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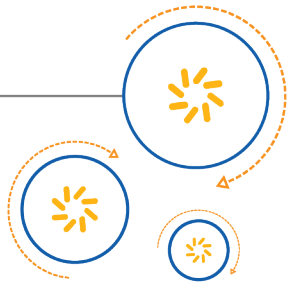

QMI IMSS 1.30 for MPSS.TH.1.0

QMI IMS Settings Svc Spec

80-NV400-32 B

February 20, 2015

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Revision History

Revision	Date	Description
A	Oct 2014	Initial release. Created from 80-NH952-32 AE. Updates for this revision include minor version 24 through minor version 28. Added new TLVs: • SIP Timer T4 (Sections 3.3.1, 3.8.2, and 3.14.1) • SIP Timer A (Sections 3.3.1, 3.8.2, and 3.14.1) • SIP Timer E (Sections 3.3.1, 3.8.2, and 3.14.1) • SIP Timer G (Sections 3.3.1, 3.8.2, and 3.14.1) • SIP Timer H (Sections 3.3.1, 3.8.2, and 3.14.1) • SIP Timer I (Sections 3.3.1, 3.8.2, and 3.14.1) • SIP Timer K (Sections 3.3.1, 3.8.2, and 3.14.1) • SMS PSI String (Sections 3.5.1, 3.10.2, and 3.16.1) • VoIP Configuration Conference Factory URI (Sections 3.7.1, 3.12.2, and 3.18.1) • Smallest RTP Port Number (Sections 3.25.1, 3.26.2, and 3.27.1) • Largest RTP Port Number (Sections 3.25.1, 3.26.2, and 3.27.1) • AMR-WB Octet Aligned Payload Type (Sections 3.25.1, 3.26.2, and 3.27.1) • AMR-WB Bandwidth Efficient Payload Type (Sections 3.25.1, 3.26.2, and 3.27.1) • AMR Octet Aligned Payload Type (Sections 3.25.1, 3.26.2, and 3.27.1) • AMR Bandwidth Efficient Payload Type (Sections 3.25.1, 3.26.2, and 3.27.1) • DTMF Wideband Payload Type (Sections 3.25.1, 3.26.2, and 3.27.1) • DTMF Narrowband Payload Type (Sections 3.25.1, 3.26.2, and 3.27.1) • AMR Default Encoding Mode (Sections 3.25.1, 3.26.2, and 3.27.1) • RegRetryBaseTime (Sections 3.37.1, 3.38.2, and 3.39.1) • RegRetryMaxTime (Sections 3.37.1, 3.38.2, and 3.39.1) • Wi-Fi Call Setting (Sections 3.52.1 and 3.53.2, and 3.54.1) • Wi-Fi Call Preference Setting (Sections 3.52.1, 3.53.2, and 3.54.1) • Wi-Fi Call Roaming Setting (Sections 3.52.1, 3.53.2, and 3.54.1) Added new message QMI_IMS_SETTINGS_SET_APCS_COMPLETE_CONFIG (Section 3.55)

Revision	Date	Description
B	Feb 2015	Updates for this revision include minor version 29 and minor version 30. Deprecated: • QMI_IMS_SETTINGS_SET_MEDIA_CONFIG command (Section 3.22) Added new TLVs: • Publish User Agent (Sections 3.43.1, 3.44.2, and 3.45.1) • Lipsync Drop Upper Limit (Sections 3.23.2 and 3.24.1) • Lipsync Drop Lower Limit (Sections 3.23.2 and 3.24.1) • RTP MTU Size (Sections 3.23.2 and 3.24.1) • QDJ Time Warping Enable Option (Sections 3.23.2 and 3.24.1) • QDJ IBA Maximum Value (Sections 3.23.2 and 3.24.1) • QDJ Maximum Frames to Start Dequeue (Sections 3.23.2 and 3.24.1) • QDJ Maximum Dejitter Delay (Sections 3.23.2 and 3.24.1) • QDJ Minimum Dejitter Delay (Sections 3.23.2 and 3.24.1) • QDJ Optimization2 Information (Sections 3.23.2 and 3.24.1) • QDJ Maximum Frames at Run (Sections 3.23.2 and 3.24.1) • QDJ Maximum Bumped Delay (Sections 3.23.2 and 3.24.1) • QDJ Jitter Increment (Sections 3.23.2 and 3.24.1) • QDJ Target Underflow Rate (Sections 3.23.2 and 3.24.1) • QDJ Drop Threshold (Sections 3.23.2 and 3.24.1) • Gap Minimum (Sections 3.23.2 and 3.24.1) • Transmit System Delay (Sections 3.23.2 and 3.24.1) • Receive System Delay (Sections 3.23.2 and 3.24.1) • Audio Offload (Sections 3.23.2 and 3.24.1)

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1 Introduction

1.1 Purpose

This specification documents Major Version 1 of the Qualcomm Messaging Interface (QMI) for IP Multimedia Subsystem Settings Service (QMI_IMSS).

QMI_IMSS provides the settings service to its control points. These services include interfaces to read configuration parameters and write configuration parameters. This service can be extended in the future to support other configuration parameters.

1.2 Scope

This document is intended for QMI clients to perform operations and to learn about settings service for Qualcomm MSM™ devices via the QMI_IMSS.

This document provides the following details about QMI_IMSS:

- Theory of operation – Chapter 2 provides the theory of operation of QMI_IMSS. The chapter includes messaging conventions, assigned QMI service type, fundamental service concepts, and state variables related to the service.
- Message formats, syntax, and semantics – Chapter 3 provides the specific syntax and semantics of messages included in this version of the QMI_IMSS specification.

1.3 Conventions

Function declarations, function names, type declarations, and code samples appear in a different font, for example, `#include`.

1.4 Technical Assistance

For assistance or clarification on information in this document, submit a case to Qualcomm Technologies at https://support.cdmatech.com.

If you do not have access to the CDMATech Support website, register for access or send email to support.cdmatech@qti.qualcomm.com.

2 Theory of Operation

2.1 Generalized QMI Service Compliance

The QMI_IMSS service complies with the generalized QMI service specification, including the rules for messages, indications and responses, byte ordering, arbitration, constants, result, and error code values described in 80-VB816-1. Extensions to the generalized QMI service theory of operation are noted in subsequent sections of this chapter.

2.2 QMI_IMSS Service Type

QMI_IMSS is assigned QMI service type 0x12.

2.3 Message Definition Template

2.3.1 Response Message Result TLV

This Type-Length-Value (TLV) is present in all Response messages defined in this document. It is not present in the Indication messages.

Name	Version introduced	Version last modified
Result Code	Corresponding response's *Version introduced*	Corresponding response's *Version last modified*

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x02			1	Result Code
Length	4			2	
Value	→	uint16	qmi_result	2	Result code • QMI_RESULT_SUCCESS • QMI_RESULT_FAILURE
		uint16	qmi_error	2	Error code – Possible error code values are described in the error codes section of each message definition

2.4 QMI_IMSS Fundamental Concepts

The QMI_IMSS service provides the settings service to its control points. These services include interfaces to read configuration parameters and write configuration parameters. This service can be extended in the future to support other configuration parameters.

Control points can also register for indications to be sent from the service when any of the configuration parameters change on the modem.

User-level applications use QMI_IMSS to access this functionality on the MSM device.

