For other tier neighbors, this value is not defined.

LTECell.{i}.CellConfig.LTE.RAN.CoverageStats.

Stats which are not related to any neighborship used for TX power adjustments.

Parameter	W	Type	Default	Description
A2Events	-	unsignedInt	-	Number of A2 events.
RRCReestablishments	-	unsignedInt	-	Number of RRC Reestablishment requests.
BleedOutEvents	-	unsignedInt	-	Number of detected bleed out events.
CoverageHoleEvents	-	unsignedInt	-	Number of detected coverage hole events.
HandOverAttempts	-	unsignedInt	-	Number of handover attempts.

LTECell.{i}.CellConfig.LTE.RAN.AutomaticNeighborRelationsList.

Displays information about the ANR LTE neighbors of the given internal LTE cell.

Parameter	W	Type	Default	Description
LTECellNumberOfEntries	-	unsignedInt	-	*LTECellNumberOfEntries* displays the number of ANR LTE neighbors of the given internal LTE cell.

LTECell.{i}.CellConfig.LTE.RAN.AutomaticNeighborRelationsList.LTECell.{i}.

Displays information about the given ANR LTE neighbor of the given internal LTE cell.

Parameter	W	Type	Default	Description
PLMNID	-	string	-	*PLMNID* displays the PLMN ID of the ANR LTE neighbor.
SecondaryPLMNs	-	string(6){5}	-	*SecondaryPLMNs* Secondary PLMNs of the ANR LTE neighbor. Each item is a PLMN ID. PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *SecondaryPLMNs* is 5. Array of *string* items (maximum number of items 5).
CID	-	unsignedInt[1:268435455]	-	*CID* displays the Cell ID of the ANR LTE neighbor.
PhyCellID	-	unsignedInt[0:503]	-	*PhyCellID* displays the Physical Cell ID of the ANR LTE neighbor.
EUTRACarrierARFCN	-	unsignedInt[0:65535]	-	*EUTRACarrierARFCN* displays the EARFCN of the ANR LTE neighbor.
DLBandwidth	-	unsignedInt[ranges]	-	*DLBandwidth* displays an upper bound on the DLBandwidth, specified in number of Resource Blocks. Valid values are 6, 15, 25, 50, 75, and 100 RBs for 1.4, 3, 5, 10, 15, and 20 MHz, respectively. Possible values: • *6* • *15* • *25* • *50* • *75* • *100*
TAC	-	unsignedInt[0:65535]	-	*TAC* displays the TAC of the ANR LTE neighbor.
RSRP	-	int[ranges]	-	*RSRP* displays a lower bound on the RSRP of the ANR LTE neighbor. Possible values: • *-140 to -44* • *0*
Stale	-	boolean	false	The Boolean *Stale* indicates whether or not the neighborship is stale.

LTECell.{i}.REM.

This object contains parameters relating to REM (Radio Environment Measurement).

Parameter	W	Type	Default	Description

LTECell.{i}.REM.WCDMAFDD.

This object contains parameters relating to radio environment measurement capabilities for the LTE system.

Parameter	W	Type	Default	Description
CellNumberOfEntries	-	unsignedInt	-	The number entries in the *.REM.WCDMAFDD.Cell.{i}.* table..

LTECell.{i}.REM.WCDMAFDD.Cell.{i}.

Table indicating the components of the discovered cells.

Parameter	W	Type	Default	Description
ZoneId	-	unsignedInt	-	Index of the Zone in which *LTECell.{i}.REM.WCDMAFDD.Cell.{i}.* was discovered by *Cell.{i}.*

LTECell.{i}.REM.WCDMAFDD.Cell.{i}.RF.

Table indicating the RF aspect of the discovered cells.

Parameter	W	Type	Default	Description
UARFCNDL	-	unsignedInt[0:16383]	-	The UTRA Absolute Radio Frequency Channel Number (UARFCN) in the DL direction of an FDD mode cell. [3GPP-TS.25.433]
CPICHRSCP	-	int[-120:-25]	-	Received signal level in *dBm* of the CPICH channel. (Ref. 3GPP TS 25.133)
PrimaryScramblingCode	-	unsignedInt[0:511]	-	Primary scrambling code.

LTECell.{i}.REM.WCDMAFDD.Cell.{i}.BCCH.

Table containing the system information broadcast in the BCCH logical channel.

Parameter	W	Type	Default	Description

PLMNID	-	string(6)	-	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.
LAC	-	unsignedInt[0:65535]	-	Location Area Code (LAC) as defined in SIB 1 [3GPP-TS.25.331]. The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the LAI (Location Area ID) [3GPP-TS.23.003].
RAC	-	unsignedInt[0:255]	-	Routing Area Code (RAC) as defined in SIB 1 [3GPP-TS.25.331]. The concatenation of PLMN ID (MCC+MNC), LAC, and RAC uniquely identifies the RAI (Routing Area ID) [3GPP-TS.23.003].
CellID	-	unsignedInt[268435455]	-	Cell Identity (UC-Id) as defined in SIB3 [3GPP-TS.25.331] Section10.3.2.2. [3GPP-TS.24.008]
PCPICHTxPower	-	int[-10:50]	-	Primary Common Pilot Channel (CPICH) power level on SIB 5/6 [3GPP-TS.25.331] Section10.3.6.55.
SIBListNumberOfEntries	-	unsignedInt[0:65535]	-	Actual number of SIB entries broadcast by the scanned cell and scanned by REM.

LTECell.{i}.REM.WCDMAFDD.Cell.{i}.BCCH.SIBList.{i}.

Actual list of SIB entries broadcast by the scanned cell and scanned by REM.

Parameter	W	Type	Default	Description
RawData	-	string	-	Scanned SIB Raw data of the neighbor.
RawDataLen	-	unsignedInt[0:65535]	-	Scanned SIB data length of the neighbor.
FormattedTextNumEntries	-	unsignedInt[0:65535]	-	Number of decoded SIB parameters.

LTECell.{i}.REM.WCDMAFDD.Cell.{i}.BCCH.SIBList.{i}.FormattedText.{i}.

Parameter value for decoded sib.

Parameter	W	Type	Default	Description
Text	-	string	-	Parameter value for decoded sib.

LTECell.{i}.REM.GSM.

This object contains parameters relating to GSM REM capabilities.

Parameter	W	Type	Default	Description
CellNumberOfEntries	-	unsignedInt	-	The number of entries in the *.REM.GSM.Cell.{i}.* table.

LTECell.{i}.REM.GSM.Cell.{i}.

Table indicating the components of the discovered cells.

Parameter	W	Type	Default	Description
BandIndicator	-	enum	-	Indicates how to interpret the BCCH ARFCN. Enumeration of: • *GSM 850* • *GSM 900* • *DCS 1800* • *PCS 1900*
ARFCN	-	unsignedInt[0:1023]	-	Absolute Radio Frequency Channel Number (ARFCN) [3GPP-TS.05.05].
BSIC	-	unsignedInt[0:63]	-	Base Station Identity Code [3GPP-TS.03.03].
PLMNID	-	string(6)	-	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of the PLMNID is 5.
LAC	-	unsignedInt[1:65535]	-	Location Area Code (LAC) as defined in SIB1 [3GPP-TS.25.331]. The concatenation of PLMN ID (MCC+MNC) and LAC uniquely identifies the LAI (Location Area ID) [3GPP-TS.23.003].
RAC	-	unsignedInt[255]	-	Routing Area Code (RAC) consists of up to 3 numerical characters. The concatenation of PLMN ID (MCC+MNC), LAC, and RAC uniquely identifies the Routing Area ID (RAI). [3GPP-TS.23.003] Section 4.2 [3GPP-TS.25.413] Section 9.2.3.7
CI	-	unsignedInt[63999]	-	Cell Identity. [3GPP-TS.25.331] Section 10.3.2.2
RSSI	-	int[-110:48]	-	Received signal level in *dBm* of the BCCH carrier.
ZoneId	-	unsignedInt	-	Index of the Zone in which *LTECell.{i}.REM.GSM.Cell.{i}.* was discovered by *Cell.{i}.*

LTECell.{i}.REM.LTE.

This object contains parameters relating to radio environment measurement capabilities for the LTE system.

Parameter	W	Type	Default	Description
CellNumberOfEntries	-	unsignedInt	-	{{numentries}}

LTECell.{i}.REM.LTE.Cell.{i}.

Table indicating the components of the discovered cells.

Parameter	W	Type	Default	Description
ZoneId	-	unsignedInt	-	Index of the Zone in which *Cell.{i}.REM.LTE.Cell.{i}.* was discovered by *Cell.{i}.*

LTECell.{i}.REM.LTE.Cell.{i}.RF.

Table indicating the RF aspect of the discovered cells.

Parameter	W	Type	Default	Description
EUTRACarrierARFCN	-	unsignedInt[0:65535]	-	Indicates the ARFCN of this carrier frequency. Corresponds to parameter dl-CarrierFreq in SIB5 in [3GPP-TS.36.331] Section 6.3.1, and parameter NDL in [3GPP-TS.36.101] Section 5.7.3.
PhyCellID	-	unsignedInt[0:503]	-	Physical cell ID of the detected EUTRAN cell, as specified in [3GPP-TS.36.101] Section 5.6.
RSRP	-	int[-140:-44]	-	Received RSRP level of the detected EUTRA cell, specified in *dBm*, as specified in [3GPP-TS.36.214] Section 5.1.1. The reporting range is specified in [3GPP-TS.36.133] Section 9.1.4.
Stale	-	boolean	false	The Boolean *Stale* indicates whether or not the neighborship is stale.

LTECell.{i}.REM.LTE.Cell.{i}.BCCH.

Table containing the system information broadcast in the BCCH logical channel.

Parameter	W	Type	Default	Description
DLBandwidth	-	unsignedInt[ranges]	-	Bandwidth used for DL transmissions by the scanned cell, specified in number of Resource Blocks. Valid values are 6, 15, 25, 50, 75, and 100 RBs for 1.4, 3, 5, 10, 15, and 20 MHz, respectively. Possible values: • *6*

				• *15* • *25* • *50* • *75* • *100*
ULBandwidth	-	unsignedInt[ranges]	-	Bandwidth used for UL transmissions by UEs on the scanned cell, specified in number of Resource Blocks. Valid values are 6, 15, 25, 50, 75, and 100 RBs for 1.4, 3, 5, 10, 15, and 20 MHz, respectively. Possible values: • *6* • *15* • *25* • *50* • *75* • *100*
RSTxPower	-	int[-60:50]	-	The downlink reference-signal transmit power, specified in *dBm*. Defined as the linear average over the power contributions (in W) of all resource elements that carry cell-specific reference signals within the operating system bandwidth. Corresponds to parameter referenceSignalPower in SIB4 as a part of PDSCH-Config IE in [3GPP-TS.36.331] Section 6.3.2.
TAC	-	unsignedInt[65535]	-	Tracking Area Code that is common for all the PLMNs listed. Corresponds to trackingAreaCode as specified in SIB1 in [3GPP-TS.36.331] Section 6.2.2.
CellID	-	unsignedInt[268435455]	-	Cell Identity of the sanned cell. Cell Identity is used to uniquely identify the cell in the PLMN. [3GPP-TS.36.331] Section6.3.4.
MaxPLMNListEntries	-	unsignedInt	-	The maximum number of entries available in the *.REM.LTE.Cell.{i}.BCCH.PLMNList.{i}.* table.
PLMNListNumberOfEntries	-	unsignedInt	-	Actual number of PLMN entries broadcast by the scanned cell and scanned by REM. If the scanned cell broadcasts more PLMNs than *MaxPLMNListEntries*, only the first *MaxPLMNListEntries* PLMN entries are reported.
RootSequence	-	unsignedInt[0:837]	-	Root Sequence of the cell detected during REM scan. The *RootSequence* is extracted from SIB 2 decode.
ZeroCorrelationZoneConfig	-	unsignedInt[0:15]	-	Zero Correlation Zone Config of the LTECell detected during REM scan. The *ZeroCorrelationZoneConfig* is extracted from SIB 2 decode.
PrachCfgIndex	-	unsignedInt[0:63]	-	PRACH Configuration Index of the cell detected during REM scan. The *PrachCfgIndex* is extracted from SIB 2 decode.
SIBListNumberOfEntries	-	unsignedInt[0:65535]	-	Actual number of SIB entries broadcast by the scanned cell and scanned by REM.

LTECell.{i}.REM.LTE.Cell.{i}.BCCH.PLMNList.{i}.

Table containing the PLMN list in the system information broadcast in the BCCH logical channel. Correspnds to plmn-IdentityList as specified in SIB1 in [3GPP-TS.36.331] Section 6.2.2. Each instance in this object is a PLMN-IdentityInfo which consists of plmn-Identity and cellReservedForOperatorUse IEs.

Parameter	W	Type	Default	Description
PLMNID	-	string(6)	-	PLMN ID consists of Mobile Country Code (MCC) and Mobile Network Code (MNC) [3GPP-TS.23.003], [3GPP-TS.24.008]. Mobile Country Code consists of three digits and uniquely identifies the country of domicile of the subscriber. Mobile Network Code consists of two or three digits and identifies the Home PLMN within a country. For a 2-digit MNC the total string length of *PLMNID* is 5.

LTECell.{i}.REM.LTE.Cell.{i}.BCCH.SIBList.{i}.

Actual list of SIB entries broadcast by the scanned cell and scanned by REM.

Parameter	W	Type	Default	Description
RawData	-	string	-	Scanned SIB Raw data of the neighbor.
RawDataLen	-	unsignedInt[0:65535]	-	Scanned SIB data length of the neighbor.
FormattedTextNumEntries	-	unsignedInt[0:65535]	-	Number of decoded SIB parameters.

LTECell.{i}.REM.LTE.Cell.{i}.BCCH.SIBList.{i}.FormattedText.{i}.

Parameter value for decoded sib.

Parameter	W	Type	Default	Description
Text	-	string	-	Parameter value for decoded sib.

LTECell.{i}.ZoneMembership.

Specifies the LTECell's Zone memberships.

Parameter	W	Type	Default	Description
SONConfigAndScanZone	-	unsignedInt{}	<Empty>	The indices of all *FAPService.{i}.X_002448_LTE.Zone.{i}.* which serve as SONConfigAndScan Zones for this LTECell. Array of *unsignedInt* items.
SONScanZones	-	unsignedInt{}	<Empty>	The indices of all *FAPService.{i}.X_002448_LTE.Zone.{i}.* which serve as SONScan Zones for this LTECell.

				Array of *unsignedInt* items.
NMCProvisionedZones	-	unsignedInt{}	<Empty>	The indices of all Zones in which an LTECell was provisioned by NMC. Array of *unsignedInt* items.
NMCProvisioningZones	-	unsignedInt{}	<Empty>	The indices of all Zones in which NMC is provisioning an LTECell. Array of *unsignedInt* items.
NMCFaultedZones	-	unsignedInt{}	<Empty>	The indices of all Zones in which an LTECell was faulted by NMC. Array of *unsignedInt* items.

LTECell.{i}.LTE.

Parameters relating to LTE cell

Note: These parameters are counted once per event and are not based on the number of cells

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.CurrentStatus.

Parameters relating to the current status of the cell.

Parameter	W	Type	Default	Description
NumActiveRadiolinks	-	unsignedInt	-	Number of active radiolinks on the cell.
NumRRCUsersWithDRB	-	unsignedInt	-	Number of RRC connected users with at least one DRB.
NumVoLTESessions	-	unsignedInt	-	Number of sessions with QCI-1 ERAB.
NumBearersPerQCI	-	unsignedInt{10}	-	Number of simultaneous inital and additional bearers per QCI. Array of *unsignedInt* items (maximum number of items 10).
NumSCellProvisionedSessions	-	unsignedInt	-	Number of sessions which use the colocated LTE cell as a provisioned, though not enabled, SCell.
NumSCellEnabledSessions	-	unsignedInt	-	Number of sessions which use the colocated LTE cell as an enabled SCell.

LTECell.{i}.LTE.RRC.

Parameters relating to LTE RRC messages sent and received by the cell

Note: These parameters are counted once per event and are not based on the number of cells

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	Number of unknown RRC message type received from the UEs.
CounterCheck	-	unsignedInt	-	Number of Counter check messages sent to the UEs.
CounterCheckResponse	-	unsignedInt	-	Number of Counter check responses messages received from the UEs.
CSFBParametersRequestCDMA2000	-	unsignedInt	-	Number of CSFB parameters request CDMA 2000 messages received from the UEs.
CSFBParametersResponseCDMA2000	-	unsignedInt	-	Number of CSFB parameters response CDMA 2000 messages sent to the UEs.
DLInformationTransfer	-	unsignedInt	-	Number of DL information transfer messages sent to the UEs.
HandoverFromEUTRAPreparationRequest	-	unsignedInt	-	Number of Handover from EUTRA preparation request messages sent to the UEs.
InterFreqRSTDMeasurementIndication	-	unsignedInt	-	Number of Inter freq RSTD measurement indication messages received from the UEs.
LoggedMeasurementConfiguration	-	unsignedInt	-	Number of Logged measurement configuration messages sent to the UEs.
MeasurementReport	-	unsignedInt	-	Number of Measurement report messages received from the UEs.
MobilityFromEUTRACommand	-	unsignedInt	-	Number of Mobility from EUTRA command messages sent to the UEs.
Paging	-	unsignedInt	-	Number of Paging messages sent to the UEs.
ProximityIndication	-	unsignedInt	-	Number of Proximity indication messages received from the UEs.
RNReconfiguration	-	unsignedInt	-	Number of RN reconfiguration messages sent to the UEs.
RNReconfigurationComplete	-	unsignedInt	-	Number of RN reconfiguration complete messages received from the UEs.
RRCConnectionReconfiguration	-	unsignedInt	-	Number of RRC connection reconfiguration messages sent to the UEs.
RRCConnectionReconfigurationComplete	-	unsignedInt	-	Number of RRC connection reconfiguration complete messages received from the UEs.
RRCConnectionReestablishment	-	unsignedInt	-	Number of RRC connection reestablishment messages sent to the UEs.
RRCConnectionReestablishmentComplete	-	unsignedInt	-	Number of RRC connection reestablishment complete messages received from the UEs.
RRCConnectionReestablishmentReject	-	unsignedInt	-	Number of RRC connection reestablishment reject messages received from the UEs.

RRCConnectionReestablishmentRequest	-	unsignedInt	-	Number of RRC connection reestablishment request messages received from the UEs.
SecurityModeCommand	-	unsignedInt	-	Number of Security mode command messages sent to the UEs.
SecurityModeComplete	-	unsignedInt	-	Number of Security mode complete messages received from the UEs.
SecurityModeFailure	-	unsignedInt	-	Number of Security mode failure messages received from the UEs.
UECapabilityEnquiry	-	unsignedInt	-	Number of UE capability enquiry messages sent to the UEs.
UECapabilityInformation	-	unsignedInt	-	Number of UE capability information messages received from the UEs.
UEInformationRequest	-	unsignedInt	-	Number of UE information response messages sent to the UEs.
UEInformationResponse	-	unsignedInt	-	Number of UE information response messages received from the UEs.
ULHandoverPrepationTransfer	-	unsignedInt	-	Number of UL handover prepation Transfer messages received from the UEs.
ULInformationTransfer	-	unsignedInt	-	Number of UL information transfer messages received from the UEs.
RRCUsersWithDRBHist1	-	unsignedInt{128}	-	Histogram with total observed time (order of 10 milliseconds) for each user count (0 to 127). Array of *unsignedInt* items (maximum number of items 128).
RRCUsersWithDRBHist2	-	unsignedInt{128}	-	Histogram with total observed time (order of 10 milliseconds) for each user count (128 to 255). Array of *unsignedInt* items (maximum number of items 128).

LTECell.{i}.LTE.RRC.RRCConnectionRequest.

Parameters relating to RRC Connection Request messages received from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of RRC Connection Request messages received from UEs per the EstablishmentCause information element defined in TS 36.331. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	The total number of RRC Connection Request messages received from UEs.

LTECell.{i}.LTE.RRC.RRCConnectionSetup.

Parameters relating to RRC Connection Setup messages sent to UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of RRC Connection Setup messages sent to UEs per the EstablishmentCause information element defined in TS 36.331. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	The total number of RRC Connection Setup messages sent to UEs.

LTECell.{i}.LTE.RRC.RRCConnectionSetupComplete.

Parameters relating to RRC Connection Setup Complete messages received from UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of RRC Connection Setup Complete messages received from UEs per the associated EstablishmentCause defined in TS 36.331. Array of *unsignedInt* items (maximum number of items 8).
Sum	-	unsignedInt	-	The total number of RRC Connection Setup Complete messages received from UEs.

LTECell.{i}.LTE.RRC.RRCConnectionReject.

Parameters relating to RRC Connection Reject messages sent to UEs.

Parameter	W	Type	Default	Description
Cause	-	unsignedInt{8}	-	The number of RRC Connection Reject messages sent to UEs per the failure cause types defined in TS 32.425. Array of *unsignedInt* items (maximum number of items 8).
Congestion	-	unsignedInt	-	The number of RRC Connection Reject messages sent to UEs due to congestion at a radio node.
Unspecified	-	unsignedInt	-	The number of RRC Connection Reject messages sent to UEs due to an unspecified cause.
EnergySaving	-	unsignedInt	-	The number of RRC Connection Reject messages sent to UEs due to a radio node going to Energy Saving mode.
Sum	-	unsignedInt	-	The total number of RRC Connection Reject messages sent to UEs.

LTECell.{i}.LTE.RRC.RRCConnectionRelease.

Parameters relating to RRC Connection Release messages sent to UEs.

Parameter	W	Type	Default	Description
UMTSRedirectionForCSFB	-	unsignedInt	-	The number of RRC Connection Release messages sent with UMTS cell information for CS fallback.
GSMRedirectionForCSFB	-	unsignedInt	-	The number of RRC Connection Release messages sent with GSM cell information for CS fallback.
CDMA2000RedirectionForCSFB	-	unsignedInt	-	The number of RRC Connection Release messages sent with CDMA2000 cell information for CS fallback.
Sum	-	unsignedInt	-	The total number of RRC Connection Release messages sent to UEs.

LTECell.{i}.LTE.RRC.RRCConnectionReestabReject.

Parameters relating to RRC Connection Reestablishment Reject messages sent to UEs.

Parameter	W	Type	Default	Description
UnknownPCI	-	unsignedInt	-	Number of RRC Connection Reestablishment Reject messages sent to UEs due to an unknown PCI in the request

LTECell.{i}.LTE.S1AP.

Parameters relating to S1AP messages sent to the EPC or received from the EPC.

Parameter	W	Type	Default	Description
UnknownMessage	-	unsignedInt	-	The number of messages with unknown S1AP message type received from the EPC.
ERABModifyRequest	-	unsignedInt	-	The Number of ERAB Modify Request messages received from the EPC.
ERABModifyResponse	-	unsignedInt	-	The Number of ERAB Modify Response messages sent to the EPC.
ERABReleaseCommand	-	unsignedInt	-	The number of ERAB Release Command messages received from the EPC.
ERABReleaseResponse	-	unsignedInt	-	The number of ERAB Release Response messages sent to the EPC.
UEContextReleaseCommand	-	unsignedInt	-	The number of UE Context Release Command messages received from the EPC.
UEContextReleaseComplete	-	unsignedInt	-	The number of UE Context Release Complete messages sent to the EPC.
UEContextModificationFailure	-	unsignedInt	-	The number of UE Context Modification Failure messages sent to the EPC.

HandoverRequired	-	unsignedInt	-	The number of Handover Required messages sent to the EPC.
HandoverCommand	-	unsignedInt	-	The number of Handover Command messages received from the EPC.
HandoverPreparationFailure	-	unsignedInt	-	The number of Handover Preparation Failure messages received from the EPC.
HandoverRequest	-	unsignedInt	-	The number of Handover Request messages received from the EPC.
HandoverRequestAcknowledge	-	unsignedInt	-	The number of Handover Request Acknowledge messages sent to the EPC.
HandoverFailure	-	unsignedInt	-	The number of Handover Failure messages sent to the EPC.
HandoverNotify	-	unsignedInt	-	The number of Handover Notify messages sent to the EPC.
PathSwitchRequest	-	unsignedInt	-	The number of Path Switch Request messages sent to the EPC.
PathSwitchRequestAcknowledge	-	unsignedInt	-	The number of Path Switch Request Acknowledge messages received from the EPC.
PathSwitchRequestFailure	-	unsignedInt	-	The number of Path Switch Request Failure messages received from the EPC.
HandoverCancel	-	unsignedInt	-	The number of Handover Cancel messages sent to the EPC.
HandoverCancelAcknowlege	-	unsignedInt	-	The number of Handover Cancel Acknowledge messages received from the EPC.
ENBStatusTransfer	-	unsignedInt	-	The number of eNB Status Transfer messages sent to the EPC.
MMEStatusTransfer	-	unsignedInt	-	The number of MME Status Transfer messages received from the EPC.
InitialUEMessage	-	unsignedInt	-	The number of Initial UE Message messages sent to the EPC.
DownlinkNASTransport	-	unsignedInt	-	The number of Downlink NAS Transport messages received from the EPC.
UplinkNASTransport	-	unsignedInt	-	The number of Uplink NAS Transport messages sent to the EPC.
NASNonDeliveryIndication	-	unsignedInt	-	The number of NAS Non Delivery Indication messages sent to the EPC.
Reset	-	unsignedInt	-	The number of Reset messages sent to the EPC or received from the EPC.
ResetAcknowledge	-	unsignedInt	-	The number of Reset Acknowledge messages sent to the EPC or received from the EPC.
ErrorIndication	-	unsignedInt	-	The number of Error Indication messages sent to the EPC or received from the EPC.
S1SetupRequest	-	unsignedInt	-	The number of S1 Setup Request messages sent to the EPC.

S1SetupResponse	-	unsignedInt	-	The number of S1 Setup Response messages received from the EPC.
S1SetupFailure	-	unsignedInt	-	The number of S1 Setup Failure messages received from the EPC.
ENBConfigurationUpdate	-	unsignedInt	-	The number of ENB Configuration Update messages sent to the EPC.
ENBConfigurationUpdateAcknowledge	-	unsignedInt	-	The number of ENB Configuration Update Acknowledge messages received from the EPC.
ENBConfigurationUpdateFailure	-	unsignedInt	-	The number of ENB Configuration Update Failure messages received from the EPC.
MMEConfigurationUpdate	-	unsignedInt	-	The number of MME Configuration Update messages received from the EPC.
MMEConfigurationUpdateAcknowledge	-	unsignedInt	-	The number of MME Configuration Update Acknowledge messages sent to the EPC.
MMEConfigurationUpdateFailure	-	unsignedInt	-	The number of MME Configuration Update Failure messages sent to the EPC.
OverloadStart	-	unsignedInt	-	The number of Overload Start messges received from the EPC.
OverloadStop	-	unsignedInt	-	The number of Overload Stop messages received from the EPC.
DownlinkS1CDMA2000Tunneling	-	unsignedInt	-	The number of Downlink S1 CDMA 2000 Tunneling messages received from the EPC.
UplinkS1CDMA2000Tunneling	-	unsignedInt	-	The number of Uplink S1 CDMA 2000 Tunneling messages sent to the EPC.
UECapabilityInfoIndication	-	unsignedInt	-	The number of UE Capability Info Indication messages sent to the EPC.
TraceStart	-	unsignedInt	-	The number of Trace Start messages received from the EPC.
TraceFailureIndication	-	unsignedInt	-	The number of Trace Failure Indication messages sent to the EPC.
DeactivateTrace	-	unsignedInt	-	The number of Deactivate Trace messages from the EPC.
LocationReportingControl	-	unsignedInt	-	The number of Location Reporting Control messages received from the EPC.
LocationReportFailureIndication	-	unsignedInt	-	The number of Location Reporting Failure Indication messages sent to the EPC.
LocationReport	-	unsignedInt	-	The number of Location Report messages sent to the EPC.
WriteReplaceWarningRequest	-	unsignedInt	-	The number of Write Replace Warning Request messages from the EPC.
WriteReplaceWarningResponse	-	unsignedInt	-	The number of Write Replace Warning Response messages sent to the EPC.
KillRequest	-	unsignedInt	-	The number of Kill Request messages received from the EPC.

KillResponse	-	unsignedInt	-	The number of Kill Response messages sent to the EPC.
ENBDirectInformationTransfer	-	unsignedInt	-	The number of eNB Direct Information Transfer messages sent to the EPC.
MMEDirectInformationTransfer	-	unsignedInt	-	The number of MME Direct Information Transfer messages from the EPC.
ENBConfigurationTransfer	-	unsignedInt	-	The number of eNB Configuration Transfer messages sent to the EPC.
MMEConfigurationTransfer	-	unsignedInt	-	The number of MME Configuration Transfer messages received from the EPC.
CellTrafficTrace	-	unsignedInt	-	The number of Cell Traffic Trace messages sent to the EPC.
DownlinkUEAssociatedLPPATransport	-	unsignedInt	-	The number of Downlink UE associated LPPA Transport messages received from the EPC.
UplinkUEAssociatedLPPATransport	-	unsignedInt	-	The number of Uplink UE Associated LPPA Transport messages sent to the EPC.
DownlinkNonUEAssociatedLPPATransport	-	unsignedInt	-	The number of Downlink Non UE Associated LPPA Transport messages received from the EPC.
UplinkNonUEAssociatedLPPATransport	-	unsignedInt	-	The number of Uplink Non UE Associated LPPA Transport messages sent to the EPC.
S1SignalingConnectionEstablishmentSuccesses	-	unsignedInt	-	The number of successful S1AP signaling connections made by UEs. This counter is incremented on receipt of the first downlink S1AP message from the EPC for a UE session which previously sent an Initial UE Message. This first downlink S1AP message can be Initial Context Setup Request or a Downlink NAS Transport message containing any of the following NAS messages: UE Identity Request, Authentication Request, or Security Mode Command.
VoLTESessionsHist	-	unsignedInt{128}	-	Histogram with total observed time(order of 10 milliseconds) for each VoLTE session (QCI-1 ERAB) count. Array of *unsignedInt* items (maximum number of items 128).

LTECell.{i}.LTE.S1AP.InitialContextSetupRequest.

Parameters relating to Initial Context Setup Request messages received from the EPC.

Parameter	W	Type	Default	Description
CSFBRequest	-	unsignedInt	-	The number of Initial Context Setup Request messages received from the EPC that contain the CS Fallback Indicator information element.
Sum	-	unsignedInt	-	The total number of Initial Context Setup Request messages received from the EPC.

LTECell.{i}.LTE.S1AP.InitialContextSetupRequest.ERABSetupAtts.

Parameters relating to ERAB setup attempts due to receipt of Initial Context Setup Request messages from the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs which are attempted to be setup per QCI due to receipt of Initial Context Setup Request messages from the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs attempted to be setup due to receipt of Initial Context Setup Request messages from the EPC.

LTECell.{i}.LTE.S1AP.InitialContextSetupResponse.

Parameters relating to Initial Context Setup Response messages sent to the EPC.

Parameter	W	Type	Default	Description
CSFBResponse	-	unsignedInt	-	The number of Initial Context Setup Response messages sent to the EPC associated with UE Contexts setup that are subject to CS Fallback.
Sum	-	unsignedInt	-	The total number of Initial Context Setup Response messages sent to the EPC.

LTECell.{i}.LTE.S1AP.InitialContextSetupResponse.ERABSetupSuccess.

Parameters relating to ERABs which are successfully established as reported in the Initial Context Setup Response messages sent to the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs successfully established per QCI as reported in Initial Context Setup Response messages sent to the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).

Sum	-	unsignedInt	-	The total number of ERABs successfully established as reported in Initial Context Setup Response messages sent to the EPC.

LTECell.{i}.LTE.S1AP.InitialContextSetupResponse.ERABSetupFailed.

Parameters relating to ERABs which failed to be established as reported in Initial Context

Setup Response messages sent to the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs which failed to be established per QCI as reported in Initial Context Setup Response messages sent to the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs which failed to be established as reported in Initial Context Setup Response messages sent to the EPC.

LTECell.{i}.LTE.S1AP.InitialContextSetupFailure.

Parameters relating to Initial Context Setup Failure messages sent to the EPC.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of Initial Context Setup Failure messages sent to the EPC.

LTECell.{i}.LTE.S1AP.InitialContextSetupFailure.ERABSetupFailed.

Parameters relating to ERABs which failed to be established associated with sending an Initial Context

Setup Failure messages to the EPC.

Note: An Initial Context Setup Failure message is sent when all of the ERABs requested to be established by the

EPC fail to be established.

Parameter	W	Type	Default	Description

QCI	-	unsignedInt{10}	-	The number of ERABs which failed to be established per QCI as associated with sending an Initial Context Setup Failure message to the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs which failed to be established associated with sending an Initial Context Setup Failure message to the EPC.

LTECell.{i}.LTE.S1AP.ERABSetupRequest.

Parameters relating to ERAB Setup Request messages received from the EPC.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of ERAB Setup Request messages received from the EPC.

LTECell.{i}.LTE.S1AP.ERABSetupRequest.ERABSetupAtts.

Parameters relating to ERAB setup attempts due to receipt of ERAB Setup Request messages

from the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs which are attempted to be setup per QCI due to receipt of ERAB Setup Request messages from the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs attempted to be setup due to receipt of ERAB Setup Request messages from the EPC.

LTECell.{i}.LTE.S1AP.ERABSetupResponse.

Parameters relating to ERAB Setup Response messages sent to the EPC.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	The total number of ERAB Setup Response messages sent to the EPC.

LTECell.{i}.LTE.S1AP.ERABSetupResponse.ERABSetupSuccess.

Parameters relating to ERABs which are successfully established as reported in ERAB Setup

Response messages sent to the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs successfully established per QCI as reported in ERAB Setup Response messages sent to the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs successfully established as reported in ERAB Setup Response messages sent to the EPC.

LTECell.{i}.LTE.S1AP.ERABSetupResponse.ERABSetupFailed.

Parameters relating to ERABs which failed to be established associated with sending an ERAB

Setup Response message to the EPC.

Parameter	W	Type	Default	Description
QCI	-	unsignedInt{10}	-	The number of ERABs which failed to be established per QCI as associated with sending an ERAB Setup Response message to the EPC. The first nine elements of the array correspond to the QCI 1 to 9. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERABs which failed to be established associated with sending an ERAB Setup Response message to the EPC.

LTECell.{i}.LTE.S1AP.UEContextReleaseRequest.

Parameters relating to UE Context Release Request messages sent to the EPC.

Parameter	W	Type	Default	Description
NumERABsReleased	-	unsignedInt	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC.

NumERABsReleasedPerQCI	-	unsignedInt{10}	-	The number of ERABs released per QCI associated with sending a UE Context Release Request message to the EPC. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of UE Context Release Requests messages sent to the EPC.

LTECell.{i}.LTE.S1AP.UEContextReleaseRequest.RN.

Parameters relating to UE Context Release Request mesages sent to the EPC containing a

Radio Network Layer Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI1ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 1 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI2ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 2 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI3ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 3 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI4ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 4 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI5ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 5 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI6ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 6 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).

NumERABsWithQCI7ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 7 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI8ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 8 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI9ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 9 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI10ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI other than 1 to 9 released associated with sending a UE Context Release Request message to the EPC per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
Cause	-	unsignedInt{36}	-	The number of UE Context Release Request messages sent per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
Sum	-	unsignedInt	-	The total number of UE Context Release Request messages sent with one of the Radio Network Layer Cause types defined in TS 36.413.

LTECell.{i}.LTE.S1AP.UEContextReleaseRequest.TL.

Parameters relating to UE Context Release Request mesages sent to the EPC containing a

Tansport Layer Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{2}	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC per each Transport Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 2).
Cause	-	unsignedInt{2}	-	The number of UE Context Release Request messages sent per each Transport Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 2).
Sum	-	unsignedInt	-	The total number of UE Context Release Request messages sent with one of the

				Transport Layer Cause types defined in TS 36.413.

LTECell.{i}.LTE.S1AP.UEContextReleaseRequest.NAS.

Parameters relating to UE Context Release Request mesages sent to the EPC containing a

NAS Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{4}	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC per each NAS Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 4).
Cause	-	unsignedInt{4}	-	The number of UE Context Release Request messages sent per each NAS Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 4).
Sum	-	unsignedInt	-	The total number of UE Context Release Request messages sent with one of the NAS Cause types defined in TS 36.413.

LTECell.{i}.LTE.S1AP.UEContextReleaseRequest.Protocol.

Parameters relating to UE Context Release Request mesages sent to the EPC containing a

Protocol Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{7}	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC per each Protocol Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 7).
Cause	-	unsignedInt{7}	-	The number of UE Context Release Request messages sent per each Protocol Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 7).
Sum	-	unsignedInt	-	The total number of UE Context Release Request messages sent with one of the Protocol Cause types defined in TS 36.413.

LTECell.{i}.LTE.S1AP.UEContextReleaseRequest.Miscellaneous.

Parameters relating to UE Context Release Request mesages sent to the EPC containing a

Miscellaneous Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{6}	-	The number of ERABs released associated with sending a UE Context Release Request message to the EPC per each Miscellaneous Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 6).
Cause	-	unsignedInt{6}	-	The number of UE Context Release Request messages sent per each Miscellaneous Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 6).
Sum	-	unsignedInt	-	The total number of UE Context Release Request messages sent with one of the Miscellaneous Cause types defined in TS 36.413.

LTECell.{i}.LTE.S1AP.ERABReleaseIndication.

Parameters relating to ERAB Release Indication messages sent to the EPC.

Parameter	W	Type	Default	Description
NumERABsReleased	-	unsignedInt	-	The number of ERABs released as contained in the ERAB Released List information element.
NumERABsReleasedPerQCI	-	unsignedInt{10}	-	The number of ERABs released per QCI upon sending an ERAB Release Indication message to the EPC. Array of *unsignedInt* items (maximum number of items 10).
Sum	-	unsignedInt	-	The total number of ERAB Release Indications messages sent to the EPC.

LTECell.{i}.LTE.S1AP.ERABReleaseIndication.RN.

Parameters relating to ERAB Release Indication mesages sent to the EPC containing a

Radio Network Layer Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description

NumERABsReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI1ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 1 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI2ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 2 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI3ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 3 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI4ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 4 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI5ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 5 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI6ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 6 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI7ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 7 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI8ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 8 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
NumERABsWithQCI9ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI 9 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).

NumERABsWithQCI10ReleasedPerCause	-	unsignedInt{36}	-	The number of ERABs with QCI other than 1 to 9 in the ERAB Released List information element per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
Cause	-	unsignedInt{36}	-	The number of ERAB Release Indication messages sent per each Radio Network Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 36).
Sum	-	unsignedInt	-	The total number of ERAB Release Indication messages sent for which at least one ERAB in the ERAB Released List has one of the Radio Network Layer Cause types defined in TS 36.413.

LTECell.{i}.LTE.S1AP.ERABReleaseIndication.TL.

Parameters relating to ERAB Release Indication mesages sent to the EPC containing a

Tansport Layer Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{2}	-	The number of ERABs in the ERAB Released List information element per each Transport Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 2).
Cause	-	unsignedInt{2}	-	The number of ERAB Release Indication messages sent per each Transport Layer Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 2).
Sum	-	unsignedInt	-	The total number of ERAB Release Indication messages sent for which at least one ERAB in the ERAB Released List has one of the Transport Layer Cause types defined in TS 36.413.

LTECell.{i}.LTE.S1AP.ERABReleaseIndication.NAS.

Parameters relating to ERAB Release Indication mesages sent to the EPC containing a

NAS Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description

NumERABsReleasedPerCause	-	unsignedInt{4}	-	The number of ERABs in the ERAB Released List information element per each NAS Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 4).
Cause	-	unsignedInt{4}	-	The number of ERAB Release Indication messages sent per each NAS Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 4).
Sum	-	unsignedInt	-	The total number of ERAB Release Indication messages sent for which at least one ERAB in the ERAB Released List has one of the NAS Cause types defined in TS 36.413.

LTECell.{i}.LTE.S1AP.ERABReleaseIndication.Protocol.

Parameters relating to ERAB Release Indication mesages sent to the EPC containing a

Protocol Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description
NumERABsReleasedPerCause	-	unsignedInt{7}	-	The number of ERABs in the ERAB Released List information element per each Protocol Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 7).
Cause	-	unsignedInt{7}	-	The number of ERAB Release Indication messages sent per each Protocol Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 7).
Sum	-	unsignedInt	-	The total number of ERAB Release Indication messages sent for which at least one ERAB in the ERAB Released List has one of the Protocol Cause types defined in TS 36.413.

LTECell.{i}.LTE.S1AP.ERABReleaseIndication.Miscellaneous.

Parameters relating to ERAB Release Indication mesages sent to the EPC containing a

Miscellaneous Cause type as defined in TS 36.413.

Parameter	W	Type	Default	Description

NumERABsReleasedPerCause	-	unsignedInt{6}	-	The number of ERABs in the ERAB Released List information element per each Miscellaneous Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 6).
Cause	-	unsignedInt{6}	-	The number of ERAB Release Indication messages sent per each Miscellaneous Cause type defined in TS 36.413. Array of *unsignedInt* items (maximum number of items 6).
Sum	-	unsignedInt	-	The total number of ERAB Release Indication messages sent for which at least one ERAB in the ERAB Released List has one of the Miscellaneous Cause types defined in TS 36.413.

LTECell.{i}.LTE.S1AP.UEContextModificationRequest.

Parameters relating to UE Context Modification Request messages received from the EPC.

Parameter	W	Type	Default	Description
CSFBAndSecurityKey	-	unsignedInt	-	The number of UE Context Modification Request messages received from the EPC containing the CS Fallback Indicator and Security Key information elements.
CSFBRequest	-	unsignedInt	-	The number of UE Context Modification Request messages received from the EPC containing the CS Fallback Indicator information element.
Sum	-	unsignedInt	-	The total number of UE Context Modification Request messages received from the EPC.

LTECell.{i}.LTE.S1AP.UEContextModificationResponse.

Parameters relating to UE Context Modification Response messages sent to the EPC.

Parameter	W	Type	Default	Description
CSFBResponse	-	unsignedInt	-	The number of UE Context Modification Response messages sent to the EPC associated with CS Fallback.
Sum	-	unsignedInt	-	The total number of UE Context Modification Response messages sent to the EPC.

LTECell.{i}.LTE.S1AP.Paging.

Parameters relating to Paging messages received from the EPC.

Parameter	W	Type	Default	Description
CNDomainCS	-	unsignedInt	-	The number of Paging messages received from the EPC with Core Network Domain information element having a value of CS.
Sum	-	unsignedInt	-	The total number of Paging messages received from the EPC.

LTECell.{i}.LTE.S1AP.CSFallback.

Parameters relating to CS Fallback procedure.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	The number of CS Fallback attempts initiated from the EPC by sending an Initial Context Setup Request or UE Context Modification Request message with CS Fallback indicator.
Releases	-	unsignedInt	-	The number of UE sessions released by the EUTRAN for CS Fallback procedure. The EUTRAN shall redirect the UE to an IRAT network and release the session.

LTECell.{i}.LTE.HandOut.

Parameters relating to LTE handout procedures.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.HandOut.IntraEUTRAN.

Parameters relating to intra-EUTRAN handout procedures.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.HandOut.IntraEUTRAN.IntraFreq.

Parameters relating to intra-EUTRAN handout to an intra-frequency macro cell.

This counter is incremented on the serving cell for the UE.

Parameter	W	Type	Default	Description

CNAttempts	-	unsignedInt	-	The number of Handover Required messages sent to the EPC for initiating handover to an intra-frequency macro cell. This counter is incremented on the serving cell for the UE.
CNFailures	-	unsignedInt	-	The number of Handover Preparation Failure messages received from the EPC during handover to an intra-frequency macro cell. This counter is incremented on the serving cell for the UE.
CNSuccesses	-	unsignedInt	-	The number of Handover Command messages received from the EPC during handover to an intra-frequency macro cell. This counter is incremented on the serving cell for the UE.
UEAttempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for doing handover to an intra-frequency macro cell. This counter is incremented on the serving cell for the UE.
UEFailures	-	unsignedInt	-	The number of handout attempts that fail after sending a RRC Connection Reconfiguration to a UE while handing out to an intra-frequency macro cell. This count is incremented if a handout timer expires before before receiving a UE Context Release message from the target cell or if a RRC Connection Reestablishment message is received from the UE. This counter is incremented on the serving cell for the UE.
UESuccesses	-	unsignedInt	-	The number of intra-frequency handover successes to a macro cell as indicated by receiving a UE Context Release after a RRC Connection Reconfiguration message for handover has been sent to a UE. This counter is incremented on the serving cell for the UE.
ERABAttemptsPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI in the Handover Required messages sent to the EPC during LTE intra-frequency handout. Array of *unsignedInt* items (maximum number of items 10).
ERABSuccessesPerQCI	-	unsignedInt{10}	-	Number of ERABs per QCI measured upon receiving UE Context Release Command from EPC during LTE intra-frequency handout. Array of *unsignedInt* items (maximum number of items 10).

LTECell.{i}.LTE.HandOut.IntraEUTRAN.InterFreq.

Parameters relating to intra-EUTRAN handout to an inter-frequency macro cell.

This counter is incremented on the serving cell for the UE.

Parameter	W	Type	Default	Description
CNAttempts	-	unsignedInt	-	The number of Handover Required messages sent to the EPC for initiating handover to an inter-frequency macro cell. This counter is incremented on the serving cell for the UE.

CNFailures	-	unsignedInt	-	The number of Handover Preparation Failure messages received from the EPC during handover to an inter-frequency macro cell. This counter is incremented on the serving cell for the UE.
CNSuccesses	-	unsignedInt	-	The number of Handover Command messages received from the EPC during handover to an inter-frequency macro cell. This counter is incremented on the serving cell for the UE.
UEAttempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for doing handover to an inter-frequency macro cell. This counter is incremented on the serving cell for the UE.
UEFailures	-	unsignedInt	-	The number of handout attempts that fail after sending a RRC Connection Reconfiguration to a UE while handing out to an inter-frequency macro cell. This count is incremented if a handout timer expires before before receiving a UE Context Release message from the target cell or if a RRC Connection Reestablishment message is received from the UE. This counter is incremented on the serving cell for the UE.
UESuccesses	-	unsignedInt	-	The number of inter-frequency handover successes to a macro cell as indicated by receiving a UE Context Release after a RRC Connection Reconfiguration message for handover has been sent to a UE. This counter is incremented on the serving cell for the UE.
ERABAttemptsPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI in the Handover Required messages sent to the EPC during LTE inter-frequency handout. Array of *unsignedInt* items (maximum number of items 10).
ERABSuccessesPerQCI	-	unsignedInt{10}	-	Number of ERABs per QCI measured upon receiving UE Context Release Command from EPC during LTE inter-frequency handout. Array of *unsignedInt* items (maximum number of items 10).

LTECell.{i}.LTE.HandOut.InterRAT.

Parameters relating to inter-RAT handout procedures.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.HandOut.InterRAT.UMTS.

Parameters relating to inter-RAT handout to an UMTS cell.

This counter is incremented on the serving cell for the UE.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.HandOut.InterRAT.UMTS.SRVCC.

Parameters relating to inter-RAT handout to an UMTS cell for SRVCC.

Parameter	W	Type	Default	Description
CNAttempts	-	unsignedInt	-	The number of Handover Required messages sent to the EPC for initiating inter-RAT handout to an UMTS cell.
CNFailures	-	unsignedInt	-	The number of Handover Preparation Failure messages received from the EPC during handout to an UMTS cell.
CNSuccesses	-	unsignedInt	-	The number of Handover Command messages received from the EPC during handout to an UMTS cell.
UEAttempts	-	unsignedInt	-	The number of Mobility From EUTRA Command messages sent to UEs for handout to an UMTS cell.
UEFailures	-	unsignedInt	-	The number of handout attempts to an UMTS cell that failed after sending a Mobility From EUTRA Command to a UE. This could be either due to expiry of handover timer or a RRC Connection Reestablishment message is received from the UE.
UESuccesses	-	unsignedInt	-	The number of successful inter-RAT handouts to an UMTS cell as indicated by receiving a UE Context Release Command message after a Mobility From Eutra Command message has been sent to a UE.

LTECell.{i}.LTE.HandOut.InterRAT.GSM.

Parameters relating to inter-RAT handout to a GSM cell.

This counter is incremented on the serving cell for the UE.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.HandOut.InterRAT.GSM.SRVCC.

Parameters relating to inter-RAT handout to a GSM cell for SRVCC.

Parameter	W	Type	Default	Description
CNAttempts	-	unsignedInt	-	The number of Handover Required messages sent to the EPC for initiating inter-RAT handout to a GSM cell.
CNFailures	-	unsignedInt	-	The number of Handover Preparation Failure messages received from the EPC during handout to a GSM cell.
CNSuccesses	-	unsignedInt	-	The number of Handover Command messages received from the EPC during handout to a GSM cell.
UEAttempts	-	unsignedInt	-	The number of Mobility From EUTRA Command messages sent to UEs for handout to a GSM cell.

UEFailures	-	unsignedInt	-	The number of handout attempts to a GSM cell that failed after sending a Mobility From EUTRA Command to a UE. This could be either due to expiry of handover timer or a RRC Connection Reestablishment message is received from the UE.
UESuccesses	-	unsignedInt	-	The number of successful inter-RAT handouts to a GSM cell as indicated by receiving a UE Context Release Command message after a Mobility From Eutra Command message has been sent to a UE.

LTECell.{i}.LTE.HandOut.X2AP.

Parameters relating to X2AP handout to the macro cells.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.HandOut.X2AP.IntraFreq.

Parameters relating to X2AP intra-frequency handout to the macro cells.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	Number of Handover request messages sent to the macro cells during intra-frequency handout.
PreparationFailures	-	unsignedInt	-	Number of Handover preparation failures messages received from the macro cells during intra-frequency handout.
PreparationSuccesses	-	unsignedInt	-	Number of Handover request acknowledge messages received from a macro cell during intra-frequency handout.
UEAttempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for doing handover to an intra-frequency macro cell. This counter is incremented on the serving cell for the UE.
UEFailures	-	unsignedInt	-	The number of handout attempts that fail after sending a RRC Connection Reconfiguration to a UE while handing out to an intra-frequency macro cell. This count is incremented if a handout timer expires before before receiving a UE Context Release message from the target cell or if a RRC Connection Reestablishment message is received from the UE. This counter is incremented on the serving cell for the UE.
UESuccesses	-	unsignedInt	-	The number of intra-frequency handover successes to a macro cell as indicated by receiving a UE Context Release after a RRC Connection Reconfiguration message for handover has been sent to a UE. This counter is incremented on the serving cell for the UE.

LTECell.{i}.LTE.HandOut.X2AP.InterFreq.

Parameters relating to X2AP inter-frequency handout to the macro cells.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	Number of Handover request messages sent to the macro cells during inter-frequency handout.
PreparationFailures	-	unsignedInt	-	Number of Handover preparation failures messages received from the macro cells during inter-frequency handout.
PreparationSuccesses	-	unsignedInt	-	Number of Handover request acknowledge messages received from the macro cells during inter-frequency handout.
UEAttempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for during handover to an inter-frequency macro cell. This counter is incremented on the serving cell for the UE.
UEFailures	-	unsignedInt	-	The number of handout attempts that fail after sending a RRC Connection Reconfiguration to a UE while handing out to an inter-frequency macro cell. This count is incremented if a handout timer expires before before receiving a UE Context Release message from the target cell or if a RRC Connection Reestablishment message is received from the UE. This counter is incremented on the serving cell for the UE.
UESuccesses	-	unsignedInt	-	The number of intra-frequency handover successes to a macro cell as indicated by receiving a UE Context Release after a RRC Connection Reconfiguration message for handover has been sent to a UE. This counter is incremented on the serving cell for the UE.

LTECell.{i}.LTE.Handover.

Parameters relating to LTE handover procedures.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.Handover.X1.

Parameters relating to handover over the X1 interface of the system.

These are handovers between radio nodes connected to the same service node.

This counter is incremented on the serving cell for the UE.

Parameter	W	Type	Default	Description
InterruptionTime	-	unsignedInt	-	The total time taken in milliseconds for handovers over the X1 interface. This is calculated as the time difference between sending a RRC Connection Reconfiguration message to the UE from the source cell, to the time when a RRC Connection Reconfiguration

				Complete message is received from the UE on the target cell. This counter is incremented on the serving cell for the UE.
Attempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for executing X1 handover. This counter is incremented on the serving cell for the UE.
UESuccesses	-	unsignedInt	-	The number of X1 handover attempts successfully completed. This counter is incremented on the original serving cell for the UE.

LTECell.{i}.LTE.Handover.X1.IntraFreq.

Parameters relating to X1 intra-frequency handover.

These are handovers between radio nodes connected to the same service node.

This counter is incremented on the serving cell for the UE.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for executing intra-frequency X1 handover. This counter is incremented on the serving cell for the UE.
UESuccesses	-	unsignedInt	-	The number of intra-frequency X1 handover attempts successfully completed. This counter is incremented on the original serving cell for the UE.
ERABAttemptsPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI in the RRC Connection Reconfiguration messages sent to UEs for executing intra-frequency X1 handover. This counter is incremented on the serving cell for the UE. Array of *unsignedInt* items (maximum number of items 10).
ERABSuccessesPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI as indicated in the RRC Connection Reconfiguration Complete messages received from the UEs during intra-frequency X1 handover. This counter is incremented on the original serving cell for the UE. Array of *unsignedInt* items (maximum number of items 10).

LTECell.{i}.LTE.Handover.X1.InterFreq.

Parameters relating to X1 inter-frequency handover.

These are handovers between radio nodes connected to the same service node.

This counter is incremented on the serving cell for the UE.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	The number of RRC Connection Reconfiguration messages sent to UEs for executing inter-frequency X1 handover. This counter is incremented on the serving cell for the UE.
UESuccesses	-	unsignedInt	-	The number of inter-frequency X1 handover attempts successfully completed. This counter is incremented on the original serving cell for the UE.
ERABAttemptsPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI in the RRC Connection Reconfiguration messages sent to UEs for executing inter-frequency X1 handover. This counter is incremented on the serving cell for the UE. Array of *unsignedInt* items (maximum number of items 10).
ERABSuccessesPerQCI	-	unsignedInt{10}	-	The number of ERABs per QCI as indicated in the RRC Connection Reconfiguration Complete messages received from the UEs during inter-frequency X1 handover. This counter is incremented on the original serving cell for the UE. Array of *unsignedInt* items (maximum number of items 10).

LTECell.{i}.LTE.HandIn.

Parameters relating to hand-in procedures.

Parameter	W	Type	Default	Description
ERANToMacroToERANUEAttempts	-	unsignedInt	-	The number of Handover Request messages on the E-RAN cell for which the following condition is satisfied: The UE was earlier on an E-RAN cell before moving to the macro cell and then attempting to hand-in to an E-RAN cell.

LTECell.{i}.LTE.HandIn.X2AP.

Parameters relating to X2AP hand-in from the macro cells.

Parameter	W	Type	Default	Description
Attempts	-	unsignedInt	-	Number of Handover request messages received from the macro cells during the hand-in.
PreparationFailures	-	unsignedInt	-	Number of Handover preparation failures messages sent to the macro cells during the hand-in.

PreparationSuccesses	-	unsignedInt	-	Number of Handover request acknowledge messages sent to the macro cells during the hand-in.
UESuccesses	-	unsignedInt	-	Number of RRC connection reconfiguration complete message received from the UE during the hand-in. This counter is incremented on the serving cell for the UE.
Successes	-	unsignedInt	-	Number of UE context release messages sent to the macro cell during the hand-in. This counter is incremented on the serving cell for the UE.

LTECell.{i}.LTE.HandIn.IntraEUTRAN.

Parameters relating to S1 handin from the LTE macro cells.

Parameter	W	Type	Default	Description
ERABAttemptsPerQCI	-	unsignedInt{10}	-	Number of ERABs per QCI as indicated in the Handover Request messages received from the LTE macro cells during handin. Array of *unsignedInt* items (maximum number of items 10).
ERABSuccessesPerQCI	-	unsignedInt{10}	-	Number of ERABs per QCI as indicated in the RRC Connection Reconfiguration Complete messages received from the UE during the Intra EUTRAN handin. Array of *unsignedInt* items (maximum number of items 10).
Attempts	-	unsignedInt	-	Number of Handover Request messages received from the LTE macro cells during the handin.
UESuccesses	-	unsignedInt	-	Number of RRC Connection Reconfiguration Complete messages received from the UE during LTE handin.