2.5 Service State Variables

2.5.1 Shared State Variables

No QMI_IMSS state variables are shared across control points.

3 QMI_IMSS Messages

Table 3-1 QMI_IMSS messages

Command	ID	Description
QMI_IMS_SETTINGS_GET_SUPPORTED_ MSGS	0x001E	Queries the set of messages implemented by the currently running software.
QMI_IMS_SETTINGS_GET_SUPPORTED_ FIELDS	0x001F	Queries the fields supported for a single command as implemented by the currently running software.
QMI_IMS_SETTINGS_SET_SIP_CONFIG	0x0020	Sets the IMS Session Initiation Protocol (SIP) configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_SET_REG_MGR_ CONFIG	0x0021	Sets the IMS registration manager configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_SET_SMS_CONFIG	0x0022	Sets the IMS SMS configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_SET_USER_CONFIG	0x0023	Sets the IMS user configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_SET_VOIP_CONFIG	0x0024	Sets the IMS Voice over Internet Protocol (VoIP) configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_GET_SIP_CONFIG	0x0025	Retrieves the SIP configuration parameters.
QMI_IMS_SETTINGS_GET_REG_MGR_ CONFIG	0x0026	Retrieves the registration manager configuration parameters.
QMI_IMS_SETTINGS_GET_SMS_CONFIG	0x0027	Retrieves the SMS configuration parameters.
QMI_IMS_SETTINGS_GET_USER_CONFIG	0x0028	Retrieves the user configuration parameters.
QMI_IMS_SETTINGS_GET_VOIP_CONFIG	0x0029	Retrieves the VoIP configuration parameters.
QMI_IMS_SETTINGS_CONFIG_IND_REG	0x002A	Sets the registration state for various settings service indications for the requesting control points.
QMI_IMS_SETTINGS_SIP_CONFIG_IND	0x002B	Indicates when the SIP configuration parameters change.

Table 3-1 QMI_IMSS messages (cont.)

Command	ID	Description
QMI_IMS_SETTINGS_REG_MGR_CONFIG_IND	0x002C	Indicates when the registration manager configuration parameters change.
QMI_IMS_SETTINGS_SMS_CONFIG_IND	0x002D	Indicates when the SMS configuration parameters change.
QMI_IMS_SETTINGS_USER_CONFIG_IND	0x002E	Indicates when the user configuration parameters change.
QMI_IMS_SETTINGS_VOIP_CONFIG_IND	0x002F	Indicates when the VoIP configuration parameters change.
QMI_IMS_SETTINGS_SET_PRESENCE_CONFIG	0x0030	Sets the IMS presence-related configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_GET_PRESENCE_CONFIG	0x0031	Retrieves the presence-related configuration parameters.
QMI_IMS_SETTINGS_PRESENCE_CONFIG_IND	0x0032	Indicates when the presence-related configuration parameters change.
QMI_IMS_SETTINGS_SET_MEDIA_CONFIG	0x0033	Sets the IMS media-related configuration parameters for the requesting control point. (Deprecated)
QMI_IMS_SETTINGS_GET_MEDIA_CONFIG	0x0034	Retrieves the media-related configuration parameters.
QMI_IMS_SETTINGS_MEDIA_CONFIG_IND	0x0035	Indicates when the media-related configuration parameters change.
QMI_IMS_SETTINGS_SET_QIPCALL_CONFIG	0x0036	Sets the IMS QIPCall-related configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_GET_QIPCALL_CONFIG	0x0037	Retrieves the QIPCall-related configuration parameters.
QMI_IMS_SETTINGS_QIPCALL_CONFIG_IND	0x0038	Indicates when the QIPCall-related configuration parameters change.
QMI_IMS_SETTINGS_GET_SIP_READ_ONLY_CONFIG	0x0039	Retrieves the SIP read-only-related configuration parameters.
QMI_IMS_SETTINGS_SIP_READ_ONLY_CONFIG_IND	0x003A	Indicates when the SIP read-only-related configuration parameters change.
QMI_IMS_SETTINGS_GET_NETWORK_READ_ONLY_CONFIG	0x003D	Retrieves the network read-only-related configuration parameters.
QMI_IMS_SETTINGS_NETWORK_READ_ONLY_CONFIG_IND	0x003E	Indicates when the network read-only-related configuration parameters change.
QMI_IMS_SETTINGS_GET_VOIP_READ_ONLY_CONFIG	0x003F	Retrieves the VoIP read-only-related configuration parameters.
QMI_IMS_SETTINGS_GET_USER_READ_ONLY_CONFIG	0x0040	Retrieves the user read-only-related configuration parameters.
QMI_IMS_SETTINGS_GET_REG_MGR_READ_ONLY_CONFIG	0x0041	Retrieves the registration manager read-only-related configuration parameters.

Table 3-1 QMI_IMSS messages (cont.)

Command	ID	Description
QMI_IMS_SETTINGS_GET_RCS_AUTO_CONFIG_READ_ONLY_CONFIG	0x0042	Retrieves the RCS automatic configuration read-only-related configuration parameters.
QMI_IMS_SETTINGS_GET_RCS_IMSCORE_AUTO_CONFIG_READ_ONLY_CONFIG	0x0043	Retrieves the RCS IMS core automatic configuration read-only-related configuration parameters.
QMI_IMS_SETTINGS_SET_REG_MGR_EXTENDED_CONFIG	0x0044	Sets the IMS registration manager extended configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_GET_REG_MGR_EXTENDED_CONFIG	0x0045	Retrieves the registration manager extended configuration parameters.
QMI_IMS_SETTINGS_REG_MGR_EXTENDED_CONFIG_IND	0x0046	Indicates when the registration manager extended configuration parameters change.
QMI_IMS_SETTINGS_SET_POL_MGR_CONFIG	0x0047	Sets the IMS policy manager configuration parameters for the requesting control point. (Deprecated)
QMI_IMS_SETTINGS_GET_POL_MGR_CONFIG	0x0048	Retrieves the policy manager configuration parameters.
QMI_IMS_SETTINGS_POL_MGR_CONFIG_IND	0x0049	Indicates when the policy manager configuration parameters change.
QMI_IMS_SETTINGS_SET_PRESENCE_EXT_CONFIG	0x004A	Sets the IMS presence extended-related configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_GET_PRESENCE_EXT_CONFIG	0x004B	Retrieves the presence extended-related configuration parameters.
QMI_IMS_SETTINGS_PRESENCE_EXT_CONFIG_IND	0x004C	Indicates when the presence extended-related configuration parameters change.
QMI_IMS_SETTINGS_SET_RCS_SM_CONFIG	0x004D	Sets the IMS RCS standalone messaging configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_GET_RCS_SM_CONFIG	0x004E	Retrieves the RCS standalone messaging configuration parameters.
QMI_IMS_SETTINGS_RCS_SM_CONFIG_IND	0x004F	Indicates when the RCS standalone messaging configuration parameters change.
QMI_IMS_SETTINGS_SET_UT_CONFIG	0x0050	Sets the IMS Ut Interface configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_GET_UT_CONFIG	0x0051	Retrieves the Ut Interface configuration parameters.
QMI_IMS_SETTINGS_UT_CONFIG_IND	0x0052	Indicates when the Ut Interface configuration parameters change.

Table 3-1 QMI_IMSS messages (cont.)

Command	ID	Description
QMI_IMS_SETTINGS_SET_CLIENT_ PROVISIONING_CONFIG	0x0053	Sets the IMS client provisioning configuration parameters for the requesting control point.
QMI_IMS_SETTINGS_GET_CLIENT_ PROVISIONING_CONFIG	0x0054	Retrieves the client provisioning configuration parameters.
QMI_IMS_SETTINGS_CLIENT_ PROVISIONING_CONFIG_IND	0x0055	Indicates when the client provisioning configuration parameters change.
QMI_IMS_SETTINGS_SET_APCS_ COMPLETE_CONFIG	0x0056	Sets the APCS_COMPLETE status for the requesting control point.

3.1 QMI_IMS_SETTINGS_GET_SUPPORTED_MSGS

Queries the set of messages implemented by the currently running software.

IMSS message ID

0x001E

Version introduced

Major - 1, Minor - 7

3.1.1 Request - QMI_IMS_SETTINGS_GET_SUPPORTED_MSGS_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.1.2 Response - QMI_IMS_SETTINGS_GET_SUPPORTED_MSGS_RESP

Message type

Response

Sender

Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Common version introduced	Common version last modified
Result Code	1.6	1.7

Optional TLVs

Name	Common version introduced	Common version last modified
List of Supported Messages	1.6	1.6

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	List of Supported Messages
Length	Var			2	
Value	→	uint16	supported_msgs_len	2	Number of sets of the following elements: • supported_msgs
		uint8	supported_msgs	Var	This array of uint8 is a bitmask where each bit represents a message ID, i.e., starting with the LSB, bit 0 represents message ID 0, bit 1 represents message ID 1, etc. The bit is set to 1 if the message is supported; otherwise, it is set to zero. For example, if a service supports exactly four messages with IDs 0, 1, 30, and 31 (decimal), the array (in hexadecimal) is 4 bytes [03 00 00 c0].

Error codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing
QMI_ERR_NO_MEMORY	Device could not allocate memory to formulate a response
QMI_ERR_INFO_UNAVAILABLE	Information is not available

3.1.3 Description of QMI_IMS_SETTINGS_GET_SUPPORTED_MSGS REQ/RESP

This command queries the set of messages implemented by the currently running software. This may be a subset of the messages defined in this revision of the service.

3.2 QMI_IMS_SETTINGS_GET_SUPPORTED_FIELDS

Queries the fields supported for a single command as implemented by the currently running software.

IMSS message ID

0x001F

Version introduced

Major - 1, Minor - 7

3.2.1 Request - QMI_IMS_SETTINGS_GET_SUPPORTED_FIELDS_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

Name	Common version introduced	Common version last modified
Service Message ID	1.6	1.6

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x01			1	Service Message ID
Length	2			2	
Value	→	uint16	msg_id	2	ID of the command for which the supported fields are requested.

Optional TLVs

None

3.2.2 Response - QMI_IMS_SETTINGS_GET_SUPPORTED_FIELDS_RESP

Message type

Response

Sender

Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Common version introduced	Common version last modified
Result Code	1.6	1.7

Optional TLVs

Name	Common version introduced	Common version last modified
List of Supported Request Fields	1.6	1.6
List of Supported Response Fields	1.6	1.6
List of Supported Indication Fields	1.6	1.6

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	List of Supported Request Fields
Length	Var			2	
Value	→	uint8	request_fields_len	1	Number of sets of the following elements: • request_fields
		uint8	request_fields	Var	This field describes which optional field IDs are supported in the QMI request. The array of uint8 is a bitmask where each bit represents a field (TLV) ID. Because fields 0 to 15 (decimal) are mandatory by definition, the first bit represents field ID 16. Starting with the LSB, bit 0 represents field ID 16, bit 1 represents field ID 17, etc. The bit is set to 1 if the field ID is supported; otherwise, it is set to zero. For example, if a service supports exactly four fields with IDs 16, 17, 30, and 31 (decimal), the array (in hexadecimal) is 2 bytes [03 c0].
Type	0x11			1	List of Supported Response Fields
Length	Var			2	
Value	→	uint8	response_fields_len	1	Number of sets of the following elements: • response_fields

Field	Field value	Field type	Parameter	Size (byte)	Description
		uint8	response_fields	Var	This field describes which optional field IDs are supported in the QMI response. Its format is the same as request_fields.
Type	0x12			1	List of Supported Indication Fields
Length	Var			2	
Value	→	uint8	indication_fields_len	1	Number of sets of the following elements: • indication_fields
		uint8	indication_fields	Var	This field describes which optional field IDs are supported in the QMI indication. Its format is the same as request_fields.

Error codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing
QMI_ERR_NO_MEMORY	Device could not allocate memory to formulate a response
QMI_ERR_REQUESTED_NUM_UNSUPPORTED	Requested message ID is not supported by the currently running software
QMI_ERR_MALFORMED_MSG	Message was not formulated correctly by the control point or the message was corrupted during transmission
QMI_ERR_INFO_UNAVAILABLE	Information is not available

3.2.3 Description of QMI_IMS_SETTINGS_GET_SUPPORTED_FIELDS REQ/RESP

This command queries the fields supported for a single command as implemented by the currently running software.

If the request, response, or indication is supported for the given message ID, the corresponding optional array is included in QMI_IMS_SETTINGS_GET_SUPPORTED_FIELDS_RESP, even if the message does not contain any optional fields. This enables the client to distinguish this case from one where the service does not support the request, response, or indication.

Examples are:

- If the specified message ID is not supported by the service, the response has qmi_result = QMI_RESULT_FAILURE and qmi_error = QMI_ERR_REQUESTED_NUM_UNSUPPORTED.
- If the specified message ID is an empty message, the response has qmi_result = QMI_RESULT_SUCCESS and qmi_error = QMI_ERR_NONE. None of the optional arrays are included.
- If the specified message ID supports the request with 0 optional fields, the response with 3 optional fields (16, 17, and 18 decimal), and does not support an indication, the response has the following:
  - qmi_result = QMI_RESULT_SUCCESS
  - qmi_error = QMI_ERR_NONE

– request_fields array is included with length zero

– response_fields array is included with length 1 value [07]

– indication_fields array is not included

Trailing zero bytes are omitted from the response. For example, if the message defines 20 different fields but the response only contains 16 bits, the client is to assume the last four fields are not supported.

3.3 QMI_IMS_SETTINGS_SET_SIP_CONFIG

Sets the IMS Session Initiation Protocol (SIP) configuration parameters for the requesting control point.