LTECell.{i}.LTE.GTP.

Parameters relating to GTP packets sent or received.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.GTP.Downlink.

Parameters relating to GTP packets in the downlink direction.

Parameter	W	Type	Default	Description
NumBytes	-	unsignedLong	-	The number of bytes in downlink GTP SDU packets received.

NumSDUs	-	unsignedInt	-	The number of downlink GTP SDU packets received.

LTECell.{i}.LTE.GTP.Uplink.

Parameters relating to GTP packetes in the uplink direction.

Parameter	W	Type	Default	Description
NumBytes	-	unsignedLong	-	The number of bytes in uplink GTP SDU packets sent.
NumSDUs	-	unsignedInt	-	The number of uplink GTP SDU packets sent.

LTECell.{i}.LTE.PDCP.

Parameters relating to PDCP packets sent or received.

Parameter	W	Type	Default	Description
QCINumberOfEntries	-	unsignedInt	-	The number of QCI values for which per-QCI statistics are collected. Note: 3GPP standards define the QCI Information Element to have an allowed range of 0-255 but only QCI values 1-9 have standardized characteristics (3GPP TS 23.203) and are in practical use. A QCI value of ten is used as a collector for any non-standard cases.

LTECell.{i}.LTE.PDCP.Downlink.

Parameters relating to PDCP packets in the downlink direction.

Parameter	W	Type	Default	Description
NumBytes	-	unsignedLong	-	The number of bytes received in downlink PDCP SDU packets.
NumSDUs	-	unsignedInt	-	The number of downlink PDCP SDU packets received.
NumberOfSDUsLostOverAirPerQCI	-	unsignedInt{10}	-	Number of downlink PDCP SDUs transmitted by RLC entities but lost over the air interface for all the ERABs per QoS Class Indicator. Array of *unsignedInt* items (maximum number of items 10).
NumberOfSDUsPerQCI	-	unsignedInt{10}	-	Number of downlink PDCP SDUs received by the RLC entities from the PDCP layer for all the ERABs per QoS Class Indicator. The RLC AM and UM SDUs will be considered for this measurement.

				Array of *unsignedInt* items (maximum number of items 10).

LTECell.{i}.LTE.PDCP.Downlink.BitRate.

Parameters relating to PDCP throughput in downlink.

Parameter	W	Type	Default	Description
MaxPerQCI	-	unsignedInt{10}	-	An array of maximum downlink IP packet data rate in Kbps for each QCI. Rates are calculated at the PDCP layer from measured data volume during non-overlapping one second sampling intervals and the maximum observed per-QCI values over the configured internal Performace Management Collection Frequency are stored. The value of this parameter indicate maximum downlink IP packet data rate for each QCI Index over the internal Performance Management Collection Frequency. The values are reset to zero at the expiry of each internal collection interval by the PDCP measurement function. Array of *unsignedInt* items (maximum number of items 10).

LTECell.{i}.LTE.PDCP.Uplink.

Parameters relating to PDCP packets in the uplink direction.

Parameter	W	Type	Default	Description
NumBytes	-	unsignedLong	-	The number of bytes sent in uplink PDCP SDU packets.
NumSDUs	-	unsignedInt	-	The number of uplink PDCP SDU packets sent.
NumberOfSDUsLostPerQCI	-	unsignedInt{10}	-	Number of uplink PDCP SDUs considered to be lost for the UEs for all the ERBs per QoS Class Indicator. For RLC AM entities, there won't be any loss of PDCP SDUs. For RLC UM entities, there can be PDCP SDU loss and that will be considered for this measurement Array of *unsignedInt* items (maximum number of items 10).
NumberOfSDUsPerQCI	-	unsignedInt{10}	-	Number of uplink PDCP SDUs received from the UEs for all the ERABs per QoS Class Indicator. The PDCP SDU received from the RLC AM or UM entities will be considered here. Array of *unsignedInt* items (maximum number of items 10).

LTECell.{i}.LTE.PDCP.Uplink.BitRate.

Parameters relating to PDCP throughput in uplink

Parameter	W	Type	Default	Description
MaxPerQCI	-	unsignedInt{10}	-	An array of maximum uplink IP packet data rate in Kbps for each QCI. Rates are calculated at the PDCP layer from measured data volume during non-overlapping one second sampling intervals and the maximum observed per-QCI values over the configured internal Performace Management Collection Frequency are stored. The value of this parameter indicate maximum uplink IP packet data rate for each QCI Index over the internal Performance Management Collection Frequency. The values are reset to zero at the expiry of each internal collection interval by the PDCP measurement function. Array of *unsignedInt* items (maximum number of items 10).

LTECell.{i}.LTE.PDCP.QCI.{i}.

Parameters relating to the PDCP protocol that are indexed by specifc values of the QoS Class Indicator (QCI).

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.PDCP.QCI.{i}.Downlink.

Parameters relating to the PDCP protocol in downlink for specifc values of the QoS Class Indicator (QCI).

Parameter	W	Type	Default	Description
BitRate	-	unsignedInt{40}	-	A histogram of downlink IP packet data rate in Kbps for a specific QCI. Each value is derived from the measured data volume (PDCP SDU's received from GTP) during non-overlapping one second sampling intervals. Reported rates are with respect to IP packets with GTP headers explicitly accounted for. The histogram bin centers are: *[0 64 320 768 1500 2500 3500 5000 7000 9000 15000:10000:295000 300000]Kbps*. Array of *unsignedInt* items (maximum number of items 40).

LTECell.{i}.LTE.PDCP.QCI.{i}.Uplink.

Parameters relating to the PDCP protocol in uplink for specifc values of the QoS Class Indicator (QCI).

Parameter	W	Type	Default	Description
BitRate	-	unsignedInt{25}	-	A histogram of uplink IP packet data rate in Kbps for a specific QCI. Each value is derived from the measured data volume (PDCP SDU's sent to GTP) during non-overlapping one

				second sampling intervals. Reported rates are with respect to IP packets with GTP headers explicitly accounted for. The histogram bin centers are: *[0 64 320 768 1500 2500 3500 5000 7000 9000 15000:10000:145000 150000]Kbps*. Array of *unsignedInt* items (maximum number of items 25).

LTECell.{i}.LTE.RLC.

Parameters relating to RLC packets sent or received.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.RLC.Downlink.

Parameters relating to RLC protocol procedures in downlink.

Parameter	W	Type	Default	Description
NumBytes	-	unsignedLong	-	The number of RLC SDU bytes received.
NumSDUs	-	unsignedInt	-	The number of RLC SDU packets received.
SDUsLatencyTimePerQCI	-	unsignedInt{10}	-	Sum of elapsed time taken by RLC SDUs between time of arrival and transimission of first PDU for all the ERABs per QCI. All the RLC SDUs which meet the Latency Sampling Criteria will be considered for this measurement. If the transmission of the first PDU of a RLC SDU is happened when there was no prior data for the same UE exists to transmit the SDU is considered to be met Latency Sampling Criteria. The transmitted RLC AM or UM SDUs will be considered for the measurement. Array of *unsignedInt* items (maximum number of items 10).
NumberOfSDUsLatencySamplesPerQCI	-	unsignedInt{10}	-	Number of RLC SDUs which met the Latency Sampling Criteria for all the ERABs per QCI. The transmitted RLC AM or UM SDUs will be considered for the measurement. Array of *unsignedInt* items (maximum number of items 10).

LTECell.{i}.LTE.RLC.Uplink.

Parameters relating to RLC packets sent in the uplink direction.

Parameter	W	Type	Default	Description
NumBytes	-	unsignedLong	-	The number of RLC SDU bytes sent.

NumSDUs	-	unsignedInt	-	The number of RLC SDU packets sent.

LTECell.{i}.LTE.MAC.

Parameters relating to MAC protocol layer.

Parameter	W	Type	Default	Description
NumTTIsElapsed	-	unsignedLong	-	This is the number of TTIs elpased in the MAC layer. This measurement will be used for various throughput calculation.
QCINumberOfEntries	-	unsignedInt	-	The number of QCI values for which per-QCI statistics are collected. Note: 3GPP standards define the QCI Information Element to have an allowed range of 0-255 but only QCI values 1-9 have standardized characteristics (3GPP TS 23.203) and are in practical use. A QCI value of ten is used as a collector for any non-standard cases.

LTECell.{i}.LTE.MAC.Downlink.

Parameters relating to LTE MAC protocol procedures in downlink.

Parameter	W	Type	Default	Description
NumBytes	-	unsignedLong	-	The number of MAC SDU bytes received.
NumSDUs	-	unsignedInt	-	The number of MAC SDU packets received.
NumActiveUEs	-	unsignedInt	-	Number of active UEs with buffered data in the downlink. Measurement is collected every TTI and the reported average value is over the internal statistics collection interval. Activity is measured across all the SRBs and RABs for each UE irrespective of QCI.
NumTTIsDRB	-	unsignedLong	-	Number of TTIs in which the downlink data sent at least for one DRB. Measurement is collected every TTI for which MAC sent data of at least one DRB and the value is reported over the internal statistics collection interval.
NumBytesDRB	-	unsignedLong	-	Total number of bytes sent in the downlink direction for all the DRBs. This measurement provides the total number of bytes sent for the DRBs from the MAC layer toward the UEs. Measurement is collected every TTI for which MAC sent data of at least one DRB and the value is reported over the internal statistics collection interval.
NormalizedNumActiveUEs	-	unsignedLong	-	The cumulative average number of active UEs with buffered data in the downlink times the averaging window time in milliseconds. Activity is measured across all the SRBs and RABs for each UE irrespective of QCI.

				The averaging window time is equal to the internal statistics collection interval.
PagingRequestsReceived	-	unsignedInt	-	The total number of UE specific Paging messages received in the MAC layer. The bulk Paging messages to indicate the system information will not be considered here.
PagingRequestsDiscarded	-	unsignedInt	-	The total number of UE specific Paging messages received in the MAC layer but got discarded. The bulk Paging messages to indicate the system information will not be considered here.
RankIndicatorHist	-	unsignedInt{2}	-	A histogram of Rank Indicator reported by UEs range from 1 to 2. Array of *unsignedInt* items (maximum number of items 2).
SchedulingDelayHist	-	unsignedInt{20}	-	A histogram of scheduling delays for all bearers in downlink at the MAC layer. Array of *unsignedInt* items (maximum number of items 20).
SchedulingDelayHistQCI1	-	unsignedInt{20}	-	A histogram of scheduling delays for QCI 1 bearer in downlink at the MAC layer. Array of *unsignedInt* items (maximum number of items 20).

LTECell.{i}.LTE.MAC.Downlink.CQI.

Parameters relating to MAC downlink CQI.

Parameter	W	Type	Default	Description
WidebandHist	-	unsignedInt{16}	-	A histogram of wideband CQI reported by UEs with a range 0 to 15. Array of *unsignedInt* items (maximum number of items 16).

LTECell.{i}.LTE.MAC.Downlink.HARQ.

Parameters relating to MAC downlink HARQ.

Parameter	W	Type	Default	Description
FailureHist	-	unsignedInt{8}	-	The number of failures for first transmission, first retransmission, second retransmission and so on in the downlink direction. Array of *unsignedInt* items (maximum number of items 8).
TotalFirstTx	-	unsignedInt	-	The total number of first transmissions irrespective of the HARQ success or failure in the downlink direction.
TotalResidualFailure	-	unsignedInt	-	The total number of HARQ failures after all retransmissions in the downlink direction.

TotalFirstTxQCI1	-	unsignedInt	-	The total number of first transmissions irrespective of the HARQ success or failure in the downlink direction.
TotalResidualFailureQCI1	-	unsignedInt	-	The total number of HARQ failures after all retransmissions in the downlink direction.

LTECell.{i}.LTE.MAC.Downlink.PRBUsage.

Parameters relating to MAC downlink PRB usage.

Parameter	W	Type	Default	Description
NormalizedUsage	-	unsignedLong	-	Average percentage of PRB usage per TTI in the downlink times the averaging window time in milliseconds. The averaging window time is equal to the internal statistics collection interval.
Total	-	unsignedInt	-	The percentage of total PRB used in downlink averaged during a given time period.

LTECell.{i}.LTE.MAC.Downlink.Throughput.

Parameters relating to MAC layer throughput in downlink.

Parameter	W	Type	Default	Description
MaxPerQCI	-	unsignedInt{10}	-	An array of maximum downlink MAC layer packet data rate in Kbps for each QCI. Rates are calculated at the MAC layer from measured data volume during non-overlapping one second sampling intervals and the maximum observed per-QCI values over the configured internal Performace Management Collection Frequency are stored. The value of this parameter indicate maximum downlink MAC layer packet data rate for each QCI Index over the internal Performance Management Collection Frequency. The values are reset to zero at the expiry of each internal collection interval by the MAC measurement function. Array of *unsignedInt* items (maximum number of items 10).

LTECell.{i}.LTE.MAC.Uplink.

Parameters relating to MAC protocol procedures in uplink.

Parameter	W	Type	Default	Description
NumSDUs	-	unsignedInt	-	The number of MAC SDU packets sent.

NumBytes	-	unsignedLong	-	The number of MAC SDU bytes sent.
NumActiveUEs	-	unsignedInt	-	Number of active UEs with buffered data in the uplink. Measurement is collected every TTI and the reported average value is over the internal statistics collection interval. Activity is measured across all the SRBs and RABs for each UE irrespective of QCI.
NumTTIsDRB	-	unsignedLong	-	Number of TTIs in which the uplink data received for at least one DRB. Measurement is collected every TTI for which MAC received data of at least one DRB and the value is reported over the internal statistics collection interval.
NumBytesDRB	-	unsignedLong	-	Total number of bytes received in the uplink direction for all the DRBs. This measurement provides the total number of bytes received for the DRBs in the MAC layer from all the UEs. Measurement is collected every TTI for which MAC received data of at least one DRB and the value is reported over the internal statistics collection interval.
NormalizedNumActiveUEs	-	unsignedLong	-	Cumulative average number of active UEs with buffered data in the uplink times the averaging window time in milliseconds. Activity is measured across all the SRBs and RABs for each UE irrespective of QCI. The averaging window time is equal to the internal statistics collection interval.

LTECell.{i}.LTE.MAC.Uplink.CQI.

Parameters relating to LTE MAC protocol uplink CQI of the cell.

Parameter	W	Type	Default	Description
WidebandHist	-	unsignedInt{16}	-	A histogram of uplink wideband SINR as reported by L1 that is then mapped to an equivalent uplink CQI defined by the MAC. Array of *unsignedInt* items (maximum number of items 16).

LTECell.{i}.LTE.MAC.Uplink.PUSCH.

Parameters relating to LTE MAC uplink PUSCH transmissions in the cell.

Parameter	W	Type	Default	Description
InterferenceHist	-	unsignedInt{13}	-	Histogram of average interference power per resource block. Range is [-120:5:-60] dBm/RB (13 bins). Array of *unsignedInt* items (maximum number of items 13).
UeTxPowerHist	-	unsignedInt{22}	-	Histogram of PUSCH transmission power per RB estimated from UE power headroom reports in the MAC layer. Range is [-40:3:23] dBm (22 bins).

				Array of *unsignedInt* items (maximum number of items 22).

LTECell.{i}.LTE.MAC.Uplink.PUCCH.

Parameters relating to LTE MAC uplink PUCCH transmissions in the cell.

Parameter	W	Type	Default	Description
Format1RBInterferenceHist	-	unsignedInt{15}	-	Histogram of average interference power for PUCCH Format 1 resource blocks with a range of [-130:5:-60] dBm/RB. Array of *unsignedInt* items (maximum number of items 15).
Format2RBInterferenceHist	-	unsignedInt{15}	-	Histogram of average interference power for PUCCH Format 2 resource blocks with a range of [-130:5:-60] dBm/RB. Array of *unsignedInt* items (maximum number of items 15).
Format1RxPwrHist	-	unsignedInt{25}	-	Histogram of average received power during Format 1 transmission with a range of [-130:5:-60] dBm/RB. Array of *unsignedInt* items (maximum number of items 25).
Format2RxPwrHist	-	unsignedInt{25}	-	Histogram of average received power during Format 1 transmission with a range of [-130:5:-60] dBm/RB. Array of *unsignedInt* items (maximum number of items 25).
Format2SINRHist	-	unsignedInt{21}	-	Histogram of average SINR during Format 2 transmission with a range of [-10:1:10] dB. Array of *unsignedInt* items (maximum number of items 21).

LTECell.{i}.LTE.MAC.Uplink.HARQ.

Parameters relating to LTE MAC protocol uplink HARQ of the cell.

Parameter	W	Type	Default	Description
FailureHist	-	unsignedInt{8}	-	The number of failures for first transmission, first retransmission, second retransmission and so on in the uplink direction. Array of *unsignedInt* items (maximum number of items 8).
RetxAllocFailHist	-	unsignedInt{7}	-	A histogram where each bin in the histogram is a count of the number of failed allocations range from 1 through 7 corresponding to the first retransmission, second retransmission and so on. Array of *unsignedInt* items (maximum number of items 7).
TotalFirstTx	-	unsignedInt	-	The total number of first transmissions irrespective of the HARQ success or failure in the uplink direction.

TotalResidualFailure	-	unsignedInt	-	The total number of HARQ failures after all retransmissions in the uplink direction.
TotalFirstTxQCI1	-	unsignedInt	-	The total number of first transmissions for QCI 1 bearer irrespective of the HARQ success or failure in the uplink direction.
TotalResidualFailureQCI1	-	unsignedInt	-	The total number of HARQ failures after all retransmissions for QCI 1 bearer in the uplink direction.

LTECell.{i}.LTE.MAC.Uplink.PRBUsage.

Parameters relating to LTE MAC protocol uplink PRB usage.

Parameter	W	Type	Default	Description
NormalizedUsage	-	unsignedLong	-	Average percentage of PRB usage per TTI in the uplink times the averaging window time in milliseconds. The averaging window time is equal to the internal statistics collection interval.
Total	-	unsignedInt	-	The percentage of total PRB used in uplink averaged during a given time period.

LTECell.{i}.LTE.MAC.Uplink.Throughput.

Parameters relating to MAC layer throughput in uplink.

Parameter	W	Type	Default	Description
MaxPerQCI	-	unsignedInt{10}	-	An array of maximum uplink MAC layer packet data rate in Kbps for each QCI. Rates are calculated at the MAC layer from measured data volume during non-overlapping one second sampling intervals and the maximum observed per-QCI values over the configured internal Performace Management Collection Frequency are stored. The value of this parameter indicate maximum uplink MAC layer packet data rate for each QCI Index over the internal Performance Management Collection Frequency. The values are reset to zero at the expiry of each internal collection interval by the MAC measurement function. Array of *unsignedInt* items (maximum number of items 10).

LTECell.{i}.LTE.MAC.QCI.{i}.

Parameters relating to the MAC protocol that are indexed by specifc values of the QoS Class Indicator (QCI).

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.MAC.QCI.{i}.Downlink.

Parameters relating to the MAC protocol in downlink for specifc values of the QoS Class Indicator (QCI).

Parameter	W	Type	Default	Description
Throughput	-	unsignedInt{40}	-	A histogram of downlink MAC layer data rate in Kbps for a specific QCI. Each value is derived from the measured data volume (RLC SDU's) during non-overlapping one second sampling intervals. Reported rates include RLC and PDCP headers. The histogram bin centers are: *[0 64 320 768 1500 2500 3500 5000 7000 9000 15000:10000:295000 300000]Kbps*. Array of *unsignedInt* items (maximum number of items 40).

LTECell.{i}.LTE.MAC.QCI.{i}.Uplink.

Parameters relating to the MAC protocol in uplink for specifc values of the QoS Class Indicator (QCI).

Parameter	W	Type	Default	Description
Throughput	-	unsignedInt{25}	-	A histogram of uplink MAC layer data rate in Kbps for a specific QCI. Each value is derived from the measured data volume (RLC SDU's) during non-overlapping one second sampling intervals. Reported rates include PDCP headers. The histogram bin centers are: *[0 64 320 768 1500 2500 3500 5000 7000 9000 15000:10000:145000 150000]Kbps*. Array of *unsignedInt* items (maximum number of items 25).

LTECell.{i}.LTE.MAC.RACH.

Parameters relating to MAC RACH.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.MAC.RACH.MSG1.

Parameters relating to messages received on the MAC RACH.

Parameter	W	Type	Default	Description
NumPRACHTti	-	unsignedInt	-	The number of TTI with PRACH opportunity over a given time duration.
PreambleDedHist	-	unsignedInt{64}	-	A histogram of the dedicated preambles of PRACH channel.

				Array of *unsignedInt* items (maximum number of items 64).
PreambleAHist	-	unsignedInt{64}	-	A histogram of the Group A preambles of PRACH channel. Array of *unsignedInt* items (maximum number of items 64).
PreambleBHist	-	unsignedInt{64}	-	A histogram of the Group B preambles of PRACH channel. Array of *unsignedInt* items (maximum number of items 64).
RxPwrHist	-	unsignedInt{31}	-	Histogram of received power for preambles of PRACH channel with a range of [-130:5:-60] dBm/RB. Array of *unsignedInt* items (maximum number of items 31).

LTECell.{i}.LTE.MAC.RACH.MSG3.

Parameters relating to messages received on the MAC RACH.

Parameter	W	Type	Default	Description
RxPwrHist	-	unsignedInt{21}	-	Histogram of received power for MSG3 during RACH process with a range of [-130:5:-60] dBm/RB. Array of *unsignedInt* items (maximum number of items 21).
SINRHist	-	unsignedInt{21}	-	A histogram of SINR for MSG3 during RACH process. Array of *unsignedInt* items (maximum number of items 21).

LTECell.{i}.LTE.MAC.RACH.MSG3.HARQ.

Parameters relating to RACH MSG3 HARQ.

Parameter	W	Type	Default	Description
PassHist	-	unsignedInt{4}	-	A count of successfully decoded RACH MSG3 for each HARQ transmission. Array of *unsignedInt* items (maximum number of items 4).
FailHist	-	unsignedInt{4}	-	A count of RACH MSG3 CRC failure for each HARQ transmission. Array of *unsignedInt* items (maximum number of items 4).
DTXHist	-	unsignedInt{4}	-	A count of RACH MSG3 DTX for each HARQ transmission. Array of *unsignedInt* items (maximum number of items 4).

LTECell.{i}.LTE.MAC.RACH.MSG4.

Parameters relating to RACH MSG4.

Parameter	W	Type	Default	Description
HARQRxPwrHist	-	unsignedInt{25}	-	Histogram of received power for MSG4 HARQ with a range of [-130:5:-60] dBm/RB. Array of *unsignedInt* items (maximum number of items 25).

LTECell.{i}.LTE.MAC.RACH.MSG4.HARQ.

Parameters relating to RACH MSG4 HARQ.

Parameter	W	Type	Default	Description
ACKHist	-	unsignedInt{4}	-	A count of RACH MSG4 HARQ ACK decodes for each HARQ transmission. Array of *unsignedInt* items (maximum number of items 4).
NACKHist	-	unsignedInt{4}	-	A count of RACH MSG4 HARQ NACK decodes for each HARQ transmission. Array of *unsignedInt* items (maximum number of items 4).
DTXHist	-	unsignedInt{4}	-	A count of RACH MSG4 HARQ DTX detection for each HARQ transmission. Array of *unsignedInt* items (maximum number of items 4).

LTECell.{i}.LTE.MAC.RACH.ContentionBased.

Parameters relating to contention based RACH procedures at MAC.

Parameter	W	Type	Default	Description
MSG2Backoff	-	unsignedInt	-	Number of times a backoff indication was sent in MSG2.
MSG3ResidualSuccess	-	unsignedInt	-	Number of RACH MSG3 residual successes after all HARQ transmissions.
MSG3ResidualFailure	-	unsignedInt	-	Number of RACH MSG3 residual failures after all HARQ transmissions.
MSG4ResidualSuccess	-	unsignedInt	-	Number of RACH MSG4 residual successes after all HARQ transmissions.
MSG4ResidualFailure	-	unsignedInt	-	Number of RACH MSG4 residual failures after all HARQ transmissions.

LTECell.{i}.LTE.MAC.RACH.ContentionBased.MSG3CRNTI.

Parameters relating to MSG3 received with C-RNTI MAC control element.

Parameter	W	Type	Default	Description
QCI1UE	-	unsignedInt	-	Number of times a QCI1 UE's C-RNTI was received in MSG3.
UnknownUE	-	unsignedInt	-	Number of times an unknown UE's C-RNTI was received in MSG3.
Total	-	unsignedInt	-	Total number of times C-RNTI control element received in MSG3.

LTECell.{i}.LTE.MAC.CarrierAggregation.

Parameters relating to the MAC Carrier Aggregation functionality.

Parameter	W	Type	Default	Description
NumSCellAddAttempts	-	unsignedInt	-	Number of times the SCell-Add procedure was attempted for an active UE session.
NumSCellAddSuccesses	-	unsignedInt	-	Number of times the SCell-Add procedure was successful for an active UE session.
NumSCellDeleteAttempts	-	unsignedInt	-	Number of times the SCell-Delete procedure was attempted for an active UE session.
NumSCellDeleteSuccesses	-	unsignedInt	-	Number of times the SCell-Delete procedure was successful for an active UE session.
NumSCellEnableAttempts	-	unsignedInt	-	Number of times the SCell-Enable procedure was attempted for an active UE session.
NumSCellEnableSuccesses	-	unsignedInt	-	Number of times the SCell-Enable procedure was successful for an active UE session.
NumSCellDisableAttempts	-	unsignedInt	-	Number of times the SCell-Disable procedure was attempted for an active UE session.
NumSCellDisableSuccesses	-	unsignedInt	-	Number of times the SCell-Disable procedure was successful for an active UE session.

LTECell.{i}.LTE.PHY.

Parameters relating to the PHY layer.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.PHY.Uplink.

Parameters relating to the PHY layer in uplink.

Parameter	W	Type	Default	Description
ReceivedInterferencePower	-	int{100}	-	The received interference power is indexed per RB with a max size of 100 corresponding to highest supported system bandwidth (20 MHz). Array of *int* items (maximum number of items 100).
RxPwrAnt0Hist	-	unsignedInt{20}	-	Histogram of average received power per resource block at antenna port 0 with a range of [-120:5:-25] dBm/RB. Array of *unsignedInt* items (maximum number of items 20).
RxPwrAnt1Hist	-	unsignedInt{20}	-	Histogram of average received power per resource block at antenna port 1 with a range of [-120:5:-25] dBm/RB. Array of *unsignedInt* items (maximum number of items 20).
RFICGainHist	-	unsignedInt{32}	-	Histogram of RFIC analog gain with a range of [0:2:62] dB. Array of *unsignedInt* items (maximum number of items 32).

LTECell.{i}.LTE.CellProvisioning.

Parameters relating to LTE cell provisioning.

Parameter	W	Type	Default	Description
CumulativeCellUptime	-	unsignedInt	-	The total time in seconds that the cell is available for service. This is determined by the value of cell's primary operational state and includes the secondary operational state "NETMON".

LTECell.{i}.LTE.RecordInfo.

Parameters relating to archival of cell statistics.

Parameter	W	Type	Default	Description
TimeOfLastStatsReset	-	dateTime	-	Timestamp of the last reset of statistics by {{ACS}}.
TimeOfLastStatsUpdate	-	dateTime	-	Timestamp of the last update of statistics by system.

LTECell.{i}.LTE.X2AP.

Parameters relating to LTE X2AP interface.

Parameter	W	Type	Default	Description

LTECell.{i}.LTE.X2AP.HandoverCancel.

Parameters relating to LTE X2AP Handover cancel message.

Parameter	W	Type	Default	Description
Sent	-	unsignedInt	-	The number of Handover cancel messages sent to the macro cells.
Received	-	unsignedInt	-	The number of Handover cancel messages received from the macro cells.

LTECell.{i}.LTE.X2AP.HandoverPreparationFailure.

Parameters relating to LTE X2AP Handover preparation failure message.

Parameter	W	Type	Default	Description
Received	-	unsignedInt	-	The number of Handover preparation failure messages received from the macro cells.
Sent	-	unsignedInt	-	The number of Handover preparation failure messages sent to the macro cells.

LTECell.{i}.LTE.X2AP.HandoverRequest.

Parameters relating to LTE X2AP Handover request message.

Parameter	W	Type	Default	Description
Received	-	unsignedInt	-	The number of Handover requeset messages received from the macro cells.
Sent	-	unsignedInt	-	The number of Handover request messages sent to the macro cells.

LTECell.{i}.LTE.X2AP.HandoverRequestAcknowledge.

Parameters relating to LTE X2AP Handover request acknowledge message.

Parameter	W	Type	Default	Description
Received	-	unsignedInt	-	The number of Handover requeset acknowledge messages received from the macro cells.
Sent	-	unsignedInt	-	The number of Handover request acknowledge messages sent to the macro cells.

LTECell.{i}.LTE.X2AP.SNStatusTransfer.

Parameters relating to LTE X2AP SN status transfer acknowledge message.

Parameter	W	Type	Default	Description
Received	-	unsignedInt	-	The number of SN status transfer messages received from the macro cells.
Sent	-	unsignedInt	-	The number of SN status transfer messages sent to the macro cells.

LTECell.{i}.LTE.X2AP.UEContextRelease.

Parameters relating to LTE X2AP UE context release acknowledge message.

Parameter	W	Type	Default	Description
Received	-	unsignedInt	-	The number of UE context release messages received from the macro cells.
Sent	-	unsignedInt	-	The number of UE context release messages sent to the macro cells.

ServicesHosts.

Provides parameters for services hosts.

Parameter	W	Type	Default	Description
ServicesHostNumberOfEntries	-	unsignedInt	-	Indicates the number of ServicesHost entries.

ServicesHosts.ServicesHost.{i}.

Provides parameters for a services host.

Parameter	W	Type	Default	Description
Description	W	string	<Empty>	Provides a human-readable description for this services host for display and debugging purposes only.
Services	W	enum{16}	<Empty>	Indicates the services that will run on this services host. Array of *string* items (maximum number of items 16). Each list item is an enumeration of: • *UMTS*

				• *WLAN*

System.

Parameters relating to the entire system.

Parameter	W	Type	Default	Description
Description	W	string	<Empty>	System description. May contain spaces. If not explicitly specified here, *Description* value defaults to the form of the following example: *SpiderCloud Wireless, Inc. SN-8000 ServicesNode, SCOS: 1.5.0.141.5117, Build date: 2010-11-18T00:52:30Z Copyright (c) 2010*
Contact	W	string	<Empty>	System point of contact. May contain spaces. Example value: "Fred Williams <fred@acme.org;>".
Name	W	string	<Empty>	System name. May contain spaces. Defaults to hostname of system.
Location	W	string	<Empty>	System location. May contain spaces. Example value: "250 Bedford Lane, Boston MA".
NameServer	W	regex(256){3}	<Empty>	The IP address of each DNS name server consulted (in order) during hostname resolution. Array of *string* items (maximum number of items 3). Possible patterns for each list item: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$` • `^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$`
DomainSearch	W	spanUnsignedInt{6}	<Empty>	Domain name search list for hostname lookup. When a non-fully qualified hostname is presented for resolution, each of the names in this list are appended to the hostname and resolution is tried for each in the order listed. Array of *string* items (maximum number of items 6).
OperatingMode	W	enum	Maintenance	System operating mode; either Maintenance or InService. Enumeration of:

				• *Maintenance* (Maintenance (Non-Operational) Mode) • *InService* (InService (Operational) Mode)
EnableFieldRecoveryConsoleAccess	W	boolean	false	Enables or disables field_recovery user console access.
EnableFactoryReset	W	boolean	true	Enables or disables the console command factory_reset.
BypassAlarms	W	enum{2}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 2). Each list item is an enumeration of: • *DHCP_ALLOCATION_FAILURE_WARNING* (One or more clients are unable to allocate an address)

System.DHCPServer.

Parameters relating to DHCP Server.

Parameter	W	Type	Default	Description
SubnetNumberOfEntries	-	unsignedInt	-	Indicates the number of Subnet entries.
ProcessArguments	-	string{}<256>	-	Indicates the arguments given to the DHCP server process. Array (maximum length as string 256) of *string* items.

System.DHCPServer.Subnet.{i}.

Parameters relating to DHCP Server subnet.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables a DHCP Server subnet.
Prefix	W	IPv4Address	Mandatory(0.0.0.0)	Indicates the prefix of the subnet from which the DHCP server is receiving requests. *Prefix* must not be 0.0.0.0 if *Enable* is true.
Netmask	W	IPv4Address	Mandatory(0.0.0.0)	Indicates the mask of the subnet from which the DHCP server is receiving requests. *Netmask* must not be 0.0.0.0 if *Enable* is true.
MinimumIPAddress	W	IPv4Address	Mandatory(0.0.0.0)	Minimum IP address in address subnet.

				MinimumIPAddress must not be 0.0.0.0 if *Enable* is true.
MaximumIPAddress	W	IPv4Address	Mandatory(0.0.0.0)	Maximum IP address in address subnet. *MaximumIPAddress* must not be 0.0.0.0 if *Enable* is true.
IPRouters	W	IPAddress{16}<64>	<Empty>	Gives the list of IP routers to return to the client. Array (maximum length as string 64) of *IPAddress* items (maximum number of items 16).
AllowedEquipment	W	enum	RadioNodesOnly	Specifies the type of equipment on this subnet to which the server will supply addresses. Enumeration of: • *RadioNodesOnly* (Only RadioNodes will be served) • *All* (All equipment will be served)

System.EventManagement.

Parameters relating to Event Management.

Parameter	W	Type	Default	Description
TargetNumberOfEntries	-	unsignedInt	-	Number of entries in the *.EventManagement.Target.{i}.* table.
FilterNumberOfEntries	-	unsignedInt	-	Number of entries in the *.EventManagement.Filter.{i}.* table.

System.EventManagement.Target.{i}.

Event target list.

Parameter	W	Type	Default	Description

System.EventManagement.Target.{i}.Syslog.

syslog information.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable this syslog target.
Description	W	string(256)	<Empty>	Human-readable description for this *Syslog*.

IPAddress	W	regex(256)	Empty(0.0.0.0)	IPv4 or IPv6 address of syslog target. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
ForwardingGroupIndex	W	unsignedInt	0	The FIB to be used for this Syslog server. The value MUST be the instance number of an object in the *.Layer3Forwarding.ForwardingGroup.* table.
Port	W	unsignedInt[ranges]	514	Port number syslog target. Possible values: • *514* • *49152 to 65535*
Filter	W	unsignedInt{5}	<Empty>	Filter applied to events before deciding which get sent to syslog server. If value is "", then no filtering is done. If more than one filter is specified, the filters are a logically *OR'd* together. Array of *unsignedInt* items (maximum number of items 5).
TxMsgs	-	unsignedInt	-	Number of transmitted to the syslog target.
DiscardMsgs	-	unsignedInt	-	Number of events discarded by filters for this syslog target.

System.EventManagement.Target.{i}.SNMPTrap.

SNMP trap information.

Parameter	W	Type	Default	Description

Enable	W	boolean	false	Enable this trap target.
Description	W	string(256)	<Empty>	Human-readable description for this *SNMPTrap*.
IPAddress	W	regex(256)	Empty(0.0.0.0)	IPv4 or IPv6 address of trap target. Possible patterns: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$` • `^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$`
ForwardingGroupIndex	W	unsignedInt	0	The FIB to be used for this SNMP trap target. The value MUST be the instance number of an object in the *.Layer3Forwarding.ForwardingGroup.* table.
Port	W	unsignedInt[0:65535]	162	IP port of trap target.
Community	W	string	public	Community string of trap target.
RemoteUser	W	string(32)	<Empty>	Username associated with this trap target.
RemoteEngine	W	regex	<Empty>	Remote Engine ID of trap target. Example value: 0x1234567. Possible patterns: • `^$` • `^0x[0-9a-z]{5,32}$`
Version	W	enum	v2c	Version of trap target. Enumeration of: • *v2c* (SNMPv2c SNMPv2-Trap-PDU)

				• *v3* (SNMPv3 SNMPv3-Trap-PDU)

InformAuthProtocol	W	enum	NoAuthProtocol	Authentication protocol, **snmpAuthProtocols** from SNMPv3 USM [RFC3414]. Enumeration of: • *NoAuthProtocol* (No authentication protocol, {{bibref|RFC3414}}) • *HMACMD5AuthProtocol* (Use HMAC-MD5-96 Digest Authentication Protocol, {{bibref|RFC3414}}) • *HMACSHAAuthProtocol* (Use HMAC-SHA-96 Digest Authentication Protocol, {{bibref|RFC3414}})
InformAuthKeyMD5	W	spanUnsignedInt	<Mandatory>	Key used for HMAC-MD5-96 Digest Authentication Protocol, [RFC3414]. *InformAuthKeyMD5* must not be "" if *InformAuthProtocol* is *HMACMD5AuthProtocol*.
InformAuthKeySHA	W	spanUnsignedInt	<Mandatory>	Key used for HMAC-SHA-96 Digest Authentication Protocol, [RFC3414]. *InformAuthKeySHA* must not be "" if *InformAuthProtocol* is *HMACSHAAuthProtocol*.
InformPrivProtocol	W	enum	NoPrivProtocol	Privacy protocol, **snmpPrivProtocols** from SNMPv3 USM [RFC3414]. Enumeration of: • *NoPrivProtocol* (No privacy protocol, {{bibref|RFC3414}}) • *DESPrivProtocol* (Use CBC-DES Symmetric Encryption Protocol, {{bibref|RFC3414}}.) • *AESCFB128Protocol* (Use CFB128-AES-128 Privacy Protocol, {{bibref|RFC3826}})
InformPrivKeyDES	W	spanUnsignedInt	<Mandatory>	Key used for CBC-DES Symmetric Encryption Protocol, [RFC3414]. *InformPrivKeyDES* must not be "" if *InformPrivProtocol* is *DESPrivProtocol*.
InformPrivKeyAES	W	spanUnsignedInt	<Mandatory>	Key used for CFB128-AES-128 Symmetric Encryption Protocol, [RFC3826]. *InformPrivKeyAES* must not be "" if *InformPrivProtocol* is *AESCFB128Protocol*.
NotifyType	W	enum	Trap	Notification type of trap target, [RFC3413]. Enumeration of: • *Trap* (Any messages generated will contain Unconfirm-Class PDUs) • *Inform* (Any messages generated will contain Confirm-Class PDUs)
InformsSent	-	unsignedInt	0	Informs sent and acknowledged successfully.
InformsFailed	-	unsignedInt	0	Informs sent, but not acknowledged by trap target.
InformsDropped	-	unsignedInt	0	Informs that are dropped internally by trapsender.

System.EventManagement.Target.{i}.CallPerformanceEventReport.

Specifies a call performance event report target for UMTS/LTE Call records events.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable this call performance event report target.
CPERModule	W	enum	TypeUnspecified	Call performance event report module UMTS/LTE. Enumeration of: • *TypeUnspecified* (Unspecified module) • *UMTSCallPerformanceEventReport* (UMTS call records.) • *LTECallPerformanceEventReport* (LTE call records.)
Description	W	string(256)	<Empty>	Specifies a target for UMTS or LTE call performance event records.
Filter	W	unsignedInt{5}	<Empty>	Filter used in deciding if the event will be written to the call performance event records file, this filter should contains at least one call performance event report group. Array of *unsignedInt* items (maximum number of items 5).
LoggedEvents	-	unsignedInt	-	Number of events logged to the call performance event report file.
DiscardEvents	-	unsignedInt	-	Number of events discarded by the filter for this call performance event report target.

System.EventManagement.Filter.{i}.

Event filters.

Parameter	W	Type	Default	Description
Severity	W	enum	<Empty>	Filter by severity for this target. Enumeration of: • (No severity level specified) • *Critical* (Critical severity level) • *Major* (Major severity level) • *Minor* (Minor severity level) • *Warning* (Warning severity level) • *Info* (Informational severity level) • *Clear* (Informational severity level)

				• *Trace* (Debug severity level)

Group	W	enum{3}	<Empty>	Filter by group for this target. Array of *string* items (maximum number of items 3). Each list item is an enumeration of: • (No event group specified.) • *CoreNetwork* (CoreNetwork event group.) • *Database* (Database event group.) • *Equipment* (Equipment event group.) • *RFMgmt* (RF management event group.) • *Session* (Session event group.) • *LBS* (Location Based Services event group.) • *AdminAAA* (AdminAAA event group.) • *Webmgmt* (Web Management event group.) • *Security* (Security event group.) • *IP* (IP event group.) • *Environmental* (Environmental event group.) • *Diagnostics* (Diagnostics event group.) • *TRClient* (TR Client event group.) • *Service* (Service Related event group.) • *WLAN* (WLAN related event group.) • *Routing* (Routing event group.) • *CBS* (Cell Broadcast Service event group.) • *FileMgmt* (File Management event group.) • *PWS* (Public Warning System event group.) • *UMTSCallPerformanceEventReport* (UMTS Call Performance Event Report group.) • *LTECallPerformanceEventReport* (LTE Call Performance Event Report group.) • *UMTS* (UMTS event group.) • *LTE* (LTE event group.) • *UMTSCallPerformanceEventReportInternalMobility* (UMTS Call Performance Event Report Internal Mobility group.) • *UMTSCallPerformanceEventReportCallManagement* (UMTS Call Performance Event Report Call Management group.) • *UMTSCallPerformanceEventReportRRCMessage* (UMTS Call Performance Event Report RRC Message group.) • *UMTSCallPerformanceEventReportRANAPMessage* (UMTS Call Performance Event Report RANAP Message group.) • *UMTSCallPerformanceEventReportSessionDetail* (UMTS Call Performance Event Report Session Detail group.) • *LTECallPerformanceEventReportInternalMobility* (LTE Call Performance Event Report Internal Mobility group.) • *LTECallPerformanceEventReportCallManagement* (LTE Call Performance Event Report Call Management group.) • *LTECallPerformanceEventReportRRCMessage* (LTE Call Performance Event Report RRC Message group.) • *LTECallPerformanceEventReportS1APMessage* (LTE Call Performance Event Report S1AP Message group.) • *LTECallPerformanceEventReportSessionDetail* (LTE Call Performance Event Report Session Detail group.) • *LTECallPerformanceEventReportDataStats* (LTE Call Performance Event Report Data Statistics group.)
EventID	W	enum{10}	<Empty>	Filter by event id for this target. Array of *string* items (maximum number of items 10). Each list item is an enumeration of:

				• (No event ID specified.) • *ENV_TEMP_SHUTDOWN* (Thermal shutdown, the value of a temperature parameter has risen higher than allowed.) • *TEMP_THRESHOLD_CROSS* (The value of a temperature parameter has risen higher than its threshold.) • *TEMP_THRESHOLD_CLEAR* (Value of a temperature parameter has fallen lower than a threshold.) • *TEMP_INITIAL_READING* (The initial value of a temperature parameter.) • *FAN_FAILURE* (A fan has failed. If more than 3 fans have failed, the level is critical. Otherwise the level is major.) • *FAN_NORMAL* (A fan has recovered from failure.) • *FAN_SLOWDOWN* (A fan has not failed but is slowing down. This is a warning so that the fan can be replaced.) • *FAN_SPEED_CHANGE* (The fan speed has been changed by software.) • *FAN_INITIAL_READING* (Report of the initial values for a fan.) • *NODE_ARRIVED* (The system became aware of a new node.) • *NODE_DEPARTED* (An existing node has left the system.) • *OPERATIONAL_STATE_CHANGE* (The operational state of a managed object has changed.) • *LOGGING_SERVICE_STARTED* (The services node has booted and the logging service has been started.) • *ADMIN_DISABLED* (The administrator has disabled the cell.) • *ADMIN_ENABLED* (The administrator has enabled the cell.) • *PROV_COMPLETE* (A cell has been successfull provisioned) • *PROV_FAILURE* (A error has been detected during the provisioning or de-provisioning of a cell) • *RANAP_CS_CONNECTION_EST* (A RANAP connection to the circuit-switched core has been established.) • *RANAP_CS_CONNECTION_TERM* (A RANAP connection to the circuit-switched core has been terminated.) • *RANAP_PS_CONNECTION_EST* (A RANAP connection to the packet-switched core has been established.) • *RANAP_PS_CONNECTION_TERM* (A RANAP connection to the packet-switched core has been terminated.) • *IPSEC_UP* (An IPsec tunnel has been established.) • *IPSEC_DOWN* (The IPsec tunnel has been terminated.) • *SOFTWARE_MISMATCH* (The services node has detected that the firmware on the radio node is out of date and should be updated.) • *SOFTWARE_BANK_FAILURE* (An internal software bank failure has been detected.) • *LOSS_OF_SYNC* (Loss of synchronization.) • *PTP_SYNCHRONIZED* (Frequency synchronized with ServicesNode.) • *PTP_SIMULATION_SYNC_EVENT* (Frequency synchronized with services node.) • *CALIBRATION_INVALID* (Calibration data invalid.) • *CALIBRATION_INVALID_BYPASSED* (Calibration data invalid but bypassed.) • *CONFIG_MISMATCH* (The actual equipment type does not match the configured equipment type.) • *CONFIG_MISMATCH_CLEAR* (The actual equipment type now matches the configured equipment type.) • *DEPROV_REQUEST* (A request has been made to de-provision a cell.) • *DEPROV_COMPLETE* (A cell has been successfully de-provisioned.) • *DEPROV_FAILURE* (A error has been detected during the de-provisioning of a cell) • *MEM_THRESHOLD_CROSS* (Memory usage has increased.) • *MEM_THRESHOLD_CLEAR* (Memory usage has decreased.) • *DISK_THRESHOLD_CROSS* (Disk space usage for a partition has incresed and crossed the predefined threshold.) • *DISK_THRESHOLD_CLEAR* (Disk space usage for a partition has decresed.) • *SCSN_STARTED* (The services node has started.) • *CORE_IPSEC_UP* (The IPsec tunnel to the core network is up.)

				• *CORE_IPSEC_DOWN* (The IPsec tunnel to the core network is down.) • *SIM_INSERTED* (A SIM card has been inserted into the services node.) • *SIM_REMOVED* (A SIM card has been removed from the services node.) • *ACTIVE_EMERGENCY_CALL* (There is an active emergency call.) • *EMERGENCY_CALL_TERM* (All active emergency calls have been terminated.) • *CELL_ACTIVE* (There is at least one active session on this cell.) • *CELL_IDLE* (There are no active sessions on this cell.) • *UMTS_SESSION_EST* (This event has been DEPRECATED.) • *UMTS_SESSION_TERM* (This event has been DEPRECATED.) • *UMTS_SESSION_FAIL* (This event has been DEPRECATED.) • *UMTS_RRC_CONN_INITIATED* (This event has been DEPRECATED.) • *UMTS_RRC_CONN_EST* (This event has been DEPRECATED.) • *UMTS_RRC_CONN_FAIL* (This event has been DEPRECATED.) • *UMTS_RRC_CONN_TERM* (This event has been DEPRECATED.) • *UMTS_SESSION_ADMISSION_ACCEPT* (This event has been DEPRECATED.) • *UMTS_SESSION_ADMISSION_REJECT* (This event has been DEPRECATED.) • *UMTS_CN_CONN_INITIATED* (This event has been DEPRECATED.) • *UMTS_CN_CONN_EST* (This event has been DEPRECATED.) • *UMTS_CN_CONN_TERM* (This event has been DEPRECATED.) • *RFMGMT_FAULTED* (A failure was detected during RF management operations.) • *RFMGMT_CLEAR_FAULT* (RF management cleared any fault it may have posted.) • *RFMGMT_RADIO_UNCALIBRATED* (RF management requires calibrated radios for proper operation. RF management will post this event against an uncalibrated radio node. The associated cell will be faulted by RF management.) • *SOFTWARE_FAILURE* (A software process has failed.) • *AUTOPROV_RN* (An unprovisioned radio node was successfully auto provisioned.) • *AUTOPROV_RADIO* (A radio was successfully auto provisioned.) • *AUTOPROV_CELL* (A cell was successfully auto provisioned for an auto provisioned services node and radio.) • *AUTOPROV_RN_FAIL* (A radio node failed to auto provision. No free IDs remain.) • *AUTOPROV_CELL_FAIL* (A cell failed to auto provision.) • *AUTOPROV_CELL_DUP_PSC* (No unique primary scrambling codes remain. Provisioning with a duplicate primary scrambling code.) • *AUTOPROV_FAILED_MAX_RN_LIMIT* (Failed to auto provision a radio node because the system limit for provisioned radio nodes has been reached.) • *LINK_UP* (The Ethernet port link is up.) • *LINK_DOWN* (The Ethernet port link is down.) • *USB_FILESYSTEM_DETECTED* (The file system of a SpiderCloud USB drive has been detected.) • *USB_REMOVED* (A SpiderCloud USB drive has been removed.) • *FE_INIT_TIMEOUT* (Timeout waiting for forwarding engine initialization.) • *HNB_CONNECTION_OPEN* (The HNB has connected with the HNB gateway.) • *HNB_CONNECTION_CLOSED* (The HNB disconnected from the HNB gateway.) • *HNB_REGISTRATION_TIMEOUT* (The HNB has timed out with the HNB gateway.) • *HNB_REGISTRATION_ACCEPTED* (The HNB registration has been accepted by the HNB gateway.) • *HNB_REGISTRATION_REJECTED* (The HNB registration has been rejected by the HNB gateway.) • *HNB_DEREGISTERED* (The HNB has de-registered from the HNB gateway.) • *HNB_UE_REGISTRATION_TIMEOUT* (This event has been DEPRECATED.)

				• *HNB_UE_REGISTRATION_ACCEPTED* (This event has been DEPRECATED.) • *HNB_UE_REGISTRATION_REJECTED* (This event has been DEPRECATED.) • *HNB_UE_DEREGISTERED* (This event has been DEPRECATED.) • *UMTS_UE_CREATE_MASTERSESSION* (This event has been DEPRECATED.) • *UMTS_UE_CAPABILITIES* (This event has been DEPRECATED.) • *UMTS_UE_CREATE_VOICE_SESSION* (This event has been DEPRECATED.) • *UMTS_UE_END_VOICE_SESSION* (This event has been DEPRECATED.) • *UMTS_UE_CREATE_DATA_SESSION* (This event has been DEPRECATED.) • *UMTS_UE_END_DATA_SESSION* (This event has been DEPRECATED.) • *UMTS_UE_END_MASTERSESSION* (This event has been DEPRECATED.) • *UMTS_UE_CM_ENTRY* (This event has been DEPRECATED.) • *UMTS_UE_CM_EXIT* (This event has been DEPRECATED.) • *UMTS_UE_HANDOVER_START* (This event has been DEPRECATED.) • *UMTS_UE_HANDOVER_END* (This event has been DEPRECATED.) • *UMTS_UE_CALL_SETUP_START* (This event has been DEPRECATED.) • *UMTS_UE_CALL_SETUP_END* (This event has been DEPRECATED.) • *UMTS_UE_RRC_MODE_CHANGE* (This event has been DEPRECATED.) • *UMTS_UE_FOUND_IMSI* (This event has been DEPRECATED.) • *DOS_DROP_THRESH_CROSS* (Packet drops in monitoring interval exceeded the threshold drop count. This indicates a possible DOS attack.) • *DOS_DROP_THRESH_CLEAR* (Packet drops in monitoring interval are back in acceptable range. Indicates that a possible DOS attack has stopped.) • *RFMGMT_NLSCE_ENABLED* (The neighbor list self configuration is enabled. RF management is active.) • *RFMGMT_NLSCE_DISABLED* (The neighbor list self configuration is disabled. RF management is inactive.) • *RFMGMT_REM_START* (Radio environment monitoring has started.) • *RFMGMT_REM_COMPLETE* (Radio environment monitoring has completed.) • *RFMGMT_TX_PWR_ASSIGNMENT_START* (The transmit power assignment has started.) • *RFMGMT_TX_PWR_ASSIGNMENT_COMPLETED* (The transmit power assignment has completed.) • *RFMGMT_UNEXPECTED_CONFIG* (Neighbor list self configuration is enabled but ScanPeriodically is false.) • *RFMGMT_UNEXPECTED_CONFIG_CLEARED* (The unexpected configuration for RF management has been cleared.) • *RFMGMT_SKIP_REM* (Skipped radio environment monitoring due to one of the following reasons: A - The radio node does not have frequency stability. B - The services node is in OOS. C - An emergency call is active.) • *RFMGMT_TX_PWR_RESET* (Resetting transmit powers.) • *RFMGMT_REM_STOP* (Radio environment monitoring has been stopped.) • *RFMGMT_SELFCONFIGURED* (The network or cell has been configured by RF management..) • *RFMGMT_NOT_SELFCONFIGURED* (The cell has not been configured by RF management.) • *RFMGMT_ADD_START* (The radio environment monitoring add cycle has started for the specified cell.) • *RFMGMT_ADD_COMPLETE* (The radio environment monitoring add cycle has completed for the specified cell.) • *RFMGMT_DEL_START* (The radio environment monitoring delete cycle has started for the specified cell.) • *RFMGMT_DEL_COMPLETE* (The radio environment monitoring delete cycle has completed for the specified cell.) • *RFMGMT_DELAY_ADD* (The radio environment monitoring add cycle has been delayed for the specified cell.) • *DATA_SESSION_SWITCHING_MODE_UPDATE_FAILURE* (Data session for the UE cannot get updated policy settings due to invalid switching mode change when AutoPolicyUpdate was enabled for the UE. The active data session cannot change switching mode from or to CNAPT dynamically.) • *SERVICE_ACCESS_ALLOWED_FROM_CORE_ONLY* (Access to the services node system service is allowed only from the core network.) • *SERVICE_ACCESS_ALLOWED_FROM_EVERYWHERE* (Access to the services node system service is allowed from everywhere.)