IMSS message ID

0x0020

Version introduced

Major - 1, Minor - 0

3.3.1 Request - QMI_IMS_SETTINGS_SET_SIP_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
SIP Port Number	1.0	1.0
Timer SIP Registration	1.0	1.0
Subscribe Timer	1.0	1.0
Timer T1	1.0	1.0
Timer T2	1.0	1.0
Timer TF	1.0	1.0
Sigcomp Status	1.0	1.0
Timer TJ	1.4	1.10
Timer TJ Extended	1.10	1.10
Keep Alive Status	1.10	1.10
NAT-RTO Timer Value	1.10	1.10
SIP_TIMER_OPERATOR_MODE_A Timer Value	1.17	1.17
SIP Timer B Value	1.20	1.20
SIP GRUU Support Enable Flag	1.20	1.20
SIP Transport Protocol Switch Support	1.20	1.20
SIP Maximum TCP Transport Backoff Timer Value	1.20	1.20
SIP GZIP Decoding Outbuffer Multiplier Value	1.20	1.20
SIP Timer D Value	1.23	1.23
SIP Timer T4	1.27	1.27

Name	Version introduced	Version last modified
SIP Timer A	1.27	1.27
SIP Timer E	1.27	1.27
SIP Timer G	1.27	1.27
SIP Timer H	1.27	1.27
SIP Timer I	1.27	1.27
SIP Timer K	1.27	1.27

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	SIP Port Number
Length	2			2	
Value	→	uint16	sip_local_port	2	Primary call session control function SIP port number.
Type	0x11			1	Timer SIP Registration
Length	4			2	
Value	→	uint32	timer_sip_reg	4	Initial SIP registration duration, in seconds, from the User Equipment (UE).
Type	0x12			1	Subscribe Timer
Length	4			2	
Value	→	uint32	subscribe_timer	4	Duration, in seconds, of the subscription by the UE for IMS registration notifications.
Type	0x13			1	Timer T1
Length	4			2	
Value	→	uint32	timer_t1	4	RTT estimate, in milliseconds.
Type	0x14			1	Timer T2
Length	4			2	
Value	→	uint32	timer_t2	4	Maximum retransmit interval, in milliseconds, for non-invite requests and invite responses.
Type	0x15			1	Timer TF
Length	4			2	
Value	→	uint32	timer_tf	4	Non-invite transaction timeout timer, in milliseconds.
Type	0x16			1	Sigcomp Status
Length	1			2	
Value	→	boolean	sigcomp_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x17			1	Timer TJ
Length	2			2	
Value	→	uint16	timer_tj	2	Wait time, in milliseconds, for the non-invite request retransmission. If the value exceeds the range of uint16, it is set to 0xFFFF.
Type	0x18			1	Timer TJ Extended
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint32	timer_tj_ext	4	Wait time, in milliseconds, for the non-invite request retransmission.
Type	0x19			1	Keep Alive Status
Length	1			2	
Value	→	boolean	keepalive_enabled	1	Values: • TRUE – Enable • FALSE – Disable (default)
Type	0x1A			1	NAT-RTO Timer Value
Length	4			2	
Value	→	uint32	nat_rto_timer	4	Request timeout value, in milliseconds, used in NAT implementation. Default value is 500.
Type	0x1B			1	SIP_TIMER_OPERATOR_MODE_A Timer Value
Length	4			2	
Value	→	uint32	sip_timer_operator_mode_a	4	SIP timer operator mode A, in seconds; valid range of values is 0 to 30. If this TLV is not included in the request, a value of 6 seconds is used.
Type	0x1C			1	SIP Timer B Value
Length	4			2	
Value	→	uint32	timer_tb_value	4	SIP timer B's value, in milliseconds. If this TLV is not included in the request, a value of 0 is used.
Type	0x1D			1	SIP GRUU Support Enable Flag
Length	1			2	
Value	→	boolean	gruu_enabled	1	SIP Globally Routable User-Agent URI (GRUU) support enable flag. If this TLV is not included in the request, a value of FALSE is used.
Type	0x1E			1	SIP Transport Protocol Switch Support
Length	1			2	
Value	→	boolean	transport_switch_enabled	1	SIP transport protocol switching support enable flag per RFC 3261. If this TLV is not included in the request, a value of FALSE is used.
Type	0x1F			1	SIP Maximum TCP Transport Backoff Timer Value
Length	4			2	
Value	→	uint32	tcp_max_backoff_timer_value	4	Maximum timeout, in milliseconds, for TCP transport of SIP packets after which SIP packets are sent via UDP. If this TLV is not included in the request, a value of 10000 (i.e., 10 seconds) is used.
Type	0x20			1	SIP GZIP Decoding Outbuffer Multiplier Value
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint8	gzip_decoding_outbuffer_ multiplier	1	SIP GZIP decoding outbuffer multiplier, the compression multiplier value. If this TLV is not included in the request, a value of 40 is used.
Type	0x21			1	SIP Timer D Value
Length	4			2	
Value	→	uint32	timer_td_value	4	SIP timer D's value, in milliseconds. Timer D is the wait time for response retransmits of the invite client transactions. If this TLV is not included in the request, a value of 130000 (i.e., 130 seconds) is used.
Type	0x22			1	SIP Timer T4
Length	4			2	
Value	→	uint32	timer_t4	4	SIP timer T4's value, in milliseconds. Timer T4 is the maximum duration that a SIP message can remain in the network.
Type	0x23			1	SIP Timer A
Length	4			2	
Value	→	uint32	timer_ta_value	4	SIP timer A's value, in milliseconds. Timer A is the INVITE request retransmit interval, for UDP only
Type	0x24			1	SIP Timer E
Length	4			2	
Value	→	uint32	timer_te_value	4	SIP timer E's value, in milliseconds. Timer E is the value Non-INVITE request retransmit interval, for UDP only.
Type	0x25			1	SIP Timer G
Length	4			2	
Value	→	uint32	timer_tg_value	4	SIP timer G's value, in milliseconds. Timer G is the value of INVITE response retransmit interval.
Type	0x26			1	SIP Timer H
Length	4			2	
Value	→	uint32	timer_th_value	4	SIP timer H's value, in milliseconds. Timer H is the value of wait time for ACK receipt.
Type	0x27			1	SIP Timer I
Length	4			2	
Value	→	uint32	timer_ti_value	4	SIP timer I's value, in milliseconds. Timer I is the value of wait time for ACK retransmits.
Type	0x28			1	SIP Timer K
Length	4			2	
Value	→	uint32	timer_tk_value	4	SIP timer K's value, in milliseconds. Timer K is the value of wait time for response retransmits.

3.3.2 Response - QMI_IMS_SETTINGS_SET_SIP_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.0	1.0

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	Settings standard response type. A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE. Values: • 0 – No error • 1 – Not ready • 2 – File not available • 3 – Message read failed • 4 – Message write failed • 5 – Other internal error

3.3.3 Description of QMI_IMS_SETTINGS_SET_SIP_CONFIG REQ/RESP

The request message from the client sets the IMS SIP configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.4 QMI_IMS_SETTINGS_SET_REG_MGR_CONFIG

Sets the IMS registration manager configuration parameters for the requesting control point.

IMSS message ID

0x0021

Version introduced

Major - 1, Minor - 0

3.4.1 Request - QMI_IMS_SETTINGS_SET_REG_MGR_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Primary Call Session Control Function Port	1.0	1.0
CSCF Port	1.0	1.0
IMS Test Mode	1.0	1.0

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Primary Call Session Control Function Port (CSCF)
Length	2			2	
Value	→	uint16	regmgr_config_pcscf_port	2	Primary call session control function port.
Type	0x11			1	CSCF Port
Length	Var			2	
Value	→	string	regmgr_primary_cscf	Var	Call session control port, fully qualified domain name.
Type	0x12			1	IMS Test Mode
Length	1			2	
Value	→	boolean	ims_test_mode_enabled	1	Values: • TRUE – Enable, no IMS registration • FALSE – Disable, IMS registration is initiated

3.4.2 Response - QMI_IMS_SETTINGS_SET_REG_MGR_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.0	1.0

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.4.3 Description of QMI_IMS_SETTINGS_SET_REG_MGR_CONFIG REQ/RESP

The request message sets the IMS registration manager configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.5 QMI_IMS_SETTINGS_SET_SMS_CONFIG

Sets the IMS SMS configuration parameters for the requesting control point.