				• *RFMGMT_FORCE_POWER* (Requested to assign specified maxTxPower to the specified cell.) • *DB_MIGRATION_SUCCEEDED* (The database has been successfully migrated.) • *DB_MIGRATION_FAILED* (The database restoration failed.) • *DB_REVERT_SUCCEEDED* (The database was successfully reverted.) • *DB_REVERT_FAILED* (The database validation failed.) • *DB_CLEAN_CONFIGURATION_SPECIFIED* (A clean configuration flag has been detected at boot up. The database configuration has been reset to factory defaults.) • *LBS_UPDATE* (There was a Location Based Services (LBS) update that may provide more insight as to a UE's location.) • *UMTS_UE_IMSI_NOT_AVAIL* (This event has been DEPRECATED.) • *CELL_MAX_TX_POWER_DELTA_CROSS* (The delta between MaxFAPTxPowerInUse and MaxFAPTxPowerInUseAlarmReference of the cell is more than MaxFAPTxPowerInUseAlarmDelta.) • *CELL_MAX_TX_POWER_DELTA_CLEAR* (The delta between MaxFAPTxPowerInUse and MaxFAPTxPowerInUseAlarmReference of cell is less than or equal to MaxFAPTxPowerInUseAlarmDelta.) • *ADMIN_AAA_AUTHEN_FAIL* (User authentication failed.) • *ADMIN_AAA_LOGIN* (A user logged in.) • *ADMIN_AAA_LOGOUT* (A user logged out.) • *WEBMGMT_FAULT* (Web management is faulted.) • *WEBMGMT_DISABLED* (Web management has been disabled.) • *WEBMGMT_ENABLED* (Web management has been enabled.) • *NEIGHBORHOOD_CELL_UNEXPECTED* (A neighbor cell has been discovered in a neighborhood that is not referenced.) • *NEIGHBORHOOD_CELL_MISSING* (A neighbor cell in the referenced neighborhood has disappeared from the current neighborhood.) • *NEIGHBORHOOD_REFERENCE_MATCH* (The cells in referenced neighborhood and current neighborhood are having perfect match.) • *NEIGHBORHOOD_REFERENCE_DELETED* (The reference cell neighborhood has been deleted.) • *SERVICE_ACCESS_ALLOWED_FROM_CORE_SUBNETS_ONLY* (Access to the services node system service is allowed only from specific core subnet(s)) • *SERVICE_ACCESS_ALLOWED_FROM_SUBNETS_ONLY* (Access to the services node is allowed only from specific subnet(s).) • *DB_MIGRATION_NOT_NEEDED* (The database requires no migration because the previous schema and new schema match.) • *DHCP_ALLOCATION_FAILURE* (A radio node requested an IP address but there are no more remaining in the IP address pool.) • *DHCP_ALLOCATION_FAILURE_CLEAR* (The services node allocated an IP address to a radio node that previously was unable to receive one, or 5 minutes has passed and the request timed out.) • *DHCP_ALLOCATION_FAILURE_CLEAR_ALL* (The services node allocated an IP address to all radio nodes that previously were unable to receive one, or 5 minutes has passed and the requests timed out.) • *ADMIN_AAA_LIMIT_EXCEEDED* (User authentication failed. The user has exceeded the maximum number of sessions.) • *ADMIN_AAA_MGMT_SESSION_BEGIN* (A user CLI session has begun.) • *ADMIN_AAA_MGMT_SESSION_END* (A user CLI session has ended.) • *SECGWSERVER_NAME_NOT_RESOLVED* (The Fully Qualified Domain Name (FQDN) for the security gateway server cannot be resolved.) • *SECGWSERVER_NAME_NOT_RESOLVED_CLEAR* (The Fully Qualified Domain Name (FQDN) for the security gateway server has been resolved.) • *DB_BACKUP_FAILED* (The database backup failed.) • *DB_RESTORE_FAILED* (The database restoration failed.) • *DB_RESTORE_PARSE_ERROR* (An error occurred trying to parse the restore database file. The process will attempt to continue.) • *DB_RESTORE_SCHEMA_MISMATCH* (The schema in the backup does not match that of the running configuration.) • *DB_BACKUP_FILE_MODIFIED* (The database backup file has been modified since its creation.) • *DB_RESTORE_SUCCEEDED* (The database restoration was successful.) • *DB_BACKUP_SUCCEEDED* (The database was successfully backed up.) • *SERVICE_ACCESS_ALLOWED_FROM_CORE_AND_RN_ONLY* (Access to the services node system service is allowed only from the core network and radio nodes.) • *SERVICE_ACCESS_ALLOWED_FROM_RN_ONLY* (Access to the services node system service is allowed only from radio nodes.)

				• *FAPGWSERVER_NAME_NOT_RESOLVED* (The Fully Qualified Domain Name (FQDN) for the FAPGWServer cannot be resolved.) • *FAPGWSERVER_NAME_RESOLVED* (The Fully Qualified Domain Name (FQDN) for the FAPGWServer has been resolved.) • *UMTS_UE_EMERGENCY_REDIRECT_ATTEMPT_FAIL* (Emergency call redirect to mobile operator failed.) • *UMTS_UE_EMERGENCY_HANDOFF_ATTEMPT_FAIL* (Hard Handoff to mobile operator of emergency calls failed.) • *RNLINK_TEST_START* (A client has requested starting radio node link test.) • *RNLINK_TEST_DONE* (A radio node link test has finished executing.) • *RNLINK_TEST_STOP* (A client has requested stopping radio node link test.) • *RNLINK_TEST_ERROR* (A radio node link test has failed due to an error.) • *UMTS_SESSION_RATE_THRESHOLD_EXCEEDED* (UMTS session rate exceeded the lower threshold of maximum session rate.) • *UMTS_SESSION_RATE_THRESHOLD_NORMAL* (UMTS session rate returned below lower threshold of maximum session rate.) • *UMTS_MAX_SESSION_RATE_EXCEEDED* (UMTS session rate exceeded the lower threshold of maximum session rate.) • *UMTS_MAX_SESSION_RATE_NORMAL* (UMTS session rate returned below lower threshold of maximum session rate.) • *SESSION_DHCP_ADDRESS_COLLISION* (The DHCP server offered an address for a UE, but that address is already in used by the system as an interface address and cannot be used for a UE. The data session cannot be created.) • *SYSTEM_ENTERED_MAINT_MODE* (The system is entering maintenance mode.) • *SYSTEM_EXITED_MAINT_MODE* (The system is exiting maintenance mode.) • *CERT_VERIFY_FAILURE* (Certificate verification failed.) • *TR_SESSION_BEGIN* (TThe services node has successfully connected to the SpiderNet server.) • *TR_SESSION_END* (The services node has been disconnected from the SpiderNet server.) • *TR_RPC_RECEIVED* (The services node received a RPC request from its NMS server.) • *TR_CONNECTION_FAILED* (The connection between the services node and the SpiderNet server has failed.) • *TR_SESSION_FAILED* (An active session between the services node and the SpiderNet server has failed.) • *TR_CLIENT_STARTED* (The services node SpiderNet application has started.) • *RFMGMT_NLC_START* (Neighbor list creation is started.) • *RFMGMT_NLC_COMPLETE* (Neighbor list creation has completed.) • *SERVICE_STARTED* (A SpiderCloud service has started.) • *ARRIVED* (The system has become aware of a new piece of equipment.) • *DEPARTED* (An existing piece of equipment has left the system.) • *AUTHENTICATED* (An existing piece of equipment has been authenticated.) • *INITIAL_PROV_COMPLETE* (The object has been successfully provisioned.) • *DB_VALIDATION_SUCCEEDED* (The database validation succeeded.) • *DB_VALIDATION_FAILED* (The database validation failed.) • *BGP_PEER_STATE_CHANGE* (A BGP peer has had a state change.) • *BGP_PEER_UP* (The BGP peer is up.) • *BGP_PEER_DOWN* (The BGP peer is down.) • *MULTIPLE_COOLING_FAN_FAILURES* (Two or more services node fans have failed.) • *COOLING_FAN_FAILURES_SUSTAINABLE* (The system can be properly cooled in spite of internal fan failures that may exist.) • *RFMGMT_ZONE_REM_START* (Radio Environment Monitoring is started for the specified Zone.) • *RFMGMT_ZONE_REM_COMPLETE* (Radio Environment Monitoring has completed for the specified Zone.) • *RFMGMT_ZONE_REM_ABORTED* (Radio environment monitoring has been aborted for the specified zone.) • *RFMGMT_ZONE_ADD_START* (The radio environment monitoring add cycle has started for the specified zone.) • *RFMGMT_ZONE_ADD_COMPLETE* (The radio environment monitoring add cycle has completed for the specified zone.) • *RFMGMT_ZONE_ADD_ABORTED* (The radio environment monitoring add cycle has been aborted for the specified zone.)

- *RFMGMT_STALE_REM_RESULTS* (The radio environment monitoring results are stale for the cell in specified zone.)
- *RFMGMT_UARFCNDL_CHANGE_DETECTED* (Indicates that the UARFCNDL has changed, provisioned UMTS external cells must be deleted and recreated.)
- *RFMGMT_COVERAGE_TARGET_NOT_MET* (Indicates that a cell's transmit power cannot be increased to meet the maximum provisioned level.)
- *RFMGMT_COVERAGE_TARGET_CHANGED* (The RF management coverage has changed.)
- *UMTS_CN_CONN_SWITCHOVER_TRIGGERED* (A switchover was triggered to the secondary security gateway and HNB gateway.)
- *UMTS_CN_CONN_SWITCHOVER_MAX_ATTEMPT* (The maximum number of attempts to switchover to a different security gateway and HNB gateway has been reached.)
- *POWER_SUPPLY_MISSING_RAISE* (A power supply is missing.)
- *POWER_SUPPLY_MISSING_CLEAR* (A power supply is no longer missing.)
- *POWER_SUPPLY_FAILED_RAISE* (A power supply has failed.)
- *POWER_SUPPLY_FAILED_CLEAR* (A power supply has recovered from failure.)
- *CBS_MSG_BROADCAST_STARTED* (A broadcast message is now being transmitted across all radio nodes using the cell broadcast service.)
- *CBS_MSG_BROADCAST_STOPPED* (Transmission of a broadcast message across all radio nodes, using the cell broadcast service, has now been stopped.)
- *CBS_RESET* (Transmission of all broadcast messages, using cell broadcast service, has now been stopped. The broadcast transport channel is removed.)
- *RFMGMT_REM_REQUIRED* (A manual/periodic REM scan needs to be started. RF management restarted while REM was in progress.)
- *RFMGMT_NLC_REQUIRED* (A neighbor list must be created. RF management was restarted when a neighbor list creation was in progress.)
- *TIMEZONE_CHANGED* (The services node time zone has been changed. Reboot the system for the change to take effect.)
- *NEIGHBORHOOD_REFERENCE_MISMATCH_REMOVED* (The reference neighborhoods in all Zones match the detected list of that Zone)
- *LTE_S1AP_CONNECTION_TERM* (All S1AP connections to the EPC core have been terminated.)
- *LTE_S1AP_CONNECTION_EST* (At least one S1AP connection to the EPC core has been established.)
- *LBS_ZEPTO_SESSION* (The presence of a UE was detected; more information about UE identity, it's location and associated gateways is being provided.)
- *FILEMGMT_UPLOAD_FAILED* (Failed to upload the file.)
- *FILEMGMT_QUEUE_THRESHOLD_CROSS* (Indicates that the module's queue size passed a predefined threshold.)
- *FILEMGMT_QUEUE_THRESHOLD_CLEAR* (Indicates that the module's queue size is now below the minimum predefined threshold.)
- *ENTER_DIAG_MODE* (The entity has entered diagnostics mode.)
- *EXIT_DIAG_MODE* (The entity has exited diagnostics mode.)
- *LTE_S1AP_PEER_CONNECTION_TERM* (A S1AP connection to the EPC core has been terminated.)
- *LTE_S1AP_PEER_CONNECTION_EST* (A S1AP connection to the EPC core has been established.)
- *RFMGMT_ANR_NEIGHBOR_PAIR_DETECTED* (A new neighbor has been detected via ANR.)
- *RFMGMT_SUBOPTIMAL_ASSIGNMENT_OF_PCIS_DETECTED* (Due to Trigger, the current assignment of the PCIs has become non-optimal. The user is advised to take RecommendedAction.)
- *PWS_MSG_BROADCAST_STARTED* (A public warning message is now being transmitted across all radio nodes.)
- *PWS_MSG_BROADCAST_STOPPED* (Transmission of a public warning message across all radio nodes, has now been stopped.)
- *RFMGMT_REM_CROSS_SNIFFING_STARTED* (Started REM scan which requires cross sniffing. UMTS service may affect LTE service and vice-versa.)
- *RFMGMT_ADD_CROSS_SNIFFING_STARTED* (Started REM scan for cell add requires cross sniffing. UMTS service may affect LTE service and vice-versa.)
- *CPER_LTE_RRC_CONNECTION_ESTABLISHMENT* (This call performance event report provides information about the RRC Connection Setup procedure for the UE.)
- *CPER_LTE_RRC_CONNECTION_RELEASE* (This call performance event report provides information about the RRC Connection Release procedure for the UE.)
- *CPER_LTE_UE_SIGNALING_CONNECTION_ESTABLISHMENT* (This call performance event report provides information about the establishment of a signaling connection with the core network.)
- *CPER_LTE_INITIAL_CONTEXT_SETUP* (This call performance event report provides information about Initial Context Setup procedure for the UE.)
- *CPER_LTE_ERAB_SESSION_START* (This call performance event report provides information about the data session created for the UE.)
- *CPER_LTE_ERAB_SESSION_END* (This call performance event report provides information about ending of data session for the UE.)
- *CPER_LTE_UE_CONTEXT_RELEASE* (This call performance event report provides information about the UE Context Release procedure for the UE.)
- *CPER_LTE_S1_HAND_OUT* (This call performance event report provides information about the hand-out procedure for the UE.)

				• *CPER_LTE_S1_HAND_IN* (This call performance event report provides information about the hand-in procedure for the UE.) • *CPER_UMTS_RRC_CONNECTION_SETUP* (This call performance event report provides information about the RRC Connection Setup procedure for the UE.) • *CPER_UMTS_UE_SIGNALING_CONNECTION_ESTABLISHMENT* (This call performance event report provides information about the establishment of a signaling connection with the core network..) • *CPER_UMTS_RRC_CONNECTION_RELEASE* (This call performance event report provides information about the RRC Connection Release procedure for the UE.) • *CPER_UMTS_HAND_OUT* (This call performance event report provides information about the hand-out procedure for the UE.) • *CPER_UMTS_HAND_IN* (This call performance event report provides the information about the hand-in procedure for the UE.) • *CPER_UMTS_PS_SESSION_START* (This call performance event report provides information about the PS session created for the UE.) • *CPER_UMTS_PS_SESSION_END* (This call performance event report provides information about the ending of a PS session for the UE.) • *CPER_UMTS_CS_SESSION_START* (This call performance event report provides information about the CS session created for the UE.) • *CPER_UMTS_CS_SESSION_END* (This call performance event report provides information about the ending of a CS session for the UE.) • *LTE_S1AP_PEER_NAME_NOT_RESOLVED* (The Fully Qualified Domain Name (FQDN) for the LTE S1AP peer cannot be resolved.) • *LTE_S1AP_PEER_NAME_RESOLVED* (The Fully Qualified Domain Name (FQDN) for the LTE S1AP peer has been resolved.) • *DETECT_WIFI* (A RadioNode with WiFi Intrusion Detection enabled detected a WiFi device.) • *DETECT_UMTS* (A UMTS detection event has occurred.) • *DETECT_LTE* (An LTE detection event has occurred.) • *RFMGMT_LTECELL_LOCATION_TYPE_MODIFIED* (Due to Trigger, the location type of an internal LTECell has been modified. The user is advised to take RecommendedAction.) • *RFMGMT_NEIGHBOR_PAIR_STATS_WORSENED* (Possibly due to PCI confusion, the hand-over / hand-out failure rate of an LTE neighbor pair has worsened.) • *RFMGMT_NEIGHBOR_PAIR_STATS_IMPROVED* (Due to PCI confidence, the hand-over / hand-out failure rate of an LTE neighbor pair has improved.) • *RFMGMT_NEIGHBOR_PAIR_WITH_CONFUSING_PCI_DETECTED* (Detected PCI confusion for an LTE neighbor pair.) • *CPER_UMTS_SOFT_HANDOVER* (This call performance event report provides information about the intra-ERAN handover of the UE.) • *CPER_UMTS_RRC_STATE_TRANSITION* (This call performance event report provides the information about the RRC state transition of the UE.) • *CPER_UMTS_RANAP_MESSAGE* (This call performance event report provides information about the RANAP message sent or received from the IU core.) • *CPER_UMTS_RRC_MESSAGE* (This call performance event report provides information about the RRC message sent or received from the UE.) • *CPER_UMTS_PAGING* (This call performance event report provides information about Paging procedure for a UE.) • *CPER_UMTS_RRC_CONNECTION_REESTABLISHMENT* (This call performance event report provides information about the RRC connection reestablishment of a UE session.) • *CPER_UMTS_IU_CONNECTION_RELEASE* (This call performance event report provides information about the IU connection release of a UE session. This record will be generated while sending a RANAP IU release request message to the core and while receiving a RANAP IU release command message from the core.) • *CPER_UMTS_RAB_ASSIGNMENT_REQ* (This call performance event report provides information about the RANAP RAB assignment request message received from the core. This record will be generated when a RANAP RAB assignment message received from the core.) • *CPER_UMTS_PS_SESSION_DATA_STATS* (This call performance event report provides information about uplink and downlink data sent and receieved for a data session of the UE. This call performance event report will be generated when disconnecting the data session of the RAB during RAB release or session disconnect.) • *CPER_LTE_X1_HANDOVER* (This call performance event report provides information about the intra-ERAN handover of the UE. This call performance event report will be generated after a successful or failed intra-ERAN handover procedure.) • *CPER_LTE_RRC_MESSAGE* (This call performance event report provides information about the RRC message sent or received from the UE.) • *CPER_LTE_S1AP_MESSAGE* (This call performance event report provides information about the S1AP message sent or received from the EPC.) • *CPER_LTE_PAGING* (This call performance event report provides information about the Paging procedure.) • *CPER_LTE_RRC_CONNECTION_REESTABLISHMENT* (This call performance event report provides information about an RRC connection reestablishment procedure of a UE. This call performance event report will be generated after a successful or failed RRC connection reestablishment procedure.) • *CPER_LTE_ERAB_SESSION_DATA_STATS* (This call performance event report provides information about uplink and downlink data sent and received for a data session of the UE. This call performance event report will be generated when disconnecting the data session of the ERAB during ERAB release or session disconnect.) • *CPER_LTE_CS_FALLBACK* (This call performance event report provides information about the CS fallback attempts for a UE session.) • *RFMGMT_NEIGHBOR_PAIR_REJUVENATION_DETECTED* (Detected that an LTE neighbor pair is no longer stale.)

				• *RFMGMT_NEIGHBOR_PAIR_STALENESS_DETECTED* (Detected that an LTE neighbor pair has become stale.) • *LTE_X2AP_PEER_CONNECTION_TERM* (An X2AP connection to the EPC core has been terminated.) • *LTE_X2AP_PEER_CONNECTION_EST* (An X2AP connection to the EPC core has been established.) • *CPER_LTE_RRC_CONNECTION_START* (This call performance event report provides information about an RRC connection initiation from the UE.) • *CPER_LTE_RRC_CONNECTION_END* (This call performance event report provides information about an RRC connection termination with the UE.) • *CPER_LTE_HAND_IN_START* (This call performance event report provides information about a handin procedure initiation.) • *CPER_LTE_ERAB_SESSION_SETUP* (This call performance event report provides information about the E-RAB Setup procedure for the UE.) • *CPER_LTE_ERAB_SESSION_RELEASE* (This call performance event report provides information about the E-RAB Release procedure for the UE.) • *LTE_S1AP_PLMN_CONNECTION_UP* (At least one S1AP Peer is serving this PLMNID.) • *LTE_S1AP_PLMN_CONNECTION_DOWN* (No S1AP Peer is serving this PLMNID.) • *CPER_LTE_X2_HAND_OUT* (This call performance event report provides information about the handout procedure for the UE over the X2 interface.) • *CPER_LTE_X2_HAND_IN* (This call performance event report provides information about the hand-in procedure for the UE over the X2 interface.) • *STORAGE_ENCRYPTION_FAILED* (An error occurred while encrypting the ServicesNode's storage. The pervious storage format will be preserved.) • *INPATH_SERVICE_TRAFFIC_STOPPED* (An in-path service has been presented with packets to process in the past 10 seconds, but no packets have emerged from that service.) • *INPATH_SERVICE_TRAFFIC_RESUMED* (An in-path service has been presented with packets to process in the past 10 seconds, and some packets have emerged from that service.) • *RFMGMT_NEIGHBORS_WITH_CONFUSING_PCIS_DETECTED* (Detected PCI confusion for an LTECell.) • *RFMGMT_NO_NEIGHBORS_WITH_CONFUSING_PCIS_DETECTED* (No PCI confusion for an LTECell detected.) • *RFMGMT_NEIGHBOR_PAIR_WITH_COLLIDING_PCI_DETECTED* (Detected PCI collision for an LTE neighbor pair.) • *RFMGMT_NEIGHBORS_WITH_COLLIDING_PCIS_DETECTED* (Detected PCI collision for an LTECell.) • *RFMGMT_NO_NEIGHBORS_WITH_COLLIDING_PCIS_DETECTED* (No PCI collision for an LTECell detected.) • *FE_CONNECTION_FAILURE* (The services node Forwarding Engine (FE) has failed to establish a connection with Forwarding Control Daemon (FCD) process.) • *FE_CONNECTION_SUCCESS* (The services node Forwarding Engine (FE) has established a connection successfully with Forwarding Control Daemon (FCD) process.) • *LTE_CELL_OTA_SYNCED* (The LTE cell is OTA synced with an external or internal cell) • *LTE_CELL_LOSS_OF_OTA_SYNC* (The LTE cell has lost OTA sync with an external or internal cell) • *CPER_LTE_CHANNEL_QUALITY_INFO* (This call performance event report provides information about the channel quality information received from the UE over PUCCH or PUSCH channel.) • *LTE_M3AP_PEER_CONNECTION_TERM* (An M3AP connection to the MME has been terminated.) • *LTE_M3AP_PEER_CONNECTION_EST* (An M3AP connection to the MME has been established.) • *RFMGMT_LTECELL_TX_POWER_MODIFIED* (LTECell Tx power is changed due to system coverage stats.) • *LINK_PARAMETER_THRESH_EXCEEDED* (Link parameter exceeded configured threshold value.) • *LINK_PARAMETER_THRESH_CLEAR* (Link parameter recovered and fell below configured threshold value.) • *LINK_PARAMETER_DEGRADED* (At least one link parameter has crossed its configured threshold value.) • *LINK_PARAMETER_NOT_DEGRADED* (All link parameters recovered and fell below configured threshold values.) • *LTE_CELL_OTA_SYNC_FAILURE* (An attempt to time synchronize the LTE cell with an internal or external cell failed) • *TEST_EVENT_1* (This is a test event.) • *TEST_EVENT_UMTS_CPER_1* (This is a test event.) • *TEST_EVENT_LTE_CPER_1* (This is a test event.) • *TEST_EVENT_UMTS_CPER_2* (This is a test event.) • *TEST_EVENT_LTE_CPER_2* (This is a test event.) • *TEST_EVENT_UMTS_CPER_3* (This is a test event.)

				• *TEST_EVENT_LTE_CPER_3* (This is a test event.)

System.Version.

System firmware information.

Parameter	W	Type	Default	Description

System.Version.Brief.{i}.

Brief system firmware information. Includes information on running and revert image.

Parameter	W	Type	Default	Description
Product	-	string	-	Firmware product name. Example value: "SCOS".
Image	-	string	-	Indicates which image. Example values: "running", "revert".
Version	-	string	-	Version number of firmware image of the form "major-version-number.minor-version-number.micro-version-number". Example values: "1.5.255", "1.4.69".
Timestamp	-	dateTime	-	Local timestamp when firmware package was built in ISO-8601 format. Example values: "2010-06-03T16:26:47Z", "2013-03-06T11:36:31-08:00".

System.Version.Detail.{i}.

Detailed running system firmware information. Includes image information on all nodes in the system.

Parameter	W	Type	Default	Description
NodeID	-	unsignedInt	-	Identifier of node for which firmware version information is being reported.
NodeName	-	string	-	Name of node for which firmware version information is being reported. This parameter is optional.
PackageID	-	string	-	Sub package name identifier as an abbreviated string. Example values: "PLAT", "UMTS". Example values indicate platform and UMTS packages respectively.
Description	-	string	-	Sub package name as a descriptive string. Example values: "SpiderCloud Platform Software", "SpiderCloud UMTS Software".
Version	-	string	-	Version number of firmware image. Example values: "1.5.255.4262", "1.4.69.2271".
Builder	-	string	-	User ID of firmware package builder.

BuildTime	-	string	-	Local timezone timestamp when firmware package was built in UNIX date format. Example values: "Thu Jun 3 13:25:25 2010 PDT", "Tue Jun 1 09:19:04 2010 PDT".

System.Version.Revert.{i}.

Detailed of the revert system firmware information. Includes image information for the SN node only.

Parameter	W	Type	Default	Description
PackageID	-	string	-	Sub package name identifier as an abbreviated string. Example values: "PLAT", "UMTS". Example values indicate platform and UMTS packages respectively.
Version	-	string	-	Version number of firmware image of the form "major-version-number.minor-version-number.micro-version-number.build-number". Example values: "1.5.255.2271", "1.4.69.1578".
Builder	-	string	-	User ID of firmware package builder.
BuildTime	-	string	-	Local timezone timestamp when firmware package was built in UNIX date format. Example values: "Thu Jun 3 13:25:25 2010 PDT", "Tue Jun 1 09:19:04 2010 PDT".

System.CentralizedServicesNode.

Parameters relating to the Centralized Services Node.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables the Centralized Services Node.

System.CLI.

Parameters relating to the system Command Line Interface (CLI).

Parameter	W	Type	Default	Description
MaxSessions	W	unsignedInt[1:4]	4	Maximum number of CLI sessions allowed for entire system.
MaxSessionsPerUser	W	unsignedInt[1:4]	4	Maximum number of CLI sessions allowed for each user account.
EnableAdminConsoleAccess	W	boolean	false	Enables or disables CLI console access for the admin user.

System.SNMP.

Parameters relating to SNMP.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables SNMP.
Version	W	enum{1:2}	v2c	SNMP protocol versions to enable. Array of *string* items (minimum number of items 1, maximum number of items 2). Each list item is an enumeration of: • *v2c* (SNMPv2c) • *v3* (SNMPv3)
LocalEngine	-	regex	-	Local SNMP service engine identifier Possible patterns: • `^$` • `^0x[0-9a-z]{5,32}$`
EnableAuthenTraps	W	boolean	false	Enables or disables Authentication Traps.
EnableWLANTraps	W	boolean	false	Enables or disables WLAN Traps.
ForwardingGroupIndex	W	unsignedInt	0	The FIB to be used for the SNMP service. The value MUST be the instance number of an object in the *.Layer3Forwarding.ForwardingGroup.* table.

System.SNMP.AccessControl.

Parameters relating to restricting access to SNMP service. Each parameter under *AccessControl* represents a method through which SNMP service may be accessed from a network entity external to the system.

- if no parameters under *AccessControl* are specified:
  - access to SNMP service is unrestricted
- if one parameter under *AccessControl* is specified:
  - SNMP service access is restricted to the method represented by that parameter
- if more than one parameter under *AccessControl* is specified:
  - SNMP service access is restricted to any one of the methods represented

Parameter	W	Type	Default	Description
VirtualInterface	W	unsignedInt[1:]{}	<Empty>	Ingress virtual interfaces through which SNMP packets are allowed. If "", ingress virtual interface is not a consideration when considering which SNMP packets are allowed. The value MUST be the instance number of an object in the *FAPService.{i}.Transport.Tunnel.VirtualInterface.* table, or if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to . Array of *unsignedInt* items.

System.SNMP.AccessControl.AllowedSource.{i}.

List of allowed source networks through which SNMP packets are allowed.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this source network.
SourceIP	W	regex(256)	<Mandatory>	Source IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$ *SourceIP* must not be "" if *Enable* is true.
SourceMask	W	IPv4Address	Empty(0.0.0.0)	Source IPv4 mask.
SourcePrefixLength	W	unsignedInt[0:128]	0	Source IP prefix length.

System.SSH.

Parameters relating to SSH service.

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enables or disables SSH service.
TCPPortForwardingEnable	W	boolean	false	Enables or disables SSH TCP Port Forwarding.
TCPPortForwardingDestination	W	string(22){16}	<Empty>	List of destinations to which TCP port forwarding is permitted. Each destination is specified as an IP address:port pair, such as 10.1.11.81:80. Maximum of 16 destinations are permitted. Array of *string* items (maximum number of items 16).
ForwardingGroupIndex	W	unsignedInt	0	The FIB to be used for SSH service. The value MUST be the instance number of an object in the *.Layer3Forwarding.ForwardingGroup.* table.
AuthKeyNumberOfEntries	-	unsignedInt	-	Number of authentication keys.

System.SSH.AccessControl.

Parameters relating to restricting access to SSH service. Each parameter under *AccessControl* represents a method through which SSH service may be accessed from a network entity external to the system.

- if no parameters under *AccessControl* are specified:
  - access to SSH service is unrestricted
- if one parameter under *AccessControl* is specified:
  - SSH service access is restricted to the method represented by that parameter
- if more than one parameter under *AccessControl* is specified:
  - SSH service access is restricted to any one of the methods represented

Parameter	W	Type	Default	Description
VirtualInterface	W	unsignedInt[1:]{}	<Empty>	Ingress virtual interfaces through which SSH sessions are allowed. If "", ingress virtual interface is not a consideration when considering which SSH sessions are allowed. The value MUST be the instance number of an object in the *FAPService.{i}.Transport.Tunnel.VirtualInterface.* table, or if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to . Array of *unsignedInt* items.

System.SSH.AuthKey.{i}.

Parameters relating to SSH authentication keys.

Parameter	W	Type	Default	Description
KeyName	-	string	-	Name of the authentication key.
KeyType	-	enum	-	Type of the authentication key. Can only be RSA. Enumeration of: • *rsa* (Authentication uses RSA key type.)
KeySize	-	enum	-	Size of the authentication key in bits. Can only be 2048 bits. Enumeration of: • *2048Bits* (Authentication key size of 2048 bits.)
Description	-	string	-	User-configured description for the authentication key.
PublicKey	-	string(512)	-	Public part of the authentication key that can be directly appended to the user's authorized_keys file.

System.WebManagement.

Parameters relating to web management.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Globally enables or disables all web management service objects.

				For an individual *System.WebManagement.Service.{i}.* to be *enabled*, *System.WebManagement.Service.{i}.Enable* must be *true* and *Enable* must be *true*.
ServiceNumberOfEntries	-	unsignedInt	-	Number of entries in the *.WebManagement.Service.{i}.* table.

System.WebManagement.Service.{i}.

Parameters relating to a web management service.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this *Service*.
LocalPort	W	unsignedInt[ranges]	Mandatory(0)	The port this *Service* will listen on. Possible values: • *0* • *80* • *443* • *8080* • *49152 to 65535* *LocalPort* must not be 0 if *Enable* is true.
Protocol	W	enum	HTTP	The protocol to use for this *Service*. Enumeration of: • *HTTP* (Hypertext Transfer Protocol) • *HTTPS* (Hypertext Transfer Protocol Secure)
ServiceType	W	enum	Enrollment	The type of service provided by this *Service*. Enumeration of: • *Enrollment* (Guest user enrollment portal) • *LCI* (Local Configuration Interface) • *CaptivePortal* (Captive Portal)
LocalCertIndex	W	unsignedInt	Empty(0)	The index of the certificate used by this *Service*.
CaptivePortalIndex	W	unsignedInt	Empty(0)	The index of the Captive Portal associated with this *Service*.

ManagementDeviceIndex	W	unsignedInt	Mandatory(0)	The index of the Management Device associated with this *Service*. *ManagementDeviceIndex* must not be 0 if *Enable* is true.
LANDeviceIndex	W	unsignedInt	Mandatory(0)	The index of the LAN Device associated with this *Service*. *LANDeviceIndex* must not be 0 if *Enable* is true.
IPInterfaceIndex	W	unsignedInt	Mandatory(0)	The index of the IP Interface associated with this *Service*. *IPInterfaceIndex* must not be 0 if *Enable* is true.

System.AdminAAA.

Parameters relating to administrative AAA.

Parameter	W	Type	Default	Description
UserNumberOfEntries	-	unsignedInt	-	Number of entries in the *User* table.
GroupNumberOfEntries	-	unsignedInt	-	Number of entries in the *Group* table.

System.AdminAAA.User.{i}.

Parameters relating to administrative AAA users. Those users defined here manage the system.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this *User*.
Description	W	string(256)	<Empty>	Text that describes this *User*, may contain whitespace.
Username	W	string(16)	<Mandatory>	Each *User* is indexed by an effective user identifier (UID). This is the username associated with that UID. *Username* must not be "" if *Enable* is true.
GroupID	W	unsignedInt	Mandatory(0)	The value MUST be the instance number of an object in the *System.AdminAAA.Group.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0. *GroupID* must not be 0 if *Enable* is true.
Password	W	regex(64)	<Empty>	Password of this *User*. May be set to either a digest or a plain text value. • when *Password* is **set** to a digest o value of *Password* is the digest value after **commit**

				• when *Password* is **set** to a plain text value
				  o digest of plain text value is calculated
				  o value of *Password* is the digest value after **commit**
				
				Note: the currently supported digest is MD5.
				Possible patterns:
				
				• `^$`
				• `^\$1\$[a-zA-Z0-9./]+\$[a-zA-Z0-9./]+$`

HomeDirectory	-	string	<Empty>	Home directory of this *User* on system.
SNMPReadCommunity	W	string(256)	<Empty>	SNMP read community string that SNMP client can use to obtain read-only view.
SNMPWriteCommunity	W	string(256)	<Empty>	SNMP write community string that SNMP client can use to obtain writeable view.
SNMPAuthProtocol	W	enum	NoAuthProtocol	SNMPv3 USM user authentication procotol, [RFC3414]. Enumeration of: • *NoAuthProtocol* (No authentication protocol, {{bibref|RFC3414}}) • *HMACMD5AuthProtocol* (Use HMAC-MD5-96 Digest Authentication Protocol, {{bibref|RFC3414}}) • *HMACSHAAuthProtocol* (Use HMAC-SHA-96 Digest Authentication Protocol, {{bibref|RFC3414}})
SNMPAuthKeyMD5	W	spanUnsignedInt	<Mandatory>	Key used for HMAC-MD5-96 Digest Authentication Protocol, [RFC3414]. *SNMPAuthKeyMD5* must not be "" if *SNMPAuthProtocol* is *HMACMD5AuthProtocol*.
SNMPAuthKeySHA	W	spanUnsignedInt	<Mandatory>	Key used for HMAC-SHA-96 Digest Authentication Protocol, [RFC3414]. *SNMPAuthKeySHA* must not be "" if *SNMPAuthProtocol* is *HMACSHAAuthProtocol*.
SNMPPrivProtocol	W	enum	NoPrivProtocol	SNMPv3 USM user privacy procotol, [RFC3414]. Enumeration of: • *NoPrivProtocol* (No privacy protocol, {{bibref|RFC3414}}) • *DESPrivProtocol* (Use CBC-DES Symmetric Encryption Protocol, {{bibref|RFC3414}}.) • *AESCFB128Protocol* (Use CFB128-AES-128 Privacy Protocol, {{bibref|RFC3826}})
SNMPPrivKeyDES	W	spanUnsignedInt	<Mandatory>	Key used for CBC-DES Symmetric Encryption Protocol, [RFC3414]. *SNMPPrivKeyDES* must not be "" if *SNMPPrivProtocol* is *DESPrivProtocol*.
SNMPPrivKeyAES	W	spanUnsignedInt	<Mandatory>	Key used for CFB128-AES-128 Symmetric Encryption Protocol, [RFC3826]. *SNMPPrivKeyAES* must not be "" if *SNMPPrivProtocol* is *AESCFB128Protocol*.
SNMPVersion	W	enum{1:2}	v2c	SNMP Versions supported by this user. Array of *string* items (minimum number of items 1, maximum number of items 2). Each list item is an enumeration of: • *v2c* (SNMPv2c) • *v3* (SNMPv3)

System.AdminAAA.Group.{i}.

Parameters relating to administrative AAA groups. Those groups defined here define the authorization of each *System.AdminAAA.User.*.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this *Group*.
Description	W	string(256)	<Empty>	Text that describes this *Group*, may contain whitespace.
Groupname	W	string(16)	<Mandatory>	Each *Group* is indexed by an effective group identifier (GID). This is the groupname associated with that GID. *Groupname* must not be "" if *Enable* is true.
AllowedService	W	enum{3}	<Empty>	Allowed north bound services that users associated with this *Group* may use to manage the system. Array of *string* items (maximum number of items 3). Each list item is an enumeration of: • (No service specified) • *CLI* (Command Line Interface access (SSH, console)) • *SNMP* (Simple Network Management Protocol) • *CWMP* (CPE WAN Management Protocol (TR-069))

System.FileManagement.{i}.

Table of Module Upload Destinations

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable this File Management Record
ModuleID	W	enum	Mandatory(ModuleUnspecified)	ModuleID which will use this destination Enumeration of: • *ModuleUnspecified* (Unspecified module) • *ErrorBundle* (Error-Bundles.) • *PerfMgmt* (E-RAN performance management reports.) • *DebugLog* (Debug log file type.) • *DatabaseBackup* (Database backup file type.) • *LTECallPerformanceEventReport* (LTE Call Performance Event Report file type.)

				• *UMTSCallPerformanceEventReport* (UMTS Call Performance Event Report file type.) *ModuleID* must not be ModuleUnspecified if *Enable* is true.
MaxAttemptDuration	W	unsignedInt[0:1209599]	Empty(0)	Max time in seconds to attempt an upload
MaxAttempts	W	unsignedInt	Empty(0)	Max number of times to attempt an upload
RandomUploadMaxDelay	W	unsignedInt[0:60]	Empty(0)	Indicates the interval in *minutes* used to randomly schedule the upload to avoid congestion.

System.FileManagement.{i}.UploadTarget.{i}.

Upload Target Host Information

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable this destination
QueueSize	-	unsignedInt	-	Current size of queue for the upload target
Priority	W	enum	Primary	Set Primary or Secondary destination Enumeration of: • *Primary* (Primary upload target) • *Secondary* (Secondary upload target) • *Tertiary* (Tertiary upload target)
Protocol	W	enum	FTP	Transfer protocol to use Enumeration of: • *FTP* (File Transfer Protocol) • *SCP* (Secure Shell Copy Protocol) • *TFTP* (Trival File Transfer Protocol)
Username	W	string(80)	<Mandatory>	Username for upload credentials *Username* must not be "" if *Enable* is true.
Password	W	spanUnsignedInt	<Empty>	Password for upload credentials
Host	W	string(128)	<Mandatory>	Host name or IP address of destination

				Host must not be "" if *Enable* is true.
ForwardingGroupIndex	W	unsignedInt	0	The FIB to be used for this upload target. The value MUST be the instance number of an object in the *.Layer3Forwarding.ForwardingGroup.* table.
RemotePath	W	string(128)	<Mandatory>	Destination host path to use *RemotePath* must not be "" if *Enable* is true.
RemotePermissions	W	regex(9:9)	rw-r--r--	Destination file permissions in UNIX file permission syntax. Possible patterns: • `([rw-]{3}){3}`
OverwriteMode	W	enum	Overwrite	Specifiy destination overwrite mode Enumeration of: • *Overwrite* (Overwrite target file if it exists)
TransactionID	-	unsignedInt	-	Specific Transaction ID for target
FailedAttempts	-	unsignedInt	5	Failed upload attempts for host
KeyIndex	W	unsignedInt[0:8]	0	Index of the key to use for authentication. Allowed indices are 1 through 8. Setting KeyIndex to zero disables key-based authentication

System.FileManagement.{i}.TransferTransaction.{i}.

Active upload request detail

Parameter	W	Type	Default	Description
TransactionID	-	unsignedInt[1:65535]	-	Unique ID for this upload request.
ModuleID	-	enum	-	Module that initiated the upload. Enumeration of: • *ModuleUnspecified* (Unspecified module) • *ErrorBundle* (Error-Bundles.) • *PerfMgmt* (E-RAN performance management reports.) • *DebugLog* (Debug log file type.) • *DatabaseBackup* (Database backup file type.)

				• *LTECallPerformanceEventReport* (LTE Call Performance Event Report file type.) • *UMTSCallPerformanceEventReport* (UMTS Call Performance Event Report file type.)
Status	-	enum	-	Status of the upload. Enumeration of: • *New* (New file transfer request state) • *InProgress* (File transfer in progress state) • *Transferring* (File transfer in progress state) • *Retry* (File transfer pending retry state) • *Complete* (File transfer in progress state) • *Failed* (File transfer failed state) • *Aborted* (File transfer request aborted state) • *Init* (File transfer initial state)
LocalFile	-	string	-	Local file to be uploaded.
RemoteFile	-	string	-	Destination file name.
RemoteHost	-	string	-	Destination for this file transfer.
RemoteHostForwardingGroupIndex	-	unsignedInt	-	Forwarding group index of the destination for this file transfer.
RequestStartTime	-	dateTime	-	Time Upload Manager began processing.
RequestCompleteTime	-	dateTime	-	Time Upload Manager completed processing.
RequestExpirationTime	-	dateTime	-	Time an upload request expired.
TotalFailedAttempts	-	unsignedInt	-	Total number of retries on all target hosts.
LastError	-	string	-	Last error, if any, during the upload.

System.FileManagement.{i}.TransferTransactionHistory.{i}.

Completed upload request detail

Parameter	W	Type	Default	Description
TransactionID	-	unsignedInt[1:65535]	-	Unique ID for this upload request.

ModuleID	-	enum	-	Module that initiated the upload. Enumeration of: • *ModuleUnspecified* (Unspecified module) • *ErrorBundle* (Error-Bundles.) • *PerfMgmt* (E-RAN performance management reports.) • *DebugLog* (Debug log file type.) • *DatabaseBackup* (Database backup file type.) • *LTECallPerformanceEventReport* (LTE Call Performance Event Report file type.) • *UMTSCallPerformanceEventReport* (UMTS Call Performance Event Report file type.)
Status	-	enum	-	Status of the upload. Enumeration of: • *New* (New file transfer request state) • *InProgress* (File transfer in progress state) • *Transferring* (File transfer in progress state) • *Retry* (File transfer pending retry state) • *Complete* (File transfer in progress state) • *Failed* (File transfer failed state) • *Aborted* (File transfer request aborted state) • *Init* (File transfer initial state)
LocalFile	-	string	-	Local file to be uploaded.
RemoteFile	-	string	-	Destination file name.
RemoteHost	-	string	-	Destination for this file transfer.
RemoteHostForwardingGroupIndex	-	unsignedInt	-	Forwarding group index of the destination for this file transfer.
RequestStartTime	-	dateTime	-	Time Upload Manager began processing.
RequestCompleteTime	-	dateTime	-	Time Upload Manager completed processing.
RequestExpirationTime	-	dateTime	-	Time an upload request expired.
TotalFailedAttempts	-	unsignedInt	-	Total number of retries on all target hosts.
LastError	-	string	-	Last error, if any, during the upload.

System.CertManagement.

Certificate Management.

Parameter	W	Type	Default	Description
CoreCertRevocationPolicy	W	enum	NonStrict	Certificate revocation policy for the IPSec tunnel to the core network. Enumeration of: • *NonStrict* (Revocation check is not strict. OCSP or CRL need not be available for the IPSec tunnel to come up.) • *Strict* (Revocation check is strict. OCSP or CRL must be available for the IPSec tunnel to come up.) • *IfURISpecified* (OCSP or CRL must be available for the IPSec tunnel to come up, if OCSP or CRL URI is specified.) • *NoCheck* (No revocation check is done during IPSec tunnel establishment.)
RNCertRevocationPolicy	W	enum	NonStrict	Certificate revocation policy for the IPSec tunnel to the radio node. Enumeration of: • *NonStrict* (Revocation check is not strict. OCSP or CRL need not be available for the IPSec tunnel to come up.) • *Strict* (Revocation check is strict. OCSP or CRL must be available for the IPSec tunnel to come up.) • *IfURISpecified* (OCSP or CRL must be available for the IPSec tunnel to come up, if OCSP or CRL URI is specified.) • *NoCheck* (No revocation check is done during IPSec tunnel establishment.)
CACertNumberOfEntries	-	unsignedInt	-	Number of CA Certificates imported into the system.
LocalCertNumberOfEntries	-	unsignedInt	-	Number of Local Certificates imported into the system.

System.CertManagement.CACert.{i}.

Certificates under this CA.

Parameter	W	Type	Default	Description
Description	W	string	<Empty>	User-assigned description for the CA certificate for display and debugging purposes only.
CAName	-	string(64)	<Empty>	Name of the CA, derived from the CA certificate.
Filename	-	string	-	File name of the CA certificate.
LastModif	-	dateTime	-	The last modification time of this certificate entry.

SerialNumber	-	string(64)	-	The serial number field in the certificate. It is unique for each certificate.
SignatureAlgorithm	-	string(64)	-	The signature algorithm of the certificate.
Issuer	-	string(256)	-	The issuer field in the certificate. It is the Distinguished Name (DN) of the entity who has signed the certificate.
NotBefore	-	dateTime	-	The beginning of the certificate validity period; i.e., the Not Before field in the X.509 certificate.
NotAfter	-	dateTime	-	The end of the certificate validity period; i.e., the Not After field in the X.509 certificate.
Subject	-	string(256)	-	The X.501 Distinguished Name (DN) of the entity associated with the Public Key; i.e., the Subject field in the X.509 certificate.
SubjectAlt	-	string{}<256>	-	Comma-separated list (maximum length 256) of strings of DNS names; i.e., the Subject Alternative Names extension field in the X.509 certificate. Array (maximum length as string 256) of *string* items.

System.CertManagement.CACert.{i}.CRL.

Certificate Revocation List (CRL) parameters.

Parameter	W	Type	Default	Description
PrimaryURI	W	string(256)	<Empty>	URI for the primary CRL Distribution Point from which to fetch the CRLs.
SecondaryURI	W	string(256)	<Empty>	URI for a secondary CRL Distribution Point from which to fetch the CRLs, if the primary CDP is not reachable.

System.CertManagement.CACert.{i}.OCSP.

Online Certificate Status Protocol (OCSP) information for the CA.

Parameter	W	Type	Default	Description
PrimaryURI	W	string(256)	<Empty>	URI for the primary OCSP server to use to check the certificate status.
SecondaryURI	W	string(256)	<Empty>	URI for the secondary OCSP server to use to check the certificate status, if the primary OCSP server is not reachable.

System.CertManagement.LocalCert.{i}.

Local Certificate.

Parameter	W	Type	Default	Description

Description	W	string	<Empty>	User-assigned description for the local certificate for display and debugging purposes only.
Filename	-	string	-	File name of the local certificate.
PrivateKeyExists	-	boolean	-	A private key that corresponds to the local certificate exists.

System.ConditionManagement.

Parameters relating to Condition Management.

Parameter	W	Type	Default	Description

System.ConditionManagement.Condition.{i}.

Parameters relating to system-wide conditions.

Parameter	W	Type	Default	Description
ManagedObjectInstance	-	string(512)	-	Specifies the instance of the object in which the condition occurred.
Name	-	string(64)	-	Name of the condition.
PerceivedSeverity	-	enum	-	Indicates the relative level of urgency for operator attention. Enumeration of: • *Critical* • *Major* • *Minor* • *Warning* • *Indeterminate* • *Cleared*
ConditionRaisedTime	-	dateTime	-	Indicates the date and time when the condition was first raised.
ConditionChangedTime	-	dateTime	-	Indicates the date and time when the condition was last changed.
Description	-	string(128)	-	Provides further qualification on the condition.
ConditionState	-	enum	-	Indicates the state of the condition. Enumeration of: • *Cleared* (Condition has been cleared)

				• *Active* (Condition is active) • *Latched* (Condition is latched) • *Bypassed* (Condition is bypassed)
AlarmState	-	enum	-	Indicates the state of the alarm. Enumeration of: • *Cleared* (Condition has been cleared) • *Active* (Condition is active) • *Latched* (Condition is latched) • *Bypassed* (Condition is bypassed)

System.FaultManagement.

Parameters relating to Fault/Alarm Management.

Parameter	W	Type	Default	Description
SupportedAlarmNumberOfEntries	-	unsignedInt	-	Number of entries in the *.FaultManagement.SupportedAlarm.{i}.* table.
CurrentAlarmNumberOfEntries	-	unsignedInt	-	The number of entries in the *.FaultManagement.CurrentAlarm.{i}.* table.
HistoryAlarmNumberOfEntries	-	unsignedInt	-	The number of entries in the *.FaultManagement.HistoryAlarm.{i}.* table.

System.FaultManagement.SupportedAlarm.{i}.

Supported Alarm Entries which can be raised by the system. The instance numbers for this table SHOULD be maintained across firmware upgrades of the device.

Parameter	W	Type	Default	Description
Name	-	string(64)	-	Name of the alarm.
EventType	-	enum	-	Indicates the type of system event. See [3GPP-TS.32.111-5] for information on pre-defined alarm types. Enumeration of: • *Communications Alarm* • *Processing Error Alarm* • *Environmental Alarm*

				• *Quality Of Service Alarm* • *Equipment Alarm* • *Integrity Violation* • *Operational Violation* • *Physical Violation* • *Security Service Or Mechanism Violation* • *Time Domain Violation*

ProbableCause	-	enum	-	Qualifies the alarm and provides further information than *EventType*. See [3GPP-TS.32.111-5] for information on pre-defined probable causes. Enumeration of: • *Indeterminate* • *Alarm Indication Signal* • *Call Setup Failure* • *Degraded Signal* • *Far End Receiver Failure* • *Framing Error* • *Loss Of Frame* • *Loss Of Pointer* • *Loss Of Signal* • *Payload Type Mismatch* • *Transmission Error* • *Remote Alarm Interface* • *Excessive Bit Error Rate* • *Path Trace Mismatch* • *Unavailable* • *Signal Label Mismatch* • *Loss Of Multi Frame* • *Communications Receive Failure* • *Communications Transmit Failure* • *Modulation Failure* • *Demodulation Failure* • *Back Plane Failure* • *Data Set Problem* • *Equipment Identifier Duplication* • *External Device Problem* • *Line Card Problem* • *Multiplexer Problem* • *NE Identifier Duplication* • *Power Problem* • *Processor Problem* • *Protection Path Failure* • *Receiver Failure* • *Replaceable Unit Missing* • *Replaceable Unit Type Mismatch* • *Synchronization Source Mismatch* • *Terminal Problem* • *Timing Problem* • *Transmitter Failure*

				• *Replaceable Unit Problem* • *Real Time Clock Failure* • *Protection Mechanism Failure* • *Protecting Resource Failure* • *Battery Failure* • *Commercial Power Failure* • *Cooling Fan Failure* • *High Temperature* • *Intrusion Detection* • *Low Temperature* • *External Point Failure* • *Storage Capacity Problem* • *Memory Mismatch* • *Corrupt Data* • *Out Of CPU Cycles* • *Software Environment Problem* • *Software Download Failure* • *Loss Of Real Time* • *Reinitialized* • *Excessive Error Rate* • *Adapter Error* • *Application Subsystem Failure* • *Bandwidth Reduced* • *Communications Protocol Error* • *Communications Subsystem Failure* • *Configuration Or Customizing Error* • *Congestion* • *CPU Cycles Limit Exceeded* • *Data Set Or Modem Error* • *DTE DCE Interface Error* • *Equipment Malfunction* • *Excessive Vibration* • *File Error* • *Heating Or Ventilation Or Cooling System Problem* • *Input Output Device Error* • *Input Device Error* • *LAN Error* • *Leak Detected* • *Local Node Transmission Error* • *Material Supply Exhausted* • *Out Of Memory* • *Output Device Error* • *Performance Degraded*

				• *Pressure Unacceptable* • *Queue Size Exceeded* • *Receive Failure* • *Remote Node Transmission Error* • *Resource At Or Nearing Capacity* • *Response Time Excessive* • *Retransmission Rate Excessive* • *Software Error* • *Software Program Abnormally Terminated* • *Software Program Error* • *Temperature Unacceptable* • *Threshold Crossed* • *Transmit Failure* • *Underlying Resource Unavailable* • *Version Mismatch* • *A BIS To BTS Interface Failure* • *A BIS To TRX Interface Failure* • *Antenna Problem* • *Clock Synchronization Problem* • *Combiner Problem* • *Disk Problem* • *Excessive Receiver Temperature* • *Excessive Transmitter Output Power* • *Excessive Transmitter Temperature* • *Frequency Hopping Degraded* • *Frequency Hopping Failure* • *Frequency Redefinition Failed* • *Line Interface Failure* • *Link Failure* • *Loss Of Synchronization* • *Lost Redundancy* • *Power Supply Failure* • *Receiver Antenna Fault* • *Reduced Transmitter Output Power* • *Signal Quality Evaluation Fault* • *Timeslot Hardware Failure* • *Transceiver Problem* • *Transcoder Problem* • *Transcoder Or Rate Adapter Problem* • *Transmitter Antenna Failure* • *Transmitter Antenna Not Adjusted* • *Transmitter Low Voltage Or Current* • *Transmitter Off Frequency*

				• *Database Inconsistency* • *File System Call Unsuccessful* • *Input Parameter Out Of Range* • *Invalid Parameter* • *Invalid Pointer* • *Message Not Expected* • *Message Not Initialized* • *Message Out Of Sequence* • *System Call Unsuccessful* • *Timeout Expired* • *Variable Out Of Range* • *Watch Dog Timer Expired* • *Cooling System Failure* • *External Equipment Failure* • *Reduced Alarm Reporting* • *Reduced Event Reporting* • *Reduced Logging Capability* • *System Resources Overload* • *Broadcast Channel Failure* • *Call Establishment Error* • *Invalid Message Received* • *Invalid MSU Received* • *LAPD Link Protocol Failure* • *Local Alarm Indication* • *Remote Alarm Indication* • *Routing Failure* • *SS7 Protocol Failure* • *Authentication Failure* • *Breach Of Confidentiality* • *Delayed Information* • *Denial Of Service* • *Duplicate Information* • *Information Missing* • *Information Modification Detected* • *Information Out Of Sequence* • *Key Expired* • *Non Repudiation Failure* • *Out Of Hours Activity* • *Out Of Service* • *Procedural Error* • *Unauthorized Access Attempt* • *Unexpected Information*

				• *Unspecified Reason*
SpecificProblem	-	string(128)	-	Provides further qualification on the alarm beyond *EventType* and *ProbableCause*. This is not 3GPP standards based and is vendor defined. This will be "" if the system doesn't support unique indexing of the table using *SpecificProblem*. The string can be set to "*" to indicate the default case if only a subset of *SpecificProblem* are to be contained within the table.
PerceivedSeverity	-	enum	-	Indicates the relative level of urgency for operator attention, see [ITU-X.733]. Enumeration of: • *Critical* • *Major* • *Minor* • *Warning* • *Indeterminate* • *Cleared* Although *Indeterminate* is defined in [ITU-X.733] it SHOULD NOT be used by the system as a *PerceivedSeverity*. This will be "" if the system doesn't support unique indexing of the table using *PerceivedSeverity*. The string can be set to "*" to indicate the default case if only a subset of *PerceivedSeverity* are to be contained within the table.
ReportingMechanism	W	enum	Logged	Indicates the reporting mechanism setting of the alarm. Enumeration of: • *Logged* • *Disabled*

System.FaultManagement.CurrentAlarm.{i}.

Contains all currently active alarms (whose *.FaultManagement.SupportedAlarm.{i}.PerceivedSeverity* is not *Cleared*).

New raised alarms result in a new entry in this table being added, any changes to the alarm as a result of an update event are updated in the existing table entry, and a clear event raised against an alarm results in the alarm being removed from this table.

Active alarms at the time of a power failure or reboot are removed from this table.

Parameter	W	Type	Default	Description
Name	-	string(64)	-	Name of the alarm.
AlarmIdentifier	-	string(64)	-	Identifies one Alarm Entry in the Alarm List. This value MUST be uniquely allocated by the system to the alarm instance during the lifetime of the individual alarm.

AlarmRaisedTime	-	dateTime	-	Indicates the date and time when the alarm was first raised by the system.
AlarmChangedTime	-	dateTime	-	Indicates the date and time when the alarm was last changed by the system.
ManagedObjectInstance	-	string(512)	-	Specifies the instance of the object in which the alarm occurred.
EventType	-	enum	-	Indicates the type of system event. See [3GPP-TS.32.111-5] for information on pre-defined alarm types. Enumeration of: • *Communications Alarm* • *Processing Error Alarm* • *Environmental Alarm* • *Quality Of Service Alarm* • *Equipment Alarm* • *Integrity Violation* • *Operational Violation* • *Physical Violation* • *Security Service Or Mechanism Violation* • *Time Domain Violation*
ProbableCause	-	enum	-	Qualifies the alarm and provides further information than *EventType*. See [3GPP-TS.32.111-5] for information on pre-defined probable causes. Enumeration of: • *Indeterminate* • *Alarm Indication Signal* • *Call Setup Failure* • *Degraded Signal* • *Far End Receiver Failure* • *Framing Error* • *Loss Of Frame* • *Loss Of Pointer* • *Loss Of Signal* • *Payload Type Mismatch* • *Transmission Error* • *Remote Alarm Interface* • *Excessive Bit Error Rate* • *Path Trace Mismatch* • *Unavailable* • *Signal Label Mismatch*

				• *Loss Of Multi Frame* • *Communications Receive Failure* • *Communications Transmit Failure* • *Modulation Failure* • *Demodulation Failure* • *Back Plane Failure* • *Data Set Problem* • *Equipment Identifier Duplication* • *External Device Problem* • *Line Card Problem* • *Multiplexer Problem* • *NE Identifier Duplication* • *Power Problem* • *Processor Problem* • *Protection Path Failure* • *Receiver Failure* • *Replaceable Unit Missing* • *Replaceable Unit Type Mismatch* • *Synchronization Source Mismatch* • *Terminal Problem* • *Timing Problem* • *Transmitter Failure* • *Replaceable Unit Problem* • *Real Time Clock Failure* • *Protection Mechanism Failure* • *Protecting Resource Failure* • *Battery Failure* • *Commercial Power Failure* • *Cooling Fan Failure* • *High Temperature* • *Intrusion Detection* • *Low Temperature* • *External Point Failure* • *Storage Capacity Problem* • *Memory Mismatch* • *Corrupt Data* • *Out Of CPU Cycles* • *Software Environment Problem* • *Software Download Failure* • *Loss Of Real Time* • *Reinitialized* • *Excessive Error Rate* • *Adapter Error*

				• *Application Subsystem Failure* • *Bandwidth Reduced* • *Communications Protocol Error* • *Communications Subsystem Failure* • *Configuration Or Customizing Error* • *Congestion* • *CPU Cycles Limit Exceeded* • *Data Set Or Modem Error* • *DTE DCE Interface Error* • *Equipment Malfunction* • *Excessive Vibration* • *File Error* • *Heating Or Ventilation Or Cooling System Problem* • *Input Output Device Error* • *Input Device Error* • *LAN Error* • *Leak Detected* • *Local Node Transmission Error* • *Material Supply Exhausted* • *Out Of Memory* • *Output Device Error* • *Performance Degraded* • *Pressure Unacceptable* • *Queue Size Exceeded* • *Receive Failure* • *Remote Node Transmission Error* • *Resource At Or Nearing Capacity* • *Response Time Excessive* • *Retransmission Rate Excessive* • *Software Error* • *Software Program Abnormally Terminated* • *Software Program Error* • *Temperature Unacceptable* • *Threshold Crossed* • *Transmit Failure* • *Underlying Resource Unavailable* • *Version Mismatch* • *A BIS To BTS Interface Failure* • *A BIS To TRX Interface Failure* • *Antenna Problem* • *Clock Synchronization Problem* • *Combiner Problem* • *Disk Problem*

				• *Excessive Receiver Temperature* • *Excessive Transmitter Output Power* • *Excessive Transmitter Temperature* • *Frequency Hopping Degraded* • *Frequency Hopping Failure* • *Frequency Redefinition Failed* • *Line Interface Failure* • *Link Failure* • *Loss Of Synchronization* • *Lost Redundancy* • *Power Supply Failure* • *Receiver Antenna Fault* • *Reduced Transmitter Output Power* • *Signal Quality Evaluation Fault* • *Timeslot Hardware Failure* • *Transceiver Problem* • *Transcoder Problem* • *Transcoder Or Rate Adapter Problem* • *Transmitter Antenna Failure* • *Transmitter Antenna Not Adjusted* • *Transmitter Low Voltage Or Current* • *Transmitter Off Frequency* • *Database Inconsistency* • *File System Call Unsuccessful* • *Input Parameter Out Of Range* • *Invalid Parameter* • *Invalid Pointer* • *Message Not Expected* • *Message Not Initialized* • *Message Out Of Sequence* • *System Call Unsuccessful* • *Timeout Expired* • *Variable Out Of Range* • *Watch Dog Timer Expired* • *Cooling System Failure* • *External Equipment Failure* • *Reduced Alarm Reporting* • *Reduced Event Reporting* • *Reduced Logging Capability* • *System Resources Overload* • *Broadcast Channel Failure* • *Call Establishment Error* • *Invalid Message Received*

				• *Invalid MSU Received* • *LAPD Link Protocol Failure* • *Local Alarm Indication* • *Remote Alarm Indication* • *Routing Failure* • *SS7 Protocol Failure* • *Authentication Failure* • *Breach Of Confidentiality* • *Delayed Information* • *Denial Of Service* • *Duplicate Information* • *Information Missing* • *Information Modification Detected* • *Information Out Of Sequence* • *Key Expired* • *Non Repudiation Failure* • *Out Of Hours Activity* • *Out Of Service* • *Procedural Error* • *Unauthorized Access Attempt* • *Unexpected Information* • *Unspecified Reason*

SpecificProblem	-	string(128)	-	Provides further qualification on the alarm beyond *EventType* and *ProbableCause*. This is not 3GPP standards based and is vendor defined.
PerceivedSeverity	-	enum	-	Indicates the relative level of urgency for operator attention, see [ITU-X.733]. Enumeration of: • *Critical* • *Major* • *Minor* • *Warning* • *Indeterminate* • *Cleared* Although *Indeterminate* is defined in [ITU-X.733] it SHOULD NOT be used by the system as a *PerceivedSeverity*.
AdditionalText	-	string(256)	-	This provides a textual string which is vendor defined. This will be "" if the system doesn't support inclusion of this information.
AdditionalInformation	-	string(256)	-	This contains additional information about the alarm and is vendor defined.
SupportedAlarmIndex	-	unsignedInt	-	The value MUST be the instance number of an object in the *.FaultManagement.SupportedAlarm.* table.

System.FaultManagement.HistoryAlarm.{i}.

Alarm events added or updated in *.FaultManagement.CurrentAlarm.{i}.* are simultaneously entered into the this table. This table also contains alarm clearing events. Active alarms at the time of a power failure or reboot may not get an alarm clearing event. The data in this table is maintained across reboots.

Parameter	W	Type	Default	Description
Name	-	string(64)	-	Name of the alarm.
EventTime	-	string(64)	-	Indicates the date and time when the alarm event occurs.
AlarmIdentifier	-	string(64)	-	Identifies one Alarm Entry in the Alarm List. This value MUST be uniquely allocated by the system to the alarm instance during the lifetime of the individual alarm.
NotificationType	-	enum	-	Indicates the reason for the specific alarm notification event. Enumeration of: • *NewAlarm* • *ChangedAlarm*

				• *ClearedAlarm*

ManagedObjectInstance	-	string(512)	-	Specifies the instance of the object in which the alarm occurred.
EventType	-	enum	-	Indicates the type of the event. See [3GPP-TS.32.111-5] for information on pre-defined alarm types. Enumeration of: • *Communications Alarm* • *Processing Error Alarm* • *Environmental Alarm* • *Quality Of Service Alarm* • *Equipment Alarm* • *Integrity Violation* • *Operational Violation* • *Physical Violation* • *Security Service Or Mechanism Violation* • *Time Domain Violation*
ProbableCause	-	enum	-	Qualifies the alarm and provides further information than *EventType*. See [3GPP-TS.32.111-5] for information on pre-defined probable causes. Enumeration of: • *Indeterminate* • *Alarm Indication Signal* • *Call Setup Failure* • *Degraded Signal* • *Far End Receiver Failure* • *Framing Error* • *Loss Of Frame* • *Loss Of Pointer* • *Loss Of Signal* • *Payload Type Mismatch* • *Transmission Error* • *Remote Alarm Interface* • *Excessive Bit Error Rate* • *Path Trace Mismatch* • *Unavailable* • *Signal Label Mismatch* • *Loss Of Multi Frame* • *Communications Receive Failure* • *Communications Transmit Failure* • *Modulation Failure* • *Demodulation Failure*

				• *Back Plane Failure* • *Data Set Problem* • *Equipment Identifier Duplication* • *External Device Problem* • *Line Card Problem* • *Multiplexer Problem* • *NE Identifier Duplication* • *Power Problem* • *Processor Problem* • *Protection Path Failure* • *Receiver Failure* • *Replaceable Unit Missing* • *Replaceable Unit Type Mismatch* • *Synchronization Source Mismatch* • *Terminal Problem* • *Timing Problem* • *Transmitter Failure* • *Replaceable Unit Problem* • *Real Time Clock Failure* • *Protection Mechanism Failure* • *Protecting Resource Failure* • *Battery Failure* • *Commercial Power Failure* • *Cooling Fan Failure* • *High Temperature* • *Intrusion Detection* • *Low Temperature* • *External Point Failure* • *Storage Capacity Problem* • *Memory Mismatch* • *Corrupt Data* • *Out Of CPU Cycles* • *Software Environment Problem* • *Software Download Failure* • *Loss Of Real Time* • *Reinitialized* • *Excessive Error Rate* • *Adapter Error* • *Application Subsystem Failure* • *Bandwidth Reduced* • *Communications Protocol Error* • *Communications Subsystem Failure* • *Configuration Or Customizing Error*

				• *Congestion* • *CPU Cycles Limit Exceeded* • *Data Set Or Modem Error* • *DTE DCE Interface Error* • *Equipment Malfunction* • *Excessive Vibration* • *File Error* • *Heating Or Ventilation Or Cooling System Problem* • *Input Output Device Error* • *Input Device Error* • *LAN Error* • *Leak Detected* • *Local Node Transmission Error* • *Material Supply Exhausted* • *Out Of Memory* • *Output Device Error* • *Performance Degraded* • *Pressure Unacceptable* • *Queue Size Exceeded* • *Receive Failure* • *Remote Node Transmission Error* • *Resource At Or Nearing Capacity* • *Response Time Excessive* • *Retransmission Rate Excessive* • *Software Error* • *Software Program Abnormally Terminated* • *Software Program Error* • *Temperature Unacceptable* • *Threshold Crossed* • *Transmit Failure* • *Underlying Resource Unavailable* • *Version Mismatch* • *A BIS To BTS Interface Failure* • *A BIS To TRX Interface Failure* • *Antenna Problem* • *Clock Synchronization Problem* • *Combiner Problem* • *Disk Problem* • *Excessive Receiver Temperature* • *Excessive Transmitter Output Power* • *Excessive Transmitter Temperature* • *Frequency Hopping Degraded* • *Frequency Hopping Failure*

				• *Frequency Redefinition Failed* • *Line Interface Failure* • *Link Failure* • *Loss Of Synchronization* • *Lost Redundancy* • *Power Supply Failure* • *Receiver Antenna Fault* • *Reduced Transmitter Output Power* • *Signal Quality Evaluation Fault* • *Timeslot Hardware Failure* • *Transceiver Problem* • *Transcoder Problem* • *Transcoder Or Rate Adapter Problem* • *Transmitter Antenna Failure* • *Transmitter Antenna Not Adjusted* • *Transmitter Low Voltage Or Current* • *Transmitter Off Frequency* • *Database Inconsistency* • *File System Call Unsuccessful* • *Input Parameter Out Of Range* • *Invalid Parameter* • *Invalid Pointer* • *Message Not Expected* • *Message Not Initialized* • *Message Out Of Sequence* • *System Call Unsuccessful* • *Timeout Expired* • *Variable Out Of Range* • *Watch Dog Timer Expired* • *Cooling System Failure* • *External Equipment Failure* • *Reduced Alarm Reporting* • *Reduced Event Reporting* • *Reduced Logging Capability* • *System Resources Overload* • *Broadcast Channel Failure* • *Call Establishment Error* • *Invalid Message Received* • *Invalid MSU Received* • *LAPD Link Protocol Failure* • *Local Alarm Indication* • *Remote Alarm Indication* • *Routing Failure*

				• *SS7 Protocol Failure* • *Authentication Failure* • *Breach Of Confidentiality* • *Delayed Information* • *Denial Of Service* • *Duplicate Information* • *Information Missing* • *Information Modification Detected* • *Information Out Of Sequence* • *Key Expired* • *Non Repudiation Failure* • *Out Of Hours Activity* • *Out Of Service* • *Procedural Error* • *Unauthorized Access Attempt* • *Unexpected Information* • *Unspecified Reason*
SpecificProblem	-	string(128)	-	Provides further qualification on the alarm beyond *EventType* and *ProbableCause*. This is not 3GPP standards based and is vendor defined. This will be "" if the system doesn't support unique indexing of the table using *SpecificProblem*. The string can be set to "*" to indicate the default case if only a subset of *SpecificProblem* are to be contained within the table.
PerceivedSeverity	-	enum	-	Indicates the relative level of urgency for operator attention, see [ITU-X.733]. Enumeration of: • *Critical* • *Major* • *Minor* • *Warning* • *Indeterminate* • *Cleared* Although *Indeterminate* is defined in [ITU-X.733] it SHOULD NOT be used by the system as a *PerceivedSeverity*. This will be "" if the system doesn't support unique indexing of the table using *PerceivedSeverity*. The string can be set to "*" to indicate the default case if only a subset of *PerceivedSeverity* are to be contained within the table.
AdditionalText	-	string(256)	-	This provides a textual string which is vendor defined.
AdditionalInformation	-	string(256)	-	This contains additional information about the alarm and is vendor defined.

System.RadioNode.

Parameters relating to all radio nodes.

Parameter	W	Type	Default	Description

System.RadioNode.LED.

Parameters relating to the RadioNode LED configuration.

Parameter	W	Type	Default	Description
DefaultMode	W	enum	Standard	when the led is set to standard (lit) all states of the rn are indicated. When the led is set to dark only the following states are indicated emergency call, locate rn and fault rn. Enumeration of: • *Dark* (LED is dark) • *Standard* (LED is green)

System.AAA.

Parameters relating to AAA servers.

Parameter	W	Type	Default	Description
ServerNumberOfEntries	-	unsignedInt	-	Number of AAA Servers.

System.AAA.Server.{i}.

AAA Server list.

Parameter	W	Type	Default	Description

System.AAA.Server.{i}.RADIUS.

RADIUS information.

Parameter	W	Type	Default	Description

Enable	W	boolean	false	Enable this RADIUS server.
AuthenticationServer	W	regex(256)	<Empty>	IP address or FQDN of the Authentication server. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$
AuthenticationPort	W	unsignedInt	1812	Authentication server port number.
AuthenticationSecret	W	spanUnsignedInt	<Empty>	Configured shared sercret for the RADIUS Authentication server.
AuthenticationTimeout	W	unsignedInt[1:90]	3	The amount of time the system waits for the authentication process to finish.
AccountingServer	W	regex(256)	<Empty>	IP address or FQDN of the Accounting server. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$
AccountingPort	W	unsignedInt	1813	Accounting server port number.
AccountingSecret	W	spanUnsignedInt	<Empty>	Configured shared sercret for the RADIUS Accounting server.

System.CaptivePortals.

Parameters relating to Captive Portals.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or Disable Captive Portal service.
CaptivePortalNumberOfEntries	-	unsignedInt	-	Number of entries in the *.CaptivePortals.CaptivePortal.{i}.* table.

WebPageNumberOfEntries	-	unsignedInt	-	Number of entries in the *.CaptivePortals.WebPage.{i}.* table.

System.CaptivePortals.WebPage.{i}.

Parameters relating to Captive Portals Web Pages.

Parameter	W	Type	Default	Description
Description	W	string(128)	<Empty>	Description of this *WebPage*.

System.CaptivePortals.CaptivePortal.{i}.

Parameters relating to Captive Portals Web Pages.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or Disable this *CaptivePortal*.
WebPageIndex	W	unsignedInt	Empty(0)	The index of the Web page used by this *CaptivePortal*.
PolicyId	W	unsignedInt	Empty(0)	The index of the policy used by this *CaptivePortal*.
AAAServerIndex	W	unsignedInt	Empty(0)	The index of the AAA server used by this *CaptivePortal*.
ServerName	W	regex(256)	<Empty>	Hostname of the captive portal server in either IP Address or FQDN. Possible patterns: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$` • `^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$`
CPServiceDetectionBypass	W	boolean	false	Enable or Disable bypass of Captive Portal Network Service detection of UE.

System.StaticNameList.

List of hosts to be statically looked up.

Parameter	W	Type	Default	Description
HostNumberOfEntries	-	unsignedInt	-	Number of hosts configured in StaticNameList.

System.StaticNameList.Host.{i}.

Static name entry for a host.

Parameter	W	Type	Default	Description
HostName	W	regex(256)	<Mandatory>	Lookup name of the host in FQDN format. Possible patterns: • ^$ • ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$ *HostName* must not be "" if *Enable* is true.
IPAddress	W	regex(256)	Empty(0.0.0.0)	IPv4 or IPv6 address to which the lookup will resolve. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
Description	W	string(256)	<Empty>	User-assigned description for the lookup entry.
Aliases	W	regex(256){}	<Empty>	Optional, alternate lookup names for the host in FQDN format. Array of *string* items. Possible patterns for each list item: • ^$

				• ^([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z])(\.([a-zA-Z]|[a-zA-Z][-_0-9a-zA-Z]{0,61}[0-9a-zA-Z]))*$

System.CallPerformanceEventReport.

Parameters relating to the system Call Performance Event Report.

Parameter	W	Type	Default	Description

System.CallPerformanceEventReport.LTE.

Parameters relating to the system Call Performance Event Report for LTE.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables LTE Call Performance Event Reports.
RollOverInterval	W	unsignedInt[1:30]	1	>Roll over interval in *minutes*.
RollOverSize	W	unsignedInt[1:10]	1	Roll over size in *MB*.

System.CallPerformanceEventReport.UMTS.

Parameters relating to the system Call Performance Event Report for UMTS.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables UMTS Call Performance Event Reports.
RollOverInterval	W	unsignedInt[1:30]	1	Roll over interval in *minutes*.
RollOverSize	W	unsignedInt[1:10]	1	Roll over size in *MB*.

System.InstallationReports.

Parameters relating to installation reports.

Parameter	W	Type	Default	Description

System.InstallationReports.LCIReport.{i}.

Parameters relating to LCI installation reports.

Parameter	W	Type	Default	Description
Name	-	string	-	Name of the report file.
Type	-	enum	-	The LCI report file type. Enumeration of: • *InstallationReport* • *LinkTestReport* • *REMScanReport*

System.Diagnostics.

Configuration parameters related to diagnostics.

Parameter	W	Type	Default	Description

System.Diagnostics.IP.

Configuration parameters related to IP level diagnostics.

Parameter	W	Type	Default	Description

System.Diagnostics.IP.RNLinkMonitoring.

Parameters related to RadioNode link monitoring.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable automatic RadioNode link monitoring.
ProbeType	W	enum	TWAMP	RadioNode link monitoring probe type. Enumeration of:

				• *TWAMP* (Two-Way Active Measurement Protocol(TWAMP))
NumFramesPerProbe	W	unsignedInt[2:1000]	30	Number of frames to send per probe for link monitoring.
ProbeFrequency	W	unsignedInt[1:]	10	Frequency in *minutes* at which link monitoring probe will be run.
ProbeFrameSize	W	unsignedInt[128:]	128	Frame size used in probe for link monitoring.
ProbeClassQueue	W	unsignedInt[1:8]	1	Class queue used in probe for link monitoring.
InterFrameGap	W	unsignedInt[50:1000000]	100	Inter frame gap in *microseconds*.
RoundTripLatencyThreshold	W	unsignedInt	22	Round trip Latency threshold in *milliseconds* for generating link monitoring events. Threshold value of zero *milliseconds* disables event.
RoundTripJitterThreshold	W	unsignedInt	6	Round trip Jitter threshold in *milliseconds* for generating link monitoring events. Threshold value of zero *milliseconds* disables event.
RoundTripLossThreshold	W	unsignedInt	5	Round trip Loss percentage threshold for generating link monitoring events. Threshold value of zero disables event.
RoundTripReorderThreshold	W	unsignedInt	5	Round trip Reorder percentage threshold for generating link monitoring events. Threshold value of zero disables event.
OneWayJitterThreshold	W	unsignedInt	3	One way Jitter threshold in *milliseconds* for generating link monitoring events. Threshold value of zero *milliseconds* disables event.

Diagnostics.

Parameters relating to the diagnostics.

Parameter	W	Type	Default	Description

Diagnostics.IP.

Parameters relating to IP level diagnostics.

Parameter	W	Type	Default	Description
RNLinkTestsNumberOfEntries	-	unsignedInt	-	Number of available RN Link test details.
RNLinkMonitoringProbeNumberOfEntries	-	unsignedInt	-	Number of available RN Link Monitoring Probe details.

Diagnostics.IP.RNLinkTest.{i}.

RadioNodes performance benchmarking diagnostics.

Parameter	W	Type	Default	Description
StartTime	-	dateTime	-	Start time for the test.
EndTime	-	dateTime	-	End time for the test.
Status	-	enum	-	Test Status. Enumeration of: • *UNKNOWN* (Test status is unknown) • *Success* (Test is successful) • *In-Progress* (Test is in progress) • *Error* (Error during test) • *Abort* (Test aborted)
Description	-	string(256)	-	Test description.
RNLinkResultsNumberOfEntries	-	unsignedInt	-	Number of radio nodes for which RNLink results are available.

Diagnostics.IP.RNLinkTest.{i}.RNLinkResult.{i}.

RadioNodes performance benchmarking test results.

Parameter	W	Type	Default	Description
RadioNodeID	-	unsignedInt	-	ID of the radio node being tested.
RadioNodeTestDuration	-	unsignedInt	-	Duration in *secs* for which test frames are sent.
RadioNodeResultStatus	-	enum	-	Status of the RN Link test result for Radio node. Enumeration of: • *UNKNOWN* (Test status is unknown) • *Success* (Test is successful) • *In-Progress* (Test is in progress) • *Error* (Error during test) • *Abort* (Test aborted)

FrameSizeResultsNumberOfEntries	-	unsignedInt	-	Number of different frame sizes tested.

Diagnostics.IP.RNLinkTest.{i}.RNLinkResult.{i}.FrameSizeResult.{i}.

RadioNodes performance benchmarking test results.

Parameter	W	Type	Default	Description
FrameSize	-	unsignedInt	-	Size of the test frame.
FrameRateResultsNumberOfEntries	-	unsignedInt	-	Number of different frame rates tested for a given frame size

Diagnostics.IP.RNLinkTest.{i}.RNLinkResult.{i}.FrameSizeResult.{i}.FrameRateResult.{i}.

RadioNodes performance benchmarking test results.

Parameter	W	Type	Default	Description
FrameRate	-	unsignedInt	-	Test frame rate in *Mbps*.
TotalTestFrames	-	unsignedLong	-	Total number of test *frames*.
TotalTestBytes	-	unsignedLong	-	Total number of test *bytes*.
MeasuredThroughput	-	unsignedInt	-	Measured throughput in Mbps.
MeasuredLatency	-	double	-	Measured latency (RTT) in msecs.
MeasuredJitter	-	double	-	Measured RTT jitter in msecs.
PercentPacketLoss	-	double	-	Percentage of packets lost during test.
OutOfOrderFrames	-	unsignedLong	-	Number of out of order *frames*.

Diagnostics.IP.RNLinkMonitoringProbe.{i}.

RadioNodes link monitoring diagnostics.

Parameter	W	Type	Default	Description

StartTime	-	dateTime	-	Start time for the test.
EndTime	-	dateTime	-	End time for the test.
Status	-	enum	-	Test Status. Enumeration of: • *UNKNOWN* (Test status is unknown) • *Success* (Test is successful) • *In-Progress* (Test is in progress) • *Error* (Error during test) • *Abort* (Test aborted)
Mode	-	enum	-	Test Mode. Enumeration of: • *UNKNOWN* (Test mode is unknown) • *Installation* (Installation mode) • *Quick* (Quick mode) • *Auto* (Auto mode)
Description	-	string(256)	-	Test description.
NumberOfResultEntries	-	unsignedInt	-	Number of radio nodes for which results are available.

Diagnostics.IP.RNLinkMonitoringProbe.{i}.MonitoringResult.{i}.

RadioNodes link monitoring test results.

Parameter	W	Type	Default	Description
NodeID	-	unsignedInt	-	ID of the radio node being tested.
NodeTestDuration	-	unsignedInt	-	Duration in *secs* for which test frames are sent.
NodeResultStatus	-	enum	-	Status of the RN Link test result for Radio node. Enumeration of: • *UNKNOWN* (Test status is unknown) • *Success* (Test is successful)

				• *In-Progress* (Test is in progress) • *Error* (Error during test) • *Abort* (Test aborted)
TotalFramesSent	-	unsignedInt	-	Total number of test *frames*.
TotalFramesReceived	-	unsignedInt	-	Total number of test *frames* received.
RTMeasuredLatency	-	double	-	Measured round trip latency.
RTMeasuredJitter	-	double	-	Measured round trip jitter.
RTOutOfOrderFrames	-	unsignedInt	-	Number of out of order *frames*.
RTPercentPacketLoss	-	double	-	Packet loss percentage.
RTPercentOutOfOrder	-	double	-	Percentage of out of order frames.
RNMeasuredLatency	-	double	-	Measured SN to RN latency.
RNMeasuredJitter	-	double	-	Measured SN to RN jitter.
SNMeasuredLatency	-	double	-	Measured RN to SN latency.
SNMeasuredJitter	-	double	-	Measured RN to SN jitter.

WLANService.

Parameters relating to WLANService.

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enable the entire WLAN subsystem.
CountryCode	W	enum	United States	Country code. Enumeration of: • *United Arab Emirates* (country code) • *Antigua and Barbuda* (country code) • *Netherlands Antilles* (country code) • *Argentina* (country code)

				• *American Somoa* (country code) • *Austria* (country code) • *Australia* (country code) • *Aruba* (country code) • *Azerbaijan* (country code) • *Bosnia* (country code) • *Barbados* (country code) • *Bangladesh* (country code) • *Belgium* (country code) • *Bulgaria* (country code) • *Bahrain* (country code) • *Bermuda* (country code) • *Brunei* (country code) • *Bolivia* (country code) • *Brazil* (country code) • *Bahamas* (country code) • *Bhutan* (country code) • *Belarus* (country code) • *Canada* (country code) • *Switzerland* (country code) • *Chile* (country code) • *China* (country code) • *Colombia* (country code) • *Costa Rica* (country code) • *Cuba* (country code) • *Cape Verde* (country code) • *Cyprus* (country code) • *Czech Republic* (country code) • *Germany* (country code) • *Denmark* (country code) • *Dominica* (country code) • *Dominican Republic* (country code) • *Ecuador* (country code) • *Estonia* (country code) • *Egypt* (country code) • *Spain* (country code) • *Finland* (country code) • *Faulkland Islands* (country code) • *Federated States of Micronesia* (country code) • *France* (country code) • *United Kingdom* (country code) • *French Guiana* (country code) • *Guernsey* (country code)

				• *Gibralter* (country code) • *Guadeloupe* (country code) • *Greece* (country code) • *Guatemala* (country code) • *Guam* (country code) • *Hong Kong* (country code) • *Honduras* (country code) • *Croatia* (country code) • *Haiti* (country code) • *Hungary* (country code) • *Indonesia* (country code) • *Ireland* (country code) • *Israel* (country code) • *Isle of Man* (country code) • *India* (country code) • *Iran* (country code) • *Iceland* (country code) • *Italy* (country code) • *Jersey* (country code) • *Jamaica* (country code) • *Jordan* (country code) • *Japan* (country code) • *Kenya* (country code) • *Kiribati* (country code) • *Korea Republic* (country code) • *Kuwait* (country code) • *Cayman Islands* (country code) • *LAO People's Democratic Republic* (country code) • *Lebanon* (country code) • *Liechtenstein* (country code) • *Sri Lanka* (country code) • *Lesotho* (country code) • *Lithuania* (country code) • *Luxembourg* (country code) • *Latvia* (country code) • *Morocco* (country code) • *Monaco* (country code) • *Macedonia* (country code) • *Macao* (country code) • *Northern Mariana Islands* (country code) • *Martinique* (country code) • *Mauritania* (country code) • *Malta* (country code)

				• *Mauritius* (country code) • *Maldives* (country code) • *Malawi* (country code) • *Mexico* (country code) • *Malaysia* (country code) • *Nigeria* (country code) • *Nicaragua* (country code) • *Netherlands* (country code) • *Norway* (country code) • *New Zealand* (country code) • *Oman* (country code) • *Panama* (country code) • *Peru* (country code) • *Papua New Guinea* (country code) • *Philippines* (country code) • *Pakistan* (country code) • *Poland* (country code) • *St. Pierre and Miquelon* (country code) • *Puerto Rico* (country code) • *Portugal* (country code) • *Reunion* (country code) • *Romania* (country code) • *Russia* (country code) • *Saudi Arabia* (country code) • *Sweden* (country code) • *Singapore* (country code) • *Slovenia* (country code) • *Slovak Republic* (country code) • *El Salvador* (country code) • *Syria* (country code) • *Thailand* (country code) • *Tajikistan* (country code) • *Tunisia* (country code) • *Turkey* (country code) • *Trinidad & Tobago* (country code) • *Taiwan* (country code) • *Tanzania* (country code) • *Ukraine* (country code) • *United States (Minor Outlying Islands)* (country code) • *United States* (country code) • *Uruguay* (country code) • *Uzbekistan* (country code) • *Holy See (Vatican City State)* (country code)

				• *Venezuela* (country code) • *Virgin Islands (British)* (country code) • *Virgin Islands (United States)* (country code) • *Vietnam* (country code) • *Mayotte* (country code) • *South Africa* (country code) • *Zambia* (country code)
ExtendedServiceSetNumberOfEntries	-	unsignedInt	-	Number of ExtendedServiceSet.

WLANService.ExtendedServiceSet.{i}.

Parameters relating to ExtendedServiceSet.

Parameter	W	Type	Default	Description
Enable	W	boolean	true	Enable the ExtendedServiceSet.
SSID	W	string(32)	<Empty>	The public name of wifi network.
HideSSID	W	boolean	false	Hide SSID.
VLAN	W	unsignedInt[ranges]	1	The number of the virtual LAN. Possible values: • *1* • *3 to 4094*
L3TunnelSubnetOption	W	IPv4Address	Empty(0.0.0.0)	IP address of L3TunnelSubnetOption.
L3TunnelSubnetMask	W	IPv4Address	Empty(0.0.0.0)	IP address of L3TunnelSubnetMask.
DHCPRelayIPAddress	W	IPv4Address	Empty(0.0.0.0)	IP address of DHCPRelayIPAddress.
CaptivePortalIndex	W	unsignedInt	0	Index of the Captive Portal server.
AAAServerIndex	W	unsignedInt	0	Index of the AAA Server.
SecurityMethod	W	enum	Wifi-Open	Security mode. Enumeration of:

				• *Wifi-Open* (open network) • *WPA-Enterprise* (WPA-Enterprise) • *WPA2-Enterprise* (WPA2-Enterprise) • *WPA/WPA2-Personal* (WPA Shared key security mode.)

WPAKey	W	spanUnsignedInt	<Empty>	WPA/WPA2 Personal mode Key in ASCII format (length between 8 and 63).
KeyCachingHoldTime	W	unsignedInt[0:1440]	1	The amount of minutes the Pairwise Master Keys(PMK) generated by RADIUS will be held by the AP.
SessionKeyRefreshRate	W	unsignedInt[ranges]	0	The interval (in sec) at which the AP will refresh session (unicast) keys for each client associated to the VAP. Possible values: • *0* • *30 to 86400*
BroadcastKeyRefreshRate	W	unsignedInt[ranges]	0	The interval (in sec) at which the broadcast key is refreshed for clients associated with this VAP. Possible values: • *0* • *30 to 86400*
EnableUplinkBandwidthLimit	W	boolean	false	Enable the uplink bandwidth limit.
EnableDownlinkBandwidthLimit	W	boolean	false	Enable the downlink bandwidth limit.
UplinkBandwidthLimit	W	unsignedInt[1:460]	1	Uplink Bandwidth limit.
DownlinkBandwidthLimit	W	unsignedInt[1:460]	1	Downlink Bandwidth limit.
OperState	-	enum	-	The operational state of this *ExtendedServiceSet*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE*

				• *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*

WLANService.Stats.

Parameters relating to WLANService Stats.

Parameter	W	Type	Default	Description

WLANService.Stats.Global.

Parameters relating to WLANService Global Stats.

Parameter	W	Type	Default	Description
TotalWLANBytesTransmitted	-	unsignedLong	0	Total bytes transmitted across all APs managed by this switch.
TotalWLANBytesRecvd	-	unsignedLong	0	Total bytes received across all APs managed by by this switch.
TotalWLANPktsTransmitted	-	unsignedLong	0	Total packets transmitted across all APs managed by this switch.
TotalWLANPktsRecvd	-	unsignedLong	0	Total packets received across all APs managed by this switch.
TotalWLANBytesTransmitDropped	-	unsignedLong	0	Total bytes dropped in the transmit direction across all APs managed by this switch. This is due to client QoS actions affecting the wireless down (outbound) direction from AP to client.
TotalWLANBytesRecvDropped	-	unsignedLong	0	Total bytes dropped in the receive direction across all APs managed by this switch. This is due to client QoS actions

				affecting the wireless up (inbound) direction from AP to client.
TotalWLANPktsTransmitDropped	-	unsignedLong	0	Total packets dropped in the transmit direction across all APs managed by this switch. This is due to client QoS actions affecting the wireless down (outbound) direction from AP to client.
TotalWLANPktsRecvDropped	-	unsignedLong	0	Total packets dropped in the receive direction across all APs managed by this switch. This is due to client QoS actions affecting the wireless up (inbound) direction from AP to client.
TotalWLANDistTunnelPktsTransmitted	-	unsignedLong	0	Total number of packets transmitted by all APs using distributed tunnels.
TotalWLANDistTunnelRoamedClients	-	unsignedInt	0	Number of clients in all APs currently in roaming state using distributed tunnels.
TotalWLANDistTunnelClientDenials	-	unsignedInt	0	Number of client tunnel setups denied for all APs.

ServicesModule.

Parameters relating to Service Module.

Parameter	W	Type	Default	Description

ServicesModule.PendingServices.

Parameters relating to Pending Services.

Parameter	W	Type	Default	Description
PendingServicesNumberOfEntries	-	unsignedInt	-	Number of Pending Services.

ServicesModule.PendingServices.PendingService.{i}.

Parameters relating to Pending Service.

Parameter	W	Type	Default	Description
Filename	-	string	<Empty>	File name of the Pending Service.
Description	-	string(256)	<Empty>	User-assigned description for the Pending Service.

TransferStatus	-	enum	UNKNOWN	Status of transfer of the Pending Service. Enumeration of: • *UNKNOWN* (Transfer status is unknown) • *Complete* • *InProgress* • *Failed* • *Aborted*
RegisterStatus	-	enum	UNKNOWN	Register Status of the Pending Service. Enumeration of: • *UNKNOWN* (Register status is unknown) • *Failed* • *Complete*
TransferFailureDetail	-	string(256)	<Empty>	Description of the transfer failure.

ServicesModule.RegisteredServices.

Parameters relating to Registered Services.

Parameter	W	Type	Default	Description
MaxNumberOfRegisteredServices	-	unsignedInt	-	Max number of Registered Services.
RegisteredServicesNumberOfEntries	-	unsignedInt	-	Number of Registered Services.

ServicesModule.RegisteredServices.RegisteredService.{i}.

Parameters relating to Registered Service.

Parameter	W	Type	Default	Description
Filename	-	string	<Empty>	File name of the Registered Service.
Enable	W	boolean	false	Starts or Stops a Registered Service.
Description	W	string(256)	<Empty>	User-assigned description for the Registered Service.

InternalNetworkMode	W	enum	None	Internal Network Mode of a Registered Service. Enumeration of: • *None* • *Layer3* • *Layer2Tap* • *Layer2Pipe*
Status	-	enum	-	State of a Registered Service. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*
NumberOfVCPU	-	unsignedInt	-	Number of VCPUs of a Registered Service.

Memory	-	unsignedInt	-	Memory allocated for a Registered Service.

ServicesModule.RegisteredServices.RegisteredService.{i}.VNC.

Parameters relating to VNC of a Registered Service.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or Disables VNC to a Registered Service.

Layer3Routing.

Parameters relating to routing.

Parameter	W	Type	Default	Description
BGPv4NumberOfEntries	-	unsignedInt	-	Indicates the number of BGPv4 routing entries.
RIBNumberOfEntries	-	unsignedInt	-	Indicates the number of RIB entries.

Layer3Routing.BGPv4.{i}.

Border Gateway Prototocol version 4 configuration.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this BGP routing instance.
PeerNumberOfEntries	-	unsignedInt	-	Indicates the number of BGP peer entries.

Layer3Routing.BGPv4.{i}.Stats.

BGP global statistics.

Parameter	W	Type	Default	Description
RouterID	-	IPAddress	-	Local router identifier.

Layer3Routing.BGPv4.{i}.Peer.{i}.

BGP peer configuration.

Parameter	W	Type	Default	Description
Address	W	IPv4Address	Empty(0.0.0.0)	IP address of the BGP peer.
Description	W	string	<Empty>	Human-readable description for this BGP peer. It is used for display and debugging purposes only.
Enable	W	boolean	false	Enables or disables this BGP peer.
RemoteAS	W	unsignedInt	Empty(0)	Autonomous System number of this BGP peer.
MaxPrefixes	W	unsignedInt	Empty(0)	Maximum number of prefixes from this BGP peer.
Password	W	spanUnsignedInt	<Empty>	MD5 password this BGP peer.
ConnectRetry	W	unsignedInt[0:65535]	120	BGP connection retry timer in *seconds* for this BGP peer.
Holdtime	W	unsignedInt[0:65535]	180	Holdtime in *seconds* for this BGP peer.
Keepalive	W	unsignedInt[0:65535]	60	Keepalive interval in *seconds* for this BGP peer.

Layer3Routing.BGPv4.{i}.Peer.{i}.Stats.

BGP peer statistics.

Parameter	W	Type	Default	Description
RemoteRouterID	-	IPAddress	-	Router identifier of this remote peer.
BGPState	-	enum	-	State of this BGP peer. Enumeration of: • *Idle* (Idle state) • *Connect* (Connect state) • *Active* (Active state) • *OpenSent* (OpenSent state) • *OpenConfirm* (OpenConfirm state) • *Established* (Established state) • *Clearing* (Clearing state) • *Deleted* (Deleted state)

PeerUptime	-	unsignedInt	-	Number of seconds this BGP peer is up.
PeerHoldtime	-	unsignedInt	-	Hold time of this BGP peer.
PeerKeepalive	-	unsignedInt	-	Keepalive time of this BGP peer.
OutQueueDepth	-	unsignedInt	-	The total number of outstanding outgoing BGP packets in the queue.
OpenSent	-	unsignedInt	-	The total number of OPEN messages sent to this BGP peer.
OpenRcvd	-	unsignedInt	-	The total number of OPEN messages received from this BGP peer.
NotifySent	-	unsignedInt	-	The total number of NOTIFICATION messages sent to this BGP peer.
NotifyRcvd	-	unsignedInt	-	The total number of NOTIFICATION messages received from this BGP peer.
UpdateSent	-	unsignedInt	-	The total number of UPDATE messages sent to this BGP peer.
UpdateRcvd	-	unsignedInt	-	The total number of UPDATE messages received from this BGP peer.
KeepaliveSent	-	unsignedInt	-	The total number of KEEPALIVE messages sent to this BGP peer.
KeepaliveRcvd	-	unsignedInt	-	The total number of KEEPALIVE messages received from this BGP peer.
RouteRefreshSent	-	unsignedInt	-	The total number of ROUTE-REFRESH messages sent to this BGP peer.
RouteRefreshRcvd	-	unsignedInt	-	The total number of ROUTE-REFRESH messages received from this BGP peer.
CapabilitySent	-	unsignedInt	-	The total number of CAPABILITY messages sent to this BGP peer.
CapabilityRcvd	-	unsignedInt	-	The total number of CAPABILITY messages received from this BGP peer.
TotalSent	-	unsignedInt	-	The total number of BGP messages sent to this BGP peer.
TotalRcvd	-	unsignedInt	-	The total number of BGP messages received from this BGP peer.
EstablishedCount	-	unsignedInt	-	The total number of times this BGP peer connection got established.
DroppedCount	-	unsignedInt	-	The total number of times this BGP peer connection got dropped.
PrefixOverflow	-	boolean	-	Prefix-overflow state of this BGP peer.

Layer3Routing.RIB.{i}.

Parameters relating to IPv4 routing tables.

Parameter	W	Type	Default	Description
DestinationNumberOfEntries	-	unsignedInt	-	Indicates the number of destination entries.

Layer3Routing.RIB.{i}.Destination.{i}.

Parameters relating to IPv4 routing table destinations.

Parameter	W	Type	Default	Description
DestPrefix	-	regex(256)	-	Indicates the prefix of the destination. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
DestPrefixLength	-	unsignedInt	-	Indicates the prefix length of the destination.
RouteNumberOfEntries	-	unsignedInt	-	Indicates the number of route entries.

Layer3Routing.RIB.{i}.Destination.{i}.Route.{i}.

Parameters relating to IPv4 routing table destination routes.

Parameter	W	Type	Default	Description
RouteType	-	enum	-	Indicates the type of route.

				Enumeration of: • *Invalid* (Invalid route type) • *System* (System route) • *Kernel* (Kernel route) • *Connect* (Connected route) • *Static* (Static route) • *RIP* (RIP route) • *RIPNG* (RIPNG route) • *OSPF* (OSPF route) • *OSPF6* (OSPF6 route) • *ISIS* (ISIS route) • *BGP* (BGP route) • *HSLS* (HSLS route)
Distance	-	unsignedInt	-	Indicates the administrative distance of the route. For a given destination, the route with lowest distance is selected. Distance takes precedence over metric.
Metric	-	unsignedInt	-	Indicates the metric of the route. Among routes with the same administrative distance for a given destination, the one with lowest metric is selected.
Selected	-	boolean	-	Indicates whether the route is selected or not.
RefCount	-	unsignedInt	-	Indicates the reference count of the route.
BlackHole	-	boolean	-	Indicates whether the route is a blackhole route or not. Packets matching blackhole routes are dropped.
Reject	-	boolean	-	Indicates whether the route is a reject route or not. Packets matching reject routes are dropped.
LastUpdateTime	-	dateTime	-	Time when the route was last updated.
NextHopNumberOfEntries	-	unsignedInt	-	Indicates the number of nexthop entries.

Layer3Routing.RIB.{i}.Destination.{i}.Route.{i}.NextHop.{i}.

Parameters relating to IPv4 routing table destination route nexthops.

Parameter	W	Type	Default	Description
Active	-	boolean	-	Indicates whether the nexthop is active or not.
FIBRoute	-	boolean	-	Indicates whether this is a FIB route or not. FIB routes are installed in the forwarding engine.

Recursive	-	boolean	-	Indicates whether this is a recursive route or not.
Gateway	-	regex(256)	-	Indicates the gateway for the route. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
LANDevice	-	unsignedInt	-	Indicates the LANDevice for the route.
ManagementDevice	-	unsignedInt	-	Indicates the ManagementDevice for the route.
TrunkDevice	-	unsignedInt	-	Indicates the TrunkDevice for the route.
IPInterface	-	unsignedInt	-	Indicates the IPInterface for the route.
DirectlyConnected	-	boolean	-	Indicates whether this is a directly connected route or not.
SourceIPAddress	-	regex(256)	-	Indicates the source IP Address to be used for the route. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-

				5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

Layer3Routing.IPv4.

Parameters relating to IPv4 routing.

Parameter	W	Type	Default	Description
RIBNumberOfEntries	-	unsignedInt	-	Indicates the number of RIB entries.

Layer3Routing.IPv4.RIB.{i}.

Parameters relating to IPv4 routing tables.

Parameter	W	Type	Default	Description
DestinationNumberOfEntries	-	unsignedInt	-	Indicates the number of destination entries.

Layer3Routing.IPv4.RIB.{i}.Destination.{i}.

Parameters relating to IPv4 routing table destinations.

Parameter	W	Type	Default	Description
DestPrefix	-	regex(256)	-	Indicates the prefix of the destination. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-

				4]|1{0,1}[0-9]){0,1}[0-9]))$
DestPrefixLength	-	unsignedInt	-	Indicates the prefix length of the destination.
RouteNumberOfEntries	-	unsignedInt	-	Indicates the number of route entries.

Layer3Routing.IPv4.RIB.{i}.Destination.{i}.Route.{i}.

Parameters relating to IPv4 routing table destination routes.

Parameter	W	Type	Default	Description
RouteType	-	enum	-	Indicates the type of route. Enumeration of: • *Invalid* (Invalid route type) • *System* (System route) • *Kernel* (Kernel route) • *Connect* (Connected route) • *Static* (Static route) • *RIP* (RIP route) • *RIPNG* (RIPNG route) • *OSPF* (OSPF route) • *OSPF6* (OSPF6 route) • *ISIS* (ISIS route) • *BGP* (BGP route) • *HSLS* (HSLS route)
Distance	-	unsignedInt	-	Indicates the administrative distance of the route. For a given destination, the route with lowest distance is selected. Distance takes precedence over metric.
Metric	-	unsignedInt	-	Indicates the metric of the route. Among routes with the same administrative distance for a given destination, the one with lowest metric is selected.
Selected	-	boolean	-	Indicates whether the route is selected or not.
RefCount	-	unsignedInt	-	Indicates the reference count of the route.
BlackHole	-	boolean	-	Indicates whether the route is a blackhole route or not. Packets matching blackhole routes are dropped.
Reject	-	boolean	-	Indicates whether the route is a reject route or not. Packets matching reject routes are dropped.

LastUpdateTime	-	dateTime	-	Time when the route was last updated.
NextHopNumberOfEntries	-	unsignedInt	-	Indicates the number of nexthop entries.

Layer3Routing.IPv4.RIB.{i}.Destination.{i}.Route.{i}.NextHop.{i}.

Parameters relating to IPv4 routing table destination route nexthops.

Parameter	W	Type	Default	Description
Active	-	boolean	-	Indicates whether the nexthop is active or not.
FIBRoute	-	boolean	-	Indicates whether this is a FIB route or not. FIB routes are installed in the forwarding engine.
Recursive	-	boolean	-	Indicates whether this is a recursive route or not.
Gateway	-	regex(256)	-	Indicates the gateway for the route. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
LANDevice	-	unsignedInt	-	Indicates the LANDevice for the route.
ManagementDevice	-	unsignedInt	-	Indicates the ManagementDevice for the route.
TrunkDevice	-	unsignedInt	-	Indicates the TrunkDevice for the route.
IPInterface	-	unsignedInt	-	Indicates the IPInterface for the route.
DirectlyConnected	-	boolean	-	Indicates whether this is a directly connected route or not.

SourceIPAddress	-	regex(256)	-	Indicates the source IP Address to be used for the route. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

Layer3Routing.IPv6.

Parameters relating to IPv6 routing.

Parameter	W	Type	Default	Description
RIBNumberOfEntries	-	unsignedInt	-	Indicates the number of RIB entries.

Layer3Routing.IPv6.RIB.{i}.

Parameters relating to IPv6 routing tables.

Parameter	W	Type	Default	Description
DestinationNumberOfEntries	-	unsignedInt	-	Indicates the number of destination entries.

Layer3Routing.IPv6.RIB.{i}.Destination.{i}.

Parameters relating to IPv6 routing table destinations.

Parameter	W	Type	Default	Description
DestPrefix	-	regex(256)	-	Indicates the prefix of the destination. Possible patterns:

				• ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
DestPrefixLength	-	unsignedInt	-	Indicates the prefix length of the destination.
RouteNumberOfEntries	-	unsignedInt	-	Indicates the number of route entries.

Layer3Routing.IPv6.RIB.{i}.Destination.{i}.Route.{i}.

Parameters relating to IPv6 routing table destination routes.

Parameter	W	Type	Default	Description
RouteType	-	enum	-	Indicates the type of route. Enumeration of: • *Invalid* (Invalid route type) • *System* (System route) • *Kernel* (Kernel route) • *Connect* (Connected route) • *Static* (Static route) • *RIP* (RIP route) • *RIPNG* (RIPNG route) • *OSPF* (OSPF route) • *OSPF6* (OSPF6 route) • *ISIS* (ISIS route) • *BGP* (BGP route) • *HSLS* (HSLS route)

Distance	-	unsignedInt	-	Indicates the administrative distance of the route. For a given destination, the route with lowest distance is selected. Distance takes precedence over metric.
Metric	-	unsignedInt	-	Indicates the metric of the route. Among routes with the same administrative distance for a given destination, the one with lowest metric is selected.
Selected	-	boolean	-	Indicates whether the route is selected or not.
RefCount	-	unsignedInt	-	Indicates the reference count of the route.
BlackHole	-	boolean	-	Indicates whether the route is a blackhole route or not. Packets matching blackhole routes are dropped.
Reject	-	boolean	-	Indicates whether the route is a reject route or not. Packets matching reject routes are dropped.
LastUpdateTime	-	dateTime	-	Time when the route was last updated.
NextHopNumberOfEntries	-	unsignedInt	-	Indicates the number of nexthop entries.

Layer3Routing.IPv6.RIB.{i}.Destination.{i}.Route.{i}.NextHop.{i}.

Parameters relating to IPv6 routing table destination route nexthops.

Parameter	W	Type	Default	Description
Active	-	boolean	-	Indicates whether the nexthop is active or not.
FIBRoute	-	boolean	-	Indicates whether this is a FIB route or not. FIB routes are installed in the forwarding engine.
Recursive	-	boolean	-	Indicates whether this is a recursive route or not.
Gateway	-	regex(256)	-	Indicates the gateway for the route. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-

				5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
LANDevice	-	unsignedInt	-	Indicates the LANDevice for the route.
ManagementDevice	-	unsignedInt	-	Indicates the ManagementDevice for the route.
TrunkDevice	-	unsignedInt	-	Indicates the TrunkDevice for the route.
IPInterface	-	unsignedInt	-	Indicates the IPInterface for the route.
DirectlyConnected	-	boolean	-	Indicates whether this is a directly connected route or not.
SourceIPAddress	-	regex(256)	-	Indicates the source IP Address to be used for the route. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

PacketCapture.

Packet capture.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or disable packet capture.
Mode	W	enum	All	Packet capture mode of operation. Enumeration of: • *All* (Capture all packets) • *Filter* (Capture only filtered packets)

				• *ClassificationAction* (Capture packets only for Classification with Action)
MaximumFileSize	W	unsignedInt[16:64]	16	Packet capture file size limit in *MB*.

PacketCapture.Filter.

Define a filter for packet capture.

Parameter	W	Type	Default	Description
PeerAIP	W	IPv4Address	Empty(0.0.0.0)	IP address for peer A. May be either the source or destination address in the IP header.
PeerAMask	W	IPv4Address	Empty(0.0.0.0)	IP address mask for peer A.
PeerBIP	W	IPv4Address	Empty(0.0.0.0)	IP address for peer B. May be either the source or destination address in the IP header.
PeerBMask	W	IPv4Address	Empty(0.0.0.0)	IP address mask for peer B.
PeerAPort	W	int[ranges]	Empty(-1)	Protocol port for peer A. Possible values: • *-1* • *1 to 65535*
PeerAPortRangeMax	W	int[ranges]	Empty(-1)	Upper limit of protocol port range for peer A. Possible values: • *-1* • *1 to 65535*
PeerBPort	W	int[ranges]	Empty(-1)	Protocol port for peer B. Possible values: • *-1* • *1 to 65535*
PeerBPortRangeMax	W	int[ranges]	Empty(-1)	Upper limit of protocol port range for peer B. Possible values:

				• *-1* • *1 to 65535*
Protocol	W	int[ranges]	Empty(-1)	IP protocol, one of TCP (6), UDP (17) and SCTP (132). Possible values: • *-1* • *1 to 255*

ManagementDevice.{i}.

Management Device port number.

Parameter	W	Type	Default	Description
LANEthernetInterfaceNumberOfEntries	-	unsignedInt	0	Number of ethernet entries for this port.

ManagementDevice.{i}.LANHostConfigManagement.

Layer 2 and 3 configuration.

Parameter	W	Type	Default	Description
MACAddress	-	regex(17:17)	-	MAC address. Possible patterns: • `([0-9a-fA-F][0-9a-fA-F]:){5}([0-9a-fA-F][0-9a-fA-F])`
IPInterfaceNumberOfEntries	-	unsignedInt	0	Number of IPInterface entrie.

ManagementDevice.{i}.LANHostConfigManagement.IPInterface.{i}.

Logical interface associated with management device.

Parameter	W	Type	Default	Description

Enable	W	boolean	false	Enable or disable this interface.
BypassAlarms	W	enum{2}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 2). Each list item is an enumeration of: • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process)
Description	W	string	<Empty>	Specifies descriptive text for this interface to be used for display and debugging purposes only.
Name	-	string(64)	-	Short name of the interface.
IPInterfaceIPAddress	W	regex(256)	Empty(0.0.0.0)	Interface IPv4 or IPv6 address. Possible patterns: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$` • `^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$`
IPInterfaceSubnetMask	W	IPv4Address	Empty(0.0.0.0)	Interface IPv4 subnet mask.
IPInterfacePrefixLength	W	unsignedInt[0:128]	Empty(0)	Interface IPv4 or IPv6 prefix length.
IngressClassificationGroup	W	unsignedInt	Empty(0)	Index for classification group that acts as ingress filter for the IP interface.
EgressClassificationGroup	W	unsignedInt	Empty(0)	Index for classification group that acts as egress filter for the IP interface.
VLANID	W	unsignedInt[0:4094]	Empty(0)	Specifies the virtual LAN identifier for this interface.
ForwardingGroupIndex	W	unsignedInt	Empty(0)	Specifies the IP address domain (forwarding group) in which the interface exists. The value MUST be the instance number of an object in the *InternetGatewayDevice.Layer3Forwarding.ForwardingGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.

OperState	-	enum	-	Operational state of this *IPInterface*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*
DHCPServerEnable	W	boolean	Empty(false)	Enable DHCP on this IPInterface.

ManagementDevice.{i}.LANHostConfigManagement.IPInterface.{i}.Stats.

IP interface statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.

PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.
ErrorsSent	-	unsignedLong	-	The total number of outbound packets that could not be transmitted because of errors.
ErrorsReceived	-	unsignedLong	-	The total number of inbound packets that contained errors preventing them from being deliverable.
UnicastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were not addressed to a multicast or broadcast address, including those that were discarded or not sent.
UnicastPacketsReceived	-	unsignedLong	-	The total number of received packets which were not addressed to a multicast or broadcast address.
DiscardPacketsSent	-	unsignedLong	-	The total number of outbound packets which were chosen to be discarded even though no errors had been detected to prevent their being transmitted. One possible reason for discarding such a packet could be to free up buffer space.
DiscardPacketsReceived	-	unsignedLong	-	The total number of inbound packets which were chosen to be discarded even though no errors had been detected to prevent their being deliverable. One possible reason for discarding such a packet could be to free up buffer space.
MulticastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were addressed to a multicast address, including those that were discarded or not sent.
MulticastPacketsReceived	-	unsignedLong	-	The total number of received packets which were addressed to a multicast address.
BroadcastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were addressed to a broadcast address, including those that were discarded or not sent.
BroadcastPacketsReceived	-	unsignedLong	-	The total number of received packets which were addressed to a broadcast address.
UnknownProtoPacketsReceived	-	unsignedLong	-	The total number of packets received via the interface which were discarded because of an unknown or unsupported protocol.
QueueNumberOfEntries	-	unsignedInt	-	The number of entries in the *Queue* table.

ManagementDevice.{i}.LANHostConfigManagement.IPInterface.{i}.Stats.Queue.{i}.

IP interface per CoS-queue statistics.

Parameter	W	Type	Default	Description

BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.
PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.
EgressQueueDepth	-	unsignedLong	-	The total number of outstanding packets in the egress queue of the interface.

ManagementDevice.{i}.LANEthernetInterfaceConfig.{i}.

Layer 2 configuration for management device.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or disable interface.
BypassAlarms	W	enum{3}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 3). Each list item is an enumeration of: • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process) • *LINK_DOWN_MAJOR* (Link down)
Status	-	enum	-	Current operating status. Enumeration of: • *Up* • *NoLink* • *Error* • *Disabled*
Name	-	string(64)	-	Short description of interface.
MACAddress	-	regex(17:17)	-	Interface MAC address. Possible patterns: • `([0-9a-fA-F][0-9a-fA-F]:){5}([0-9a-fA-F][0-9a-fA-F])`

MaxBitRate	W	enum	100	Ethernet bit rate. The units of *MaxBitRate* are in Mbits/sec. Enumeration of: • *10* (10Mbps operation, with auto-negotiation) • *100* (100Mbps operation, with auto-negotiation) • *1000* (1Gbps operation, with auto-negotiation) • *2500* (2.5Gbps operation, with auto-negotiation) • *10000* (10Gbps operation, with auto-negotiation) • *100F* (100Mbps operation, without auto-negotiation)
DuplexMode	W	enum	Full	Ethernet duplex mode. Enumeration of: • *Half* • *Full*
OperState	-	enum	-	Operational state of this *LANEthernetInterfaceConfig*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED*

				• *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*

ManagementDevice.{i}.LANEthernetInterfaceConfig.{i}.Stats.