IMSS message ID

0x0022

Version introduced

Major - 1, Minor - 0

3.5.1 Request - QMI_IMS_SETTINGS_SET_SMS_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
SMS Format	1.0	1.0
SMS Over IP Network Indication Flag	1.0	1.0
Phone Context Universal Resource Identifier	1.0	1.0
SMS PSI String	1.27	1.27

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	SMS Format
Length	1			2	
Value	→	enum8	sms_format	1	Values: • IMS_SETTINGS_SMS_FORMAT_3GPP2 (0) – 3GPP2 • IMS_SETTINGS_SMS_FORMAT_3GPP (1) – 3GPP
Type	0x11			1	SMS Over IP Network Indication Flag
Length	1			2	
Value	→	boolean	sms_over_ip_network_indication	1	Values: • TRUE – Turn on Mobile-Originated (MO) SMS • FALSE – Turn off MO SMS

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x12			1	Phone Context Universal Resource Identifier
Length	Var			2	
Value	→	string	phone_context_uri	Var	Phone context universal resource identifier.
Type	0x13			1	SMS PSI String
Length	Var			2	
Value	→	string	sms_psi	Var	SMS PSI string value.

3.5.2 Response - QMI_IMS_SETTINGS_SET_SMS_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.0	1.0

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.5.3 Description of QMI_IMS_SETTINGS_SET_SMS_CONFIG REQ/RESP

The request message from the client sets the IMS SMS configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.6 QMI_IMS_SETTINGS_SET_USER_CONFIG

Sets the IMS user configuration parameters for the requesting control point.

IMSS message ID

0x0023

Version introduced

Major - 1, Minor - 0

3.6.1 Request - QMI_IMS_SETTINGS_SET_USER_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
IMS Domain Name	1.0	1.0

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	IMS Domain Name
Length	Var			2	
Value	→	string	ims_domain	Var	IMS domain name.

3.6.2 Response - QMI_IMS_SETTINGS_SET_USER_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.0	1.0

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.6.3 Description of QMI_IMS_SETTINGS_SET_USER_CONFIG REQ/RESP

The request message sets the IMS user configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.7 QMI_IMS_SETTINGS_SET_VOIP_CONFIG

Sets the IMS Voice over Internet Protocol (VoIP) configuration parameters for the requesting control point.

IMSS message ID

0x0024

Version introduced

Major - 1, Minor - 1

3.7.1 Request - QMI_IMS_SETTINGS_SET_VOIP_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Session Duration	1.1	1.1
Minimum Session Timer	1.1	1.1
Enable AMR WB	1.1	1.1
Enable SCR for AMR	1.1	1.1
Enable SCR for AMR WB	1.1	1.1
AMR NB Modes Allowed	1.1	1.1
AMR WB Modes Allowed	1.1	1.1
AMR Octet Aligned	1.1	1.1
AMR WB Octet Aligned	1.1	1.1
Ringing Timer	1.1	1.1
Ringback Timer Duration	1.1	1.1
RTP/RTCP Inactivity Timer Duration	1.1	1.1
AMR NB Modes Allowed String	1.13	1.13
AMR WB Modes Allowed String	1.13	1.13
VoLTE to 1xRTT Silent Redial Flag	1.17	1.17
VoIP Preferred RTP Payload Type	1.19	1.19
VoIP Configuration Conference Factory URI	1.24	1.24

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Session Duration
Length	2			2	
Value	→	uint16	session_expiry_timer	2	Session duration, in seconds.
Type	0x11			1	Minimum Session Timer
Length	2			2	
Value	→	uint16	min_session_expiry	2	Minimum allowed value for session timer, in seconds.
Type	0x12			1	Enable AMR WB
Length	1			2	
Value	→	boolean	amr_wb_enable	1	Flag to enable/disable Adaptive Multirate codec (AMR) Wideband (WB) audio. Values: • TRUE – Enable • FALSE – Disable
Type	0x13			1	Enable SCR for AMR
Length	1			2	
Value	→	boolean	scr_amr_enable	1	Flag to enable/disable Source Controlled Rate (SCR) for AMR narrowband (NB). Values: • TRUE – Enable • FALSE – Disable
Type	0x14			1	Enable SCR for AMR WB
Length	1			2	
Value	→	boolean	scr_amr_wb_enable	1	Flag to enable/disable SCR for AMR WB audio. Values: • TRUE – Enable • FALSE – Disable
Type	0x15			1	AMR NB Modes Allowed
Length	1			2	
Value	→	uint8	amr_mode	1	Bitmask for AMR NB modes allowed. Values: • 0x1 – 4.75 kbps • 0x2 – 5.15 kbps • 0x4 – 5.9 kbps • 0x8 – 6.17 kbps • 0x10 – 7.4 kbps • 0x20 – 7.95 kbps • 0x40 – 10.2 kbps • 0x80 – 12.2 kbps
Type	0x16			1	AMR WB Modes Allowed
Length	2			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint16	amr_wb_mode	2	Bitmask for AMR WB modes allowed. Values: • 0x1 - 6.60 kbps • 0x2 - 8.85 kbps • 0x4 - 12.65 kbps • 0x8 - 14.25 kbps • 0x10 - 15.85 kbps • 0x20 - 18.25 kbps • 0x40 - 19.85 kbps • 0x80 - 23.05 kbps • 0x100 - 23.85 kbps
Type	0x17			1	AMR Octet Aligned
Length	1			2	
Value	→	boolean	amr_octet_align	1	Flag indicating whether the octet is aligned for AMR NB audio. Values: • TRUE – Aligned • FALSE – Not aligned, Bandwidth Efficient mode
Type	0x18			1	AMR WB Octet Aligned
Length	1			2	
Value	→	boolean	amr_wb_octet_align	1	Flag indicating if the octet is aligned for AMR WB audio. Values: • TRUE – Aligned • FALSE – Not aligned, Bandwidth Efficient mode
Type	0x19			1	Ringing Timer
Length	2			2	
Value	→	uint16	ringing_timer	2	Duration of the ringing timer, in seconds. The ringing timer starts on the ringing event. If the call is not answered within the duration of this timer, the call is disconnected.
Type	0x1A			1	Ringback Timer Duration
Length	2			2	
Value	→	uint16	ringback_timer	2	Duration of the ringback timer, in seconds. The ringback timer starts on the ringback event. If the call is not answered within the duration of this timer, the call is disconnected.
Type	0x1B			1	RTP/RTCP Inactivity Timer Duration
Length	2			2	
Value	→	uint16	rtp_rtcp_inactivity_timer	2	Duration of the RTP/RTCP inactivity timer, in seconds. If no RTP/RTCP packet is received before the expiration of this timer, the call is disconnected.

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x1C			1	AMR NB Modes Allowed String
Length	Var			2	
Value	→	string	amr_mode_str	Var	String consisting of AMR NB modes allowed.
Type	0x1D			1	AMR WB Modes Allowed String
Length	Var			2	
Value	→	string	amr_wb_mode_str	Var	String consisting of AMR WB modes allowed.
Type	0x1E			1	VoLTE to 1xRTT Silent Redial Flag
Length	1			2	
Value	→	boolean	voip_silent_redial_enabled	1	Flag that allows a device to silently redial over 1xRTT. If this TLV is not included in the request, a value of TRUE (i.e., enabled) is used.
Type	0x1F			1	VoIP Preferred RTP Payload Type
Length	2			2	
Value	→	uint16	voip_preferred_rtp_payload_type	2	Values for the VoIP preferred codec mode. Must be set only when G.711 support is required in addition to AMR and AMR-WB. Refer to Real-Time Transport Protocol (RTP) Parameters for possible values. If an unsupported codec value is set, CODEC MIME is the default audio codec and the G.711 codec is ignored.
Type	0x20			1	VoIP Configuration Conference Factory URI
Length	Var			2	
Value	→	string	voip_config_confURI	Var	VoIP configuration conference factory URI.

3.7.2 Response - QMI_IMS_SETTINGS_SET_VOIP_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.1	1.1

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.7.3 Description of QMI_IMS_SETTINGS_SET_VOIP_CONFIG REQ/RESP

The request message from the client sets the IMS VoIP configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.8 QMI_IMS_SETTINGS_GET_SIP_CONFIG

Retrieves the SIP configuration parameters.

IMSS message ID

0x0025

Version introduced

Major - 1, Minor - 0

3.8.1 Request - QMI_IMS_SETTINGS_GET_SIP_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.8.2 Response - QMI_IMS_SETTINGS_GET_SIP_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.0	1.0
SIP Local Port	1.0	1.0
SIP Registration Timer	1.0	1.0
Subscribe Timer	1.0	1.0

Name	Version introduced	Version last modified
Timer T1	1.0	1.0
Timer T2	1.0	1.0
Timer TF	1.0	1.0
Sigcomp Status	1.0	1.0
Timer TJ	1.4	1.10
Timer TJ Extended	1.10	1.10
Keep Alive Status	1.10	1.10
NAT-RTO Timer Value	1.10	1.10
SIP_TIMER_OPERATOR_MODE_A Timer Value	1.17	1.17
SIP Timer B Value	1.20	1.20
SIP GRUU Support Enable Flag	1.20	1.20
SIP Transport Protocol Switch Support	1.20	1.20
SIP Maximum TCP Transport Backoff Timer Value	1.20	1.20
SIP GZIP Decoding Outbuffer Multiplier Value	1.20	1.20
SIP Timer D Value	1.23	1.23
SIP Timer T4	1.27	1.27
SIP Timer A	1.27	1.27
SIP Timer E	1.27	1.27
SIP Timer G	1.27	1.27
SIP Timer H	1.27	1.27
SIP Timer I	1.27	1.27
SIP Timer K	1.27	1.27

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	Settings response.
Type	0x11			1	SIP Local Port
Length	2			2	
Value	→	uint16	sip_local_port	2	Primary call session control function SIP port number.
Type	0x12			1	SIP Registration Timer
Length	4			2	
Value	→	uint32	timer_sip_reg	4	Initial SIP registration duration, in seconds, from the UE.
Type	0x13			1	Subscribe Timer
Length	4			2	
Value	→	uint32	subscribe_timer	4	Duration, in seconds, of the subscription by the UE for IMS registration notifications.
Type	0x14			1	Timer T1
Length	4			2	
Value	→	uint32	timer_t1	4	RTT estimate, in milliseconds.

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x15			1	Timer T2
Length	4			2	
Value	→	uint32	timer_t2	4	Maximum retransmit interval, in milliseconds, for non-invite requests and invite responses.
Type	0x16			1	Timer TF
Length	4			2	
Value	→	uint32	timer_tf	4	Non-invite transaction timeout timer, in milliseconds.
Type	0x17			1	Sigcomp Status
Length	1			2	
Value	→	boolean	sigcomp_enabled	1	Values: • TRUE – SigComp enabled • FALSE – SigComp disabled
Type	0x18			1	Timer TJ
Length	2			2	
Value	→	uint16	timer_tj	2	Wait time, in milliseconds, for the non-invite request retransmission. If the value exceeds the range of uint16, it is set to 0xFFFF.
Type	0x19			1	Timer TJ Extended
Length	4			2	
Value	→	uint32	timer_tj_ext	4	Wait time, in milliseconds, for the non-invite request retransmission.
Type	0x1A			1	Keep Alive Status
Length	1			2	
Value	→	boolean	keepalive_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x1B			1	NAT-RTO Timer Value
Length	4			2	
Value	→	uint32	nat_rto_timer	4	Requests timeout value, in milliseconds, used in NAT implementation.
Type	0x1C			1	SIP_TIMER_OPERATOR_MODE_A Timer Value
Length	4			2	
Value	→	uint32	sip_timer_operator_ mode_a	4	SIP timer operator mode A, in seconds; valid range of values is 0 to 30. If this TLV is not included in the request, a value of 6 seconds is used.
Type	0x1D			1	SIP Timer B Value
Length	4			2	
Value	→	uint32	timer_tb_value	4	SIP timer B's value, in milliseconds. If this TLV is not included in the request, a value of 0 is used.
Type	0x1E			1	SIP GRUU Support Enable Flag
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	boolean	gruu_enabled	1	SIP GRUU support enable flag. If this TLV is not included in the request, a value of FALSE is used.
Type	0x1F			1	SIP Transport Protocol Switch Support
Length	1			2	
Value	→	boolean	transport_switch_enabled	1	SIP transport protocol switching support enable flag per RFC 3261. If this TLV is not included in the request, a value of FALSE is used.
Type	0x20			1	SIP Maximum TCP Transport Backoff Timer Value
Length	4			2	
Value	→	uint32	tcp_max_backoff_timer_value	4	Maximum timeout, in milliseconds, for TCP transport of SIP packets after which SIP packets are sent via UDP. If this TLV is not included in the request, a value of 10000 (i.e., 10 seconds) is used.
Type	0x21			1	SIP GZIP Decoding Outbuffer Multiplier Value
Length	1			2	
Value	→	uint8	gzip_decoding_outbuffer_multiplier	1	SIP GZIP decoding outbuffer multiplier, the compression multiplier value. If this TLV is not included in the request, a value of 40 is used.
Type	0x22			1	SIP Timer D Value
Length	4			2	
Value	→	uint32	timer_td_value	4	SIP timer D's value, in milliseconds. Timer D is the wait time for response retransmits of the invite client transactions.
Type	0x23			1	SIP Timer T4
Length	4			2	
Value	→	uint32	timer_t4	4	SIP timer T4's value, in milliseconds. Timer T4 is the maximum duration that a SIP message can remain in the network.
Type	0x24			1	SIP Timer A
Length	4			2	
Value	→	uint32	timer_ta_value	4	SIP timer A's value, in milliseconds. Timer A is the INVITE request retransmit interval, for UDP only
Type	0x25			1	SIP Timer E
Length	4			2	
Value	→	uint32	timer_te_value	4	SIP timer E's value, in milliseconds. Timer E is the value Non-INVITE request retransmit interval, for UDP only.
Type	0x26			1	SIP Timer G
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint32	timer_tg_value	4	SIP timer G's value, in milliseconds. Timer G is the value of INVITE response retransmit interval.
Type	0x27			1	SIP Timer H
Length	4			2	
Value	→	uint32	timer_th_value	4	SIP timer H's value, in milliseconds. Timer H is the value of wait time for ACK receipt.
Type	0x28			1	SIP Timer I
Length	4			2	
Value	→	uint32	timer_ti_value	4	SIP timer I's value, in milliseconds. Timer I is the value of wait time for ACK retransmits.
Type	0x29			1	SIP Timer K
Length	4			2	
Value	→	uint32	timer_tk_value	4	SIP timer K's value, in milliseconds. Timer K is the value of wait time for response retransmits.