Ethernet statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedInt	-	Number of bytes sent.
BytesReceived	-	unsignedInt	-	Number of bytes received.
PacketsSent	-	unsignedInt	-	Number of packets sent.
PacketsReceived	-	unsignedInt	-	Number of packets received.
ErrorsSent	-	unsignedInt	-	Number of errors during send.
ErrorsReceived	-	unsignedInt	-	Number of errors during receive.
UnicastPacketsSent	-	unsignedInt	-	Number of unicast packets sent.
UnicastPacketsReceived	-	unsignedInt	-	Number of unicast packets received.
DiscardPacketsSent	-	unsignedInt	-	Number of discard packets sent.
DiscardPacketsReceived	-	unsignedInt	-	Number of discard packets received.
MulticastPacketsSent	-	unsignedInt	-	Number of multicast packets sent.
MulticastPacketsReceived	-	unsignedInt	-	Number of multicast packets received.
BroadcastPacketsSent	-	unsignedInt	-	Number of broadcast packets sent.
BroadcastPacketsReceived	-	unsignedInt	-	Number of broadcast packets received.
UnknownProtoPacketsReceived	-	unsignedInt	-	Number of unknown protocol packets received.

BytesSent64Bit	-	unsignedLong	-	BytesSent is only 32-bit. This counter has the full 64-bit range.
BytesReceived64Bit	-	unsignedLong	-	BytesReceived is only 32-bit. This counter has the full 64-bit range.
PacketsSent64Bit	-	unsignedLong	-	PacketsSent is only 32-bit. This counter has the full 64-bit range.
PacketsReceived64Bit	-	unsignedLong	-	PacketsReceived is only 32-bit. This counter has the full 64-bit range.
ErrorsSent64Bit	-	unsignedLong	-	ErrorsSent is only 32-bit. This counter has the full 64-bit range.
ErrorsReceived64Bit	-	unsignedLong	-	ErrorsReceived is only 32-bit. This counter has the full 64-bit range.
UnicastPacketsSent64Bit	-	unsignedLong	-	UnicastPacketsSent is only 32-bit. This counter has the full 64-bit range.
UnicastPacketsReceived64Bit	-	unsignedLong	-	UnicastPacketsReceived is only 32-bit. This counter has the full 64-bit range.
DiscardPacketsSent64Bit	-	unsignedLong	-	DiscardPacketsSent is only 32-bit. This counter has the full 64-bit range.
DiscardPacketsReceived64Bit	-	unsignedLong	-	DiscardPacketsReceived is only 32-bit. This counter has the full 64-bit range.
MulticastPacketsSent64Bit	-	unsignedLong	-	MulticastPacketsSent is only 32-bit. This counter has the full 64-bit range.
MulticastPacketsReceived64Bit	-	unsignedLong	-	MulticastPacketsReceived is only 32-bit. This counter has the full 64-bit range.
BroadcastPacketsSent64Bit	-	unsignedLong	-	BroadcastPacketsSent is only 32-bit. This counter has the full 64-bit range.
BroadcastPacketsReceived64Bit	-	unsignedLong	-	BroadcastPacketsReceived is only 32-bit. This counter has the full 64-bit range.
UnknownProtoPacketsReceived64Bit	-	unsignedLong	-	UnknownProtoPacketsReceived is only 32-bit. This counter has the full 64-bit range.
QueueNumberOfEntries	-	unsignedInt	-	The number of entries in the *Queue* table.

ManagementDevice.{i}.LANEthernetInterfaceConfig.{i}.Stats.Queue.{i}.

Ethernet interface per CoS-queue statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.

PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.

TrunkDevice.{i}.

Trunk Device port number.

Parameter	W	Type	Default	Description
LANEthernetInterfaceNumberOfEntries	-	unsignedInt	0	Number of ethernet entries for this port.

TrunkDevice.{i}.LANHostConfigManagement.

Layer 2 and 3 configuration.

Parameter	W	Type	Default	Description
MACAddress	-	regex(17:17)	-	MAC address. Possible patterns: • `([0-9a-fA-F][0-9a-fA-F]:){5}([0-9a-fA-F][0-9a-fA-F])`
IPInterfaceNumberOfEntries	-	unsignedInt	0	Number of IPInterface entrie.

TrunkDevice.{i}.LANHostConfigManagement.IPInterface.{i}.

Logical interface associated with trunk device.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or disable this interface.
BypassAlarms	W	enum{2}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 2). Each list item is an enumeration of: • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process)

Description	W	string	<Empty>	Specifies descriptive text for this interface to be used for display and debugging purposes only.
Name	-	string(64)	-	Short name of the interface.
IPInterfaceIPAddress	W	regex(256)	Empty(0.0.0.0)	Interface IPv4 or IPv6 address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
IPInterfaceSubnetMask	W	IPv4Address	Empty(0.0.0.0)	Interface IPv4 subnet mask.
IPInterfacePrefixLength	W	unsignedInt[0:128]	Empty(0)	Interface IPv4 or IPv6 prefix length.
IngressClassificationGroup	W	unsignedInt	Empty(0)	Index for classification group that acts as ingress filter for the IP interface.
EgressClassificationGroup	W	unsignedInt	Empty(0)	Index for classification group that acts as egress filter for the IP interface.
VLANID	W	unsignedInt[0:4094]	Empty(0)	Specifies the virtual LAN identifier for this interface.
ForwardingGroupIndex	W	unsignedInt	Empty(0)	Specifies the IP address domain (forwarding group) in which the interface exists. The value MUST be the instance number of an object in the *InternetGatewayDevice.Layer3Forwarding.ForwardingGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
OperState	-	enum	-	Operational state of this *IPInterface*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT*

				• *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*
DHCPServerEnable	W	boolean	Empty(false)	Enable DHCP on this IPInterface.
EgressQoSProfile	W	unsignedInt	Empty(0)	Specifies the egress QoS profile number for this interface.
SharedEgressQoS	W	boolean	Empty(false)	Specifies if egress QoS sharing is enabled on this interface.
ServicesHostIndex	W	unsignedInt[1:]	Empty(1)	Specifies the Services host which this interface exists in. The value MUST be the instance number of an object in the *ServicesHost.* table, or 1 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 1.

TrunkDevice.{i}.LANHostConfigManagement.IPInterface.{i}.Stats.

IP interface statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.

PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.
ErrorsSent	-	unsignedLong	-	The total number of outbound packets that could not be transmitted because of errors.
ErrorsReceived	-	unsignedLong	-	The total number of inbound packets that contained errors preventing them from being deliverable.
UnicastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were not addressed to a multicast or broadcast address, including those that were discarded or not sent.
UnicastPacketsReceived	-	unsignedLong	-	The total number of received packets which were not addressed to a multicast or broadcast address.
DiscardPacketsSent	-	unsignedLong	-	The total number of outbound packets which were chosen to be discarded even though no errors had been detected to prevent their being transmitted. One possible reason for discarding such a packet could be to free up buffer space.
DiscardPacketsReceived	-	unsignedLong	-	The total number of inbound packets which were chosen to be discarded even though no errors had been detected to prevent their being deliverable. One possible reason for discarding such a packet could be to free up buffer space.
MulticastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were addressed to a multicast address, including those that were discarded or not sent.
MulticastPacketsReceived	-	unsignedLong	-	The total number of received packets which were addressed to a multicast address.
BroadcastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were addressed to a broadcast address, including those that were discarded or not sent.
BroadcastPacketsReceived	-	unsignedLong	-	The total number of received packets which were addressed to a broadcast address.
UnknownProtoPacketsReceived	-	unsignedLong	-	The total number of packets received via the interface which were discarded because of an unknown or unsupported protocol.
QueueNumberOfEntries	-	unsignedInt	-	The number of entries in the *Queue* table.

TrunkDevice.{i}.LANHostConfigManagement.IPInterface.{i}.Stats.Queue.{i}.

IP interface per CoS-queue statistics.

Parameter	W	Type	Default	Description

BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.
PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.
EgressQueueDepth	-	unsignedLong	-	The total number of outstanding packets in the egress queue of the interface.

TrunkDevice.{i}.LANEthernetInterfaceConfig.{i}.

Layer 2 configuration for trunk device.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or disable interface.
BypassAlarms	W	enum{3}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 3). Each list item is an enumeration of: • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process) • *LINK_DOWN_MAJOR* (Link down)
Status	-	enum	-	Current operating status. Enumeration of: • *Up* • *NoLink* • *Error* • *Disabled*
Name	-	string(64)	-	Short description of interface.
MACAddress	-	regex(17:17)	-	Interface MAC address. Possible patterns: • `([0-9a-fA-F][0-9a-fA-F]:){5}([0-9a-fA-F][0-9a-fA-F])`

OperState	-	enum	-	Operational state of this *LANEthernetInterfaceConfig*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*

TrunkDevice.{i}.LANEthernetInterfaceConfig.{i}.Stats.

Ethernet statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedInt	-	Number of bytes sent.
BytesReceived	-	unsignedInt	-	Number of bytes received.
PacketsSent	-	unsignedInt	-	Number of packets sent.

PacketsReceived	-	unsignedInt	-	Number of packets received.
ErrorsSent	-	unsignedInt	-	Number of errors during send.
ErrorsReceived	-	unsignedInt	-	Number of errors during receive.
UnicastPacketsSent	-	unsignedInt	-	Number of unicast packets sent.
UnicastPacketsReceived	-	unsignedInt	-	Number of unicast packets received.
DiscardPacketsSent	-	unsignedInt	-	Number of discard packets sent.
DiscardPacketsReceived	-	unsignedInt	-	Number of discard packets received.
MulticastPacketsSent	-	unsignedInt	-	Number of multicast packets sent.
MulticastPacketsReceived	-	unsignedInt	-	Number of multicast packets received.
BroadcastPacketsSent	-	unsignedInt	-	Number of broadcast packets sent.
BroadcastPacketsReceived	-	unsignedInt	-	Number of broadcast packets received.
UnknownProtoPacketsReceived	-	unsignedInt	-	Number of unknown protocol packets received.
BytesSent64Bit	-	unsignedLong	-	BytesSent is only 32-bit. This counter has the full 64-bit range.
BytesReceived64Bit	-	unsignedLong	-	BytesReceived is only 32-bit. This counter has the full 64-bit range.
PacketsSent64Bit	-	unsignedLong	-	PacketsSent is only 32-bit. This counter has the full 64-bit range.
PacketsReceived64Bit	-	unsignedLong	-	PacketsReceived is only 32-bit. This counter has the full 64-bit range.
ErrorsSent64Bit	-	unsignedLong	-	ErrorsSent is only 32-bit. This counter has the full 64-bit range.
ErrorsReceived64Bit	-	unsignedLong	-	ErrorsReceived is only 32-bit. This counter has the full 64-bit range.
UnicastPacketsSent64Bit	-	unsignedLong	-	UnicastPacketsSent is only 32-bit. This counter has the full 64-bit range.
UnicastPacketsReceived64Bit	-	unsignedLong	-	UnicastPacketsReceived is only 32-bit. This counter has the full 64-bit range.
DiscardPacketsSent64Bit	-	unsignedLong	-	DiscardPacketsSent is only 32-bit. This counter has the full 64-bit range.
DiscardPacketsReceived64Bit	-	unsignedLong	-	DiscardPacketsReceived is only 32-bit. This counter has the full 64-bit range.

MulticastPacketsSent64Bit	-	unsignedLong	-	MulticastPacketsSent is only 32-bit. This counter has the full 64-bit range.
MulticastPacketsReceived64Bit	-	unsignedLong	-	MulticastPacketsReceived is only 32-bit. This counter has the full 64-bit range.
BroadcastPacketsSent64Bit	-	unsignedLong	-	BroadcastPacketsSent is only 32-bit. This counter has the full 64-bit range.
BroadcastPacketsReceived64Bit	-	unsignedLong	-	BroadcastPacketsReceived is only 32-bit. This counter has the full 64-bit range.
UnknownProtoPacketsReceived64Bit	-	unsignedLong	-	UnknownProtoPacketsReceived is only 32-bit. This counter has the full 64-bit range.
QueueNumberOfEntries	-	unsignedInt	-	The number of entries in the *Queue* table.

TrunkDevice.{i}.LANEthernetInterfaceConfig.{i}.Stats.Queue.{i}.

Ethernet interface per CoS-queue statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.
PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.

TunnelDevice.{i}.

Tunnel Device port number.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or disable the tunnel device.
BypassAlarms	W	enum{3}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 3). Each list item is an enumeration of: • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process) • *LINK_DOWN_MAJOR* (Link down)

Type	W	enum	IPIP	Indicates the type of tunnel. Enumeration of: • *IPIP* (IP in IP (IP protocol 4)) • *GRE* (Generic Routing Encapsulation (IP protocol 47)) • *6in4* (IPv6 in IP (IP protocol 41))
Status	-	enum	-	Current operating status. Enumeration of: • *Up* • *NoLink* • *Error* • *Disabled*
OperState	-	enum	-	Operational state of this *TunnelDevice*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY*

				• *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*

LocalIPAddress	W	regex(256)	0.0.0.0	The IP local address for the tunnel. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
LocalIPAddressInUse	-	regex(256)	-	The IP local address being used for the tunnel. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
LocalLANDevice	W	unsignedInt	0	The LANDevice whose IPInterface address will be used as the local address for the tunnel. The value MUST be the instance number of an object in the *InternetGatewayDevice.LANDevice.* table.
LocalTrunkDevice	W	unsignedInt	0	The TrunkDevice whose IPInterface address will be used as the local address for the tunnel. The value MUST be the instance number of an object in the *InternetGatewayDevice.TrunkDevice.* table.

LocalVirtualInterface	W	unsignedInt[1:]{}	<Empty>	Indicates the list of virtual interfaces whose IP addresses can be used as the local address for the tunnel. The address of the active virtual interface will be used. Array of *unsignedInt* items. The value MUST be the instance number of an object in the *FAPService.{i}.Transport.Tunnel.VirtualInterface.* table, or if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to .
LocalIPInterface	W	unsignedInt	0	The IPInterface whose IP address will be used as the local address for the tunnel. The value MUST be the instance number of an object in the *InternetGatewayDevice.LANDevice.{i}.LANHostConfigManagement.IPInterface.* table.
RemoteIPAddress	W	regex(256)	0.0.0.0	The IP remote address for the tunnel. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
ForwardingGroupIndex	W	unsignedInt	0	Indicates the index of the Forwarding Group to be used to reach the remote tunnel end point. The value MUST be the instance number of an object in the *InternetGatewayDevice.Layer3Forwarding.ForwardingGroup.* table.
IPv6AutoDefaultRouteEnable	W	boolean	Empty(false)	Indicates whether the IPv6 default route is automatically installed via this tunnel interface.

TunnelDevice.{i}.LANHostConfigManagement.

Layer 3 configuration.

Parameter	W	Type	Default	Description
IPInterfaceNumberOfEntries	-	unsignedInt	0	Number of IPInterface entries.

TunnelDevice.{i}.LANHostConfigManagement.IPInterface.{i}.

IP interface.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or disable this interface.
BypassAlarms	W	enum{2}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 2). Each list item is an enumeration of: • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process)
Description	W	string	<Empty>	Specifies descriptive text for this interface to be used for display and debugging purposes only.
Name	-	string(64)	-	Short name of the interface.
IPInterfaceIPAddress	W	regex(256)	Empty(0.0.0.0)	Interface IPv4 or IPv6 address. Possible patterns: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$` • `^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$`
IPInterfaceSubnetMask	W	IPv4Address	Empty(0.0.0.0)	Interface IPv4 subnet mask.
IPInterfacePrefixLength	W	unsignedInt[0:128]	Empty(0)	Interface IPv4 or IPv6 prefix length.
ForwardingGroupIndex	W	unsignedInt	Empty(0)	Specifies the IP address domain (forwarding group) in which the interface exists. The value MUST be the instance number of an object in the *InternetGatewayDevice.Layer3Forwarding.ForwardingGroup.* table, or 0 if no row is currently referenced. If the referenced object is deleted, the parameter value MUST be set to 0.
OperState	-	enum	-	Operational state of this *IPInterface*. Enumeration of:

				• *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*

ServicesNode.{i}.

Parameters relating to ServicesNodes.

Parameter	W	Type	Default	Description
HostName	W	regex(24)	<Empty>	Hostname of this *ServicesNode*. Possible patterns: • `^$` • `^([0-9a-zA-Z])[-0-9a-zA-Z]*([0-9a-zA-Z])$`

BypassAlarms	W	enum{11}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 11). Each list item is an enumeration of: • *OVER_TEMPERATURE_CRITICAL* (A significant over-temperature condition exists) • *OVER_TEMPERATURE_MAJOR* (A significant over-temperature condition exists) • *OVER_TEMPERATURE_MINOR* (A significant over-temperature condition exists) • *MISSING_EQUIPMENT_MAJOR* (Provisioned equipment missing) • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process) • *CORE_IPSEC_TERM_MAJOR* (The IPsec tunnel to the core network has terminated) • *DB_INVALID_MAJOR* (DB is invalid) • *MULTIPLE_COOLING_FAN_FAILURES_CRITICAL* (Two or more cooling fan modules in the services node have failed) • *POWER_SUPPLY_MISSING_MAJOR* (A Power Supply module is absent.) • *POWER_SUPPLY_FAILED_MAJOR* (A Power Supply module has failed.) • *FE_CONNECTION_FAILURE_CRITICAL* (Services node Forwarding Engine connection failed)
OperState	-	enum	-	Operational state of this *ServicesNode*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH*

				• *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*
ArriveTime	-	dateTime	-	Date and time which this *ServicesNode* joined the system.
CurrentTime	-	dateTime	-	Current date and time (according to this *ServicesNode*).
UpTime	-	unsignedInt	-	Duration in *seconds* since this *ServicesNode* has arrived. *UpTime* is difference between *CurrentTime* and *ArriveTime*.
ForwardingEngineNumberOfEntries	-	unsignedInt	-	The number of forwarding engines on this *ServicesNode*.

ServicesNode.{i}.DiskPartitions.

Parameters related to *DiskPartitions*.

Parameter	W	Type	Default	Description
DiskPartitionsNumberOfEntries	-	unsignedInt	-	Number of disk partitions.

ServicesNode.{i}.DiskPartitions.DiskPartition.{i}.

Parameters related to the partition.

Parameter	W	Type	Default	Description
Name	-	string	-	Partition Name.
TotalSize	-	unsignedInt	-	Total size in GBytes.
Used	-	unsignedInt	-	Partition used size in GBytes.
Available	-	unsignedInt	-	Available size in GBytes.
PercentUsed	-	unsignedInt	-	PPercent used space.

ServicesNode.{i}.ForwardingEngine.{i}.

Parameters related to *ForwardingEngine*.

Parameter	W	Type	Default	Description
PortNumberOfEntries	-	unsignedInt	-	The number of network interface ports on this *ForwardingEngine*.
InterfaceNumberOfEntries	-	unsignedInt	-	Number of interfaces for this *ForwardingEngine*.
InPathServiceNumberOfEntries	-	unsignedInt	-	Number of in-path services for this *ForwardingEngine*.
FlowNumberOfEntries	-	unsignedInt	-	Number of flows for this *ForwardingEngine*.
NextHopNumberOfEntries	-	unsignedInt	-	Number of next hops for this *ForwardingEngine*.

ServicesNode.{i}.ForwardingEngine.{i}.Forwarding.

Parameters related to *Forwarding*.

Parameter	W	Type	Default	Description

ServicesNode.{i}.ForwardingEngine.{i}.Forwarding.IPv4.

Parameters related to IPv4 forwarding.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or disable IPv4 forwarding in Forwarding Engine.

ServicesNode.{i}.ForwardingEngine.{i}.Forwarding.IPv6.

Parameters related to IPv6 forwarding.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enable or disable IPv6 forwarding in Forwarding Engine.

ServicesNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.

Parameters related to filter restricting traffic going to the control plane.

Parameter	W	Type	Default	Description

ClassificationNumberOfEntries	-	unsignedInt	-	The number of classification entries.
PolicerNumberOfEntries	-	unsignedInt	-	The number of policer entries.

ServicesNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.GlobalPolicer.

Parameters related to Global Policer for control plane traffic filter.

Parameter	W	Type	Default	Description
Description	-	string	-	Human-readable description for this *GlobalPolicer*, used for display and debugging purposes only.
PolicerStatus	-	enum	-	Current status of this policer. Enumeration of: • *UNKNOWN* • *Disabled* • *Enabled* • *Error*
CommittedRate	-	unsignedInt	-	Average data rate in *Bps* that can be sent or forwarded.
CommittedBurstSize	-	unsignedInt	-	Maximum traffic bursts in *bps* before rate limit is exceeded.
MeterType	-	enum	-	Only SimpleTokenBucket is supported. Enumeration of: • *SimpleTokenBucket* • *SingleRateThreeColor* • *TwoRateThreeColor*
ConformingAction	-	enum	-	Action taken for conforming data. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
NonConformingAction	-	enum	-	Action taken for non-conforming data.

				Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
TotalCountedPackets	-	unsignedLong	-	Total *packets* handled by policer.
TotalCountedBytes	-	unsignedLong	-	Total *bytes* handled by policer.
ConformingCountedPackets	-	unsignedLong	-	Conforming *packets* handled by policer.
ConformingCountedBytes	-	unsignedLong	-	Conforming *bytes* handled by policer.
NonConformingCountedPackets	-	unsignedLong	-	Non-Conforming *packets* handled by policer.
NonConformingCountedBytes	-	unsignedLong	-	Non-Conforming *bytes* handled by policer.
PacketDropThreshold	-	unsignedLong	-	Threshold for number of *packets* dropped in monitoring interval before an event is raised. *PacketDropThreshold* is relevant only when either *ConformingAction* or *NonConformingAction* is *Drop*. Value of 0 indicates event reporting is disabled.
PacketDropMonitoringInterval	-	unsignedInt	-	Interval in *seconds* at which drops are monitored.
PacketSize	-	unsignedInt	-	Packet size in *bytes* used for rate limiting.

ServicesNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.GlobalQueueStats.

CoS queue global statistics.

Parameter	W	Type	Default	Description
OutputPackets	-	unsignedLong	0	Number of *packets* output through the queue.
OutputBytes	-	unsignedLong	0	Number of *bytes* output through the queue.
DroppedPackets	-	unsignedLong	0	Number of *packets* dropped by the queue.
PacketDropThreshold	-	unsignedLong	0	Threshold for number of *packets* dropped at which events are reported.
PacketDropMonitoringInterval	-	unsignedInt	0	Interval in *seconds* at which drops are monitored.

ServicesNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.Classification.{i}.

Parameters related to classification for filter restricting traffic to control plane.

Parameter	W	Type	Default	Description
Description	-	string	-	Human-readable description for this *Classification*, used for display and debugging purposes only.
DestIP	-	regex(256)	-	Destination IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
DestMask	-	IPAddress	-	Destination IP subnet mask.
DestPrefixLength	-	unsignedInt	-	Destination prefix length.
SourceIP	-	regex(256)	-	Source IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-

				9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
SourceMask	-	IPAddress	-	Source IP subnet mask.
SourcePrefixLength	-	unsignedInt	-	Source prefix length.
Protocol	-	int	-	Protocol number.
DestPort	-	int	-	Destination port lower bound.
DestPortRangeMax	-	int	-	Destination port upper bound.
SourcePort	-	int	-	Source port lower bound.
SourcePortRangeMax	-	int	-	Source port upper bound.
ClassPolicer	-	int	-	Control Plane Filter Policer index corresponding to this classification.
Action	-	enum	-	Indicates the action for matching packets. Can be only *None* or *Drop*. Enumeration of: • *PassThrough* • *Drop* • *None* • *LocalSwitch*
Hits	-	unsignedLong	-	Number of *packets* that match the classification rule.
PacketDropThreshold	-	unsignedLong	-	Threshold for number of *packets* dropped in monitoring interval before an event is raised. *PacketDropThreshold* is relevant only when either *Action* is *Drop*. Value of 0 indicates event reporting is disabled.
PacketDropMonitoringInterval	-	unsignedInt	-	Interval in *seconds* at which drops are monitored.

ServicesNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.Policer.{i}.

Parameters related to Policers for control plane traffic filter.

Parameter	W	Type	Default	Description
Description	-	string	-	Human-readable description for this *Policer*, used for display and debugging purposes only.
PolicerStatus	-	enum	-	Current status of this policer. Enumeration of: • *UNKNOWN* • *Disabled* • *Enabled* • *Error*
CommittedRate	-	unsignedInt	-	Average data rate in *Bps* that can be sent or forwarded.
CommittedBurstSize	-	unsignedInt	-	Maximum traffic bursts in *bps* before rate limit is exceeded.
MeterType	-	enum	-	Only SimpleTokenBucket is supported. Enumeration of: • *SimpleTokenBucket* • *SingleRateThreeColor* • *TwoRateThreeColor*
ConformingAction	-	enum	-	Action taken for conforming data. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
NonConformingAction	-	enum	-	Action taken for non-conforming data. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
TotalCountedPackets	-	unsignedLong	-	Total *packets* handled by policer.
TotalCountedBytes	-	unsignedLong	-	Total *bytes* handled by policer.

ConformingCountedPackets	-	unsignedLong	-	Conforming *packets* handled by policer.
ConformingCountedBytes	-	unsignedLong	-	Conforming *bytes* handled by policer.
NonConformingCountedPackets	-	unsignedLong	-	Non-Conforming *packets* handled by policer.
NonConformingCountedBytes	-	unsignedLong	-	Non-Conforming *bytes* handled by policer.
PacketDropThreshold	-	unsignedLong	-	Threshold for number of *packets* dropped in monitoring interval before an event is raised. *PacketDropThreshold* is relevant only when either *ConformingAction* or *NonConformingAction* is *Drop*. Value of 0 indicates event reporting is disabled.
PacketDropMonitoringInterval	-	unsignedInt	-	Interval in *seconds* at which drops are monitored.
PacketSize	-	unsignedInt	-	Packet size in *bytes* used for rate limiting.

ServicesNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.IPv4.

Parameters related to filter restricting traffic going to the control plane.

Parameter	W	Type	Default	Description
ClassificationNumberOfEntries	-	unsignedInt	-	The number of classification entries.
PolicerNumberOfEntries	-	unsignedInt	-	The number of policer entries.

ServicesNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.IPv4.Classification.{i}.

Parameters related to classification for filter restricting traffic to control plane.

Parameter	W	Type	Default	Description
Description	-	string	-	Human-readable description for this *Classification*, used for display and debugging purposes only.
DestIP	-	regex(256)	-	Destination IP address. Possible patterns: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$`

				• ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

DestMask	-	IPAddress	-	Destination IP subnet mask.
DestPrefixLength	-	unsignedInt	-	Destination prefix length.
SourceIP	-	regex(256)	-	Source IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
SourceMask	-	IPAddress	-	Source IP subnet mask.
SourcePrefixLength	-	unsignedInt	-	Source prefix length.
Protocol	-	int	-	Protocol number.
DestPort	-	int	-	Destination port lower bound.
DestPortRangeMax	-	int	-	Destination port upper bound.
SourcePort	-	int	-	Source port lower bound.
SourcePortRangeMax	-	int	-	Source port upper bound.
ClassPolicer	-	int	-	Control Plane Filter Policer index corresponding to this classification.
Action	-	enum	-	Indicates the action for matching packets. Can be only *None* or *Drop*. Enumeration of: • *PassThrough*

				• *Drop* • *None* • *LocalSwitch*
Hits	-	unsignedLong	-	Number of packets that match the classification rule.
PacketDropThreshold	-	unsignedLong	-	Threshold for number of *packets* dropped in monitoring interval before an event is raised. *PacketDropThreshold* is relevant only when either *Action* is *Drop*. Value of 0 indicates event reporting is disabled.
PacketDropMonitoringInterval	-	unsignedInt	-	Interval in *seconds* at which drops are monitored.

ServicesNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.IPv4.Policer.{i}.

Parameters related to Policers for control plane traffic filter.

Parameter	W	Type	Default	Description
Description	-	string	-	Human-readable description for this *Policer*, used for display and debugging purposes only.
PolicerStatus	-	enum	-	Current status of this policer. Enumeration of: • *UNKNOWN* • *Disabled* • *Enabled* • *Error*
CommittedRate	-	unsignedInt	-	Average data rate in *Bps* that can be sent or forwarded.
CommittedBurstSize	-	unsignedInt	-	Maximum traffic bursts in *bps* before rate limit is exceeded.
MeterType	-	enum	-	Only SimpleTokenBucket is supported. Enumeration of: • *SimpleTokenBucket* • *SingleRateThreeColor* • *TwoRateThreeColor*

ConformingAction	-	enum	-	Action taken for conforming data. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
NonConformingAction	-	enum	-	Action taken for non-conforming data. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
TotalCountedPackets	-	unsignedLong	-	Total *packets* handled by policer.
TotalCountedBytes	-	unsignedLong	-	Total *bytes* handled by policer.
ConformingCountedPackets	-	unsignedLong	-	Conforming *packets* handled by policer.
ConformingCountedBytes	-	unsignedLong	-	Conforming *bytes* handled by policer.
NonConformingCountedPackets	-	unsignedLong	-	Non-Conforming *packets* handled by policer.
NonConformingCountedBytes	-	unsignedLong	-	Non-Conforming *bytes* handled by policer.
PacketDropThreshold	-	unsignedLong	-	Threshold for number of *packets* dropped in monitoring interval before an event is raised. *PacketDropThreshold* is relevant only when either *ConformingAction* or *NonConformingAction* is *Drop*. Value of 0 indicates event reporting is disabled.
PacketDropMonitoringInterval	-	unsignedInt	-	Interval in *seconds* at which drops are monitored.
PacketSize	-	unsignedInt	-	Packet size in *bytes* used for rate limiting.

ServicesNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.IPv6.

Parameters related to filter restricting traffic going to the control plane.

Parameter	W	Type	Default	Description
ClassificationNumberOfEntries	-	unsignedInt	-	The number of classification entries.

PolicerNumberOfEntries	-	unsignedInt	-	The number of policer entries.

ServicesNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.IPv6.Classification.{i}.

Parameters related to classification for filter restricting traffic to control plane.

Parameter	W	Type	Default	Description
Description	-	string	-	Human-readable description for this *Classification*, used for display and debugging purposes only.
DestIP	-	regex(256)	-	Destination IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
DestMask	-	IPAddress	-	Destination IP subnet mask.
DestPrefixLength	-	unsignedInt	-	Destination prefix length.
SourceIP	-	regex(256)	-	Source IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-

				`F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$`
SourceMask	-	IPAddress	-	Source IP subnet mask.
SourcePrefixLength	-	unsignedInt	-	Source prefix length.
Protocol	-	int	-	Protocol number.
DestPort	-	int	-	Destination port lower bound.
DestPortRangeMax	-	int	-	Destination port upper bound.
SourcePort	-	int	-	Source port lower bound.
SourcePortRangeMax	-	int	-	Source port upper bound.
ClassPolicer	-	int	-	Control Plane Filter Policer index corresponding to this classification.
Action	-	enum	-	Indicates the action for matching packets. Can be only *None* or *Drop*. Enumeration of: • *PassThrough* • *Drop* • *None* • *LocalSwitch*
Hits	-	unsignedLong	-	Number of packets that match the classification rule.
PacketDropThreshold	-	unsignedLong	-	Threshold for number of *packets* dropped in monitoring interval before an event is raised. *PacketDropThreshold* is relevant only when either *Action* is *Drop*. Value of 0 indicates event reporting is disabled.
PacketDropMonitoringInterval	-	unsignedInt	-	Interval in *seconds* at which drops are monitored.

ServicesNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.IPv6.Policer.{i}.

Parameters related to Policers for control plane traffic filter.

Parameter	W	Type	Default	Description
Description	-	string	-	Human-readable description for this *Policer*, used for display and debugging purposes only.
PolicerStatus	-	enum	-	Current status of this policer. Enumeration of: • *UNKNOWN* • *Disabled* • *Enabled* • *Error*
CommittedRate	-	unsignedInt	-	Average data rate in *Bps* that can be sent or forwarded.
CommittedBurstSize	-	unsignedInt	-	Maximum traffic bursts in *bps* before rate limit is exceeded.
MeterType	-	enum	-	Only SimpleTokenBucket is supported. Enumeration of: • *SimpleTokenBucket* • *SingleRateThreeColor* • *TwoRateThreeColor*
ConformingAction	-	enum	-	Action taken for conforming data. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
NonConformingAction	-	enum	-	Action taken for non-conforming data. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)

TotalCountedPackets	-	unsignedLong	-	Total *packets* handled by policer.
TotalCountedBytes	-	unsignedLong	-	Total *bytes* handled by policer.
ConformingCountedPackets	-	unsignedLong	-	Conforming *packets* handled by policer.
ConformingCountedBytes	-	unsignedLong	-	Conforming *bytes* handled by policer.
NonConformingCountedPackets	-	unsignedLong	-	Non-Conforming *packets* handled by policer.
NonConformingCountedBytes	-	unsignedLong	-	Non-Conforming *bytes* handled by policer.
PacketDropThreshold	-	unsignedLong	-	Threshold for number of *packets* dropped in monitoring interval before an event is raised. *PacketDropThreshold* is relevant only when either *ConformingAction* or *NonConformingAction* is *Drop*. Value of 0 indicates event reporting is disabled.
PacketDropMonitoringInterval	-	unsignedInt	-	Interval in *seconds* at which drops are monitored.
PacketSize	-	unsignedInt	-	Packet size in *bytes* used for rate limiting.

ServicesNode.{i}.ForwardingEngine.{i}.Counters.

Provides statistical information for the forwarding engine.

Parameter	W	Type	Default	Description
FilterProcessed	-	unsignedInt	-	Counter in number of *packets* that were processed by the selected filters. This counter is incremented for all filters that have FP_COUNTER flag set in their procedures.
IOResolveTimerError	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to timer creation failure during resolve packet queuing.
IOResolveQueueTimedOut	-	unsignedInt	-	Counter to indicate number of resolve requests timed out and the outstanding requests were freed.
IOResolveQueueTimedOutError	-	unsignedInt	-	Counter to indicate number of times resolve queue entries don't match in timer callback.
PCBAllocated	-	unsignedInt	-	Counter to indicate number of PCBs allocated since bootup.
PCBFree	-	unsignedInt	-	Counter to indicate number of PCBs freed since bootup.
NumPCB	-	unsignedInt	-	Counter to indicate number of PCBs currently active (allocated, not freed) in the system.
PCBMax	-	unsignedInt	-	Counter to indicate the highest number of active PCBs reached at any point in the system.

ReassembleDeletedNoEntry	-	unsignedInt	-	Counter to indicate number of failures to delete IP fragment from reassembly queue.
ReassembleIPv6DeletedNoEntry	-	unsignedInt	-	Counter to indicate number of failures to delete IPv6 fragment from reassembly queue.
CoreUnknown	-	unsignedInt	-	Counter to indicate number of times CPU load for unknown core is updated.
UMTSNoMBuf	-	unsignedInt	-	Counter to indicate number of *packets* dropped by UMTS RIL2 next hop due to no mbufs.
PolicingAdd	-	unsignedInt	-	Counter to indicate number of policing instances added.
PolicingAddFail	-	unsignedInt	-	Counter to indicate number of times adding policing instance failed.
PolicingDel	-	unsignedInt	-	Counter to indicate number of policing instances deleted.
PolicingDelFail	-	unsignedInt	-	Counter to indicate number of times deleting policing instance failed.
DebugToCP	-	unsignedInt	-	Counter to indicate number of debug *messages* sent to control plane.
DebugBadPacket	-	unsignedInt	-	Counter to indicate number of debug *messages* to control plane dropped due to corruption.
DebugPktAllocFail	-	unsignedInt	-	Counter to indicate number of debug *messages* to control plane dropped due to packet allocation failure. If packets available is less than FE_DEBUG_MIN_FREE_PKT then debug message will not be sent to CP so that FE is not starved of packets.
CoSConfig	-	unsignedInt	-	Counter to indicate number of times platform dependent CoS is configured.
CoSConfigNoChange	-	unsignedInt	-	Counter to indicate number of times CoS configuration is not changed even after receiving CoS change IPC message.
PCAPCalled	-	unsignedInt	-	Counter to indicate number of times packet capture API is called.
PCAPCaptured	-	unsignedInt	-	Counter to indicate number of *packets* captured by PCAP.
PCAPFiltered	-	unsignedInt	-	Counter to indicate number of *packets* to which PCAP filter is applied before capture.
PCAPFilterNotMet	-	unsignedInt	-	Counter to indicate number of *packets* for which PCAP filtering criteria is not met.
PCAPPktAllocFailed	-	unsignedInt	-	Counter to indicate number of *packets* allocation failures for PCAP captured packets.
IPSecAdd	-	unsignedInt	-	Counter to indicate number of times a IPSec next hop is added.
IPSecDelete	-	unsignedInt	-	Counter to indicate number of times a IPSec next hop is deleted.
IPSecChange	-	unsignedInt	-	Counter to indicate number of times a IPSec next hop is changed.

LoadCore00	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 0. All values in the range 0-0.00999... are reported as 0%.
LoadCore01	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 1. All values in the range 0-0.00999... are reported as 0%.
LoadCore02	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 2. All values in the range 0-0.00999... are reported as 0%.
LoadCore03	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 3. All values in the range 0-0.00999... are reported as 0%.
LoadCore04	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 4. All values in the range 0-0.00999... are reported as 0%.
LoadCore05	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 5. All values in the range 0-0.00999... are reported as 0%.
LoadCore06	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 6. All values in the range 0-0.00999... are reported as 0%.
LoadCore07	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 7. All values in the range 0-0.00999... are reported as 0%.
LoadCore08	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 8. All values in the range 0-0.00999... are reported as 0%.
LoadCore09	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 9. All values in the range 0-0.00999... are reported as 0%.
LoadCore10	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 10. All values in the range 0-0.00999... are reported as 0%.
LoadCore11	-	unsignedInt	-	Counter to indicate CPU load as a {{unit}} of CPU capacity on core 11. All values in the range 0-0.00999... are reported as 0%.
Idle00Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 0. The internal 64-bit counter measures idle time since reboot.
Idle00Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 0. The internal 64-bit counter measures idle time since reboot.
Busy00Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 0. The internal 64-bit counter measures busy time since reboot.
Busy00Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 0. The internal 64-bit counter measures busy time since reboot.
Idle01Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 1. The internal 64-bit counter measures idle time since reboot.
Idle01Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 1. The internal 64-bit counter measures idle time since reboot.
Busy01Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 1. The internal 64-bit counter measures busy time since reboot.
Busy01Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 1. The internal 64-bit counter measures busy time since reboot.
Idle02Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 2. The internal 64-bit counter measures idle time since reboot.
Idle02Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 2. The internal 64-bit counter measures idle time since reboot.

Busy02Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 2. The internal 64-bit counter measures busy time since reboot.
Busy02Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 2. The internal 64-bit counter measures busy time since reboot.
Idle03Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 3. The internal 64-bit counter measures idle time since reboot.
Idle03Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 3. The internal 64-bit counter measures idle time since reboot.
Busy03Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 3. The internal 64-bit counter measures busy time since reboot.
Busy03Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 3. The internal 64-bit counter measures busy time since reboot.
Idle04Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 4. The internal 64-bit counter measures idle time since reboot.
Idle04Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 4. The internal 64-bit counter measures idle time since reboot.
Busy04Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 4. The internal 64-bit counter measures busy time since reboot.
Busy04Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 4. The internal 64-bit counter measures busy time since reboot.
Idle05Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 5. The internal 64-bit counter measures idle time since reboot.
Idle05Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 5. The internal 64-bit counter measures idle time since reboot.
Busy05Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 5. The internal 64-bit counter measures busy time since reboot.
Busy05Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 5. The internal 64-bit counter measures busy time since reboot.
Idle06Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 6. The internal 64-bit counter measures idle time since reboot.
Idle06Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 6. The internal 64-bit counter measures idle time since reboot.
Busy06Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 6. The internal 64-bit counter measures busy time since reboot.
Busy06Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 6. The internal 64-bit counter measures busy time since reboot.
Idle07Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 7. The internal 64-bit counter measures idle time since reboot.
Idle07Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 7. The internal 64-bit counter measures idle time since reboot.
Busy07Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 7. The internal 64-bit counter measures busy time since reboot.
Busy07Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 7. The internal 64-bit counter measures busy time since reboot.

Idle08Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 8. The internal 64-bit counter measures idle time since reboot.
Idle08Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 8. The internal 64-bit counter measures idle time since reboot.
Busy08Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 8. The internal 64-bit counter measures busy time since reboot.
Busy08Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 8. The internal 64-bit counter measures busy time since reboot.
Idle09Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 9. The internal 64-bit counter measures idle time since reboot.
Idle09Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 9. The internal 64-bit counter measures idle time since reboot.
Busy09Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 9. The internal 64-bit counter measures busy time since reboot.
Busy09Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 9. The internal 64-bit counter measures busy time since reboot.
Idle10Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 10. The internal 64-bit counter measures idle time since reboot.
Idle10Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 10. The internal 64-bit counter measures idle time since reboot.
Busy10Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 10. The internal 64-bit counter measures busy time since reboot.
Busy10Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 10. The internal 64-bit counter measures busy time since reboot.
Idle11Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU idle time on core 11. The internal 64-bit counter measures idle time since reboot.
Idle11Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU idle time on core 11. The internal 64-bit counter measures idle time since reboot.
Busy11Lo	-	unsignedInt	-	Low-order 32-bits of the 64-bit CPU busy time on core 11. The internal 64-bit counter measures busy time since reboot.
Busy11Hi	-	unsignedInt	-	High-order 32-bits of the 64-bit CPU busy time on core 11. The internal 64-bit counter measures busy time since reboot.
RuntimeGapLo	-	unsignedInt	-	Low-order 32-bits of the 64-bit duration counter between two consecutive CPU stats read. The internal 64-bit counter measures the gap between two consecutive stats reading.
RuntimeGapHi	-	unsignedInt	-	High-order 32-bits of the 64-bit duration counter between two consecutive CPU stats read. The internal 64-bit counter measures the gap between two consecutive stats reading.
FEIPCNack	-	unsignedInt	-	Counter to indicate number of out of sequence FE IPC *messages* received.
FEIPCBypassNack	-	unsignedInt	-	Counter to indicate number of out of sequence FE IPC bypass *messages* received.
ReassemTimerCb	-	unsignedInt	-	Counter to indicate number of times IP fragment reassembly timer expired.

ReassemTimerCbDel	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to IP fragment reassembly timer expiration.
ReassemIPv6TimerCb	-	unsignedInt	-	Counter to indicate number of times IPv6 fragment reassembly timer expired.
ReassemIPv6TimerCbDel	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to IPv6 fragment reassembly timer expiration.
DNSAdd	-	unsignedInt	-	Counter to indicate number of times a DNS next hop is added.
DNSDelete	-	unsignedInt	-	Counter to indicate number of times a DNS next hop is deleted.
DNSProcess	-	unsignedInt	-	Counter to indicate number of *packets* processed by DNS next hop.
DNSPCBAllocFailed	-	unsignedInt	-	Counter to indicate number of PCB allocation failed for DNS packets.
RTPPacketsIn	-	unsignedInt	-	Counter to indicate total number of inbound RTP *packets*.
RTPPacketsOut	-	unsignedInt	-	Counter to indicate total number of outbound RTP *packets*.
GTPPacketsIn	-	unsignedInt	-	Counter to indicate total number of inbound GTP *packets*.
GTPPacketsOut	-	unsignedInt	-	Counter to indicate total number of outbound GTP *packets*.
LSPacketsIn	-	unsignedInt	-	Counter to indicate total number of inbound locally switched *packets*.
LSPacketsOut	-	unsignedInt	-	Counter to indicate total number of outbound locally switched *packets*.
ControlPlaneGlobalPolicingFail	-	unsignedInt	-	Total number of *packets* failed at global policer for control plane traffic.
ControlPlaneGlobalPolicingDrop	-	unsignedInt	-	Total number of *packets* dropped at global policer for control plane traffic.
UDPTunnelAdd	-	unsignedInt	-	Counter to indicate number of times a UDP tunnel next hop is added.
UDPTunnelDelete	-	unsignedInt	-	Counter to indicate number of times a UDP tunnel next hop is deleted.
UDPTunnelProcess	-	unsignedInt	-	Counter to indicate number of *packets* processed by UDP tunnel next hop.
UDPTunnelProcessFailed	-	unsignedInt	-	Counter to indicate number of *packets* processing failure by UDP tunnel next hop.
UDPTunnelEncap	-	unsignedInt	-	Counter to indicate number of *packets* encapsulated by UDP tunnel next hop.
UDPTunnelDecap	-	unsignedInt	-	Counter to indicate number of *packets* decapsulated by UDP tunnel next hop.
UDPTunnelEncapFailed	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to encapsulation failure by UDP tunnel next hop.

UDPTunnelDecapFailed	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to decapsulation failure by UDP tunnel next hop.
PktBufFreeSetLength	-	unsignedInt	-	Packet Buffers freed in set length API.
IPSecBufAllocated	-	unsignedInt	-	Packet Buffers allocated during ipsec encryption/decryption.
IPSecBufFreed	-	unsignedInt	-	Packet Buffers freed during ipsec encryption/decryption.

ServicesNode.{i}.ForwardingEngine.{i}.PlatformCounters.

Platform specific counters related to forwarding engine.

Parameter	W	Type	Default	Description
NoWorkQueueEntry	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to work queue entry allocation failures.
NoBuffer	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to packet buffer allocation failures.
NoIPCWorkQueueEntry	-	unsignedInt	-	Counter to indicate number of IPC *messages* to control plane failed due to work queue entry buffer allocation failure.
NoSystemPort	-	unsignedInt	-	Counter to indicate number of *packets* received on invalid port.
IPCOrdered	-	unsignedInt	-	Counter to indicate number of atomically tagged IPC *messages* from control plane.
IPCRescheduled	-	unsignedInt	-	Counter to indicate number of rescheduled IPC *messages* from control plane.
TimerWorkQueueEntryAllocs	-	unsignedInt	-	Number of timer work queue entry allocations.
TimerWorkQueueEntryDeletes	-	unsignedInt	-	Number of timer work queue entry deletions.
TimerWorkQueueEntrySchedCntNonZero	-	unsignedInt	-	Schedule count for a timer work queue entry is non zero. Indicates outstanding schedules for the timer work queue entry.
MemoryAllocated	-	unsignedInt	-	Counter to indicate number of times memory allocation function is called.
MemoryFree	-	unsignedInt	-	Counter to indicate number of times memory free function is called.
QoS0	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 0.
QoS1	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 1.
QoS2	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 2.

QoS3	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 3.
QoS4	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 4.
QoS5	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 5.
QoS6	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 6.
QoS7	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 7.
QoSE	-	unsignedInt	-	Counter to indicate number of input *packets* from an invalid CoS queue.
WorkBadMagic	-	unsignedInt	-	Counter to indicate number of work items with bad magic value.
WorkDispatch	-	unsignedInt	-	Counter to indicate number of work items dispatched.
QoS0Drop	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 0 dropped by the Forwarding Engine due to lack of resources.
QoS1Drop	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 1 dropped by the Forwarding Engine due to lack of resources.
QoS2Drop	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 2 dropped by the Forwarding Engine due to lack of resources.
QoS3Drop	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 3 dropped by the Forwarding Engine due to lack of resources.
QoS4Drop	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 4 dropped by the Forwarding Engine due to lack of resources.
QoS5Drop	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 5 dropped by the Forwarding Engine due to lack of resources.
QoS6Drop	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 6 dropped by the Forwarding Engine due to lack of resources.
QoS7Drop	-	unsignedInt	-	Counter to indicate number of input *packets* from CoS queue 7 dropped by the Forwarding Engine due to lack of resources.
MSSAdjusted	-	unsignedInt	-	Counter to indicate number of TCP SYN *packets* whose MSS was adjusted by the Forwarding Engine.
MSSInserted	-	unsignedInt	-	Counter to indicate number of TCP SYN *packets* for which MSS option was inserted by the Forwarding Engine.
MSSAdjustFailed	-	unsignedInt	-	Counter to indicate number of TCP SYN *packets* for which MSS adjustment by the Forwarding Engine failed.
UnexpectedPort	-	unsignedInt	-	Counter to indicate number of *packets* arriving on an unexpected port.
InvalidTrunk	-	unsignedInt	-	Counter to indicate number of *packets* arriving on an invalid trunk.

ServicesNode.{i}.ForwardingEngine.{i}.Port.{i}.

Parameters related to this forwarding engine *Port*.

Parameter	W	Type	Default	Description

ServicesNode.{i}.ForwardingEngine.{i}.Port.{i}.Counters.

Global counters for this forwarding engine port.

Parameter	W	Type	Default	Description
IOResolveQueueError	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to address resolution errors.
IOResolved	-	unsignedInt	-	Counter to indicate number of address resolution *packets*.
IORescheduled	-	unsignedInt	-	Counter to indicate number of address resolution *packets* rescheduled.
FIBNotIP	-	unsignedInt	-	Counter to indicate number of non-IP *packets* dropped by FIB.
FIBNoIPHeader	-	unsignedInt	-	Counter to indicate number of *packets* with no IP header dropped by FIB.
FIBUnreachable	-	unsignedInt	-	Counter to indicate number of *packets* dropped with no FIB entry (ICMP unreachable).
IPNoLink	-	unsignedInt	-	Counter to indicate number input *packets* dropped due to no port-interface mapping.
EthernetIPOutput	-	unsignedInt	-	Counter to indicate number of IP *packets* transmitted on the interface.
EthernetIPOutputNoProtocol	-	unsignedInt	-	Counter to indicate number of dropped *packets* due to protocol encapsulation error.
SchedulerNoNextHopSpecified	-	unsignedInt	-	Counter to indicate number of *packets* dropped by scheduler due to empty packet next hop stack.
SchedulerNoNextHop	-	unsignedInt	-	Counter to indicate number of *packets* dropped by scheduler due to invalid next hop.
SchedulerEnqueued	-	unsignedInt	-	Counter to indicate number of *packets* enqueued for scheduler.
SchedulerDropped	-	unsignedInt	-	Counter to indicate number of *packets* dropped by packet scheduler.
SchedulerConsumed	-	unsignedInt	-	Counter to indicate number of *packets* consumed by packet scheduler.
FilterNotIP	-	unsignedInt	-	Counter to indicate number of non-IP *packets* received by filter.
FilterNoIPHeader	-	unsignedInt	-	Counter to indicate number of *packets* dropped by filter due to no IP header.

EthernetIPTTL	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to IPv4 TTL expiration.
EthernetIP6HopLimit	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to IPv6 Hop Limit reducing to zero.
LocalLoop	-	unsignedInt	-	Counter to indicate number of subnet broadcast *packets* from control plane.
EthernetIPLoop	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to loop.
RTPDecapsulated	-	unsignedInt	-	Counter to indicate number of *packets* with successful RTP decapsulation.
RTPEncapsulated	-	unsignedInt	-	Counter to indicate number of *packets* that are RTP encapsulated.
RTPDecapsulationFailed	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to RTP decapsulation failure.
RTPEncapsulationFailed	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to RTP encapsulation failure.
RTPNoUserEncapsulation	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to user encap not set for RTP packet.
RTPNoFlow	-	unsignedInt	-	Counter to indicate number of RTP *packets* dropped due to an invalid flow.
AMREncapsulationFailed	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to AMR encapsulation failure.
AMRDecapsulationFailed	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to AMR decapsulation failure.
FlowIdMismatch	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to flow id mismatch.
RawNoNextHopSpecified	-	unsignedInt	-	Counter to indicate number of RAW IO *packets* dropped due to no next hop specified.
RawNoUser	-	unsignedInt	-	Counter to indicate number of RAW IO *packets* dropped due to user encap not set.
RawNoFlow	-	unsignedInt	-	Counter to indicate number of RAW IO *packets* dropped due to flow id not set.
RawFromControlProcessor	-	unsignedInt	-	Counter to indicate number of RAW IO *packets* received from control plane.
RawFromControlProcessorIP	-	unsignedInt	-	Counter to indicate number of RAW IP *packets* received from control plane.
RawToControlProcessor	-	unsignedInt	-	Counter to indicate number of RAW IO *packets* sent to control plane.
UMTSNoEntry	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to AP UMTS next hop not present.
UMTSNorthBoundEncapsulated	-	unsignedInt	-	Counter to indicate number of north bound (from AP) *packets* that are UMTS encapsulated.
UMTSSouthBoundEncapsulated	-	unsignedInt	-	Counter to indicate number of south bound (to AP) *packets* that are UMTS encapsulated.

UMTSEncapsulationError	-	unsignedInt	-	Counter to indicate number of north bound (from AP) *packets*dropped due to UMTS encapsulation error.
UMTSBadSequenceNumber	-	unsignedInt	-	Counter to indicate number of south bound (to AP) *packets* with bad sequence number.
UMTSSouthBoundTrchSync	-	unsignedInt	-	Counter to indicate number of south bound (to AP) *packets* that are trch sync requests.
UMTSNorthBoundTrchSync	-	unsignedInt	-	Counter to indicate number of north bound (from AP) *packets*that are trch sync responses.
NATNoLayer4	-	unsignedInt	-	Counter to indicate number of *packets* received by NAT next hop without L4 encapsulation.
DstNATNonIP	-	unsignedInt	-	Counter to indicate number of *packets* dropped at destination NAT due to missing IP encapsulation.
SrcNATNonIP	-	unsignedInt	-	Counter to indicate number of *packets* dropped at source NAT due to missing IP encapsulation.
GTPDecapsulated	-	unsignedInt	-	Counter to indicate number of *packets* being GTP decapsulated.
GTPEncapsulated	-	unsignedInt	-	Counter to indicate number of *packets* being GTP encapsulated.
GTPDecapsulationSIMFailed	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to failure in decapsulating GTP sim packet.
GTPDecapsulationSIMNonIP	-	unsignedInt	-	Counter to indicate number of GTP sim *packets* decapsulated that are non IP.
GTPDecapsulationFailed	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to failure in decapsulating GTP packet.
GTPDecapsulationNonIP	-	unsignedInt	-	Counter to indicate number of GTP *packets* decapsulated that are non IP.
GTPEncapsulationFailed	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to failure in encapsulating GTP packet.
GTPNoFlow	-	unsignedInt	-	Counter to indicate number of GTP *packets* dropped due to an invalid flow.
ReflectorProcessed	-	unsignedInt	-	Counter to indicate number of *packets* being reflected back.
ReassemblyTimerDropped	-	unsignedInt	-	Counter to indicate number of IP *fragments* dropped due to reassembly timer expiration.
ReassemblyNoMemory	-	unsignedInt	-	Counter to indicate number of times IP fragment queue allocation failed.
ReassemblyFlushedQueue	-	unsignedInt	-	Counter to indicate number of times IP fragment queue is flushed since reassembly is not required.
ReassemblyFirst	-	unsignedInt	-	Counter to indicate number of times the first fragment is reassembled.
ReassemblyLatter	-	unsignedInt	-	Counter to indicate number of times the non first fragment is reassembled.
ReassemblyNoInsertion	-	unsignedInt	-	Counter to indicate number of failures to insert fragments in reassembly queue.

ReassemblyIPv6TimerDropped	-	unsignedInt	-	Counter to indicate number of IPv6 *fragments* dropped due to reassembly timer expiration.
ReassemblyIPv6NoMemory	-	unsignedInt	-	Counter to indicate number of times IPv6 fragment queue allocation failed.
ReassemblyIPv6FlushedQueue	-	unsignedInt	-	Counter to indicate number of times IPv6 fragment queue is flushed since reassembly is not required.
ReassemblyIPv6First	-	unsignedInt	-	Counter to indicate number of times the first fragment of an IPv6 packet is reassembled.
ReassemblyIPv6Latter	-	unsignedInt	-	Counter to indicate number of times the non first fragment of an IPv6 packet is reassembled.
ReassemblyIPv6NoInsertion	-	unsignedInt	-	Counter to indicate number of failures to insert fragments of an IPv6 packet in reassembly queue.
UMTSNoFlow	-	unsignedInt	-	Counter to indicate number of *packets* received by UMTS RIL2 next hop with no flow id set.
UMTSAtomic	-	unsignedInt	-	Counter to indicate number of *packets* switched atomically by UMTS RIL2 next hop.
UMTSAtomicDrop	-	unsignedInt	-	Counter to indicate number of *packets* dropped by UMTS RIL2 due to overload condition with respect to the number of outstanding packets switched atomically.
UMTSFPInput	-	unsignedInt	-	Counter to indicate number of fast path input *packets* received by UMTS RIL2 next hop.
UMTSFPOutput	-	unsignedInt	-	Counter to indicate number of fast path output *packets* atomically tag switched by UMTS RIL2 next hop.
NoFlowId	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to invalid flow id.
NoFlow	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to no entry in flow table.
StatsFromControlProcessor	-	unsignedInt	-	Counter to indicate number of stats *packets* received from control plane.
StatsToControlProcessor	-	unsignedInt	-	Counter to indicate number of stats *packets* sent to control plane.
StatsNoProtoStart	-	unsignedInt	-	Counter to indicate number of stats *packets* not sent to control plane due to packet start encap not set
StatsBadMajorType	-	unsignedInt	-	Counter to indicate number of dropped stats *packets* from control plane due to invalid major type.
StatsNoHandlerDrop	-	unsignedInt	-	Counter to indicate number of dropped stats *packets* from control plane due to empty handler.
StatsNullHandlerDrop	-	unsignedInt	-	Counter to indicate number of dropped stats *packets* from control plane due to null handler.
StatsHandlerError	-	unsignedInt	-	Counter to indicate number of dropped stats *packets* from control plane due to handler error.
StatsBadMajorLenDrop	-	unsignedInt	-	Counter to indicate number of dropped stats *packets* from control plane due to invalid packet length.
StatsBadMinLenDrop	-	unsignedInt	-	Counter to indicate number of stats *packets* with invalid stats data length.

StatsNoSData	-	unsignedInt	-	Counter to indicate number of dropped stats *packets* to control plane due to no stats data.
PolicingPacketFail	-	unsignedInt	-	Counter to indicate number of *packets* dropped due to policing failure.
ReflectorProcessedHSPA	-	unsignedInt	-	Counter to indicate number of HSPA *packets* handled by reflector next hop.
ReflectorNoFlow	-	unsignedInt	-	Counter to indicate number of *packets* dropped by reflector next hop due to empty fsw flow info.
UMTSFPTooSmall	-	unsignedInt	-	Counter to indicate number of fast path *packets* dropped by UMTS RIL2 next hop due to L4 length less than UDP header.
UMTSFPTooBig	-	unsignedInt	-	Counter to indicate number of fast path *packets* dropped by UMTS RIL2 next hop due to L4 length exceeding maximum allowed length.
UMTSFPNoUEId	-	unsignedInt	-	Counter to indicate number of fast path *packets* dropped by UMTS RIL2 next hop due to invalid UE ID.
UMTSSetIPFailed	-	unsignedInt	-	Counter to indicate number of *packets* (PS UE data) for which IP encapsulation failed.
IPSecProcessed	-	unsignedInt	-	Counter to indicate number of IPSec *packets* successfully processed.
IPSecProcessedFailed	-	unsignedInt	-	Counter to indicate number of IPSec *packets* dropped due to processing errors.
LocalProcError	-	unsignedInt	-	Counter to indicate number of *packets* dropped before sending to control plane due to invalid interface index.
IUUPInit	-	unsignedInt	-	Counter to indicate number of RTP IuUP Init control *frames* received.
IUUPInitAcked	-	unsignedInt	-	Counter to indicate number of RTP IuUP Init Ack control *frames* received.
IUUPInitNacked	-	unsignedInt	-	Counter to indicate number of RTP IuUP Init Nack control *frames* received.
IUUPRateControl	-	unsignedInt	-	Counter to indicate number of RTP IuUP Rate Control control *frames* received.
IUUPRateControlAcked	-	unsignedInt	-	Counter to indicate number of RTP IuUP Rate Control Ack control *frames* received.
IUUPRateControlNacked	-	unsignedInt	-	Counter to indicate number of RTP IuUP Rate Control Nack control *frames* received.
IUUPTimeAlign	-	unsignedInt	-	Counter to indicate number of RTP IuUP Time Align control *frames* received.
IUUPTimeAlignAcked	-	unsignedInt	-	Counter to indicate number of RTP IuUP Time Align Ack control *frames* received.
IUUPTimeAlignNacked	-	unsignedInt	-	Counter to indicate number of RTP IuUP Time Align Nack control *frames* received.
IUUPError	-	unsignedInt	-	Counter to indicate number of RTP IuUP Error control *frames* received.
IUUPErrorAcked	-	unsignedInt	-	Counter to indicate number of RTP IuUP Error Ack control *frames* recevied.

IUUPErrorNacked	-	unsignedInt	-	Counter to indicate number of RTP IuUP Error Nack control *frames* received.
IUUPControlFailed	-	unsignedInt	-	Counter to indicate number of RTP IuUP control *frames* send failures due to packet allocation error.
IUUPUnknownFrame	-	unsignedInt	-	Counter to indicate number of RTP IuUP unknown *frames* received.
IUUPWaitForInitDrop	-	unsignedInt	-	Counter to indicate number of RTP *packets* dropped waiting for IuUP init.
DNSQuery	-	unsignedInt	-	Counter to indicate number of DNS *requests* received by DNS next hop.
DNSResponse	-	unsignedInt	-	Counter to indicate number of DNS *responses* received by DNS next hop.
DNSQueryNoFlow	-	unsignedInt	-	Counter to indicate number of DNS *requests* received with invalid flow.
DNSResponseNoFlow	-	unsignedInt	-	Counter to indicate number of DNS *responses* received with invalid flow.
DNSQueryPacketCopyError	-	unsignedInt	-	Counter to indicate number of DNS *requests* with packet copy error.
DNSResponsePacketCopyError	-	unsignedInt	-	Counter to indicate number of DNS *responses* with packet copy error.
DNSQueryIPCSendError	-	unsignedInt	-	Counter to indicate number of DNS *requests* with IPC send error.
DNSResponseIPCSendError	-	unsignedInt	-	Counter to indicate number of DNS *responses* with IPC send error.
DNSPacketTooBig	-	unsignedInt	-	Counter to indicate number of too big (>512) DNS *packets* received by DNS next hop.
DNSPacketsRateLimited	-	unsignedInt	-	Counter to indicate number of DNS *packets* not sent to control plane due to rate limiting.
DNSNoFlow	-	unsignedInt	-	Counter to indicate number of DNS *messages* not processed by forwarding engine due to an invalid flow.
BadIfIndex	-	unsignedInt	-	Counter to indicate number of *packets* dropped because the interface index was bad.
IPSecDropMTUTooSmall	-	unsignedInt	-	Counter to indicate number of *packets* dropped by forwarding engine because fragmentation could not be performed before IPSec as MTU was too small.

ServicesNode.{i}.ForwardingEngine.{i}.Port.{i}.PlatformCounters.

> Platform specific counters for this forwarding engine port.

Parameter	W	Type	Default	Description
NoPCB	-	unsignedInt	-	Counter to indicate number of PCB allocation failures

NoBuffers	-	unsignedInt	-	Counter to indicate number of work queue entries with no buffers used.
IngressIP	-	unsignedInt	-	Counter to indicate number of Ingress IPv4 *packets* on interface to control plane.
IngressIPv4	-	unsignedInt	-	Counter to indicate number of Ingress IPv4 *packets* on interface to control plane.
IngressIPv6	-	unsignedInt	-	Counter to indicate number of Ingress IPv6 *packets* on interface to control plane.
IngressL2	-	unsignedInt	-	Counter to indicate number of ingress non-IP *packets* on interface to control plane.
NotInterested	-	unsignedInt	-	Counter to indicate number of ingress *packets* dropped on interface to control plane.
IPNoError	-	unsignedInt	-	Counter to indicate number of ingress IP *packets* with no errors on interface to control plane.
IPVersionError	-	unsignedInt	-	Counter to indicate number of ingress IP *packets* dropped due to version mismatch (no IPv4 or IPv6) on interface to control plane.
IPChecksumError	-	unsignedInt	-	Counter to indicate number of ingress IP *packets* dropped due to checksum error on interface to control plane.
IPMalformedHeader	-	unsignedInt	-	Counter to indicate number of ingress IP *packets* dropped due to malformed header on interface to control plane.
IPMalformedPacket	-	unsignedInt	-	Counter to indicate number of ingress IP *packets* dropped due to malformed packet on interface to control plane.
IPTTLHop	-	unsignedInt	-	Counter to indicate number of ingress IP *packets* with zero hop count on interface to control plane.
IPOptions	-	unsignedInt	-	Counter to indicate number of ingress IP *packets* with IPv4 options on interface to control plane.
EthernetPKOError	-	unsignedInt	-	Counter to indicate number of egress *packets* dropped due to error.
EthernetLayer2	-	unsignedInt	-	Counter to indicate number of egress non-IP *packets* from control plane.
L2NotForUs	-	unsignedInt	-	Counter to indicate number of dropped ingress IP *packets* not destined for AC.
Requeued	-	unsignedInt	-	Counter to indicate number of *packets* that are previously tag switched, requeued for scheduling.
ReceivePartialError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to partially received packet error.
ReceiveJabberError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to too large or truncated packet error.
ReceiveOverFCSError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to maximum frame length exceed with FCS error.
ReceiveOverError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to maximum frame length exceed error.
ReceiveAlignError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to packet alignment error.

ReceiveUnderFCSError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to packet length less than minimum frame length with FCS error.
ReceiveGMXFCSError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to FCS error.
ReceiveUnderError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to packet length less than minimum frame length error.
ReceiveExtendError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to frame carrier extend error.
ReceiveLengthError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to length mismatch error.
ReceiveDataError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to frame error.
ReceiveSkipError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to skip (no inspection) error (RGM).
ReceiveNibbleError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to stutter (data not repeated) error.
ReceivePIPFCSError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to FCS error.
ReceivePIPSkipError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to skip (no inspection) error (RGM+SPI+PCI).
ReceivePIPL2MalformedError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to malformed L2 header error (RGM+SPI+PCI).
ReceivePunyError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to PUNY (packet was 4B or less when FCS stripping enabled) error.
ReceiveUnknownError	-	unsignedInt	-	Counter to indicate number of received *packets* dropped due to unknown error.
IPSecNullContext	-	unsignedInt	-	Counter to indicate number of IPSec *packets* dropped due to NULL IPSec context.
IPSecContextInvalid	-	unsignedInt	-	Counter to indicate number of IPSec *packets* dropped due to invalid IPSec context.
IPSecDecrypt	-	unsignedInt	-	Counter to indicate number of *packets* with successful IPSec decryption.
IPSecEncrypt	-	unsignedInt	-	Counter to indicate number of *packets* with successful IPSec encryption.
IPSecDecryptError	-	unsignedInt	-	Counter to indicate number of IPSec *packets* dropped due to decryption error.
IPSecEncryptError	-	unsignedInt	-	Counter to indicate number of IPSec *packets* dropped due to encryption error.
IPSecDirInvalid	-	unsignedInt	-	Counter to indicate number of IPSec *packets* dropped due to invalid direction.
IPSecSetIPError	-	unsignedInt	-	Counter to indicate number of IPSec *packets* dropped due to IP encap set error.
VLANIn	-	unsignedInt	-	Counter to indicate number of ingress *packets* with valid VLAN id on the interface to control plane.

OutputErrors	-	unsignedInt	-	DELETED. Counter to indicate number of egress *packets* dropped due to output errors.
OutputPackets	-	unsignedInt	-	DELETED. Counter to indicate number of egress/output *packets*.
OutputBytes	-	unsignedInt	-	DELETED. Counter to indicate number of egress/output *bytes*.
OutputBroadcast	-	unsignedInt	-	DELETED. Counter to indicate number of egress/output broadcast *packets*.
OutputMulticast	-	unsignedInt	-	DELETED. Counter to indicate number of egress/output multicast *packets*.
OutputUnicast	-	unsignedInt	-	DELETED. Counter to indicate number of egress/output unicast *packets*.
OutputDiscard	-	unsignedInt	-	DELETED. Counter to indicate number of discarded egress/output *packets*.
InputErrors	-	unsignedInt	-	DELETED. Counter to indicate number of ingress/input *packets* dropped due to errors.
InputPackets	-	unsignedInt	-	DELETED. Counter to indicate number of ingress/input *packets*.
InputBytes	-	unsignedInt	-	DELETED. Counter to indicate number of ingress/input *bytes*.
InputBroadcast	-	unsignedInt	-	DELETED. Counter to indicate number of ingress/input broadcast *packets*.
InputMulticast	-	unsignedInt	-	DELETED. Counter to indicate number of ingress/input multicast *packets*.
InputUnicast	-	unsignedInt	-	DELETED. Counter to indicate number of ingress/input unicast *packets*.
InputDiscard	-	unsignedInt	-	DELETED. Counter to indicate number of discarded ingress/input *packets*.
InputUnknown	-	unsignedInt	-	DELETED. Counter to indicate number of ingress/input *packets* for unknown protocol.

ServicesNode.{i}.ForwardingEngine.{i}.Interface.{i}.

Parameters related to interfaces. The index is from the number space managed by the control plane.

Parameter	W	Type	Default	Description
Name	-	string	-	Interface name.
LANDevice	-	unsignedInt	-	LAN device identifier.
ManagementDevice	-	unsignedInt	-	Management device identifier.

TrunkDevice	-	unsignedInt	-	Trunk device identifier.
IPInterface	-	unsignedInt	-	IP interface identifier.
Flags	-	unsignedInt	-	Interface flags.
FIBID	-	unsignedInt	-	FIB identifier of the interface.
MTU	-	unsignedInt	-	MTU of the interface.
IngressClassificationGroup	-	unsignedInt	-	User defined IPv4 classification group index applied at ingress of the interface.
EgressClassificationGroup	-	unsignedInt	-	User defined IPv4 classification group index applied at egress of the interface.
IPv6IngressClassificationGroup	-	unsignedInt	-	User defined IPv6 classification group index applied at ingress of the interface.
IPv6EgressClassificationGroup	-	unsignedInt	-	User defined IPv6 classification group index applied at egress of the interface.
VLANTag	-	unsignedInt	-	VLAN tag of the interface.
MACAddress	-	string	-	MAC address of the interface.
NextHopStack	-	unsignedInt{8}	-	IPv4 nexthop stack of the interface. Array of *unsignedInt* items (maximum number of items 8).
CPNextHopStack	-	unsignedInt{8}	-	IPv4 nexthop stack of the interface for control plane packets. Array of *unsignedInt* items (maximum number of items 8).
IPv6NextHopStack	-	unsignedInt{8}	-	IPv6 nexthop stack of the interface. Array of *unsignedInt* items (maximum number of items 8).
IPv6CPNextHopStack	-	unsignedInt{8}	-	IPv6 nexthop stack of the interface for control plane packets. Array of *unsignedInt* items (maximum number of items 8).
InternalInterfaceID	-	unsignedInt	-	Interface index within the Forwarding Engine. The index is from the number space internal to the Forwarding Engine.

ServicesNode.{i}.ForwardingEngine.{i}.InPathService.{i}.

Parameters related to forwarding engine in-path services.

Parameter	W	Type	Default	Description

State	-	enum	-	Indicates the service state. Enumeration of: • *UNKNOWN* (Unknown value) • *Down* (Service is down) • *Up* (Service is up)
Faulted	-	boolean	-	Indicates that the in-path service appears to be faulted, and is not passing packets.
DeliveredSBPackets	-	unsignedLong	-	Southbound packets delivered to this in-path service.
DeliveredSBBytes	-	unsignedLong	-	Southbound bytes delivered to this in-path service.
DeliveredNBPackets	-	unsignedLong	-	Northbound packets delivered to this in-path service.
DeliveredNBBytes	-	unsignedLong	-	Northbound bytes delivered to this in-path service.
ReceivedSBPackets	-	unsignedLong	-	Southbound packets received from this in-path service.
ReceivedSBBytes	-	unsignedLong	-	Southbound bytes received from this in-path service.
ReceivedNBPackets	-	unsignedLong	-	Northbound packets received from this in-path service.
ReceivedNBBytes	-	unsignedLong	-	Northbound bytes received from this in-path service.
BypassedSBPackets	-	unsignedLong	-	Southbound packets bypassing this in-path service.
BypassedSBBytes	-	unsignedLong	-	Southbound bytes bypassing this in-path service.
BypassedNBPackets	-	unsignedLong	-	Northbound packets bypassing this in-path service.
BypassedNBBytes	-	unsignedLong	-	Northbound bytes bypassing this in-path service.
IPv4NBNextHopStack	-	unsignedInt{}<8>	-	IPv4 northbound next hop stack. Array (maximum length as string 8) of *unsignedInt* items.
IPv6NBNextHopStack	-	unsignedInt{}<8>	-	IPv6 northbound next hop stack. Array (maximum length as string 8) of *unsignedInt* items.
IPv4SBNextHopStack	-	unsignedInt{}<8>	-	IPv4 southbound next hop stack. Array (maximum length as string 8) of *unsignedInt* items.

IPv6SBNextHopStack	-	unsignedInt{}<8>	-	IPv6 southbound next hop stack. Array (maximum length as string 8) of *unsignedInt* items.

ServicesNode.{i}.ForwardingEngine.{i}.Flow.{i}.

Parameters related to flows.

Parameter	W	Type	Default	Description
DefaultCoS	-	unsignedInt	-	Default CoS of the flow.
SBPackets	-	unsignedLong	-	Southbound packets of the flow.
SBBytes	-	unsignedLong	-	Southbound bytes of the flow.
NBPackets	-	unsignedLong	-	Northbound packets of the flow.
NBBytes	-	unsignedLong	-	Northbound bytes of the flow.
NBDroppedPackets	-	unsignedLong	-	Dropped northbound packets of the flow.
NBDroppedBytes	-	unsignedLong	-	Dropped northbound bytes of the flow.
GTPInPackets	-	unsignedLong	-	Inbound GTP packets of the flow.
GTPInBytes	-	unsignedLong	-	Inbound GTP bytes of the flow.
GTPOutPackets	-	unsignedLong	-	Outbound GTP packets of the flow.
GTPOutBytes	-	unsignedLong	-	Outbound GTP bytes of the flow.
GTPInDroppedPackets	-	unsignedLong	-	Dropped inbound GTP packets of the flow.
GTPInDroppedBytes	-	unsignedLong	-	Dropped inbound GTP bytes of the flow.
RTPInPackets	-	unsignedLong	-	Inbound RTP packets of the flow.
RTPInBytes	-	unsignedLong	-	Inbound RTP bytes of the flow.
RTPOutPackets	-	unsignedLong	-	Outbound RTP packets of the flow.
RTPOutBytes	-	unsignedLong	-	Outbound RTP bytes of the flow.

LSInPackets	-	unsignedLong	-	Inbound locally switched packets of the flow.
LSInBytes	-	unsignedLong	-	Inbound locally switched bytes of the flow.
LSOutPackets	-	unsignedLong	-	Outbound locally switched packets of the flow.
LSOutBytes	-	unsignedLong	-	Outbound locally switched bytes of the flow.
NBNextHops	-	unsignedInt{8}	-	Northbound next hops of the flow. Array of *unsignedInt* items (maximum number of items 8). The value MUST be the instance number of an object in the *ServicesNode.{i}.ForwardingEngine.{i}.NextHop.* table.
SBNextHops	-	unsignedInt{8}	-	Southbound next hops of the flow. Array of *unsignedInt* items (maximum number of items 8). The value MUST be the instance number of an object in the *ServicesNode.{i}.ForwardingEngine.{i}.NextHop.* table.
SPNextHops	-	unsignedInt{8}	-	Switch policy next hops of the flow. Array of *unsignedInt* items (maximum number of items 8). The value MUST be the instance number of an object in the *ServicesNode.{i}.ForwardingEngine.{i}.NextHop.* table.
NBDNSNextHops	-	unsignedInt{8}	-	Northbound DNS next hops of the flow. Array of *unsignedInt* items (maximum number of items 8). The value MUST be the instance number of an object in the *ServicesNode.{i}.ForwardingEngine.{i}.NextHop.* table.
SB6In4NextHops	-	unsignedInt{8}	-	Southbound 6in4 next hops of the flow. Array of *unsignedInt* items (maximum number of items 8). The value MUST be the instance number of an object in the *ServicesNode.{i}.ForwardingEngine.{i}.NextHop.* table.
NBPostSvcChainNextHops	-	unsignedInt{8}	-	Northbound Post-SvcChain next hops of the flow. Array of *unsignedInt* items (maximum number of items 8). The value MUST be the instance number of an object in the *ServicesNode.{i}.ForwardingEngine.{i}.NextHop.* table.
SBPostSvcChainNextHops	-	unsignedInt{8}	-	Southbound Post-SvcChain next hops of the flow. Array of *unsignedInt* items (maximum number of items 8). The value MUST be the instance number of an object in the *ServicesNode.{i}.ForwardingEngine.{i}.NextHop.* table.
SvcChainNextHop	-	unsignedInt	-	Service Chain next hop of the flow. The value MUST be the instance number of an object in the *ServicesNode.{i}.ForwardingEngine.{i}.NextHop.* table.
SwitchingMode	-	enum	-	Switching mode of the flow. Enumeration of: • *PassThrough* (UE data traffic sent untouched to mobile core)

				• *NAPT* (Apply Network Address Port Translation to locally switched UE data traffic) • *CNAPT* (Apply Core Network Address Port Translation to locally switched UE data traffic) • *Unspecified* (Do not change prior setting of switching mode) • *Enrollment-NAPT* (Apply Network Address Port Translation to locally switched UE enrollment data traffic) • *Enrollment-CNAPT* (Apply Core Network Address Port Translation to locally switched UE enrollment data traffic)

LocalSwitchingFIBID	-	unsignedInt	-	Local switching FIB identifier of the flow.
NativeIPAddress	-	regex(256)	-	Native IP address of the flow. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
NATtedIPAddress	-	regex(256)	-	Natted IP address of the flow. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
CorePrimaryDNS	-	regex(256)	-	Core primary DNS IP address of the flow. Possible patterns: • ^$

				• ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

CoreSecondaryDNS	-	regex(256)	-	Core secondary DNS IP address of the flow. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
LocalPrimaryDNS	-	regex(256)	-	Local primary DNS IP address of the flow. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
LocalSecondaryDNS	-	regex(256)	-	Local secondary DNS IP address of the flow. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$

				• ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

CoreFIBName	-	string(64)	-	Core FIB name of the flow.
APN	-	string	-	Access point name of the flow.
SwitchPolicyFilter	-	unsignedInt	-	IPv4 switch policy filter of the flow.
DNSPolicyFilter	-	unsignedInt	-	IPv4 DNS policy filter of the flow.
NBPassthroughFilter	-	unsignedInt	-	IPv4 northbound passthrough filter of the flow.
SBPassthroughFilter	-	unsignedInt	-	IPv4 southbound passthrough filter of the flow.
NBLocalSwitchFilter	-	unsignedInt	-	IPv4 northbound local switch filter of the flow.
SBLocalSwitchFilter	-	unsignedInt	-	IPv4 southbound local switch filter of the flow.
WGPolicyFilter	-	unsignedInt	-	IPv4 walled garden filter of the flow.
IPv6SwitchPolicyFilter	-	unsignedInt	-	IPv6 switch policy filter of the flow.
IPv6DNSPolicyFilter	-	unsignedInt	-	IPv6 DNS policy filter of the flow.
IPv6NBPassthroughFilter	-	unsignedInt	-	IPv6 northbound passthrough filter of the flow.
IPv6SBPassthroughFilter	-	unsignedInt	-	IPv6 southbound passthrough filter of the flow.
IPv6NBLocalSwitchFilter	-	unsignedInt	-	IPv6 northbound local switch filter of the flow.
IPv6SBLocalSwitchFilter	-	unsignedInt	-	IPv6 southbound local switch filter of the flow.
IPv6WGPolicyFilter	-	unsignedInt	-	IPv6 walled garden filter of the flow.
InterfaceID	-	unsignedInt	-	Indicates the identifier of the output interface. The index is from the number space managed by the control plane.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.

Parameters related to forwarding engine next hops.

Parameter	W	Type	Default	Description
NexthopType	-	enum	-	Type of next hop. Enumeration of:

				• *UNKNOWN* (Unknown value) • *None* (No next hop) • *Resolve* (Resolve next hop) • *Rewrite* (Rewrite next hop) • *Gateway* (Gateway next hop) • *FIB* (FIB next hop) • *Filter* (Filter next hop) • *IPSec* (IPSec next hop) • *SrcNAT* (Source NAT next hop) • *DstNAT* (Destination NAT next hop) • *UMTS* (UMTS next hop) • *Tunnel* (Tunnel next hop) • *Drop* (Drop next hop) • *Local* (Local next hop) • *RTP* (RTP next hop) • *GTP* (GTP next hop) • *RawIO* (Raw IO next hop) • *RadioNodeUMTSNB* (UMTS North bound (RadioNode only) next hop) • *RadioNodeUMTSSB* (UMTS South bound (RadioNode only) next hop) • *UMTS-RIL2* (UMTS RIL2 next hop) • *Reflector* (Reflector next hop) • *FSW* (Fast Switch next hop) • *DNS* (DNS next hop) • *UDPTunnel* (SCW UDP Tunnel next hop) • *Test* (SCW Test next hop) • *UMTSL1API* (AP UMTS L1 API next hop) • *APTestReflector* (AP Test Reflector next hop) • *GTP-Tee* (GTP Tee next hop) • *PTP* (PTP next hop) • *SvcChain* (SvcChain next hop) • *Procedures* (Procedures next hop) • *Counter* (Counter next hop) • *PMTU* (PMTU next hop) • *RnLinkMon* (RN link monitoring next hop)

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.FIB.{i}.

Parameters related to forwarding engine Forwarding Information Base next hop.

Parameter	W	Type	Default	Description

FIBName	-	string(64)	-	Name of the FIB.
FIBID	-	unsignedInt	-	Identifier of FIB.
AddressType	-	string	-	Address type of FIB.
FIBNumberOfEntries	-	unsignedInt	-	Number of entries in the FIB.
IngressNextHopStack	-	unsignedInt{}<8>	-	Ingress next hops used for this FIB. Array (maximum length as string 8) of *unsignedInt* items.
EgressNextHopStack	-	unsignedInt{}<8>	-	Egress next hops used for this FIB. Array (maximum length as string 8) of *unsignedInt* items.
CPEgressNextHopStack	-	unsignedInt{}<8>	-	Control plane egress next hops used for this FIB. Array (maximum length as string 8) of *unsignedInt* items.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.FIB.{i}.Entry.{i}.

Details of FIB next hop entries for forwarding engine.

Parameter	W	Type	Default	Description
Prefix	-	regex(256)	-	Network prefix. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

PrefixLen	-	unsignedInt	-	Length of prefix.
PreferredSource	-	regex(256)	-	If non-zero, indicates the source address to be used by packets originated by this device and sent using this route. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
InterfaceID	-	unsignedInt	-	Indicates the identifier of the output interface. The index is from the number space managed by the control plane.
ReferenceCount	-	unsignedInt	-	Reference count for this FIB entry.
FIBNumberOfNextHops	-	unsignedInt	-	Number of next hops in stack for this FIB entry.
NextHopStack	-	unsignedInt{}<8>	-	Next hops used for this FIB entry. Array (maximum length as string 8) of *unsignedInt* items.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.Filter.{i}.

Parameters related to forwarding engine filter next hop.

Parameter	W	Type	Default	Description
Name	-	string(64)	-	Name of the filter.
Role	-	enum	-	Role of the filter. Enumeration of: • *UNKNOWN* (Unknown value) • *Ingress* (Ingress filter)

				• *Egress* (Egress filter) • *CP-Egress* (Egress to control plane filter) • *Unspecified* (Unspecified filter)
FIBID	-	unsignedInt	-	FIB ID associated with the filter.
AddressType	-	string	-	Address type of the filter.
RuleNumberOfEntries	-	unsignedInt	-	Number of rules in this filter.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.Filter.{i}.Rule.{i}.

Details of filter next hop rules for forwarding engine.

Parameter	W	Type	Default	Description
Priority	-	unsignedInt	-	Priority for this filter rule.
Type	-	enum	-	Type of the filter rule. Enumeration of: • *UNKNOWN* (Unknown value) • *5tuple* (5 tuple filter rule) • *3tuple* (3 tuple filter rule) • *SrcAddr* (1 tuple source address filter rule) • *DstAddr* (1 tuple destination address filter rule) • *Complex* (Complex filter rule) • *GTP-TEID* (GTP TEID filter rule) • *GRE-KEY* (GRE KEY filter rule) • *SPI* (IPSec SPI rule) • *RPF* (RPF filter rule) • *RPF-Skip* (RPF filter skip rule) • *TCP_FLAGS* (TCP Flags rule) • *LinkLocalSrcAddr* (Link local source address rule) • *LinkLocalDstAddr* (Link local destination address rule)
SourceIPAddress	-	regex(256)	-	Source IP address. Possible patterns: • ^$

				• ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

SourceIPMask	-	IPAddress	-	Mask for source IP address.
SourcePrefixLength	-	unsignedInt	-	Prefix length for source address.
DestIPAddress	-	regex(256)	-	Destination IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
DestIPMask	-	IPAddress	-	Mask for destination IP address.
DestPrefixLength	-	unsignedInt	-	Prefix length for destination address.
SourcePort	-	unsignedInt[65535]	-	Start of source port range.
SourcePortEnd	-	unsignedInt[65535]	-	End of source port range.
DestPort	-	unsignedInt[65535]	-	Start of destination port range.
DestPortEnd	-	unsignedInt[65535]	-	End of destination port range.
IPProtocol	-	unsignedInt	-	Number of IP protocol.
InterfaceID	-	unsignedInt	-	ID for the interface.
TEID	-	unsignedInt	-	GTP Tunnel Endpoint Identifier.
GREKey	-	unsignedInt	-	GRE Tunnel Key.
SPI	-	unsignedInt	-	IPSec Security Parameter Index.

RPFPrefix	-	regex(256)	-	RPF subnet prefix used for reverse path lookup. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
RPFPrefixLength	-	unsignedInt	-	Prefix length of RPF subnet used for reverse path lookup.
Action	-	string(128)	-	Action to be taken if the filter rule matches.
PacketCoS	-	unsignedInt	-	CoS value set on the packet. Valid only when Action has CoS flag set.
PacketMSS	-	unsignedInt	-	TCP MSS value set on the packet.
PacketFlowID	-	unsignedInt	-	Flow ID to set on the packet. Valid only when Action has FLOW_ID flag set.
PacketSvcStep	-	unsignedInt	-	Service step to set on the packet. Valid only when Action has SVC_STEP flag set.
PolicingID	-	unsignedInt	-	Policing ID used to police matching packets. Valid only when Action has POLICING flag set.
NumPacketsMatched	-	unsignedLong	-	Number of *packets* matching the filter rule.
NumPacketsDropped	-	unsignedLong	-	Number of *packets* dropped by the filter rule.
NHForwardingOp	-	enum	-	Forwarding operation for the next hop. Enumeration of: • *Push* (Push next hop onto next hop stack) • *Replace* (Replace exisiting next hops with new set) • *NoOp* (Do not do anything with any next hops)

NumFilterNextHops	-	unsignedInt	-	Number of next hops for this filter rule.
NextHopStack	-	unsignedInt{}<8>	-	Next hop stack. Array (maximum length as string 8) of *unsignedInt* items.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.IPSec.{i}.

Parameters related to forwarding engine IPSec next hop.

Parameter	W	Type	Default	Description
SecParameterIndex	-	unsignedInt	-	IPSec Security Parameter Index.
Direction	-	enum	-	IPSec direction. Enumeration of: • *UNKNOWN* (Unknown value) • *Outbound* (IPSec outbound) • *Inbound* (IPSec inbound) • *Forward* (IPSec forward)
SecMode	-	enum	-	IPSec Mode. Enumeration of: • *UNKNOWN* (Unknown value) • *Tunnel* (IPSec Tunnel Mode) • *Transport* (IPSec Transport Mode)
SrcAddr	-	regex(256)	-	Source address. Possible patterns: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$` • `^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-`

				zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

DstAddr	-	regex(256)	-	Destination IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
SecProto	-	unsignedInt	-	IPSec protocol.
ReplayWinSize	-	unsignedInt	-	Size of replay window.
EncAlgo	-	enum	-	Encryption algorithm. Enumeration of: • *UNKNOWN* (Unknown value) • *Null* (NULL) • *DES* (DES) • *3DES* (3DES) • *AES128* (AES128) • *AES192* (AES192) • *AES256* (AES256) • *AES128CTR* (AES128CTR) • *AES192CTR* (AES192CTR) • *AES256CTR* (AES256CTR)
AuthAlgo	-	enum	-	Authentication algorithm used. Enumeration of: • *UNKNOWN* (Unknown value) • *Null* (NULL) • *MD5* (MD5) • *SHA* (SHA)

				• *AES-XCBC* (AES-XCBC) • *SHA256* (SHA256) • *SHA384* (SHA384) • *SHA512* (SHA512)
InterfaceID	-	unsignedInt	-	Indicates the identifier of the input or output interface. The index is from the number space managed by the control plane.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.DstNAT.{i}.

Parameters related to forwarding engine destination NAT next hop.

Parameter	W	Type	Default	Description
NativeIPAddress	-	regex(256)	-	Native IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
NATtedIPAddress	-	regex(256)	-	NATted IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-

				9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
NATFlags	-	unsignedInt	-	NAT flags specified.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.SrcNAT.{i}.

Parameters related to forwarding engine source NAT next hop.

Parameter	W	Type	Default	Description
NativeIPAddress	-	regex(256)	-	Native IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
NATtedIPAddress	-	regex(256)	-	NATted IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-

				5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
NATFlags	-	unsignedInt	-	NAT flags specified.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.GTP.

Parameters related to forwarding engine GTP next hop.

Parameter	W	Type	Default	Description
GTPFlowID	-	unsignedInt	-	Flow identifier for this GTP tunnel.
LocalIPAddress	-	regex(256)	-	Local IP address for the GTP tunnel. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
PeerIPAddress	-	regex(256)	-	Peer IP address for the GTP tunnel. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-

				9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
Protocol	-	unsignedInt	-	Protocol.
LocalPort	-	unsignedInt[65535]	-	Local port for GTP tunnel.
PeerPort	-	unsignedInt[65535]	-	Peer port for GTP tunnel.
FlowType	-	enum	-	Type of flow. Enumeration of: • *UNKNOWN* (Unknown value) • *Unsupported* (Unsupported flow type) • *UMTS-Flow* (UMTS flow (A,B,C bits are byte aligned)) • *UMTS-Packed* (UMTS packed flow(A,B,C bits are packed not byte aligned)) • *UMTS-Video* (UMTS Video flow (H.223 over RTP/UDP in Iu transparent mode)) • *UMTS-SIM* (UMTS-Packed-SIM encap/decap) • *GTP* (FLow with real GTP encapsulation) • *GTP-SIM* (FLow with GTP SIM encapsulation)
TEID	-	unsignedInt	-	Tunnel Endpoint ID for GTP tunnel.
LocalTEID	-	unsignedInt	-	Local Tunnel Endpoint ID for GTP tunnel.
RemoteTEID	-	unsignedInt	-	Remote Tunnel Endpoint ID for GTP tunnel.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.GTPTee.

Parameters related to forwarding engine GTP-Tee next hop.

Parameter	W	Type	Default	Description
Dummy	-	boolean	-	Indicates if item is a dummy.
FlowID	-	unsignedInt	-	Flow identifier.
NBTEID	-	unsignedInt	-	Tunnel Endpoint ID for Northbound GTP tunnel.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.GTPTee.Key.{i}.

Parameters related to forwarding engine GTP-Tee next hop key.

Parameter	W	Type	Default	Description
LocalIPAddress	-	regex(256)	-	Local IP address for the GTP tunnel. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
PeerIPAddress	-	regex(256)	-	Peer IP address for the GTP tunnel. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
Protocol	-	unsignedInt	-	Protocol.
LocalPort	-	unsignedInt[65535]	-	Local port for GTP tunnel.

PeerPort	-	unsignedInt[65535]	-	Peer port for GTP tunnel.
FlowType	-	enum	-	Type of flow. Enumeration of: • *UNKNOWN* (Unknown value) • *Unsupported* (Unsupported flow type) • *UMTS-Flow* (UMTS flow (A,B,C bits are byte aligned)) • *UMTS-Packed* (UMTS packed flow(A,B,C bits are packed not byte aligned)) • *UMTS-Video* (UMTS Video flow (H.223 over RTP/UDP in Iu transparent mode)) • *UMTS-SIM* (UMTS-Packed-SIM encap/decap) • *GTP* (FLow with real GTP encapsulation) • *GTP-SIM* (FLow with GTP SIM encapsulation)
TEID	-	unsignedInt	-	Tunnel Endpoint ID for GTP tunnel.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.Gateway.

Parameters related to forwarding engine gateway next hop.

Parameter	W	Type	Default	Description
GatewayIPAddress	-	regex(256)	-	IP address of the gateway. Possible patterns: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$` • `^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$`
Resolved	-	unsignedInt	-	Resolved flag.

FIBID	-	unsignedInt	-	FIB Identifier.
GatewayIfID	-	unsignedInt	-	Indicates the identifier of the gateway interface. The index is from the number space managed by the control plane.
RewriteStringLen	-	unsignedInt	-	Rewrite string length.
RewriteString	-	string(32)	-	Rewrite string.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.RawIO.{i}.

Parameters related to forwarding engine raw IO next hop.

Parameter	W	Type	Default	Description
EtherType	-	string(16)	-	Ethernet type.
RawIOFlags	-	string(16)	-	Flags used for raw IO next hop.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.RTP.

Parameters related to forwarding engine RTP next hop.

Parameter	W	Type	Default	Description
RTPFlowID	-	unsignedInt	-	RTP flow identifier.
LocalIPAddress	-	regex(256)	-	Local IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-

				4]|1{0,1}[0-9]){0,1}[0-9]))$
PeerIPAddress	-	regex(256)	-	Peer IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
Protocol	-	unsignedInt	-	Protocol.
LocalPort	-	unsignedInt[65535]	-	Local port.
PeerPort	-	unsignedInt[65535]	-	Peer port.
FlowType	-	enum	-	Type of flow. Enumeration of: • *UNKNOWN* (Unknown value) • *Unsupported* (Unsupported flow type) • *UMTS-Flow* (UMTS flow (A,B,C bits are byte aligned)) • *UMTS-Packed* (UMTS packed flow(A,B,C bits are packed not byte aligned)) • *UMTS-Video* (UMTS Video flow (H.223 over RTP/UDP in Iu transparent mode)) • *UMTS-SIM* (UMTS-Packed-SIM encap/decap) • *GTP* (FLow with real GTP encapsulation) • *GTP-SIM* (FLow with GTP SIM encapsulation)

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.Resolve.{i}.

Parameters related to forwarding engine resolve next hop.

Parameter	W	Type	Default	Description
ResolveIfID	-	unsignedInt	-	Indicates the identifier of the output interface. The index is from the number space managed by the control plane.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.Rewrite.{i}.

Parameters related to forwarding engine rewrite next hop.

Parameter	W	Type	Default	Description
RwIfID	-	unsignedInt	-	Indicates the identifier of the output interface. The index is from the number space managed by the control plane.
ProtoAddress	-	regex(256)	-	Rewrite protocol address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
AgeTime	-	unsignedInt	-	Age time in seconds.
RewriteStringLen	-	unsignedInt	-	Length of rewrite string.
RewriteString	-	string(32)	-	Rewrite string.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.UMTSRIL2.{i}.

Parameters related to forwarding engine UMTS-RIL2 next hop.

Parameter	W	Type	Default	Description
FIBNextHop	-	unsignedInt	-	Identifier of FIB next hop.

RawIONextHop	-	unsignedInt	-	Identifier of RawIO next hop.
GTPNextHop	-	unsignedInt	-	Identifier of GTP next hop.
RTPNextHop	-	unsignedInt	-	Identifier of RTP next hop.
UEID	-	unsignedInt	-	User Equipment Identifier.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.UMTSFSW.{i}.

Parameters related to forwarding engine UMTS-FSW next hop.

Parameter	W	Type	Default	Description
UEID	-	unsignedInt	-	Identifier of User Equipment.
FlowID	-	unsignedInt	-	Identifier of the flow.
FlowLocalAddr	-	regex(256)	-	Local address for the flow. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
FlowPeerAddr	-	regex(256)	-	Peer address for the flow. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$

				• ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
FlowLocalPort	-	unsignedInt[65535]	-	Local port for the flow.
FlowPeerPort	-	unsignedInt[65535]	-	Peer port for the flow.
FlowType	-	enum	-	Type of the flow. Enumeration of: • *UNKNOWN* (Unknown value) • *Unsupported* (Unsupported flow type) • *UMTS-Flow* (UMTS flow (A,B,C bits are byte aligned)) • *UMTS-Packed* (UMTS packed flow(A,B,C bits are packed not byte aligned)) • *UMTS-Video* (UMTS Video flow (H.223 over RTP/UDP in Iu transparent mode)) • *UMTS-SIM* (UMTS-Packed-SIM encap/decap) • *GTP* (FLow with real GTP encapsulation) • *GTP-SIM* (FLow with GTP SIM encapsulation)
FlowCNIfType	-	enum	-	Core network interface type for the flow. Enumeration of: • *UNKNOWN* (Unknown value) • *Unknown-If* (Unknown interface) • *Loopback-If* (Loopback interface) • *Linux-Socket-If* (Linux socket interface) • *FE-If* (Forwarding engine interface)
FlowProto	-	unsignedInt	-	Protocol for the flow.
RadioNodeFIBNextHop	-	unsignedInt	-	Next hop index for FIB to be used to send UMTS frames for RadioNode.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.Tunnel.{i}.

Parameters related to forwarding engine tunnel next hop.

Parameter	W	Type	Default	Description
LocalIPAddress	-	regex(256)	-	Local IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
RemoteIPAddress	-	regex(256)	-	Remote IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
Type	-	enum	-	Tunnel type.

				Enumeration of: • *IPIP* (IP in IP (IP protocol 4)) • *GRE* (Generic Routing Encapsulation (IP protocol 47)) • *6in4* (IPv6 in IP (IP protocol 41))
IsEncap	-	boolean	false	Indicates if the next hop is for encapsulation or decapsulation. True: Encapsulating next hop, false: decapsulating next hop.
FIBID	-	unsignedInt	-	Fib Id.
MTU	-	unsignedInt	-	Maximum Transmission Unit.
TunnelIfID	-	unsignedInt	-	Indicates the identifier of the output interface. The index is from the number space managed by the control plane.
GREKey	-	unsignedInt	-	GRE key value.
GREKeyValid	-	boolean	-	Indicates whether the GRE key value is valid.
GTPEchoNextHopStack	-	unsignedInt{}<8>	-	Next hop stack for GTP Echo. Array (maximum length as string 8) of *unsignedInt* items.
EncapNextHopIndex	-	unsignedInt	-	Next hop index for tunnel encap.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.SvcChain.{i}.

Parameters related to forwarding engine SvcChain next hop.

Parameter	W	Type	Default	Description
SvcStepNumberOfEntries	-	unsignedInt	-	Number of SvcSteps.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.SvcChain.{i}.SvcStep.{i}.

Parameters related to forwarding engine SvcChain next hop step.

Parameter	W	Type	Default	Description
InPathServiceIndex	-	unsignedInt	-	In-path service index.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.Procedures.{i}.

Parameters related to forwarding engine Procedures next hop.

Parameter	W	Type	Default	Description
Action	-	string(128)	-	Action to be taken by the next hop.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.Counter.{i}.

Parameters related to forwarding engine Counter next hop.

Parameter	W	Type	Default	Description
Direction	-	string(128)	-	Northbound or Southbound flow direction of Counter nexthop.

ServicesNode.{i}.ForwardingEngine.{i}.NextHop.{i}.PMTU.{i}.

Parameters related to forwarding engine PMTU next hop.

Parameter	W	Type	Default	Description
DestIPAddress	-	IPAddress	-	IPv4 Destination Address for path MTU.
MTU	-	unsignedInt	-	Path MTU.

ServicesNode.{i}.Location.

Parameters related to the geographical location the *ServicesNode*.

Parameter	W	Type	Default	Description
Latitude	W	int[ranges]	2147483647	Specifies the latitude in degrees multiplied by 1 million (*deg x 1M*). • **positive** value signifies a direction **North** of the equator • **negative** value signifies a direction **South** of the equator Range is from: 90{{degrees}}00.00' South (-90,000,000) to 90{{degrees}}00.00' North (90,000,000). Example value: 13,323,833 (13{{degrees}}19.43' N, derived as (13*1,000,000)+((19.43*1,000,000)/60). Example value: -50,000,000 (50{{degrees}}0.00' S). Possible values:

				• *-90000000 to 90000000* • *2147483647*

Longitude	W	int[ranges]	2147483647	Specifies the longitude in degrees multiplied by 1 million (*deg x 1M*). • **positive** value signifies a direction **East** of the prime meridian • **negative** value signifies a direction **West** of the prime meridian Range is from: 180{{degrees}}00.00' West (-180,000,000) to 180{{degrees}}00.00' East (180,000,000). Example value: 13,323,833 (13{{degrees}}19.43' E, derived as (13*1,000,000)+((19.43*1,000,000)/60). Example value: -50,000,000 (50{{degrees}}0.00' W). Possible values: • *-180000000 to 180000000* • *2147483647*
Altitude	W	int[ranges]	2147483647	Specifies the altitude in *meters*. • **positive** value signifies **height** (direction **Up**) • **negative** value signifies **depth** (direction **Down**). Possible values: • *-32767 to 32767* • *2147483647*
ScanMode	W	enum	Manual	Indicates if the location was populated manually or automatically. Enumeration of: • *Manual* (Location is manually entered by user.) • *GPS* (GPS location is detected automatically.) • *GLONASS* (GLONASS location is detected automatically.)
NumberOfSatellites	-	unsignedInt	-	The number of satellites locked during last scan. The greater the number of satellites the better the precision of the results. This value is retained across reboots and is only reset after another scan completes successfully.
FormattedPosition	-	string(256)	-	This provides the human readable location notation in Degree-Minute-Second. Example value: "37 23 45 N, 121 55 27 W" This will be "" if no location information exists for the system.
LastScanTime	-	dateTime	-	Provides the time of the last GPS scan.

ScanStatus	-	enum	-	Status of the last scan. Enumeration of: • *Manual* (Location is manually entered by user.) • *InProgress* (Location detection is in progress.) • *Success* (Location detection succeeded.) • *Error* (Location detection failed.)

ServicesNode.{i}.CommonEquipmentCard.

Parameters relating to ServicesNode *CommonEquipmentCard*

Parameter	W	Type	Default	Description
DisplayName	-	string	-	Human readable name of this *CommonEquipmentCard*.

ServicesNode.{i}.CommonEquipmentCard.Env.

Environmental parameters of common equipment card. Includes measurements from temperature sensors on the common equipment card.

Parameter	W	Type	Default	Description
AmbientTemp	-	int	-	Ambient temperature of common equipment card in *degrees Celsius*.
AmbientStatus	-	enum	-	Status of ambient temperature sensor on common equipment card. Enumeration of: • *OK* (Temperature is ok) • *MinorOverHeat* (Minor overheating is occurring) • *MajorOverHeat* (Major overheating is occurring) • *CriticalOverHeat* (Critical overheating is occurring)
AmbientThresholdCritical	-	int	-	Critical overheat threshold in *degrees Celsius*.
AmbientThresholdMajor	-	int	-	Major overheat threshold in *degrees Celsius*.
AmbientThresholdMinor	-	int	-	Minor overheat threshold in *degrees Celsius*.
CoreTemp	-	int	-	Die temperature of common equipment card in *degrees Celsius*.

CoreStatus	-	enum	-	Status of die temperature sensor on common equipment card. Enumeration of: • *OK* (Temperature is ok) • *MinorOverHeat* (Minor overheating is occurring) • *MajorOverHeat* (Major overheating is occurring) • *CriticalOverHeat* (Critical overheating is occurring)
CoreThresholdCritical	-	int	-	Critical overheat threshold in *degrees Celsius*.
CoreThresholdMajor	-	int	-	Major overheat threshold in *degrees Celsius*.
CoreThresholdMinor	-	int	-	Minor overheat threshold in *degrees Celsius*.

ServicesNode.{i}.ForwardingEngineCard.

Parameters relating to Forwarding Engine card.

Parameter	W	Type	Default	Description

ServicesNode.{i}.ForwardingEngineCard.Env.

Environmental parameters of Forwarding Engine card. Includes measurements from temperature sensors on the Forwarding Engine card.

Parameter	W	Type	Default	Description
AmbientTemp	-	int	-	Ambient temperature of Forwarding Engine card in *degrees Celsius*.
AmbientStatus	-	enum	-	Status of ambient temperature sensor on Forwarding Engine card. Enumeration of: • *OK* (Temperature is ok) • *MinorOverHeat* (Minor overheating is occurring) • *MajorOverHeat* (Major overheating is occurring) • *CriticalOverHeat* (Critical overheating is occurring)
AmbientThresholdCritical	-	int	-	Critical overheat threshold in *degrees Celsius*.
AmbientThresholdMajor	-	int	-	Major overheat threshold in *degrees Celsius*.

AmbientThresholdMinor	-	int	-	Minor overheat threshold in *degrees Celsius*.
CoreTemp	-	int	-	Die temperature of Forwarding Engine card in *degrees Celsius*.
CoreStatus	-	enum	-	Status of die temperature sensor on Forwarding Engine card. Enumeration of: • *OK* (Temperature is ok) • *MinorOverHeat* (Minor overheating is occurring) • *MajorOverHeat* (Major overheating is occurring) • *CriticalOverHeat* (Critical overheating is occurring)
CoreThresholdCritical	-	int	-	Critical overheat threshold in *degrees Celsius*.
CoreThresholdMajor	-	int	-	Major overheat threshold in *degrees Celsius*.
CoreThresholdMinor	-	int	-	Minor overheat threshold in *degrees Celsius*.

ServicesNode.{i}.MezzanineCard.{i}.

Parameters relating to ServicesNode *MezzanineCard*.

Parameter	W	Type	Default	Description
DisplayName	-	string	-	Human readable name of this *MezzanineCard*.
OperState	-	enum	-	Operational state of this *MezzanineCard*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY*

				• *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*
ArriveTime	-	dateTime	-	Date and time which this *MezzanineCard* joined the system.
UpTime	-	unsignedInt	-	Duration in *seconds* since this *MezzanineCard* has arrived. *UpTime* is difference between *CurrentTime* and *ArriveTime*.

ServicesNode.{i}.MezzanineCard.{i}.Env.

Environmental parameters of mezzanine card. Includes measurements from temperature sensors on mezzanine card.

Parameter	W	Type	Default	Description
AmbientTemp	-	int	-	Ambient temperature in *degrees Celsius*.
AmbientStatus	-	enum	-	Status of ambient temperature sensor on mezzanine card. Enumeration of: • *OK* (Temperature is ok) • *MinorOverHeat* (Minor overheating is occurring) • *MajorOverHeat* (Major overheating is occurring) • *CriticalOverHeat* (Critical overheating is occurring)
AmbientThresholdCritical	-	int	-	Critical overheat threshold in *degrees Celsius*.
AmbientThresholdMajor	-	int	-	Major overheat threshold in *degrees Celsius*.

AmbientThresholdMinor	-	int	-	Minor overheat threshold in *degrees Celsius*.
CoreTemp	-	int	-	Die temperature of mezzanine card in *degrees Celsius*.
CoreStatus	-	enum	-	Status of die temperature on mezzanine card. Enumeration of: • *OK* (Temperature is ok) • *MinorOverHeat* (Minor overheating is occurring) • *MajorOverHeat* (Major overheating is occurring) • *CriticalOverHeat* (Critical overheating is occurring)
CoreThresholdCritical	-	int	-	Critical overheat threshold in *degrees Celsius*.
CoreThresholdMajor	-	int	-	Major overheat threshold in *degrees Celsius*.
CoreThresholdMinor	-	int	-	Minor overheat threshold in *degrees Celsius*.

ServicesNode.{i}.MezzanineCard.{i}.CPU.

Parameters relating to CPU usage on the MezzanineCard.

Parameter	W	Type	Default	Description
User	-	unsignedInt	-	Percentage of time CPU is in user-mode.
Kernel	-	unsignedInt	-	Percentage of time CPU is in kernel-mode.
IOWait	-	unsignedInt	-	Percentage of time CPU is waiting for IO.
Swap	-	unsignedInt	-	Percentage of time CPU is swapping.
Idle	-	unsignedInt	-	Percentage of time CPU is idle.
LoadAvg1	-	unsignedInt	-	Average CPU load over the last 1 minute in *number of processes x 100*. CPU load is the number of processes waiting in the run-queue plus the number currently executing.
LoadAvg5	-	unsignedInt	-	Average CPU load over the last 5 minutes in *number of processes x 100*. CPU load is the number of processes waiting in the run-queue plus the number currently executing.
LoadAvg15	-	unsignedInt	-	Average CPU load over the last 15 minutes in *number of processes x 100*. CPU load is the number of processes waiting in the run-queue plus the number currently executing.

ServicesNode.{i}.MezzanineCard.{i}.Memory.

Parameters relating to memory use on this MezzanineCard.

Parameter	W	Type	Default	Description
Free	-	unsignedLong	-	Percent of memory available for use.
Used	-	unsignedLong	-	Percent of memory in-use.
Cache	-	unsignedLong	-	Percent of memory free, but not re-claimed.
Total	-	unsignedLong	-	Total amount of memory, in *bytes*.

ServicesNode.{i}.MezzanineCard.{i}.MfgData.

Parameters relating to product manufacturing.

Parameter	W	Type	Default	Description
SerialNumber	-	string	-	Serial number of this MezzanineCard.
PartNumber	-	string	-	Part number of this MezzanineCard.
Revision	-	string	-	Product revision.
ModelNumber	-	string	-	Model number of this MezzanineCard.

ServicesNode.{i}.ChassisFan.{i}.

Parameters relating to *ChassisFan*.

Parameter	W	Type	Default	Description
DisplayName	-	string	-	Human readable name of this *ChassisFan*.
Status	-	enum	-	Status of this *ChassisFan*. Enumeration of: • *OK* (Fan status is ok) • *Impaired* (Fan is impaired)

				• *Failed* (Fan is not working)
Speed	-	enum	-	Speed of this *ChassisFan*. Enumeration of: • *Low* (Fan is running at low speed) • *Medium* (Fan is running at medium speed) • *High* (Fan is running at high speed)

ServicesNode.{i}.CPU.

Parameters relating to CPU usage on the ServicesNode.

Parameter	W	Type	Default	Description
User	-	unsignedInt	-	Percentage of time CPU is in user-mode.
Kernel	-	unsignedInt	-	Percentage of time CPU is in kernel-mode.
IOWait	-	unsignedInt	-	Percentage of tiem CPU is waiting for IO.
Swap	-	unsignedInt	-	Percentage of time CPU is swapping.
Idle	-	unsignedInt	-	Percentage of time CPU is idle.
LoadAvg1	-	unsignedInt	-	Average CPU load over the last 1 minute in *number of processes x 100*. CPU load is the number of processes waiting in the run-queue plus the number currently executing.
LoadAvg5	-	unsignedInt	-	Average CPU load over the last 5 minutes in *number of processes x 100*. CPU load is the number of processes waiting in the run-queue plus the number currently executing.
LoadAvg15	-	unsignedInt	-	Average CPU load over the last 15 minutes in *number of processes x 100*. CPU load is the number of processes waiting in the run-queue plus the number currently executing.

ServicesNode.{i}.Memory.