3.8.3 Description of QMI_IMS_SETTINGS_GET_SIP_CONFIG REQ/RESP

The request message from the client gets the SIP configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the SIP configuration parameters to the control point.

3.9 QMI_IMS_SETTINGS_GET_REG_MGR_CONFIG

Retrieves the registration manager configuration parameters.

IMSS message ID

0x0026

Version introduced

Major - 1, Minor - 0

3.9.1 Request - QMI_IMS_SETTINGS_GET_REG_MGR_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.9.2 Response - QMI_IMS_SETTINGS_GET_REG_MGR_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.0	1.0

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.0	1.0
Proxy Call Session Control Function Port	1.0	1.0
Primary CSCF Port	1.0	1.0
IMS Test Mode	1.0	1.0

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	Proxy Call Session Control Function Port
Length	2			2	
Value	→	uint16	regmgr_config_pcscf_port	2	Proxy CSCF port.
Type	0x12			1	Primary CSCF Port
Length	Var			2	
Value	→	string	regmgr_primary_cscf	Var	Primary CSCF port, fully qualified domain name.
Type	0x13			1	IMS Test Mode
Length	1			2	
Value	→	boolean	ims_test_mode	1	Values: • TRUE – Enabled • FALSE – Disabled

3.9.3 Description of QMI_IMS_SETTINGS_GET_REG_MGR_CONFIG REQ/RESP

The request message gets the registration manager configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the registration manager configuration parameters to the control point.

3.10 QMI_IMS_SETTINGS_GET_SMS_CONFIG

Retrieves the SMS configuration parameters.

IMSS message ID

0x0027

Version introduced

Major - 1, Minor - 0

3.10.1 Request - QMI_IMS_SETTINGS_GET_SMS_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.10.2 Response - QMI_IMS_SETTINGS_GET_SMS_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.0	1.0
SMS Format	1.0	1.0
SMS Over IP Network Indication Flag	1.0	1.0
Phone Context Universal Resource Identifier	1.0	1.0
SMS PSI String	1.27	1.27

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	Settings response.
Type	0x11			1	SMS Format
Length	1			2	
Value	→	enum8	sms_format	1	Values: • IMS_SETTINGS_SMS_FORMAT_3GPP2 (0) – 3GPP2 • IMS_SETTINGS_SMS_FORMAT_3GPP (1) – 3GPP
Type	0x12			1	SMS Over IP Network Indication Flag
Length	1			2	
Value	→	boolean	sms_over_ip_network_indication	1	Values: • TRUE – MO SMS turned on • FALSE – MO SMS turned off
Type	0x13			1	Phone Context Universal Resource Identifier
Length	Var			2	
Value	→	string	phone_context_uri	Var	Phone context universal resource identifier.
Type	0x14			1	SMS PSI String
Length	Var			2	
Value	→	string	sms_psi	Var	SMS PSI string value.

3.10.3 Description of QMI_IMS_SETTINGS_GET_SMS_CONFIG REQ/RESP

The request message retrieves the SMS configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the SMS configuration parameters to the control point.

3.11 QMI_IMS_SETTINGS_GET_USER_CONFIG

Retrieves the user configuration parameters.

IMSS message ID

0x0028

Version introduced

Major - 1, Minor - 0

3.11.1 Request - QMI_IMS_SETTINGS_GET_USER_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.11.2 Response - QMI_IMS_SETTINGS_GET_USER_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.0	1.0
IMS Domain Name	1.0	1.0

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	Settings response.
Type	0x11			1	IMS Domain Name
Length	Var			2	
Value	→	string	ims_domain	Var	IMS domain name.

3.11.3 Description of QMI_IMS_SETTINGS_GET_USER_CONFIG REQ/RESP

The request message retrieves the user configuration parameters from the control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the user configuration parameters to the control point.

3.12 QMI_IMS_SETTINGS_GET_VOIP_CONFIG

Retrieves the VoIP configuration parameters.

IMSS message ID

0x0029

Version introduced

Major - 1, Minor - 1

3.12.1 Request - QMI_IMS_SETTINGS_GET_VOIP_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.12.2 Response - QMI_IMS_SETTINGS_GET_VOIP_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.1	1.1
Session Duration	1.1	1.1
Minimum Session Timer	1.1	1.1
Enable AMR WB	1.1	1.1

Name	Version introduced	Version last modified
Enable SCR AMR	1.1	1.1
Enable SCR AMR WB	1.1	1.1
AMR NB Mode	1.1	1.1
AMR WB Mode	1.1	1.1
AMR NB Octet Aligned	1.1	1.1
AMR WB Octet Aligned	1.1	1.1
Ringing Timer Duration	1.1	1.1
Ringback Timer Duration	1.1	1.1
RTP/RTCP Inactivity Timer Duration	1.1	1.1
VoLTE to 1xRTT Silent Redial Flag	1.17	1.17
VoIP Preferred RTP Payload Type	1.19	1.19
VoIP Configuration Conference Factory URI	1.24	1.24

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	Session Duration
Length	2			2	
Value	→	uint16	session_expiry_timer	2	Session duration, in seconds.
Type	0x12			1	Minimum Session Timer
Length	2			2	
Value	→	uint16	min_session_expiry	2	Minimum allowed value, in seconds, for session timer.
Type	0x13			1	Enable AMR WB
Length	1			2	
Value	→	boolean	amr_wb_enable	1	Flag indicating AMR WB audio. Values: • TRUE – Enabled • FALSE – Disabled
Type	0x14			1	Enable SCR AMR
Length	1			2	
Value	→	boolean	scr_amr_enable	1	Flag indicating SCR for AMR NB audio. Values: • TRUE – Enabled • FALSE – Disabled
Type	0x15			1	Enable SCR AMR WB
Length	1			2	
Value	→	boolean	scr_amr_wb_enable	1	Flag indicating SCR for AMR WB audio. Values: • TRUE – Enabled • FALSE – Disabled