Parameters relating to memory use on this ServicesNode.

Parameter	W	Type	Default	Description
Free	-	unsignedLong	-	Percent of memory available for use.

Used	-	unsignedLong	-	Percent of memory in-use.
Cache	-	unsignedLong	-	Percent of memory free, but not re-claimed.
Total	-	unsignedLong	-	Total amount of memory, in bytes.

ServicesNode.{i}.MfgData.

Parameters relating to product manufacturing.

Parameter	W	Type	Default	Description
SerialNumber	-	string	-	Serial number of this ServicesNode.
PartNumber	-	string	-	Part number of this ServicesNode.
Revision	-	string	-	Product revision.
ModelNumber	-	string	-	Model number of this ServicesNode.

ServicesNode.{i}.USB.

Parameters relating to the USB slot on the ServicesNode

Parameter	W	Type	Default	Description
DisplayName	-	string	-	Name of the USB drive
Make	-	string	-	Make of the USB drive
Model	-	string	-	Model of the USB drive
Status	-	enum	-	Status of the USB drive Enumeration of: • *Present* • *Absent* • *Mounted* • *Formatting*

ServicesNode.{i}.PortMirror.

Gives the state of port mirroring on this ServicesNode.

Parameter	W	Type	Default	Description
MirrorNumberOfEntries	-	unsignedInt	-	The number of port mirrors on this *PortMirror*.

ServicesNode.{i}.PortMirror.Mirror.{i}.

Gives the state of one port mirror on this ServicesNode.

Parameter	W	Type	Default	Description
SourcePort	-	unsignedInt	-	Indicates the index of the physical port whose output is being mirrored to the destination port.
DestinationPort	-	unsignedInt	-	Indicates the index of the physical port which will also send output from the source port.

ServicesNode.{i}.ProcessStats.{i}.

Statistics relating to processes running on this ServicesNode.

Parameter	W	Type	Default	Description

ServicesNode.{i}.ProcessStats.{i}.Linux.

Linux related statistics for this process.

Parameter	W	Type	Default	Description
MaxFileDescriptors	-	unsignedInt	-	The maximum number of file descriptors allowed for this process.
FileDescriptorsInUse	-	unsignedInt	-	The current number of file descriptors held by this process.

ServicesNode.{i}.ProcessStats.{i}.ApplicationFramework.

Application Framework related statistics for this process.

Parameter	W	Type	Default	Description

DroppedIPCMsgs	-	unsignedInt	-	Number of dropped IPC messages.
TimersDelivered	-	unsignedInt	-	Number of timer call-backs.
MsgsDelivered	-	unsignedInt	-	Number of IPC messages delivered.
RepliesDelivered	-	unsignedInt	-	Number of IPC replies delivered.
RawFDsDelivered	-	unsignedInt	-	Number of FD events delivered.
WatchDogMsgs	-	unsignedInt	-	Number of watch-dog messages processed.
MaxWorkItems	-	unsignedInt	-	Maximum number of work items in the AF work queue.
NumWorkItems	-	unsignedInt	-	Current number of work items in the AF work queue.
RawFDCount	-	unsignedInt	-	Number of FDs registered with the AF.

ServicesNode.{i}.ProcessStats.{i}.IPC.

IPC related statistics for this process.

Parameter	W	Type	Default	Description
NumberEndPoints	-	unsignedInt	-	Number of IPC end points.
NumberConnections	-	unsignedInt	-	Number of IPC connections.
NumberRemoteConnections	-	unsignedInt	-	Number of remote connections.

ServicesNode.{i}.ProcessStats.{i}.IPC.EndPoint.{i}.

IPC end-point related statistics for this process.

Parameter	W	Type	Default	Description
BuffAllocs	-	unsignedInt	-	Number of buffer allocations for this end-point
BuffAllocFails	-	unsignedInt	-	Number of failed buffer allocations.
BuffFrees	-	unsignedInt	-	Number of buffers de-allocated.

BuffFreeFails	-	unsignedInt	-	Number of failed buffer de-allocations.
BuffFreeInternalFails	-	unsignedInt	-	Number of failed internal buffer de-allocations.
MaxMsgSent	-	unsignedInt	-	Size in *bytes* of the largest message sent.
MaxMsgSentID	-	unsignedInt	-	Message ID of the largest message sent.
MaxMsgRcvd	-	unsignedInt	-	Size in *bytes* of largest message received.
MaxMsgRcvdID	-	unsignedInt	-	Message ID of largest message received.
Sends	-	unsignedInt	-	Number of messages sent.
SendErrs	-	unsignedInt	-	Number of errors sending messages.
SendBlockErrs	-	unsignedInt	-	Number of errors sending messages with EWouldBLOCK.
SendWithReplies	-	unsignedInt	-	Number of messages sent expecting replies.
SendSyncWithReplies	-	unsignedInt	-	Number of synchronous messages sent expecting replies.
Recvs	-	unsignedInt	-	Number of messagesss received.
RecvErrs	-	unsignedInt	-	Number of errors encountered receiving messages.
RepliesSent	-	unsignedInt	-	Number of replies sent.
RepliesRcvd	-	unsignedInt	-	Number of replies received.
TransCreated	-	unsignedInt	-	Number of transactions created.
TransDestroyed	-	unsignedInt	-	Number of transactions destroyed.

ServicesNode.{i}.ProcessStats.{i}.CVMA.

Memory Allocation related statistics for this process.

Parameter	W	Type	Default	Description

ServicesNode.{i}.ProcessStats.{i}.CVMA.Heap.{i}.

Heap-specific statistics.

Parameter	W	Type	Default	Description
OutstandingAllocs	-	unsignedInt	-	Number of allocations which have not been freed.
OutstandingBytes	-	unsignedInt	-	Number of *bytes* not-freed.
Allocations	-	unsignedInt	-	Total number of allocations from this heap.

ServicesNode.{i}.ChassisPowerSupply.{i}.

Parameters relating to *ChassisPowerSupply*.

Parameter	W	Type	Default	Description
DisplayName	-	string	-	Human readable name of this *ChassisPowerSupply*.
Status	-	enum	-	Status of this *ChassisPowerSupply*. Enumeration of: • *OK* (Power Supply status is ok) • *Failed* (Power Supply is either not powered or not functional) • *Absent* (Power Supply is not present)

RadioNode.{i}.

Parameters relating to RadioNodes.

Parameter	W	Type	Default	Description
Name	W	regex(32)	<Empty>	Name of the RadioNode. Possible patterns: • `^$` • `^[0-9a-zA-Z]([0-9a-zA-Z_-])*$`
Description	W	string	<Empty>	Description of this RadioNode.

Enable	W	boolean	true	Enables or disabels this RadioNode.
EthernetID	W	regex(17:17)	Mandatory(00:00:00:00:00:00)	Ethernet ID of this RadioNode. Uniquely identifies the RadioNode in the system. Possible patterns: • `([0-9a-fA-F][0-9a-fA-F]:){5}([0-9a-fA-F][0-9a-fA-F])` *EthernetID* must not be 00:00:00:00:00:00 if *Enable* is true.
SecurityMode	W	enum	secure	Indicates whether the connection between this RadioNode and ServicesNode is encrypted. Enumeration of: • *open* (Connection between RadioNode and ServicesNode is not encrypted.) • *secure* (Connection between RadioNode and ServicesNode is encrypted.)
ServicesNodeIPAddress	W	IPv4Address	Empty(0.0.0.0)	IP address of the ServicesNode this RadioNode should connect to.
BypassAlarms	W	enum{10}	<Empty>	A list of alarms numbers to bypass. Array of *string* items (maximum number of items 10). Each list item is an enumeration of: • *OVER_TEMPERATURE_CRITICAL* (A significant over-temperature condition exists) • *OVER_TEMPERATURE_MAJOR* (A significant over-temperature condition exists) • *OVER_TEMPERATURE_MINOR* (A significant over-temperature condition exists) • *MISSING_EQUIPMENT_MAJOR* (Provisioned equipment missing) • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process) • *IPSEC_DOWN_MAJOR* (The IPsec tunnel has been terminated) • *SOFTWARE_MISMATCH_MAJOR* (Internal software mismatch detected) • *LOSS_OF_SYNC_MAJOR* (Loss of synchronization) • *CALIBRATION_INVALID_MAJOR* (Calibration data invalid) • *LINK_PARAM_DEGRADATION_WARNING* (Link monitoring parameter exceeded configured threshold)
OperState	-	enum	-	Operational state of this RadioNode. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED*

				• *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*

IPAddress	-	IPAddress	-	IP address of this RadioNode.
OuterIPAddress	-	IPAddress	-	Outer IP address of this RadioNode.
ArriveTime	-	dateTime	-	Date and time when this RadioNode joined the system.
GatewayIPAddress	-	regex(256)	-	IP address of the gateway for this *RadioNode*. Possible patterns: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$` • `^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$`	
LANDeviceNumberOfEntries	-	unsignedInt	-	The number of LANDevice entries for this *RadioNode*.
ForwardingEngineNumberOfEntries	-	unsignedInt	-	The number of forwarding engines on this *RadioNode*.

RadioNode.{i}.Location.

Parameters related to the geographical location the *RadioNode*.

Parameter	W	Type	Default	Description
GeographicalAreaFormat	W	enum	LocationNotAvailable	Specifies the manner in which location parameters are specified. Enumeration of: • *LocationNotAvailable* (Location has not been specified) • *Point* (Location identified by "Longitude" and "Latitude") • *PointWithUncertainty* (Location identified by "Longitude" and "Latitude" with "HorizontalUncertainty")

				• *PointAndAltitude* (Location identified by "Longitude", "Latitude" and "Altitude") • *PointAndAltitudeWithUncertainty* (Location identified by "Longitude", "Latitude" and "Altitude" with all available uncertainty parameters)

Latitude	W	int[ranges]	Mandatory(2147483647)	Specifies the latitude in degrees multiplied by 1 million (*deg x 1M*). • **positive** value signifies a direction **North** of the equator • **negative** value signifies a direction **South** of the equator Range is from: 90{{degrees}}00.00' South (-90,000,000) to 90{{degrees}}00.00' North (90,000,000). Example value: 13,323,833 (13{{degrees}}19.43' N, derived as (13*1,000,000)+((19.43*1,000,000)/60). Example value: -50,000,000 (50{{degrees}}0.00' S) Possible values: • *-90000000 to 90000000* • *2147483647* *Latitude* must not be 2147483647 if *GeographicalAreaFormat* is *Point* or *PointWithUncertainty* or *PointAndAltitude* or *PointAndAltitudeWithUncertainty*.
Longitude	W	int[ranges]	Mandatory(2147483647)	Specifies the longitude in degrees multiplied by 1 million (*deg x 1M*). • **positive** value signifies a direction **East** of the prime meridian • **negative** value signifies a direction **West** of the prime meridian Range is from: 180{{degrees}}00.00' West (-180,000,000) to 180{{degrees}}00.00' East (180,000,000). Example value: 13,323,833 (13{{degrees}}19.43' E, derived as (13*1,000,000)+((19.43*1,000,000)/60). Example value: -50,000,000 (50{{degrees}}0.00' W) Possible values: • *-180000000 to 180000000* • *2147483647* *Longitude* must not be 2147483647 if *GeographicalAreaFormat* is *Point* or *PointWithUncertainty* or *PointAndAltitude* or *PointAndAltitudeWithUncertainty*.
HorizontalUncertainty	W	int[-1:512]	Mandatory(-1)	Specifies the uncertainty of the UE horizontal location (*Latitude* and *Longitude*) in *meters*. This also represents the maximum cell radius of the *RadioNode*. *HorizontalUncertainty* must not be -1 if *GeographicalAreaFormat* is *PointWithUncertainty* or *PointAndAltitudeWithUncertainty*.
Altitude	W	int[ranges]	Mandatory(2147483647)	Specifies the altitude in *meters*. • **positive** value signifies **height** (direction **Up**) • **negative** value signifies **depth** (direction **Down**) Possible values: • *-32767 to 32767*

				• *2147483647* *Altitude* must not be 2147483647 if *GeographicalAreaFormat* is *PointAndAltitude*.
AltitudeUncertainty	W	int[-1:127]	Mandatory(-1)	Specifies the vertical height in *meters* of the uncertainty ellipsoid of UE location when *GeographicalAreaFormat* is *PointAndAltitudeWithUncertainty*. *AltitudeUncertainty* must not be -1 if *GeographicalAreaFormat* is *PointAndAltitude* or *PointAndAltitudeWithUncertainty*.
UncertaintyEllipseSemiMajor	W	int[-1:127]	Mandatory(-1)	Specifies the semi major axis in *meters* of the uncertainty ellipsoid of the UE location when *GeographicalAreaFormat* is *PointAndAltitudeWithUncertainty*. *UncertaintyEllipseSemiMajor* must not be -1 if *GeographicalAreaFormat* is *PointAndAltitudeWithUncertainty*.
UncertaintyEllipseSemiMinor	W	int[-1:127]	Mandatory(-1)	Specifies the semi minor axis in *meters* of the uncertainty ellipsoid of the UE location when *GeographicalAreaFormat* is *PointAndAltitudeWithUncertainty*. *UncertaintyEllipseSemiMinor* must not be -1 if *GeographicalAreaFormat* is *PointAndAltitudeWithUncertainty*.
UncertaintyEllipseAxisOrientation	W	int[-1:179]	Mandatory(-1)	Specifies the axis of the orientation in *degrees* of the uncertainty ellipsoid of the UE location when *GeographicalAreaFormat* is *PointAndAltitudeWithUncertainty*. *UncertaintyEllipseAxisOrientation* must not be -1 if *GeographicalAreaFormat* is *PointAndAltitudeWithUncertainty*.
Confidence	W	int[-1:127]	Mandatory(-1)	Specifies the confidence in *percent* by which the UE position known to be within the shape of uncertainty when *GeographicalAreaFormat* is *PointAndAltitudeWithUncertainty*. *Confidence* must not be -1 if *GeographicalAreaFormat* is *PointAndAltitudeWithUncertainty*.
InheritServicesNodeLocation	W	boolean	true	Specifies if Radionode should inherit servicesnode location.

RadioNode.{i}.IPSec.

Provided *PreSharedKey* is configured, the ServicesNode will attempt to create an IPSec Tunnel to the RadioNode.

A maximum of one IPSec tunnel may exist between ServicesNode and RadioNode at any one time.

This object reports the status of the tunnel from the ServicesNode perspective.

Parameter	W	Type	Default	Description
Status	-	enum	Unused	Status of IPSec tunnel between ServicesNode and RadioNode. Enumeration of: • *Establishing* (Tunnel is establishing) • *Established* (Tunnel is established) • *Error* (Tunnel is down because of an error)

				• *Untried* (Security Gateway status unknown)
LastError	-	string(128)	<Empty>	Description of the last error when *Status* is *Error*.
ChildSANumberOfEntries	-	unsignedInt	Empty(0)	The number of entries in the *.IPSec.ChildSA.{i}.* table.

RadioNode.{i}.IPSec.IKESA.

IKE IPsec Security Association table between ServicesNode and this RadioNode.

This Table is a member of the IPsec Security Association Database (SAD). [RFC4301].

Parameter	W	Type	Default	Description
Status	-	enum	Disabled	The status of this IKE SA entry. Enumeration of: • *Disabled* • *Active* • *Completed* • *Progressing* • *Error* (OPTIONAL, This value MAY be used by the CPE to indicate a locally defined error condition.)
PeerAddress	-	regex(256)	Empty(0.0.0.0)	The IP address of the RadioNode. Possible patterns: • `^$` • `^(([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])\.){3}([0-9]\|[1-9][0-9]\|1[0-9][0-9]\|2[0-4][0-9]\|25[0-5])$` • `^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$`

CreationTime	-	dateTime	Empty(0001-01-01T00:00:00Z)	The time that the current IKE SA was set up.
NextRekeyTime	-	dateTime	Empty(0001-01-01T00:00:00Z)	The time that the next IKE SA will be negotiated.
ExpirationTime	-	dateTime	Empty(0001-01-01T00:00:00Z)	The time that the current IKE SA will expire.
IPAddress	-	regex(256)	Empty(0.0.0.0)	The current IP address assigned to this interface by IKEv2. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
SubnetMask	-	IPAddress	Empty(0.0.0.0)	The current subnet mask assigned to this interface by IKEv2.
SubnetPrefixLength	-	unsignedInt	0	The current subnet prefix length assigned to this interface by IKEv2.
IntegrityErrors	-	unsignedInt	Empty(0)	The number of inbound packets discarded by the IKE SA due to Integrity checking errors.
OtherErrors	-	unsignedInt	Empty(0)	The number of inbound packets discarded by the IKE SA due to other errors, such as anti-replay errors.
AuthErrors	-	unsignedInt	Empty(0)	The number of inbound packets discarded by the IKE SA due to authentication errors.
IKEEncryptInUse	-	enum	AES-CBC	IKEv2 encryption algorithm in use. Enumeration of: • *3DES-CBC* (3DES in Cipher Block Chaining mode.) • *AES-CBC* (128-bit AES in Cipher Block Chaining mode.)

				• *AES-CBC-256* (256-bit AES in Cipher Block Chaining mode.)
IKEPRFInUse	-	enum	HMAC-SHA1	IKEv2 pseudo-random function in use. Enumeration of: • *HMAC-SHA1* (HMAC using SHA1.) • *AES-XCBC-PRF-128* (128-bit AES in extended Cipher Block Chaining mode.) • *HMAC-SHA2-256* (HMAC using 256-bit SHA2.)
IKEIntegrityInUse	-	enum	HMAC-SHA1-96	IKEv2 integrity function in use. Enumeration of: • *HMAC-SHA1-96* (96-bit MAC using HMAC with SHA1.) • *AES-XCBC-MAC-96* (96-bit MAC using 128-bit AES in extended Cipher Block Chaining mode.) • *HMAC-SHA2-256-128* (128-bit MAC using HMAC with 256-bit SHA2.)
IKEDHInUse	-	enum	2048	IKEv2 Diffie-Hellman group in use. Enumeration of: • *1024* • *2048*

RadioNode.{i}.IPSec.ChildSA.{i}.

Child IPsec Security Association table between ServicesNode and this RadioNode.

This Table is a member of the IPsec Security Association Database (SAD). [RFC4301].

Parameter	W	Type	Default	Description
SPI	-	unsignedInt	0	SPI value of the Child SA.
DirectionOutbound	-	boolean	false	Traffic Direction. If *true* this Child SA refers to outbound traffic. If *false* this Child SA refers to inbound traffic.
CreationTime	-	dateTime	Empty(0001-01-01T00:00:00Z)	The time that the current Child SA was set up.

NextRekeyTime	-	dateTime	Empty(0001-01-01T00:00:00Z)	The time that the next Child SA will be negotiated.
ExpirationTime	-	dateTime	Empty(0001-01-01T00:00:00Z)	The time that the current Child SA will expire.
Traffic	-	unsignedInt	0	The measured traffic in *bytes* transferred by the Child SA.
IntegrityErrors	-	unsignedInt	0	The number of inbound *packets* discarded by the Child SA due to integrity checking errors.
ReplayErrors	-	unsignedInt	0	The number of inbound *packets* discarded by the Child SA due to anti-replay errors.
ESPEncryptInUse	-	enum	AES-CBC	IPsec encryption algorithm in use Enumeration of: • *3DES-CBC* (3DES in Cipher Block Chaining mode.) • *AES-CBC* (128-bit AES in Cipher Block Chaining mode.) • *Null* (No encryption.) • *AES-CBC-256* (256-bit AES in Cipher Block Chaining mode.)
ESPIntegrityInUse	-	enum	HMAC-SHA1-96	IPsec integrity function in use. Enumeration of: • *HMAC-SHA1-96* (96-bit MAC using HMAC with SHA1.) • *AES-XCBC-MAC-96* (96-bit MAC using 128-bit AES in extended Cipher Block Chaining mode.) • *HMAC-SHA2-256-128* (128-bit MAC using HMAC with 256-bit SHA2.)
TrafficPackets	-	unsignedInt	-	Measured traffic in *packets* transferred by the Child SA.
CryptErrors	-	unsignedInt	-	Number of *packets* discarded due to Encrypt/Decrypt errors.
DecryptErrors	-	unsignedInt	-	Number of *packets* discarded due to Decrypt errors.
SAErrors	-	unsignedInt	-	Number of *packets* discarded due to SA-related errors.
PolicyErrors	-	unsignedInt	-	Number of *packets* discarded due to policy errors.
SoftLifeErrors	-	unsignedInt	-	Number of *packets* exceeding IPSecRekeyLifetimeByte.

RadioNode.{i}.CPU.

Parameters relating to CPU usage on this RadioNode.

Parameter	W	Type	Default	Description
User	-	unsignedInt	-	Percentage of time CPU is in user-mode.
Kernel	-	unsignedInt	-	Percentage of time CPU is in kernel-mode.
IOWait	-	unsignedInt	-	Percentage of tiem CPU is waiting for IO.
Swap	-	unsignedInt	-	Percentage of time CPU is swapping.
Idle	-	unsignedInt	-	Percentage of time CPU is idle.
LoadAvg1	-	unsignedInt	-	Average CPU load over the last 1 minute.
LoadAvg5	-	unsignedInt	-	Average CPU load over the last 5 minutes.
LoadAvg15	-	unsignedInt	-	Average CPU load over the last 15 minutes.

RadioNode.{i}.Memory.

Parameters relating to memory use on this RadioNode.

Parameter	W	Type	Default	Description
Free	-	unsignedLong	-	Percent of memory available for use.
Used	-	unsignedLong	-	Percent of memory in-use.
Cache	-	unsignedLong	-	Percent of memory free, but not re-claimed.
Total	-	unsignedLong	-	Total amount of memory, in bytes.

RadioNode.{i}.MfgData.

Manufacturing data information

Parameter	W	Type	Default	Description
SerialNumber	-	string	-	Serial number of the Radio Node
PartNumber	-	string	-	Part number of the Radio Node

Revision	-	string	-	Radio node revision
ModelNumber	-	string	-	Radio node model number

RadioNode.{i}.DigitalBaseBand.

Parameters relating to the digital base band (DBB) card of this RadioNode.

Parameter	W	Type	Default	Description
DisplayName	-	string	-	Human readable name of the DBB card.

RadioNode.{i}.DigitalBaseBand.Env.

Environmental parameters of digital base band (DBB) card.

Parameter	W	Type	Default	Description
AmbientTemp	-	int	-	Ambient temperature of DBB card in *degrees Celsius*.
AmbientStatus	-	enum	-	Status of ambient temperature sensor on DBB card. Enumeration of: • *OK* (Temperature is ok) • *MinorOverHeat* (Minor overheating is occurring) • *MajorOverHeat* (Major overheating is occurring) • *CriticalOverHeat* (Critical overheating is occurring)
AmbientThresholdCritical	-	int	-	Critical overheat threshold in *degrees Celsius*.
AmbientThresholdMajor	-	int	-	Major overheat threshold in *degrees Celsius*.
AmbientThresholdMinor	-	int	-	Minor overheat threshold in *degrees Celsius*.

RadioNode.{i}.Radio.{i}.

Parameters relating to this Radio on the RadioNode.

Parameter	W	Type	Default	Description

Enable	W	boolean	true	Enables or disables this *Radio*.
Band	W	enum	Mandatory(not-available)	The provisioned band of this *Radio*. Enumeration of: • *not-available* (Band value is not available) • *umts-band-I* (UMTS Band I) • *umts-band-IV* (UMTS Band IV) • *umts-band-II* (UMTS Band II) • *umts-band-VII* (UMTS Band VII) • *umts-band-V* (UMTS Band V) • *lte-band-I* (LTE Band I) • *lte-band-II* (LTE Band II) • *lte-band-IV* (LTE Band IV) • *lte-band-VII* (LTE Band VII) • *lte-band-XIII* (LTE Band XIII) • *lte-band-III* (LTE Band III) • *lte-band-XX* (LTE Band XX) *Band* must not be not-available if *Enable* is true.
BypassAlarms	W	enum{6}	<Empty>	A list of alarms to bypass. Array of *string* items (maximum number of items 6). Each list item is an enumeration of: • *PROV_FAULT_MAJOR* (An error was detected during the provisioning process) • *CONFIG_MISMATCH_MAJOR* (Configuration mismatch)
ActualBand	-	enum{}	not-available	The actual band of this *Radio*. Array of *string* items. Each list item is an enumeration of: • *not-available* (Band value is not available) • *umts-band-I* (UMTS Band I) • *umts-band-IV* (UMTS Band IV) • *umts-band-II* (UMTS Band II) • *umts-band-VII* (UMTS Band VII) • *umts-band-V* (UMTS Band V) • *lte-band-I* (LTE Band I) • *lte-band-II* (LTE Band II) • *lte-band-IV* (LTE Band IV) • *lte-band-VII* (LTE Band VII) • *lte-band-XIII* (LTE Band XIII)

				• *lte-band-III* (LTE Band III) • *lte-band-XX* (LTE Band XX) • *umts/lte-band-I* (UMTS/LTE Band I) • *umts/lte-band-II* (UMTS/LTE Band II) • *umts/lte-band-IV* (UMTS/LTE Band IV) • *umts/lte-band-VII* (UMTS/LTE Band VII)
MaxTxPower	-	int[-100:240]	not-available	The maximum Tx Power supported by this *Radio*.
OperState	-	enum	-	The operational state of this *Radio*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*

RadioNode.{i}.Radio.{i}.Env.

Environmental parameters of this radio. Includes measurements from temperature sensors on this radio.

Parameter	W	Type	Default	Description
AmbientTemp	-	int	-	Ambient temperature of radio in *degrees Celsius*.
AmbientStatus	-	enum	-	Status of ambient sensor on radio. Enumeration of: • *OK* (Temperature is ok) • *MinorOverHeat* (Minor overheating is occurring) • *MajorOverHeat* (Major overheating is occurring) • *CriticalOverHeat* (Critical overheating is occurring)
AmbientThresholdCritical	-	int	-	Critical overheat threshold in *degrees Celsius*.
AmbientThresholdMajor	-	int	-	Major overheat threshold in *degrees Celsius*.
AmbientThresholdMinor	-	int	-	Minor overheat threshold in *degrees Celsius*.

RadioNode.{i}.Stats.

Parameters relating to RadioNode Stats.

Parameter	W	Type	Default	Description

RadioNode.{i}.Stats.WLAN.

Parameters relating to WLANService RadioNode Stats.

Parameter	W	Type	Default	Description
ManagedAPSysUpTime	-	unsignedLong	0	Indicates time in seconds since last power-on reset.
ManagedAPAuthenticatedClients	-	unsignedLong	0	The total number of authenticated client currently associated with this RadioNode.
ManagedAPWLANBytesTransmitted	-	unsignedLong	0	The total number of bytes transmitted by this Radionode.
ManagedAPWLANBytesRecvd	-	unsignedLong	0	The total number of bytes received by this Radionode.

ManagedAPWLANPktsRecvd	-	unsignedLong	0	The total number of packets received by this Radionode.
ManagedAPWLANPktsTransmitted	-	unsignedLong	0	The total number of packets transmitted by this Radionode.
ManagedAPWLANPktsTransmitDropped	-	unsignedLong	0	The total number of transmit packets dropped by this RadioNode.
ManagedAPWLANPktsRecvDropped	-	unsignedLong	0	The total number of receive packets dropped by this RadioNode.

RadioNode.{i}.WLANRadio.{i}.

Parameters relating to this Radio on the RadioNode.

Parameter	W	Type	Default	Description
Enable	W	boolean	false	Enables or disables this *WLANRadio*.
Type	-	unsignedInt	-	The card type for this *WLANRadio*.
OperatingMode	W	enum	Normal	The Operating Mode for this *WLANRadio*. Enumeration of: • *Normal* (WLAN radio operating in normal (active) mode.) • *Sentry* (WLAN radio operating in sentry (listen only) mode.)
RTSThreshold	W	unsignedInt[0:2347]	2347	The RTSThreshold for this *WLANRadio*.
SupportedChannels	-	string	<Empty>	The Supported Channels for this *WLANRadio*.
EligibleChannels	W	unsignedInt{48}	<Empty>	list of EligibleChannels for this *WLANRadio*. Array of *unsignedInt* items (maximum number of items 48).
SupportedMCS	W	unsignedInt[0:15]	15	The SupportedMCS for this *WLANRadio*.
SupportedLegacyRates	W	enum	54Mbps	The SupportedLegacyRates for this *WLANRadio*. Enumeration of: • *1Mbps* (Supported Legacy Rates 1) • *2Mbps* (Supported Legacy Rates 2) • *5.5Mbps* (Supported Legacy Rates 5.5) • *6Mbps* (Supported Legacy Rates 6) • *9Mbps* (Supported Legacy Rates 9)

				• *11Mbps* (Supported Legacy Rates 11) • *12Mbps* (Supported Legacy Rates 12) • *18Mbps* (Supported Legacy Rates 18) • *24Mbps* (Supported Legacy Rates 24) • *36Mbps* (Supported Legacy Rates 36) • *48Mbps* (Supported Legacy Rates 48) • *54Mbps* (Supported Legacy Rates 54)

MinPower	W	unsignedInt[1:100]	30	The MinPower for this *WLANRadio*.
AutomaticPower	W	boolean	false	The AutomaticPower for this *WLANRadio*.
DefaultPower	W	unsignedInt[1:100]	50	The DefaultPower for this *WLANRadio*.
ScanEnable	W	boolean	true	Enable channel scanning.
SentryModeRFScanDuration	W	unsignedInt[10:2000]	250	The RF Scan Duration in *milliseconds* for Sentry Mode for this *WLANRadio*.
LoadUtilization	W	unsignedInt[0:100]	80	Percentage of total radio bandwidth.
OperState	-	enum	-	The operational state of this *WLANRadio*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*

Band	-	enum	not-available	The provisioned band of this *WLANRadio*. Enumeration of: • *not-available* (WLAN Band value is not available) • *802.11b/g/n* (WLAN-2GHz) • *802.11a/n* (WLAN-5GHz)
ActualBand	-	enum	not-available	The actual band of this *WLANRadio*. Enumeration of: • *not-available* (WLAN Band value is not available) • *802.11b/g/n* (WLAN-2GHz) • *802.11a/n* (WLAN-5GHz)

RadioNode.{i}.WLANRadio.{i}.Stats.

Parameters relating to this WLANRadio on the RadioNode.

Parameter	W	Type	Default	Description
ManagedAPRadioACKFailureCount	-	unsignedLong	0	The number of ACK packets not received by this Radio.
ManagedAPRadioFailedCount	-	unsignedLong	0	The number of times the MSDU was not transmitted successfully due to transmit attempts exceeding either the short retry limit or the long retry limit.
ManagedAPRadioFCSErrorCount	-	unsignedLong	0	The number of FCS errors detected in a received MPDU frame for this Radio.
ManagedAPRadioFrameDuplicateCount	-	unsignedLong	0	The number of duplicate frames received by this Radio.
ManagedAPRadioMcastRecvdFrameCount	-	unsignedLong	0	The number of MSDU frames received where the multicast bit was set in the destination MAC address.
ManagedAPRadioMcastTxFrameCount	-	unsignedLong	0	The number of MSDU frames received where the multicast bit was set in the destination MAC address.
ManagedAPRadioMultipleRetryCount	-	unsignedLong	0	The number of times the MSDU was sent after more than one retry on this Radio.
ManagedAPRadioRecvdFragmentCount	-	unsignedLong	0	The number of MPDU frames received whose type was data or management.
ManagedAPRadioRetryCount	-	unsignedLong	0	The number of MSDU send retries for this Radio.

ManagedAPRadioRTSFailureCount	-	unsignedLong	0	The number of RTS messages sent where a CTS was not received.
ManagedAPRadioRTSSuccessCount	-	unsignedLong	0	The number of RTS messages sent that received a CTS.
ManagedAPRadioTxFragmentCount	-	unsignedLong	0	The number of acknowledged MPDUs with an individual address.
ManagedAPRadioTxFrameCount	-	unsignedLong	0	The number of MSDUs successfully transmitted by this Radio.
ManagedAPRadioWEPUndecryptableCount	-	unsignedLong	0	The number undecryptable WEP frames received by this Radio. The key configuration of the transmitter indicates that the frame should not have been encrypted or that frame was discarded due to the receiving Station not implementing the privacy option.
ManagedAPRadioWLANBytesRecvd	-	unsignedLong	0	The total number of bytes received by this Radio.
ManagedAPRadioWLANBytesRecvDropped	-	unsignedLong	0	The total number of receive bytes dropped by this Radio. Bytes dropped can result from client QoS actions affecting the wireless up (inbound) direction from client to RadioNode.
ManagedAPRadioWLANBytesTransmitDropped	-	unsignedLong	0	The total number of transmit bytes dropped by this Radio. Bytes dropped can result from client QoS actions affecting the wireless down (outbound) direction from RadioNode to client.
ManagedAPRadioWLANBytesTransmitted	-	unsignedLong	0	The total number of bytes transmitted by this Radio.
ManagedAPRadioWLANPktsRecvd	-	unsignedLong	0	The total number of packets received by this Radio.
ManagedAPRadioWLANPktsRecvDropped	-	unsignedLong	0	The total number of receive packets dropped by this Radio.
ManagedAPRadioWLANPktsTransmitDropped	-	unsignedLong	0	The total number of transmit packets dropped by this Radio.
ManagedAPRadioWLANPktsTransmitted	-	unsignedLong	0	The total number of packets transmitted by this Radio.

RadioNode.{i}.WLANRadio.{i}.VAP.{i}.

Parameters relating to this WLANRadio Virtual Access Point.

Parameter	W	Type	Default	Description
ExtendedServiceSetIndex	W	unsignedInt	0	Index of the ExtendedServiceSet.

Enable	W	boolean	true	Enables or disables this *VAP*.
OperState	-	enum	-	The operational state of this *VAP*. Enumeration of: • *UNKNOWN* (Unknown value) • *OOS-INDETERMINATE* • *OOS-NOTPRESENT* • *OOS-INIT* • *OOS-AUTHENTICATING* • *OOS-UNPROVISIONED* • *OOS-FAULT* • *OOS-CFGMISMATCH* • *OOS-INHERITED* • *OOS-DISABLED* • *OOS-DIAG* • *IS-BUSY* • *IS-IDLE* • *IS-STANDBY* • *IS-NETMON* • *OOS-PROVING* • *IS-NORMAL* • *OOS-DEPROV* • *IS-LOCKED* • *OOS-SYNCING* • *IS-DEGRADED* • *IS-EMERGENCY* • *OOS-SWMISMATCH* • *IS-RFMGMT* • *MAINT* • *MAINT-RFMGMT*

RadioNode.{i}.ForwardingEngine.{i}.

Parameters related to *ForwardingEngine*.

Parameter	W	Type	Default	Description

RadioNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.

Parameters related to filter restricting traffic going to the control plane.

Parameter	W	Type	Default	Description
ClassificationNumberOfEntries	-	unsignedInt	-	The number of classification entries.
PolicerNumberOfEntries	-	unsignedInt	-	The number of policer entries.

RadioNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.GlobalPolicer.

Parameters related to Global Policer for control plane traffic.

Parameter	W	Type	Default	Description
Description	-	string	-	Human-readable description for this *GlobalPolicer*, used for display and debugging purposes only.
PolicerStatus	-	enum	-	Current status of this policer. Enumeration of: • *UNKNOWN* • *Disabled* • *Enabled* • *Error*
CommittedRate	-	unsignedInt	-	Average data rate in *bitsps* that can be sent or forwarded.
CommittedBurstSize	-	unsignedInt	-	Maximum traffic bursts in *Bytesps* before rate limit is exceeded.
MeterType	-	enum	-	Only SimpleTokenBucket is supported. Enumeration of: • *SimpleTokenBucket* • *SingleRateThreeColor* • *TwoRateThreeColor*
ConformingAction	-	enum	-	Action taken for conforming data. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)

NonConformingAction	-	enum	-	Action taken for non-conforming data. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
TotalCountedPackets	-	unsignedLong	-	Total *packets* handled by policer.
TotalCountedBytes	-	unsignedLong	-	Total *bytes* handled by policer.
ConformingCountedPackets	-	unsignedLong	-	Conforming *packets* handled by policer.
ConformingCountedBytes	-	unsignedLong	-	Conforming *bytes* handled by policer.
NonConformingCountedPackets	-	unsignedLong	-	Non-Conforming *packets* handled by policer.
NonConformingCountedBytes	-	unsignedLong	-	Non-Conforming *bytes* handled by policer.
PacketDropThreshold	-	unsignedLong	-	Threshold for number of *packets* dropped in monitoring interval before an event is raised. *PacketDropThreshold* is relevant only when either *ConformingAction* or *NonConformingAction* is *Drop*. Value of 0 indicates event reporting is disabled.
PacketDropMonitoringInterval	-	unsignedInt	-	Interval in *seconds* at which drops are monitored.

RadioNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.GlobalQueueStats.

CoS queue global statistics.

Parameter	W	Type	Default	Description
OutputPackets	-	unsignedLong	0	Number of *packets* output through the queue.
OutputBytes	-	unsignedLong	0	Number of *bytes* output through the queue.
DroppedPackets	-	unsignedLong	0	Number of *packets* dropped by the queue.
PacketDropThreshold	-	unsignedLong	0	Threshold for number of *packets* dropped at which events are reported.
PacketDropMonitoringInterval	-	unsignedInt	0	Interval in *seconds* at which drops are monitored.

RadioNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.Classification.{i}.

Parameters related to classification for filter restricting traffic to control plane.

Parameter	W	Type	Default	Description
Description	-	string	-	Human-readable description for this *Classification*, used for display and debugging purposes only.
DestIP	-	regex(256)	-	Destination IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
DestPrefixLength	-	unsignedInt	-	Destination prefix length.
DestMask	-	IPAddress	-	Destination IP subnet mask.
SourceIP	-	regex(256)	-	Source IP address. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-

				9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
SourceMask	-	IPAddress	-	Source IP subnet mask.
SourcePrefixLength	-	unsignedInt	-	Source prefix length.
Protocol	-	int	-	Protocol number.
DestPort	-	int	-	Destination port lower bound.
DestPortRangeMax	-	int	-	Destination port upper bound.
SourcePort	-	int	-	Source port lower bound.
SourcePortRangeMax	-	int	-	Source port upper bound.
ClassPolicer	-	int	-	Control Plane Filter Policer index corresponding to this classification.
Action	-	enum	-	Indicates the action for matching packets. Can be only *None* or *Drop*. Enumeration of: • *PassThrough* • *Drop* • *None* • *LocalSwitch*
Hits	-	unsignedLong	-	Number of packets that match the classification rule.
PacketDropThreshold	-	unsignedLong	-	Threshold for number of *packets* dropped in monitoring interval before an event is raised. *PacketDropThreshold* is relevant only when either *Action* is *Drop*. Value of 0 indicates event reporting is disabled.
PacketDropMonitoringInterval	-	unsignedInt	-	Interval in *seconds* at which drops are monitored.

RadioNode.{i}.ForwardingEngine.{i}.ControlPlaneFilter.Policer.{i}.

Parameters related to Policers for control plane traffic filter.

Parameter	W	Type	Default	Description
Description	-	string	-	Human-readable description for this *Policer*, used for display and debugging purposes only.
PolicerStatus	-	enum	-	Current status of this policer. Enumeration of: • *UNKNOWN* • *Disabled* • *Enabled* • *Error*
CommittedRate	-	unsignedInt	-	Average data rate in *Bps* that can be sent or forwarded.
CommittedBurstSize	-	unsignedInt	-	Maximum traffic bursts in *bps* before rate limit is exceeded.
MeterType	-	enum	-	Only SimpleTokenBucket is supported. Enumeration of: • *SimpleTokenBucket* • *SingleRateThreeColor* • *TwoRateThreeColor*
ConformingAction	-	enum	-	Action taken for conforming data. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
NonConformingAction	-	enum	-	Action taken for non-conforming data. Enumeration of: • *Null* (No action (transmit data)) • *Drop* (Drop packets)
TotalCountedPackets	-	unsignedLong	-	Total *packets* handled by policer.
TotalCountedBytes	-	unsignedLong	-	Total *bytes* handled by policer.

ConformingCountedPackets	-	unsignedLong	-	Conforming *packets* handled by policer.
ConformingCountedBytes	-	unsignedLong	-	Conforming *bytes* handled by policer.
NonConformingCountedPackets	-	unsignedLong	-	Non-Conforming *packets* handled by policer.
NonConformingCountedBytes	-	unsignedLong	-	Non-Conforming *bytes* handled by policer.
PacketDropThreshold	-	unsignedLong	-	Threshold for number of *packets* dropped in monitoring interval before an event is raised. *PacketDropThreshold* is relevant only when either *ConformingAction* or *NonConformingAction* is *Drop*. Value of 0 indicates event reporting is disabled.
PacketDropMonitoringInterval	-	unsignedInt	-	Interval in *seconds* at which drops are monitored.

RadioNode.{i}.LANDevice.{i}.

Parameters related to *LANDevice*.

Parameter	W	Type	Default	Description
LANEthernetInterfaceNumberOfEntries	-	unsignedInt	-	Number of instances of *LANEthernetInterfaceConfig* in this object.

RadioNode.{i}.LANDevice.{i}.LANEthernetInterfaceConfig.{i}.

Parameters related to *LANEthernetInterfaceConfig*.

Parameter	W	Type	Default	Description
MaxBitRateInUse	-	enum	-	The negotiated maximum upstream and downstream bit rate available to this connection. The units of *MaxBitRateInUse* are in Mbits/sec. Enumeration of: • *10* (10Mbps operation, with auto-negotiation) • *100* (100Mbps operation, with auto-negotiation) • *1000* (1Gbps operation, with auto-negotiation) • *2500* (2.5Gbps operation, with auto-negotiation) • *10000* (10Gbps operation, with auto-negotiation) • *100F* (100Mbps operation, without auto-negotiation)
DuplexModeInUse	-	enum	-	The negotiated duplex mode available to this connection.

				Enumeration of: • *Half* • *Full*

RadioNode.{i}.LANDevice.{i}.LANEthernetInterfaceConfig.{i}.Stats.

Parameters related to *Stats*.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.
PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.
CollisionsSent	-	unsignedLong	-	The total number of outbound packets that experienced collisions.
ErrorsSent	-	unsignedLong	-	The total number of outbound packets that could not be transmitted because of errors.
ErrorsReceived	-	unsignedLong	-	The total number of inbound packets that contained errors preventing them from being deliverable.
UnicastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were not addressed to a multicast or broadcast address, including those that were discarded or not sent.
UnicastPacketsReceived	-	unsignedLong	-	The total number of received packets which were not addressed to a multicast or broadcast address.
DiscardPacketsSent	-	unsignedLong	-	The total number of outbound packets which were chosen to be discarded even though no errors had been detected to prevent their being transmitted. One possible reason for discarding such a packet could be to free up buffer space.
DiscardPacketsReceived	-	unsignedLong	-	The total number of inbound packets which were chosen to be discarded even though no errors had been detected to prevent their being deliverable. One possible reason for discarding such a packet could be to free up buffer space.
MulticastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were addressed to a multicast address, including those that were discarded or not sent.

MulticastPacketsReceived	-	unsignedLong	-	The total number of received packets which were addressed to a multicast address.
BroadcastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were addressed to a broadcast address, including those that were discarded or not sent.
BroadcastPacketsReceived	-	unsignedLong	-	The total number of received packets which were addressed to a broadcast address.
UnknownProtoPacketsReceived	-	unsignedLong	-	The total number of packets received via the interface which were discarded because of an unknown or unsupported protocol.
QueueNumberOfEntries	-	unsignedInt	-	The number of entries in the *Queue* table.

RadioNode.{i}.LANDevice.{i}.LANEthernetInterfaceConfig.{i}.Stats.Queue.{i}.

Ethernet interface per CoS-queue statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.
PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.

RadioNode.{i}.LANDevice.{i}.LANHostConfigManagement.

IP interface statistics.

Parameter	W	Type	Default	Description
IPInterfaceNumberOfEntries	-	unsignedInt	-	The number of entries in the *IPInterface* table.

RadioNode.{i}.LANDevice.{i}.LANHostConfigManagement.IPInterface.{i}.

IP interface statistics.

Parameter	W	Type	Default	Description

RadioNode.{i}.LANDevice.{i}.LANHostConfigManagement.IPInterface.{i}.Stats.

IP interface statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.
PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.
ErrorsSent	-	unsignedLong	-	The total number of outbound packets that could not be transmitted because of errors.
ErrorsReceived	-	unsignedLong	-	The total number of inbound packets that contained errors preventing them from being deliverable.
UnicastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were not addressed to a multicast or broadcast address, including those that were discarded or not sent.
UnicastPacketsReceived	-	unsignedLong	-	The total number of received packets which were not addressed to a multicast or broadcast address.
DiscardPacketsSent	-	unsignedLong	-	The total number of outbound packets which were chosen to be discarded even though no errors had been detected to prevent their being transmitted. One possible reason for discarding such a packet could be to free up buffer space.
DiscardPacketsReceived	-	unsignedLong	-	The total number of inbound packets which were chosen to be discarded even though no errors had been detected to prevent their being deliverable. One possible reason for discarding such a packet could be to free up buffer space.
MulticastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were addressed to a multicast address, including those that were discarded or not sent.
MulticastPacketsReceived	-	unsignedLong	-	The total number of received packets which were addressed to a multicast address.
BroadcastPacketsSent	-	unsignedLong	-	The total number of packets requested for transmission which were addressed to a broadcast address, including those that were discarded or not sent.
BroadcastPacketsReceived	-	unsignedLong	-	The total number of received packets which were addressed to a broadcast address.
UnknownProtoPacketsReceived	-	unsignedLong	-	The total number of packets received via the interface which were discarded

				because of an unknown or unsupported protocol.
QueueNumberOfEntries	-	unsignedInt	-	The number of entries in the *Queue* table.

RadioNode.{i}.LANDevice.{i}.LANHostConfigManagement.IPInterface.{i}.Stats.Queue.{i}.

IP interface per CoS-queue statistics.

Parameter	W	Type	Default	Description
BytesSent	-	unsignedLong	-	The total number of bytes transmitted out of the interface.
BytesReceived	-	unsignedLong	-	The total number of bytes received on the interface.
PacketsSent	-	unsignedLong	-	The total number of packets transmitted out of the interface.
PacketsReceived	-	unsignedLong	-	The total number of packets received on the interface.

Session.{i}.

Parameters relating to UE session.

Parameter	W	Type	Default	Description
PolicyGroupIndex	-	unsignedInt	-	Indicates the index of the policy group that is in use for this master session. The value MUST be the instance number of an object in the *.AccessMgmt.PolicyGroup.* table.
PolicyTrace	-	unsignedInt{64}	-	Gives the list of Policy objects evaluated to create the properties for this master session. The value MUST be the instance number of an object in the *.AccessMgmt.Policy.* table. Array of *unsignedInt* items (maximum number of items 64).
Action	-	enum	-	Indicates the action to take for the UE. Enumeration of: • *Accept* (UE will be accepted) • *Reject* (UE will be rejected) • *Unspecified* (Do not change prior setting of action) • *Redirect* (UE will be redirected)
LocationStreamMode	-	enum	-	Indicates whether location stream is enabled for the UE.

				Enumeration of: • *Disabled* (Location stream reports will not be switched on) • *Enabled* (Location stream reports will be switched on) • *Unspecified* (Do not change prior setting of location stream reports)
SessionTraceMode	-	enum	-	Indicates whether session trace is enabled for the UE. Enumeration of: • *Disabled* (Session tracing is disabled) • *Enabled* (Session tracing is enabled) • *Unspecified* (Do not change prior setting of session tracing)
DetectionClass	-	enum	-	Indicates the detection class for the UE. Enumeration of: • *WhiteList* (Detection according to White List class) • *BlackList* (Detection according to Black List class) • *Unspecified* (Do not change prior setting of detection class)
DetectionEvent	-	enum	-	Indicates whether detection events are enabled for the UE. Enumeration of: • *Enabled* (Detection event is enabled) • *Disabled* (Detection event is disabled) • *Unspecified* (Do not change prior setting of detection event)
NumberOfActiveDataSessions	-	unsignedInt	-	Indicates the number of data sessions currently active and associated with this master session.
NumberOfActiveVoiceSessions	-	unsignedInt	-	Indicates the number of voice sessions currently active and associated with this master session.
DataSessionNumberOfEntries	-	unsignedInt	-	Indicates the number of DataSession records for which information is available. Includes historic as well as current DataSessions.
VoiceSessionNumberOfEntries	-	unsignedInt	-	Indicates the number of VoiceSession records for which information is available. Includes historic as well as current VoiceSessions.

Session.{i}.DataSession.{i}.

This object contains parameters relating to a data session currently active for this master session.

Parameter	W	Type	Default	Description
CreationTime	-	dateTime	-	Time at which the DataSession was created.
TerminationTime	-	dateTime	-	Time at which the DataSession was terminated.
PolicyGroupIndex	-	unsignedInt	-	Indicates the index of the policy group that is in use for this data session. The value MUST be the instance number of an object in the *.AccessMgmt.PolicyGroup.* table.
IsHistorical	-	boolean	-	Indication of whether the data session is historical.
PolicyTrace	-	unsignedInt{64}	-	Gives the list of Policy objects evaluated to create the properties for this data session. The value MUST be the instance number of an object in the *.AccessMgmt.Policy.* table. Array of *unsignedInt* items (maximum number of items 64).
FlowID	-	unsignedInt	-	Indicates the flow id for the data session.

SwitchingMode	-	enum	-	Indicates the switching mode of the data traffic for this session.
				
				Details
				
				• *PassThrough* mode
				  o UE receives a core IP address and all data traffic is sent untouched to the core.
				• *NAPT* mode
				  o UE receives a core IP address and all traffic except walled garden traffic will be offloaded locally. Walled garden traffic will be sent untouched to the mobile core. Local traffic will be NATted and will appear on the local subnet with a DHCP obtained IP Address.
				• *CNAPT* mode
				  o UE receives a DHCP obtained local IP address and all traffic except walled garden traffic will be offloaded locally. Walled garden traffic will be NATted to the core IP address that was originally assigned to the UE. Local traffic will be passed untouched to the local subnet.
				
				Enumeration of:
				
				• *PassThrough* (UE data traffic sent untouched to mobile core)
				• *NAPT* (Apply Network Address Port Translation to locally switched UE data traffic)
				• *CNAPT* (Apply Core Network Address Port Translation to locally switched UE data traffic)
				• *Unspecified* (Do not change prior setting of switching mode)
				• *Enrollment-NAPT* (Apply Network Address Port Translation to locally switched UE enrollment data traffic)
				• *Enrollment-CNAPT* (Apply Core Network Address Port Translation to locally switched UE enrollment data traffic)

APNName	-	string	-	Name of APN in use for this session.
UEIPAddress	-	regex(256)	-	Indicates the IP address of the UE. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
UENATIPAddress	-	regex(256)	-	Indicates the NATted IP address of the UE. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
ProviderPrimaryDNSIPAddress	-	regex(256)	-	Indicates the IP address of the provider network primary DNS server received in PDP Accept. Possible patterns: • ^$

				• ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$

ProviderSecondaryDNSIPAddress	-	regex(256)	-	Indicates the IP address of the provider network secondary DNS server received in PDP Accept. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
PrimaryDNSIPAddress	-	regex(256)	-	Indicates the IP address of the enterprise network primary DNS server received from the DHCP server. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$ • ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
SecondaryDNSIPAddress	-	regex(256)	-	Indicates the IP address of the enterprise network secondary DNS server received from the DHCP server. Possible patterns: • ^$ • ^(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])$

				• ^(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]).){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9]))$
ForwardingGroupIndex	-	unsignedInt	-	Specifies the IP address domain in which this data session exists. The value MUST be the instance number of an object in the *Layer3Forwarding.ForwardingGroup.* table.
PassThroughUplinkClassificationGroup	-	unsignedInt	-	Classification group (ACL) applied to uplink (egress) traffic when *SwitchingMode* is *PassThrough*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table.
PassThroughDownlinkClassificationGroup	-	unsignedInt	-	Classification group (ACL) applied to downlink (ingress) traffic when *SwitchingMode* is *PassThrough*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table.
LocalSwitchUplinkClassificationGroup	-	unsignedInt	-	Classification group (ACL) applied to uplink (egress) ***locally switched*** traffic when *SwitchingMode* is either *NAPT* or *CNAPT*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table.
LocalSwitchDownlinkClassificationGroup	-	unsignedInt	-	Classification group (ACL) applied to downlink (ingress) ***locally switched*** traffic when *SwitchingMode* is either *NAPT* or *CNAPT*. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.ClassificationGroup.* table.
DefaultClassQueue	-	int[ranges]	-	The default queue is used to determine the IP QoS and radio bandwidth allocation on the downlink and the external network IP QoS on the uplink. The value MUST be the instance number of an object in the *InternetGatewayDevice.QueueManagement.Queue.* table. Possible values: • *-1* • *1 to 8*
AdmissionPriorityGroupIndex	-	unsignedInt	-	Specifies the set of admission priorities that will apply. The value MUST be the instance number of an object in the *.AccessMgmt.AdmissionPriorityGroup.* table.
PrimaryLANDevice	-	unsignedInt	-	Together with *PrimaryIPInterface*, this field specifies the local switching interface. This interface is used to broadcast any DHCP requests and is the egress for all traffic for the session. The value MUST be the instance number of an object in the *LANDevice.* table.
PrimaryIPInterface	-	unsignedInt	-	Together with *PrimaryLANDevice*, this field specifies the local switching interface. This interface is used to broadcast any DHCP requests and is the egress for all traffic for the session. The value MUST be the instance number of an object in the *LANDevice.{i}.LANHostConfigManagement.IPInterface.* table.

Session.{i}.VoiceSession.{i}.

This object contains parameters relating to a voice session currently active for this master session.

Parameter	W	Type	Default	Description
CreationTime	-	dateTime	-	Time at which the VoiceSession was created.
TerminationTime	-	dateTime	-	Time at which the VoiceSession was terminated.
FlowID	-	unsignedInt	-	Indicates the flow id for the data session.
IsHistorical	-	boolean	-	Indication of whether the voice session is historical.

Session.{i}.Identifier.

Parameters relating to the UE identity.

Parameter	W	Type	Default	Description
IMSI	-	string(15)	-	UE IMSI.
IMEI	-	string(15)	-	UE IMEI.
TMSI	-	unsignedInt	-	UE TMSI during session creation.
MSISDN	-	string(15)	-	UE MSISDN.

Session.{i}.RecordInfo.

Parameters relating to archival of session statistics.

Parameter	W	Type	Default	Description
IsHistorical	-	boolean	-	If set, indicates that this session has expired. There may or may not be a newer session associated with the UE.
ConnectTime	-	dateTime	-	Time at which the master session was created.
ConnectCause	-	enum	-	Master session establishment cause. Enumeration of:

				• *Emergency Call* (Emergency call) • *Voice* (Voice) • *Video Telephony* (Video telephony) • *SMS* (SMS) • *R99 Data* (R99 data) • *HSDPA* (HSDPA data) • *HSUPA* (HSUPA data) • *Hard HandIn* (Hard hand-in) • *Registration* (Registration) • *Detach* (Detach) • *UNKNOWN* (Cause unknown)

DisconnectTime	-	dateTime	-	Time at which the master session was terminated.
DisconnectCause	-	enum	-	Master session termination cause. Enumeration of: • *Normal Release* (Session deleted due to a normal release from core or from the UE) • *CN Disconnected* (Session deleted due to loss of connectivity with the core network) • *Internal error disconnecting RABs* (Internal error while disconnecting RABs for the domain) • *Internal error handling IDT* (Internal error while sending initial direct transfer message to cnctrlmod daemon) • *Internal error handling UDT* (Internal error while sending uplink direct transfer message to cnctrlmod daemon) • *CN Security config mismatch* (Security configuration mismatch in the core network) • *CN Security mode fail* (Failed to send security mode command to the UE) • *RRC Security Mode Command timeout* (Timeout while waiting for response to security mode command from the UE) • *RBSetup Failed* (Failed to setup radio bearers) • *RRC Conn Req in Connected State* (Received RRC connection request from a UE that is already connected) • *RRC Conn Setup timeout* (RRC connection timeout while waiting for RRC connection setup complete message from the UE) • *Unsupported RRC Establishment Cause* (Unsupported establishment cause) • *Unsupported Initial UE Identity* (Unsupported initial UE identity) • *Master Session Creation Failed* (Master session creation failed) • *Master Session Authentication Failed* (Master session authentication failed) • *Master Session Deleted* (Master session deleted) • *UE cleared by Admin* (UE cleared by {{ACS}}) • *All radiolinks failed* (Session deleted due to radiolink failure on all the radiolinks) • *RLC Reset* (Session deleted due to RLC max-reset on the downlink) • *Internal error during provisioning* (Internal failure while provisioning UE at RRC layer) • *Internal error during reprovisioning* (Internal failure while reprovisioning the UE) • *RB reconfig failure* (Disconnect on receiving RRC radio bearer reconfiguration failure command from the UE) • *RB release failure* (Disconnect on receiving RRC radio bearer release failure command from the UE) • *RAB create failure* (Failed to create RAB) • *RL Config failure* (Failed to configure radiolink) • *RL Provision failure* (Radiolink provisioning failed) • *RL Reprovision failure* (Radiolink reprovisioning failed) • *RL not found* (Radiolink not found) • *Failed to assign TF info* (Failed to assign transport format info) • *SRB Create fail* (Signaling radio bearer creation failed) • *Admission Control Fail* (Admission control check failed) • *Failed to send ASU* (Failed to send active set update command) • *RBReconfig failed* (Radio bearer reconfiguration failed) • *Failed to update serving cell* (Change of serving cell failed) • *Failed to find serving cell* (Failed to find serving cell while triggering a serving cell change) • *Timeout during SHO* (Soft handover timeout) • *HHO provisioning failed* (Provisioning for hard handover failed) • *Admission Control disconnect* (Session deleted by admission control)

				• *Cell change during RRC Connection* (UE moved to a different cell during RRC connection setup) • *Cell Dragging* (Session deleted due to excess cell dragging) • *Hard HandIn timeout* (Session disconnect on timeout while waiting for radio bearer reconfiguration complete for a UE that is being handed in) • *Hard HandOut timeout* (Disconnect on timeout while waiting for Iu release command from core network after sending radio bearer reconfiguration to UE on a handout) • *Cell_FACH RRC state cleared* (OBSOLETED, Session cleared because UE periodic location update not received while in Cell_FACH) • *Still Active* (Session is still active) • *UNKNOWN* (Cause unknown) • *Phy Chan Reconfig failed* (Physical channel reconfiguration failed) • *ServicesNode Rebooted* ({{ServicesNode}} rebooted while the session was active) • *PS IRAT Handout Not Supported* (PS interRAT handout not supported) • *RRC State Transition Failure* (RRC state transition failed) • *Cell_FACH T305 Expiry* (UE in Cell_FACH disconnected due to expiry of timer T305) • *Cell_FACH Admission Failure* (UE in Cell_FACH disconnected due to admission control rules) • *Cell_Update Error* (Cell update failed) • *RRC Paging Timeout* (Paging timeout during Cell_FACH state) • *Cell_FACH Inactivity Timeout* (UE disconnected due to data plane inactivity) • *PS Handout Not Supported* (Session disconnected due to PS handout not configured on the {{system}}) • *RB Setup Timeout* (UE disconnected due to radio bearer setup timeout) • *RB Release Timeout* (UE disconnected due to radio bearer release timeout) • *Phych Reconfig Timeout* (UE disconnected due to physical channel reconfiguration timeout) • *Registration Forced Release* (Session disconnected due to inactivity on control plane during registration) • *Blind Handout Fail* (Session disconnected due to blind handout failure) • *Cleared Due To Session Limit Check* (Session cleared due to session limit check) • *Disconnect Due To Session Limit Check* (Session disconnected due to session limit check) • *RBReCfg Failed* (Failed to reconfigure radio bearers) • *RAB modify failure* (Failed to modify RAB) • *RRC Redirect* (RRC Redirect based on policy)
TimeOfLastStatsReset	-	dateTime	-	Timestamp of the last reset of statistics by {{ACS}}.
TimeOfLastStatsUpdate	-	dateTime	-	Timestamp of the last update of statistics by system.

Session.{i}.UMTS.

UMTS related parameters for the session.

Parameter	W	Type	Default	Description
RadioBearerNumberOfEntries	-	unsignedInt	-	Number of radio bearer table entries.

SnapshotNumberOfEntries	-	unsignedInt	-	Number of snapshot table entries.

Session.{i}.UMTS.CurrentStatus.

Parameters relating to the current status of the session.

Parameter	W	Type	Default	Description
CurrentSnapshotID	-	unsignedInt	-	The ID of the snapshot that represents the connected state of the session.
UMTSSessionID	-	unsignedInt	-	The UMTS session ID. Used for backwards compatibility.
CompressedModeActive	-	boolean	-	Indicates whether compressed mode is currently active.
CSDomainActive	-	boolean	-	Indicates whether the CS domain is currently active.
CSSessionType	-	enum	-	Connection state on the CS domain. Choice of [registration/Voice/VT/Emergency/Inactive]. This is same as FAPService.UMTS.Session.ConnType. Enumeration of: • *Emergency_FR* (Emergency call) • *Emergency_HR* (Emergency Call half rate) • *Emergency_WBAMR* (Emergency Call WB-AMR) • *Voice_FR* (Voice) • *Voice_HR* (Voice half rate) • *Voice_WBAMR* (Voice WB-AMR) • *Video* (Video telephony) • *SMS* (SMS) • *Registration* (Registration) • *UNKNOWN* (Type unknown)
PSDomainActive	-	boolean	-	Indicates whether the PS domain is currently active.
PSSessionType	-	enum	-	Connection state on the PS domain. Choice of: [registration/R99/HSDPA/HSUPA/Inactive]. This is same as FAPService.UMTS.Session.ConnType. Enumeration of:

				• *R99_64D_64U* (R99 Data 64K UL) • *R99_384D_64U* (R99 Data 384K DL 64K UL) • *HSDPA_64U* (HSDPA 64K UL) • *HSDPA_384U* (HSDPA 384K UL) • *HSPA* (HSDPA HSUPA) • *Registration* (Registration) • *UNKNOWN* (Type unknown) • *R99_64D_16U* (R99 Data 64K DL 16K UL) • *R99_384D_16U* (R99 Data 384K DL 16K UL) • *HSDPA_16U* (HSDPA 16K UL) • *HSPA_PLUS* (HSPA PLUS) • *HSPA_2MS* (HSDPA HSUPA 2MS TTI) • *HSPA_10MS* (HSDPA HSUPA 10MS TTI) • *HSPA_PLUS_2MS* (HSPA PLUS 2MS TTI) • *HSPA_PLUS_10MS* (HSPA PLUS 10MS TTI)

AdmissionControlPriority	-	unsignedInt	-	Admission control priority of session based on active RAB configuration.
CSGStatus	-	enum	-	Closed subscriber group status of the UE. Choice of [Unknown/Authorized/Unauthorized/CSG Inactive/Blacklisted]. Enumeration of: • *UNKNOWN* (Status unknown) • *Authorized* (Authorized) • *Unauthorized* (Unauthorized) • *CSG Inactive* (CSG inactive) • *Blacklisted* (Blacklisted)
RRCState	-	enum	-	Choice of [Cell_DCH/Cell_FACH/Cell_PCH]. This is same as FAPService.UMTS.Session.RRCState. Enumeration of: • *Cell_DCH* (Cell_DCH) • *Cell_FACH* (Cell_FACH) • *Cell_PCH* (Cell_PCH) • *URA_PCH* (URA_PCH) • *Idle* (Idle) • *UNKNOWN* (RRC state unknown)
UEConfigState	-	enum	-	UE RRC connection state. This is same as FAPService.UMTS.Session.RRCConnState. Enumeration of: • *Idle* (Idle) • *Connecting* (Connecting) • *Connected* (Connected) • *Disconnecting* (Disconnecting) • *Disconnected* (Disconnected) • *Rejecting* (Rejecting) • *Terminated* (Terminated) • *UNKNOWN* (State unknown)
NumActiveRBs	-	unsignedInt	-	Number of active radio bearers.
ActiveRBIndices	-	unsignedInt{0:10}	-	The indices in the DM of which radio bearer.{i} entries for the session are active. Array of *unsignedInt* items (minimum number of items 0, maximum number of items 10).

Session.{i}.UMTS.CurrentStatus.Airlink.

Parameters relating to the current airlink state of the session.

Parameter	W	Type	Default	Description
NumRadioLinks	-	unsignedInt	-	Number of radiolinks in the active set.
ServingCellHandle	-	unsignedInt	-	Cell handle of the current serving cell.
ActiveSetCellHandles	-	unsignedInt{1:6}	-	Array of cell handles of all cells in the active set. Array of *unsignedInt* items (minimum number of items 1, maximum number of items 6).

Session.{i}.UMTS.LastSignalingState.

Parameters relating to the last known message sent and received on various signaling protocols.

Parameter	W	Type	Default	Description

Session.{i}.UMTS.LastSignalingState.NAS.

Parameters relating to the most recent messages for the session on NAS.

Parameter	W	Type	Default	Description

Session.{i}.UMTS.LastSignalingState.NAS.DownlinkDT.

Parameters relating to the most recent downlink direct transfer message for the session.

Parameter	W	Type	Default	Description
ProtocolDiscriminator	-	unsignedInt	-	Protocol discriminator on the downlink direct transfer message.
MessageType	-	unsignedInt	-	Message type of the downlink direct transfer message.
Age	-	unsignedInt	-	Indication of the age of the message. This is incremented at each periodic poll from the statsMgr daemon.

Session.{i}.UMTS.LastSignalingState.NAS.UplinkDT.

Parameters relating to the most recent uplink direct transfer message for the session.

Parameter	W	Type	Default	Description
ProtocolDiscriminator	-	unsignedInt	-	Protocol discriminator on the uplink direct transfer message.
MessageType	-	unsignedInt	-	Message type of the uplink direct transfer message.
Age	-	unsignedInt	-	Indication of the age of the message. This is incremented at each periodic poll from the statsMgr daemon.

Session.{i}.UMTS.LastSignalingState.RANAP.

Parameters relating to the most recent messages for the session on RANAP.

Parameter	W	Type	Default	Description

Session.{i}.UMTS.LastSignalingState.RANAP.DownlinkRANAP.

Parameters relating to the most recent downlink RANAP message for the session.

Parameter	W	Type	Default	Description
Domain	-	enum	-	Indicates whether CS or PS domain. Enumeration of: • *CS Domain* (CS domain) • *PS Domain* (PS domain) • *UNKNOWN* (Unknown domain)
Message	-	unsignedInt	-	Message ID.
Age	-	unsignedInt	-	Indication of the age of the message. This is incremented at each periodic poll from the statsMgr daemon.

Session.{i}.UMTS.LastSignalingState.RANAP.UplinkRANAP.

Parameters relating to the most recent uplink RANAP message for the session.

Parameter	W	Type	Default	Description
Domain	-	enum	-	Indicates whether CS or PS domain. Enumeration of:

				• *CS Domain* (CS domain) • *PS Domain* (PS domain) • *UNKNOWN* (Unknown domain)
Message	-	unsignedInt	-	Message ID.
Age	-	unsignedInt	-	Indication of the age of the message. This is incremented at each periodic poll from the statsMgr daemon.

Session.{i}.UMTS.LastSignalingState.RRC.

Parameters relating to the most recent messages for the session on RRC.

Parameter	W	Type	Default	Description

Session.{i}.UMTS.LastSignalingState.RRC.DownlinkRRC.

Parameters relating to the most recent downlink RRC message for the session.

Parameter	W	Type	Default	Description
Channel	-	unsignedInt	-	Logical channel that the message was transmitted on.
MessageType	-	unsignedInt	-	Message ID.
Age	-	unsignedInt	-	Indication of the age of the message. This is incremented at each periodic poll from the statsMgr daemon.

Session.{i}.UMTS.LastSignalingState.RRC.UplinkRRC.

Parameters relating to the most recent uplink RRC message for the session.

Parameter	W	Type	Default	Description
Channel	-	unsignedInt	-	Logical channel that the message was received on.
MessageType	-	unsignedInt	-	Message ID.
Age	-	unsignedInt	-	Indication of the age of the message. This is incremented at each periodic poll from the statsMgr daemon.

Session.{i}.UMTS.Airlink.

Parameters relating to the airlink of the session.

Parameter	W	Type	Default	Description
ServiceClass	-	unsignedInt	-	Conditional access class of the UE.

Session.{i}.UMTS.Airlink.RLManagement.

Parameters relating to radiolink management for the session.

Parameter	W	Type	Default	Description
NumCreations	-	unsignedInt	-	Number of radiolink object creation operations in the system.
NumAdmissionCtrlFailures	-	unsignedInt	-	Number of instances that admission control prevented a radio link from being reconfigured or being added to the cell, due to resource constraints.
NumProvAttempts	-	unsignedInt	-	Number of radiolink creation attempts for the session. This will also include failures on FP due to running out of Ports.
NumProvFailures	-	unsignedInt	-	Number of radiolink creation failures for the session. May be due to lack of cell resources, FP transport creation failure or FP transport sync failure.
NumReprovAttempts	-	unsignedInt	-	Number of radiolink reprovisioning attempts for the session. Note: This should be renamed to Attempts.
NumReprovFailures	-	unsignedInt	-	Number of radiolink reprovisioning failures for the session. May be due to lack of cell resources.
NumRLFailuresReceived	-	unsignedInt	-	Number of radiolink failures received by the system. Failures are due to degraded UL SIR.
NumDeletes	-	unsignedInt	-	Number of radiolink deletion operations in the system.

Session.{i}.UMTS.Airlink.MobilityManagement.

Parameters relating to the management of mobility events for the session.

Parameter	W	Type	Default	Description
NumAsetAdds	-	unsignedInt	-	Number of successful active set updates which add a cell.

NumAsetDeletes	-	unsignedInt	-	Number of successful active set updates which delete a cell.
NumAsetSwaps	-	unsignedInt	-	Number of successful active set updates which add one cell and delete another.
NumServingCellChanges	-	unsignedInt	-	Number of successful serving cell changes to the cell for sessions on a cell. Note: This counter will not increment for R99 sessions.

Session.{i}.UMTS.Airlink.PHY.

Parameters relating to the physical layer for the session.

Parameter	W	Type	Default	Description
HSDPACategory	-	unsignedInt	-	HSDPA category class of the UE.
HSUPACategory	-	unsignedInt	-	HSUPA category class of the UE.

Session.{i}.UMTS.RadioBearer.{i}.

Parameters relating to the performance of the radio bearers associated with the session.

Parameter	W	Type	Default	Description
RLCMode	-	enum	-	The RLC mode for the radio bearer. Choice of [AM/UM/TM]. Enumeration of: • *AM* (Acknowledge Mode) • *UM* (Unacknowledge Mode) • *UMFSW* (Unacknowledge Mode Fast Switch)
RBType	-	enum	-	The type of radio bearer. Choice of [DTCH/DCCH]. Enumeration of: • *BCCH* (BCCH) • *PCCH* (PCCH) • *DCCH* (DCCH) • *CCCH* (CCCH) • *SHCCH* (SHCCH) • *DTCH* (DTCH) • *CTCH* (CTCH)

				• *MTCH* (MTCH) • *MSCH* (MSCH) • *MCCH* (MCCH) • *UNKNOWN* (Channel type unknown)
IsActive	-	boolean	-	Indicates the current state of a radio bearer.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.

Parameters relating to the performance of the RLC AM layer in the system.

Parameter	W	Type	Default	Description

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Downlink.

Parameters relating to the performance of the RLC AM layer on the downlink.

Parameter	W	Type	Default	Description
SDUsIngress	-	unsignedLong	-	Total number of SDUs sent to RLC in AM.
SDUsDropped	-	unsignedInt	-	SDUs dropped due to window full.
DataPDUsSent	-	unsignedLong	-	Number of transmitted data PDUs, including new transmissions only.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Downlink.StatusPDUInformation.

Parameters relating to the status PDUs received.

Parameter	W	Type	Default	Description
NumPDUsReceived	-	unsignedLong	-	Number of RLC STATUS PDUs received.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Downlink.StatusPDUInformation.AMDPDUCounts.

AMD PDU acknowledgement information.

Parameter	W	Type	Default	Description

Nack	-	unsignedLong	-	Number of nacks received for RLC AMD PDUs, counted per PDU.
Ack	-	unsignedLong	-	Number of unique acks received for RLC AMD PDUs, counted at most once per PDU.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Downlink.DataPDUsResent.

Parameters relating to the retransmission of data PDUs.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of data PDUs resent.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Downlink.DataPDUsResent.Cause.

Cause for retransmission of data PDUs.

Parameter	W	Type	Default	Description
TimerExpiry	-	unsignedInt	-	Number of data PDUs resent due to timer expiry.
Nack	-	unsignedInt	-	Number of data PDUs resent due to nack.
ServingCellChange	-	unsignedInt	-	Number of data PDUs resent due to serving cell change.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Downlink.ResetsSent.

Parameters relating to the resets on RLC AM.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of times the RLCAM sender transmitted a RESET control PDU, including retransmissions. Includes downlink RLC AM retransmissions of RLC RESET PDUs.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Downlink.ResetsSent.Cause.

Cause for RLC AM resets.

Parameter	W	Type	Default	Description
MaxDAT	-	unsignedInt	-	Reset triggered on reaching maximum transmissions for downlink PDUs.

SequenceNumberError	-	unsignedInt	-	Reset triggered when invalid nack received.
Timeout	-	unsignedInt	-	Reset triggered due to reset timer expiry for the UE.
Reassembly	-	unsignedInt	-	Reset triggered due to bad uplink data PDUs.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Downlink.State.

Parameters relating to the instantaneous state of RLC on the downlink.

Parameter	W	Type	Default	Description
VTs	-	unsignedInt	-	VT(S) sequence number of next send PDU.
VTa	-	unsignedInt	-	VT(A) sequence number of next ask PDU.
VTb	-	unsignedInt	-	VT(B) sequence number following that of the highest buffered PDU. This PDU may or may not have yet been sent down to the airlink queue
VTc	-	unsignedInt	-	VT(C) number of available credits. Note: VT(C)=2047 if and only if a flow is unconstrained.
VTdat	-	unsignedInt	-	VT(DAT) retransmit maximum.
VTms	-	unsignedInt	-	VT(MS) upper edge of window.
VTpdu	-	unsignedInt	-	This state variable is used when the poll every poll_PDU polling trigger is configured. it shall be incremented by 1 for each AMD PDU that is transmitted including both new and retransmitted AMD PDUs. When it becomes equal to the value poll_PDU, a new poll shall be transmitted and the state variable shall be set to zero.
VTsdu	-	unsignedInt	-	VT(SDU) SDU poll trigger.
VTreset	-	unsignedInt	-	VT(RST) reset PDU count.
VTmrw	-	unsignedInt	-	VT(MRW) move receiver, window count.
VTws	-	unsignedInt	-	VT(WS) window size.
NumResets	-	unsignedInt	-	Number of times the RLC AM state MAChine was reset. Includes both downlink-initiated and uplink-initiated resets.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Uplink.

Parameters relating to the performance of the RLC AM layer on the uplink.

Parameter	W	Type	Default	Description
DataPDUsReceived	-	unsignedLong	-	Number of data PDUs received, including duplicates and errors. Note that de-duplication due to R99 uplink macro-diversity reception is done at MAC and is not included.
ResetsReceived	-	unsignedLong	-	Number of uplink resets.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Uplink.StatusPDUInformation.

Parameters relating to the status PDUs sent.

Parameter	W	Type	Default	Description
NumPDUsSent	-	unsignedLong	-	Number of RLC STATUS PDUs transmitted.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Uplink.StatusPDUInformation.AMDPDUCounts.

AMD PDU acknowledgement information.

Parameter	W	Type	Default	Description
Nack	-	unsignedLong	-	Number of nacks sent for RLC AMD PDUs, counted per PDU.
Ack	-	unsignedLong	-	Number of unique acks sent for RLC AMD PDUs, counted at most once per PDU.

Session.{i}.UMTS.RadioBearer.{i}.RLCAM.Uplink.State.

Parameters relating to the instantaneous state of RLC on the uplink.

Parameter	W	Type	Default	Description
VRr	-	unsignedInt	-	VR(R) sequence number + 1 of last in-sequence PDU received.
VRh	-	unsignedInt	-	VR(H) highest sequence number received.
VRep	-	unsignedInt	-	VR(EP).
VRmr	-	unsignedInt	-	VR(MR) upper edge of receive window.
VRws	-	unsignedInt	-	VR(WS) receive window size.

Session.{i}.UMTS.RadioBearer.{i}.RLCUM.

Parameters relating to the performance of the RLC UM layer in the system.

Parameter	W	Type	Default	Description

Session.{i}.UMTS.RadioBearer.{i}.RLCUM.Downlink.

Parameters relating to the performance of the RLC UM layer on the downlink.

Parameter	W	Type	Default	Description

Session.{i}.UMTS.RadioBearer.{i}.RLCUM.Downlink.State.

Parameters relating to the instantaneous state of RLC on the downlink.

Parameter	W	Type	Default	Description
VTs	-	unsignedInt	-	VT(S) sequence number of next send PDU.

Session.{i}.UMTS.RadioBearer.{i}.RLCUM.Uplink.

Parameters relating to the performance of the RLC UM layer on the uplink.

Parameter	W	Type	Default	Description

Session.{i}.UMTS.RadioBearer.{i}.RLCUM.Uplink.State.

Parameters relating to the instantaneous state of RLC on the uplink.

Parameter	W	Type	Default	Description
VRh	-	unsignedInt	-	VR(H) sequence number + 1 of highest received put.

Session.{i}.UMTS.Snapshot.{i}.

Parameters relating to snapshot.

Parameter	W	Type	Default	Description
IsHistorical	-	boolean	-	If set, indicates that this snapshot has expired. There may or may not be a newer snapshot associated with the given session.
SessionID	-	unsignedInt	-	Master session ID corresponding to this snapshot.
CreationCause	-	enum	-	Cause for creation of the snapshot. For example, serving cell change/multiRAB/compressed mode/FACH-DCH transitions/reset of statistics. Enumeration of: • *CLI Reset* (Session reset by {{ACS}}) • *New Session* (New session created) • *Serving Cell Change* (Serving cell for existing session has changed) • *Active Set Add* (Radiolink added to the active set of the UE) • *Active Set Delete* (Radiolink deleted from the active set of the UE) • *MultiRAB Add* (RAB added to an existing session) • *MultiRAB Delete* (RAB deleted but the session is still connected) • *CM Activate* (Session enters compressed mode) • *CM Deactive* (Session exits compressed mode) • *Session Deletion* (Radiolink deletion that causes a session deletion) • *Cell_DCH to Cell_FACH* (Transition from Cell_DCH state to Cell_FACH) • *Cell_FACH to Cell_DCH* (Transition from Cell_FACH to Cell_DCH state) • *Cell_FACH to Cell_PCH* (Transition from Cell_FACH state to Cell_PCH state) • *Cell_PCH to Cell_FACH* (Transition from Cell_PCH to Cell_FACH state) • *UNKNOWN* (Cause unknown) • *Still Active* (Still active) • *ServicesNode Rebooted* ({{ServicesNode}} rebooted while the session was active) • *IMSI Update* (Update IMSI in session record based on contents of identity response message from UE) • *IMEI Update* (Update IMEI in session record based on contents of identity response message from UE to CN) • *UL Rate Change* (Change in uplink data rate through RB Reconfiguration) • *MultiRAB Mod* (RAB modified for an existing session) • *Cell_DCH to Cell_PCH* (Transition from Cell_DCH state to Cell_PCH) • *Cell_PCH to Cell_DCH* (Transition from Cell_PCH state to Cell_DCH)
StartTime	-	dateTime	-	Time at which snapshot was created.
TerminationCause	-	enum	-	Cause for deletion of the snapshot. For example, serving cell change/multiRAB/compressed mode/FACH-DCH transitions/reset of statistics. Enumeration of: • *CLI Reset* (Session reset by {{ACS}}) • *New Session* (New session created) • *Serving Cell Change* (Serving cell for existing session has changed) • *Active Set Add* (Radiolink added to the active set of the UE)

				• *Active Set Delete* (Radiolink deleted from the active set of the UE) • *MultiRAB Add* (RAB added to an existing session) • *MultiRAB Delete* (RAB deleted but the session is still connected) • *CM Activate* (Session enters compressed mode) • *CM Deactive* (Session exits compressed mode) • *Session Deletion* (Radiolink deletion that causes a session deletion) • *Cell_DCH to Cell_FACH* (Transition from Cell_DCH state to Cell_FACH) • *Cell_FACH to Cell_DCH* (Transition from Cell_FACH to Cell_DCH state) • *Cell_FACH to Cell_PCH* (Transition from Cell_FACH state to Cell_PCH state) • *Cell_PCH to Cell_FACH* (Transition from Cell_PCH to Cell_FACH state) • *UNKNOWN* (Cause unknown) • *Still Active* (Still active) • *ServicesNode Rebooted* ({{ServicesNode}} rebooted while the session was active) • *IMSI Update* (Update IMSI in session record based on contents of identity response message from UE) • *IMEI Update* (Update IMEI in session record based on contents of identity response message from UE to CN) • *UL Rate Change* (Change in uplink data rate through RB Reconfiguration) • *MultiRAB Mod* (RAB modified for an existing session) • *Cell_DCH to Cell_PCH* (Transition from Cell_DCH state to Cell_PCH) • *Cell_PCH to Cell_DCH* (Transition from Cell_PCH state to Cell_DCH)
EndTime	-	dateTime	-	Time at which snapshot was terminated.
TimeOfLastStatsUpdate	-	dateTime	-	Timestamp of the last update of statistics by system.
RadioLinkNumberOfEntries	-	unsignedInt	-	Number of radiolink table entries.

Session.{i}.UMTS.Snapshot.{i}.RadioLink.{i}.

Parameters relating to the airlink performance of a radiolink associated with the snapshot.

Parameter	W	Type	Default	Description
CellHandle	-	unsignedInt	-	Cell handle corresponding to the radiolink.
RLID	-	unsignedInt	-	Radiolink identifier on the DSP - invalid if radiolink is not currently active.
PSC	-	unsignedInt	-	PSC of the cell associated with this radiolink.
IsActive	-	boolean	-	Indicates the current state of a radiolink.
IsServingCell	-	unsignedInt	-	Indicates whether this is the serving radiolink.

DLPowerCappedCount	-	unsignedInt	-	Number of 10ms frames during which the radiolink downlink power was at maximum.
ULSIRTargetHist	-	unsignedInt{41}	-	Histogram of uplink SIR target, range: *[0:0.25:10]dB.* Note: While this statistic is accurate per RL, during soft handoff there are multiple radiolink that may be present for only a fraction of the duration of the snapshot, so it is not possible to generate an aggregate histogram across the snapshot. This is an issue only for R99 only session, since for HSPA sessions, the serving cell is present for the entire duration of the snapshot. Array of *unsignedInt* items (maximum number of items 41).
ULSIREstimateHist	-	unsignedInt{19}	-	Histogram of uplink measured SIR, range: *[-4:1:14]dB.* Array of *unsignedInt* items (maximum number of items 19).
ULFrequencyEstimateHist	-	unsignedInt{32}	-	Histogram of uplink measured frequency offset. Array of *unsignedInt* items (maximum number of items 32).
DLEcIorHist	-	unsignedInt{21}	-	Histogram of ratio of downlink radiolink power to maximum cell transmit power, range: *[-40:2:0]dB.* Array of *unsignedInt* items (maximum number of items 21).

Session.{i}.UMTS.Snapshot.{i}.RadioLink.{i}.SyncStateTransitions.

Parameters relating to the uplink synchronization state transitions for the radiolink.

Parameter	W	Type	Default	Description
InitialToInSync	-	unsignedInt	-	Number of initial to inSync state transitions.
InitialToFailing	-	unsignedInt	-	Number of initial to failing state transitions.
InSyncToFailing	-	unsignedInt	-	Number of inSync to failing state transitions.
FailingToOutSync	-	unsignedInt	-	Number of failing to outSync state transitions.
InSyncToGoodSync	-	unsignedInt	-	Number of inSync to goodSync state transitions.
GoodSyncToInSync	-	unsignedInt	-	Number of goodSync to inSync state transitions.

Session.{i}.UMTS.Snapshot.{i}.RadioLink.{i}.DLTPCRejectionRate.

Parameters relating to the downlink TPC rejection rate on the radiolink.

Parameter	W	Type	Default	Description
CumulativeSum	-	unsignedInt	-	Number of downlink TPC commands rejected.
NumObservations	-	unsignedInt	-	Number of 10ms frames over which this object has been measured.

Session.{i}.UMTS.Snapshot.{i}.HSDPA.

Parameters relating to the operation of the HSDPA scheduler for the UE.

Parameter	W	Type	Default	Description
DataInOutNumberOfEntries	-	unsignedInt	-	Number of dataInOut table entries.

Session.{i}.UMTS.Snapshot.{i}.HSDPA.LinkAdaptation.

Parameters relating to transport block selection.

Parameter	W	Type	Default	Description
CQIReportedHist	-	unsignedInt{37}	-	Histogram of decoded CQI reports accounting every decode, range: *[0:36]*. Array of *unsignedInt* items (maximum number of items 37).
CQIModifiedHist	-	unsignedInt{37}	-	Histogram of filtered CQI reports, with adjustment for changes in HS-PDSCH power. Includes those TTI with data scheduled to the UE. Array of *unsignedInt* items (maximum number of items 37).
CQITxHist	-	unsignedInt{37}	-	Histogram of ideal CQI identified by link adaptation, with adjustment for UE category class and HS configuration. Includes those TTI with data scheduled to the UE. Array of *unsignedInt* items (maximum number of items 37).
CQISelectHist	-	unsignedInt{37}	-	Histogram of final CQI values applied, based on CQI transmitted and buffer depth. Includes those TTI with data scheduled to the UE. Array of *unsignedInt* items (maximum number of items 37).
OLLABiasHist	-	unsignedInt{81}	-	Histogram of outer loop link adaptation bias per UE, range: *[-10:0.25:10]dB*. Array of *unsignedInt* items (maximum number of items 81).

Session.{i}.UMTS.Snapshot.{i}.HSDPA.HSSCCHUtilization.

Parameters relating to HS-SCCH utilization for the user.

Parameter	W	Type	Default	Description
NumNewTx	-	unsignedInt	-	Number of HARQ new transmissions scheduled to the UE.
NumReTx	-	unsignedInt	-	Number of HARQ retransmissions scheduled to the UE.
UserScheduledCount	-	unsignedInt	-	Number of TTI with data scheduled for the UE.
NumObservations	-	unsignedInt	-	Number of TTI over which this object has been accumulated.

Session.{i}.UMTS.Snapshot.{i}.HSDPA.DataInOut.{i}.

Parameters relating to downlink airlink queues for the UE.

Parameter	W	Type	Default	Description
NumHSDPAPDUsSent	-	unsignedInt	-	Number of PDUs contained in HARQ new transmissions scheduled to the UE.
NumFlushOperations	-	unsignedInt	-	Number of queue flush operations performed.
NumPDUsDiscarded	-	unsignedInt	-	Number of PDUs discarded at the ingress of the airlink queue.
BufferOccupancyHist	-	unsignedInt{40}	-	Histogram with bin size 50 of number of PDUs enqueued, updated when an FP frame is processed with data for the airlink queue. Note: This is not updated at a regular tick, so is biased. This will get resolved in v1.5. Array of *unsignedInt* items (maximum number of items 40).

Session.{i}.UMTS.Snapshot.{i}.HSDPA.DataInOut.{i}.HSDPAPDUsRx.

Parameters relating to the number of data PDUs received for the airlink queue.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of PDUs received.

Session.{i}.UMTS.Snapshot.{i}.HSDPA.DataInOut.{i}.HSDPAPDUsRx.Type.

Parameters relating to the type of HSDPA PDUs received.

Parameter	W	Type	Default	Description

UM	-	unsignedInt	-	Number of UM PDUs received.
AMNew	-	unsignedInt	-	Number of new AM PDUs received.
AMReTx	-	unsignedInt	-	Number of AM retransmit PDUs received.
AmCtrl	-	unsignedInt	-	Number of AM control PDUs received.

Session.{i}.UMTS.Snapshot.{i}.HSDPA.DataInOut.{i}.FPMsgsRx.

Parameters relating to the number of FP frames received with data for the airlink queue.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of frames received.

Session.{i}.UMTS.Snapshot.{i}.HSDPA.DataInOut.{i}.FPMsgsRx.Type.

Parameters relating to the type of FP frames received.

Parameter	W	Type	Default	Description
UM	-	unsignedInt	-	Number of UM frames received.
AMNew	-	unsignedInt	-	Number of new AM frames received.
AMReTx	-	unsignedInt	-	Number of AM retransmit frames received.
AmCtrl	-	unsignedInt	-	Number of AM control frames received.

Session.{i}.UMTS.Snapshot.{i}.HSDPA.HSDPCCHDecode.

Parameters relating to HS-DPCCH decodes.

Parameter	W	Type	Default	Description
Ack	-	unsignedInt	-	Number of HARQ ACKs decoded for HARQ transmissions to the UE.
Nack	-	unsignedInt	-	Number of HARQ NACKs decoded for HARQ transmissions to the UE.

DTXLowSIR	-	unsignedInt	-	Number of HARQ decode indications for which DPCCH SIR decoding threshold not met.
DTXLowCorrelation	-	unsignedInt	-	Number of HARQ decode indications for which decode correlation threshold not met.

Session.{i}.UMTS.Snapshot.{i}.HSDPA.HARQ.

Parameters relating to HARQ transmissions per transaction to the UE.

Parameter	W	Type	Default	Description
HARQNumTxHist	-	unsignedInt{6}	-	Histogram of number of HARQ transmissions per HARQ transaction, range: *[1:6]*. Array of *unsignedInt* items (maximum number of items 6).
HARQGiveup	-	unsignedInt	-	Number of HARQ transaction failures.

Session.{i}.UMTS.Snapshot.{i}.HSUPA.

Parameters relating to the performance of the HSUPA feature.

Parameter	W	Type	Default	Description
LinkNumberOfEntries	-	unsignedInt	-	Number of link table entries.

Session.{i}.UMTS.Snapshot.{i}.HSUPA.Link.{i}.

Parameters relating to the performance of all HSUPA uplinks - both served and non-served.

Parameter	W	Type	Default	Description
CellHandle	-	unsignedInt	-	Cell handle corresponding to the radiolink in the active set.
IsActive	-	boolean	-	Indicates if this radiolink is currently in the active set.
IsServingCell	-	unsignedInt	-	Indicates if this radiolink is currently the serving radiolink.
ETFCIDecodeDiscards	-	unsignedInt	-	Number of ETFCIs discarded due to invalid values.
ETFCIDecodeLate	-	unsignedInt	-	Number of ETFCI decodes that do not arrive in time for the corresponding HICH.
HARQNumRxHist	-	unsignedInt{4}	-	Histogram of rsn0, rsn1, rsn2, and rsn3 decodes on a radiolink, range: *[0:3]*.

				Array of *unsignedInt* items (maximum number of items 4).
TEBSHist	-	unsignedInt{32}	-	Histogram of the total E-DCH buffer size reports received on a radiolink, range: *[0:31]*. Array of *unsignedInt* items (maximum number of items 32).
UPHHist	-	unsignedInt{32}	-	Histogram of the UE uplink power headroom reports received on a radiolink, range: *[0:31]*. Array of *unsignedInt* items (maximum number of items 32).
RGCHUpTriggered	-	unsignedInt	-	Number of RGCH UP commands issued on a radiolink.
RGCHDownTriggered	-	unsignedInt	-	Number of RGCH DOWN commands issued on a radiolink.

Session.{i}.UMTS.Snapshot.{i}.HSUPA.Link.{i}.MACDPDUsReceived.

Parameters relating to the MAC-d PDUs received on a link.

Parameter	W	Type	Default	Description
DTCH	-	unsignedInt	-	Number of MAC-d PDUs received on the DTCH.
DCCH	-	unsignedInt	-	Number of MAC-d PDUs received on the DCCH.

Session.{i}.UMTS.Snapshot.{i}.HSUPA.Scheduler.

Parameters relating to the performance of the HSUPA scheduler.

Parameter	W	Type	Default	Description
HighGrantHist	-	unsignedInt{32}	-	Histogram of allocated high grant, range: *[0:31]*. Array of *unsignedInt* items (maximum number of items 32).

Session.{i}.UMTS.Snapshot.{i}.HSUPA.Scheduler.Grants.

Parameters relating to the performance of grant allocation in the HSUPA scheduler.

Parameter	W	Type	Default	Description
High	-	unsignedInt	-	Number of subframes when UE had a high grant.
Low	-	unsignedInt	-	Number of subframes when UE had a low grant.

Zero	-	unsignedInt	-	Number of subframes when UE had a zero grant.
NumObservations	-	unsignedInt	-	Total number of subframes over which grants are computed.

Session.{i}.UMTS.Snapshot.{i}.HSUPA.Scheduler.AverageHighSchedDelay.

Parameters relating to the allocation of high grant.

Parameter	W	Type	Default	Description
CumulativeSum	-	unsignedInt	-	Time between reception of TEBS report indicating large E-DCH buffer to allocation of high grant.
NumObservations	-	unsignedInt	-	Total number of high grant allocations for this the UE.

Session.{i}.UMTS.Snapshot.{i}.HSUPA.Scheduler.Events.

Parameters relating to the performance of AGCH utilization.

Parameter	W	Type	Default	Description
A1	-	unsignedInt	-	Number of high grant retransmission backoffs.
A2	-	unsignedInt	-	Number of low-to-zero grant transitions.
A3	-	unsignedInt	-	Number of zero-to-low grant transitions.
A4	-	unsignedInt	-	Number of transitions to high grant.
A5	-	unsignedInt	-	Number of retransmissions of high grant.
A6	-	unsignedInt	-	Number of quells of false high grant decodes.
A7	-	unsignedInt	-	Number of transitions out of high grant.

UE.{i}.

Parameters relating to the UE.

Parameter	W	Type	Default	Description

IMSI	-	string(15)	-	IMSI of the UE.
IMEI	-	string(15)	-	IMEI of the UE if available.
MSISDN	-	string(15)	-	MSISDN of the UE if available.
TimeOfLastStatsReset	-	dateTime	-	Timestamp of the last reset of statistics by {{ACS}}.
IsActive	-	boolean	-	Indicates whether the UE is currently in UMTS connected state and has a session context in the system.
LastAssociatedSessionIndex	-	unsignedInt	-	Index (0 based) of the Master session ID for the most recent connections from this UE.
AssociatedSessionIDs	-	unsignedInt{0:50}	-	Master session IDs for the most recent connections from this UE. Note: This record has a depth of 50, so the reference to older sessions is lost, even though the session records may still be available. Array of *unsignedInt* items (minimum number of items 0, maximum number of items 50).

UE.{i}.LastConnection.

Parameters relating to the last session by the UE.

Parameter	W	Type	Default	Description
RATType	-	enum	-	Radio access technology of last session known to belong to the UE. Note: This can currently only take a singular value of UMTS. Enumeration of: • *UMTS* (UMTS) • *GSM* (GSM) • *UNKNOWN* (Unknown RAT)
SessionID	-	unsignedInt	-	Master session ID of the last session
ConnectTime	-	dateTime	-	Connect time of last session.
ConnectCause	-	enum	-	Connect cause of the last session. Enumeration of: • *Emergency Call* (Emergency call) • *Voice* (Voice) • *Video Telephony* (Video telephony)

				• *SMS* (SMS) • *R99 Data* (R99 data) • *HSDPA* (HSDPA data) • *HSUPA* (HSUPA data) • *Hard HandIn* (Hard hand-in) • *Registration* (Registration) • *Detach* (Detach) • *UNKNOWN* (Cause unknown)

DisconnectTime	-	dateTime	-	Connect time of last session.
DisconnectCause	-	enum	-	Connect cause of the last session. Enumeration of: • *Normal Release* (Session deleted due to a normal release from core or from the UE) • *CN Disconnected* (Session deleted due to loss of connectivity with the core network) • *Internal error disconnecting RABs* (Internal error while disconnecting RABs for the domain) • *Internal error handling IDT* (Internal error while sending initial direct transfer message to cnctrlmod daemon) • *Internal error handling UDT* (Internal error while sending uplink direct transfer message to cnctrlmod daemon) • *CN Security config mismatch* (Security configuration mismatch in the core network) • *CN Security mode fail* (Failed to send security mode command to the UE) • *RRC Security Mode Command timeout* (Timeout while waiting for response to security mode command from the UE) • *RBSetup Failed* (Failed to setup radio bearers) • *RRC Conn Req in Connected State* (Received RRC connection request from a UE that is already connected) • *RRC Conn Setup timeout* (RRC connection timeout while waiting for RRC connection setup complete message from the UE) • *Unsupported RRC Establishment Cause* (Unsupported establishment cause) • *Unsupported Initial UE Identity* (Unsupported initial UE identity) • *Master Session Creation Failed* (Master session creation failed) • *Master Session Authentication Failed* (Master session authentication failed) • *Master Session Deleted* (Master session deleted) • *UE cleared by Admin* (UE cleared by {{ACS}}) • *All radiolinks failed* (Session deleted due to radiolink failure on all the radiolinks) • *RLC Reset* (Session deleted due to RLC max-reset on the downlink) • *Internal error during provisioning* (Internal failure while provisioning UE at RRC layer) • *Internal error during reprovisioning* (Internal failure while reprovisioning the UE) • *RB reconfig failure* (Disconnect on receiving RRC radio bearer reconfiguration failure command from the UE) • *RB release failure* (Disconnect on receiving RRC radio bearer release failure command from the UE) • *RAB create failure* (Failed to create RAB) • *RL Config failure* (Failed to configure radiolink) • *RL Provision failure* (Radiolink provisioning failed) • *RL Reprovision failure* (Radiolink reprovisioning failed) • *RL not found* (Radiolink not found) • *Failed to assign TF info* (Failed to assign transport format info) • *SRB Create fail* (Signaling radio bearer creation failed) • *Admission Control Fail* (Admission control check failed) • *Failed to send ASU* (Failed to send active set update command) • *RBReconfig failed* (Radio bearer reconfiguration failed) • *Failed to update serving cell* (Change of serving cell failed) • *Failed to find serving cell* (Failed to find serving cell while triggering a serving cell change) • *Timeout during SHO* (Soft handover timeout) • *HHO provisioning failed* (Provisioning for hard handover failed) • *Admission Control disconnect* (Session deleted by admission control)

				• *Cell change during RRC Connection* (UE moved to a different cell during RRC connection setup) • *Cell Dragging* (Session deleted due to excess cell dragging) • *Hard HandIn timeout* (Session disconnect on timeout while waiting for radio bearer reconfiguration complete for a UE that is being handed in) • *Hard HandOut timeout* (Disconnect on timeout while waiting for Iu release command from core network after sending radio bearer reconfiguration to UE on a handout) • *Cell_FACH RRC state cleared* (OBSOLETED, Session cleared because UE periodic location update not received while in Cell_FACH) • *Still Active* (Session is still active) • *UNKNOWN* (Cause unknown) • *Phy Chan Reconfig failed* (Physical channel reconfiguration failed) • *ServicesNode Rebooted* ({{ServicesNode}} rebooted while the session was active) • *PS IRAT Handout Not Supported* (PS interRAT handout not supported) • *RRC State Transition Failure* (RRC state transition failed) • *Cell_FACH T305 Expiry* (UE in Cell_FACH disconnected due to expiry of timer T305) • *Cell_FACH Admission Failure* (UE in Cell_FACH disconnected due to admission control rules) • *Cell_Update Error* (Cell update failed) • *RRC Paging Timeout* (Paging timeout during Cell_FACH state) • *Cell_FACH Inactivity Timeout* (UE disconnected due to data plane inactivity) • *PS Handout Not Supported* (Session disconnected due to PS handout not configured on the {{system}}) • *RB Setup Timeout* (UE disconnected due to radio bearer setup timeout) • *RB Release Timeout* (UE disconnected due to radio bearer release timeout) • *Phych Reconfig Timeout* (UE disconnected due to physical channel reconfiguration timeout) • *Registration Forced Release* (Session disconnected due to inactivity on control plane during registration) • *Blind Handout Fail* (Session disconnected due to blind handout failure) • *Cleared Due To Session Limit Check* (Session cleared due to session limit check) • *Disconnect Due To Session Limit Check* (Session disconnected due to session limit check) • *RBReCfg Failed* (Failed to reconfigure radio bearers) • *RAB modify failure* (Failed to modify RAB) • *RRC Redirect* (RRC Redirect based on policy)

UE.{i}.Visit.

Parameters relating to the last visit by the UE.

Parameter	W	Type	Default	Description
StartTime	-	dateTime	-	Start time of last visit.
EndTime	-	dateTime	-	End time of last visit.
SessionTerminatingCellHandle	-	unsignedInt	-	Cell handle of the cell on which the visit ended

UE.{i}.UMTS.

UMTS related parameters for the UE.

Parameter	W	Type	Default	Description

UE.{i}.UMTS.SessionManagement.

Session creation and deletion statistics.

Parameter	W	Type	Default	Description

UE.{i}.UMTS.SessionManagement.MasterSessionCreation.

Parameters relating to master session creation.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of master sessions created.

UE.{i}.UMTS.SessionManagement.MasterSessionCreation.Type.

Cause indicated in the RRC connection request message (or otherwise) when the session was initially created.

Parameter	W	Type	Default	Description
EmergencyCall	-	unsignedInt	-	Number of sessions established for emergency call.
Voice	-	unsignedInt	-	Number of sessions established for a voice call and SMS.
VideoTelephony	-	unsignedInt	-	Number of sessions established for video telephony.
SMS	-	unsignedInt	-	Note: SMS Counters are included in *UE.{i}.UMTS.SessionManagement.MasterSessionCreation.Type.Voice*.
R99Data	-	unsignedInt	-	Number of R99 session established for PS data.
HSDPA	-	unsignedInt	-	Number of HSDPA session established for PS data.
HSUPA	-	unsignedInt	-	Number of HSUPA session established for PS data.

HardHandIn	-	unsignedInt	-	Number of sessions established due to hard hand-in.
Registration	-	unsignedInt	-	Number of sessions established for registration with the core network.
Detach	-	unsignedInt	-	Number of sessions established for the purpose of detachment from core network.

UE.{i}.UMTS.SessionManagement.MasterSessionDeletion.

Parameters relating to master session deletion.

Parameter	W	Type	Default	Description
NormalRelease	-	unsignedInt	-	Number of master sessions that are terminated due to core network or UE indicated disconnect.
Sum	-	unsignedInt	-	Total number of master sessions terminated.

UE.{i}.UMTS.SessionManagement.MasterSessionDeletion.AbnormalRelease.

Number of master sessions that are terminated due to event triggers from the system and not by core network or UE indication.

Parameter	W	Type	Default	Description
Sum	-	unsignedInt	-	Total number of master sessions terminated due to event triggers from the system.

UE.{i}.UMTS.SessionManagement.MasterSessionDeletion.AbnormalRelease.Cause.

Parameters relating to abnormal release events by cause.

Parameter	W	Type	Default	Description
CNDisconnected	-	unsignedInt	-	Number of instances of sessions deleted due to loss of connectivity with the core network.
CNDiscDomainFail	-	unsignedInt	-	Number of instances of internal error while disconnecting RABs for the domain.
CNIDTFail	-	unsignedInt	-	Number of instances of internal error while sending initial direct transfer message to cnctrlmod daemon.
CNUDTFail	-	unsignedInt	-	Number of instances of internal error while sending uplink direct transfer message to cnctrlmod daemon.
CNInvalidSecurityCfg	-	unsignedInt	-	Number of instances of core network security configuration mismatch. i.e.: The choice of configurations from the CS and PS core do not match the supported algorithms.

CNSecurityModeFail	-	unsignedInt	-	Number of instances of internal error while sending security mode fail to cnctrlmod daemon.
RRCSecurityModeTimeout	-	unsignedInt	-	Number of instances of timeout while waiting for response to security mode command from the UE.
CNRBSetupFail	-	unsignedInt	-	Number of instances of failed to receive radio bearer setup complete or received radio bearer setup failure.
CNRBReCfgFail	-	unsignedInt	-	Number of instances of failed to receive radio bearer reconfiguration complete or received radio bearer reconfiguration failure.
InvalidConnReq	-	unsignedInt	-	Number of instances of session deleted because an RRC connection request is received from UE in connected state. This RRC connection request only cleans up the old session. Another RRC connection request from the UE will trigger the creation of a new session.
RRCConnTimeout	-	unsignedInt	-	Number of instances of RRC connection procedure timed out while waiting for RRC connection setup complete from the UE.
InvalidEstabCause	-	unsignedInt	-	Number of instances of unsupported establishment cause.
InvalidInitUEID	-	unsignedInt	-	Number of instances of unsupported initial UE identity. Only the following UE Identities are supported: IMSI, TMSI, P-TMSI, IMEI.
SessionCreateFail	-	unsignedInt	-	Number of instances of master session create failed.
SessionAuthFail	-	unsignedInt	-	Number of instances of master session authentication failed due to users not in the white list attempting to camp on system. Note: This implies that the system is operating in Closed Subscriber Group mode
SessionDeleted	-	unsignedInt	-	Number of instances of master session deleted. Currently unsupported.
AdminCleared	-	unsignedInt	-	Number of instances of number of sessions cleared by the {{ACS}}. Note: This is the same as UE cleared in the UE enum.
RLFail	-	unsignedInt	-	Number of instances of number of sessions deleted due to radiolink failure on all the radiolinks in the active set of the UE.
RLCReset	-	unsignedInt	-	Number of instances of sessions deleted due to RLC max-reset on the downlink.
ConnCfgFail	-	unsignedInt	-	Number of instances of internal error at RRC layer while provisioning the UE.
ConnRecfgFail	-	unsignedInt	-	Number of instances of internal error at RRC layer while reprovisioning the UE.
RBRecfgFail	-	unsignedInt	-	Number of instances of disconnect on receiving radio bearer reconfiguration fail from the UE.
RBReleaseFail	-	unsignedInt	-	Number of instances of disconnect on receiving RRC radio bearer release fail from the UE.
RABCreateFail	-	unsignedInt	-	Number of instances of disconnect due to internal error, including admission control failure, while creating a new RAB for the session.
RABModifyFail	-	unsignedInt	-	Number of instances of disconnect due to internal error, including admission control failure, while modifying an existing RAB for the session.

RLCfgFail	-	unsignedInt	-	Number of instances of internal error while configuring a radiolink.
RLProvFail	-	unsignedInt	-	Number of instances of failure to provision an radiolink for the session. There are various reasons for a radiolink provisioning failure but the most likely reason is loading too many radiolinks on a cell with the same tau-DCH value.
RLReprovFail	-	unsignedInt	-	Number of instances of failure to reprovisioning any radiolink in the radiolink set of a session. There are various reasons for a radiolink provisioning failure but the most likely reason is loading too many radiolinks on a cell with the same tau-DCH value.
RLNotfound	-	unsignedInt	-	Number of instances of internal error discovering an radiolink in the active set of a session.
TFCfgFail	-	unsignedInt	-	Number of instances of internal error generating transport format configuration.
SRBCfgFail	-	unsignedInt	-	Number of instances of internal error creating signaling radio bearers.
AdmissionCtrlFail	-	unsignedInt	-	Number of instances of sessions that were prevented from conenction due to admission control policies.
SHOActiveSetUpdateFail	-	unsignedInt	-	Number of instances of failed to send activ set update message or received active set update failure from the UE.
SHORBRecfgFail	-	unsignedInt	-	Number of instances of received radio bearer reconfiguration failure from the UE.
SHOUpdateServCellFail	-	unsignedInt	-	Number of instances of internal error attempting to transmit serving cell update message.
SHOSrvCellNotFound	-	unsignedInt	-	Number of instances of internal error looking up current serving cell while triggering a serving cell change.
SHOTimedOut	-	unsignedInt	-	Number of instances of session termination due to the active set update complete not being received before timer expiry.
HHOProvFail	-	unsignedInt	-	Number of instances of internal error during provisioning for a session being handed in.
AdmissionCtrlDisconnect	-	unsignedInt	-	Number of instances of number of sessions that were deleted after RABs were established due to admission control policies.
ConnCellChange	-	unsignedInt	-	Number of instances of UE moved to a different cell during RRC connection setup procedure.
CellDragging	-	unsignedInt	-	Number of sessions deleted due to excess cell dragging.
HHOInTimeout	-	unsignedInt	-	Number of instances of session disconnect on timeout while waiting for radio bearer reconfiguration complete for a UE that is being handed in.
HHOOutTimeout	-	unsignedInt	-	Number of instances of session disconnect on timeout while waiting for Iu release after sending radio bearer reconfiguration to UE on a handout.
PSIRATHandoutNotSupported	-	unsignedInt	-	Number of instances of disconnect due to no GSM handout for a PS only session that reported an Event 3A. Since handover of a PS session is not supported, an E3A is ignored.
PCRecfgFail	-	unsignedInt	-	Number of instances of disconnect on receiving physical channel reconfiguration fail from the UE.
RRCStateTransitionFailure	-	unsignedInt	-	Number of instances of disconnect due to RRC state transition failure.

CellFACHT305Expiry	-	unsignedInt	-	Number of instances of disconnect due to Cell_FACH keep alive timer expiry (i.e.: Periodic cell update timer expired).
CellFACHAdmissionFail	-	unsignedInt	-	Number of instances of disconnect due to Cell_FACH admission failure. This can happen when a UE in Cell_FACH selects a new cell but new cell is at capacity for Cell_FACH users.
CellUpdateError	-	unsignedInt	-	Number of instances of disconnect due to failure or unrecoverable error received in cell update message.
RRCPagingTimeout	-	unsignedInt	-	Number of instances of disconnect on paging timeout when UE is in Cell_FACH or Cell_PCH state.
CellFACHInactivity	-	unsignedInt	-	Number of instances of disconnect due to inactivity timer *FAPService.{i}.CellConfig.UMTS.RAN.FDDFAP.CellFACH.DisconnectInactivityTimer* expiry.
PSHandoutNotSupported	-	unsignedInt	-	Number of instances of disconnect due to no UMTS handout for a PS only session after reporting an Event 2D. If UMTS handover for PS session is disabled, an E2D is ignored and compressed mode is not activated.
BlindHandoutFail	-	unsignedInt	-	Number of instances of forced disconnect due to failure to blind handout. Sessions that fail on the 1st blind handout attempt are disconnected.
RegistrationForcedRelease	-	unsignedInt	-	Number of instances of disconnect due to inactivity on control plane during registration. Note: The inactivity period is not configurable.
RBSetupTimeout	-	unsignedInt	-	Number of instances of disconnect due to radio bearer setup timeout when waiting for radio bearer setup complete from the UE.
RBReleaseTimeout	-	unsignedInt	-	Number of instances of disconnect due to radio bearer release timeout when waiting for radio bearer release complete from the UE.
PhychRecfgTimeout	-	unsignedInt	-	Number of instances of disconnect due to physical channel reconfiguration timeout when waiting for physical channel reconfiguration Complete from the UE.
ClearedDueToSessionLimitCheck	-	unsignedInt	-	Number of sessions cleared due to session limit check. Sessions are cleared when the number of UMTS sessions in the system reaches the maximum session limit. At this point a certain number of data sessions (as a % of maximum session limit) are cleared to make room for higher priority sessions like Voice and E911. These sessions are cleared without sending a Release message to the UE. The PS session could be in Cell_DCH, Cell_FACH or Cell_PCH state.
DisconnectDueToSessionLimitCheck	-	unsignedInt	-	Number of sessions disconnected due to session limit check. Sessions are disconnected when the number of UMTS sessions in the system crosses a certain % of the maximum session limit. At this point a certain number of sessions in Cell_PCH state are disconnected by sending a Release message to the UE.
PolicyBasedRRCRedirect	-	unsignedInt	-	Number of sessions disconnected due to redirection to macro based on policy.