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x16			1	AMR NB Mode
Length	1			2	
Value	→	uint8	amr_mode	1	Bitmask indicating AMR NB modes. Values: • 0x1 – 4.75 kbps • 0x2 – 5.15 kbps • 0x4 – 5.9 kbps • 0x8 – 6.17 kbps • 0x10 – 7.4 kbps • 0x20 – 7.95 kbps • 0x40 – 10.2 kbps • 0x80 – 12.2 kbps
Type	0x17			1	AMR WB Mode
Length	2			2	
Value	→	uint16	amr_wb_mode	2	Bitmask indicating AMR WB modes. Values: • 0x1 – 6.60 kbps • 0x2 – 8.85 kbps • 0x4 – 12.65 kbps • 0x8 – 14.25 kbps • 0x10 – 15.85 kbps • 0x20 – 18.25 kbps • 0x40 – 19.85 kbps • 0x80 – 23.05 kbps • 0x100 – 23.85 kbps
Type	0x18			1	AMR NB Octet Aligned
Length	1			2	
Value	→	boolean	amr_octet_align	1	Flag indicating whether the octet is aligned for AMR NB audio. Values: • TRUE – Octet aligned • FALSE – Octet not aligned, Bandwidth Efficient Mode
Type	0x19			1	AMR WB Octet Aligned
Length	1			2	
Value	→	boolean	amr_wb_octet_align	1	Flag indicating whether the octet is aligned for AMR WB audio. Values: • TRUE – Octet aligned • FALSE – Octet not aligned, Bandwidth Efficient Mode
Type	0x1A			1	Ringing Timer Duration
Length	2			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint16	ringing_timer	2	Duration, in seconds, of the ringing timer. The ringing timer is started on the ringing event. If the call is not answered within the duration of this timer, the call is disconnected.
Type	0x1B			1	Ringback Timer Duration
Length	2			2	
Value	→	uint16	ringback_timer	2	Duration, in seconds, of the ringback timer. The ringback timer is started on the ringback event. If the call is not answered within the duration of this timer, the call is disconnected.
Type	0x1C			1	RTP/RTCP Inactivity Timer Duration
Length	2			2	
Value	→	uint16	rtp_rtcp_inactivity_timer	2	Duration, in seconds, of the RTP/RTCP inactivity timer. If no RTP/RTCP packet is received before the expiration of this timer, the call is disconnected.
Type	0x1D			1	VoLTE to 1xRTT Silent Redial Flag
Length	1			2	
Value	→	boolean	voip_silent_redial_enabled	1	Flag that allows a device to silently redial over 1xRTT. If this TLV is not included in the request, a value of TRUE (i.e., enabled) is used.
Type	0x1E			1	VoIP Preferred RTP Payload Type
Length	2			2	
Value	→	uint16	voip_preferred_rtp_ payload_type	2	Values for the VoIP preferred codec mode. Must be set only when G.711 support is required in addition to AMR and AMR-WB. Refer to Real-TimeTransport Protocol (RTP) Parameters for possible values. If an unsupported codec value is set, CODEC MIME is used as the default audio codec and the G.711 codec is ignored.
Type	0x1F			1	VoIP Configuration Conference Factory URI
Length	Var			2	
Value	→	string	voip_config_confURI	Var	VoIP configuration conference factory URI.

3.12.3 Description of QMI_IMS_SETTINGS_GET_VOIP_CONFIG REQ/RESP

The request message retrieves the VoIP configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the VoIP configuration parameters to the control point.

3.13 QMI_IMS_SETTINGS_CONFIG_IND_REG

Sets the registration state for various settings service indications for the requesting control points.

IMSS message ID

0x002A

Version introduced

Major - 1, Minor - 0

3.13.1 Request - QMI_IMS_SETTINGS_CONFIG_IND_REG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
SIP Configuration	1.0	1.0
Registration Manager Configuration	1.0	1.0
SMS Configuration	1.0	1.0
User Configuration	1.0	1.0
VoIP Configuration	1.0	1.0
Presence Configuration	1.2	1.2
Media Configuration	1.3	1.3
QIPCall Configuration	1.7	1.7
SIP Read-only Configuration	1.7	1.7
Network Read-only Configuration	1.7	1.7
Registration Manager Extended Configuration	1.13	1.13
Policy Manager Configuration	1.14	1.14
Presence Extended Configuration	1.16	1.16
RCS Standalone Messaging Configuration	1.16	1.16
Ut Interface Configuration	1.18	1.18
Client Provisioning Configuration	1.22	1.22

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	SIP Configuration

Field	Field value	Field type	Parameter	Size (byte)	Description
Length	1			2	
Value	→	boolean	sip_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x11			1	Registration Manager Configuration
Length	1			2	
Value	→	boolean	reg_mgr_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x12			1	SMS Configuration
Length	1			2	
Value	→	boolean	sms_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x13			1	User Configuration
Length	1			2	
Value	→	boolean	user_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x14			1	VoIP Configuration
Length	1			2	
Value	→	boolean	voip_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x15			1	Presence Configuration
Length	1			2	
Value	→	boolean	presence_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x16			1	Media Configuration
Length	1			2	
Value	→	boolean	media_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x17			1	QIPCall Configuration
Length	1			2	
Value	→	boolean	qipcall_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x18			1	SIP Read-only Configuration
Length	1			2	
Value	→	boolean	sip_read_only_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x19			1	Network Read-only Configuration
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	boolean	network_read_only_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x1A			1	Registration Manager Extended Configuration
Length	1			2	
Value	→	boolean	reg_mgr_extended_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x1B			1	Policy Manager Configuration
Length	1			2	
Value	→	boolean	pol_mgr_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x1C			1	Presence Extended Configuration
Length	1			2	
Value	→	boolean	presence_ext_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x1D			1	RCS Standalone Messaging Configuration
Length	1			2	
Value	→	boolean	rcs_sm_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x1E			1	Ut Interface Configuration
Length	1			2	
Value	→	boolean	ut_config	1	Values: • 0x00 – Disable • 0x01 – Enable
Type	0x1F			1	Client Provisioning Configuration
Length	1			2	
Value	→	boolean	client_provisioning_config	1	Values: • 0x00 – Disable • 0x01 – Enable

3.13.2 Response - QMI_IMS_SETTINGS_CONFIG_IND_REG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

None

Error codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing
QMI_ERR_MALFORMED_MSG	Message was not formulated correctly by the control point or the message was corrupted during transmission
QMI_ERR_NO_MEMORY	Device could not allocate memory to formulate a response

3.13.3 Description of QMI_IMS_SETTINGS_CONFIG_IND_REG REQ/RESP

This command is used by a control point to register for/deregister from various settings service indications. The control point's registration state variables control registration for indications, and are modified to reflect the settings indicated in the TLVs present in the request message.

By default, the service disables all the indications and the control point must send the IMS_CONFIG_IND_REG_REQ_MSG message to register for the indications it is interested in.

The sip_config field must be set to enable to register a control point for the SIP configuration indication, and disable to deregister. When this registration is enabled, the control point learns of SIP configuration updates via the QMI_IMS_SETTINGS_SIP_CONFIG_IND indication.

The reg_mgr_config field must be set to enable to register a control point for the registration manager configuration indication and disable to deregister. When this registration is enabled, the control point learns of registration manager configuration updates via the QMI_IMS_SETTINGS_REG_MGR_CONFIG_IND indication.

The sms_config field must be set to enable to register a control point for the SMS configuration indication, and disable to deregister. When this registration is enabled, the control point learns of SMS configuration updates via the QMI_IMS_SETTINGS_SMS_CONFIG_IND indication.

The user_config field must be set to enable to register a control point for the user configuration indication and disable to deregister. When this registration is enabled, the control point learns of user configuration updates via the QMI_IMS_SETTINGS_USER_CONFIG_IND indication.

The voip_config field must be set to enable to register a control point for the VoIP configuration indication, and disable to deregister. When this registration is enabled, the control point learns of VoIP configuration updates via the QMI_IMS_SETTINGS_VOIP_CONFIG_IND indication.

The presence_config field must be set to enable to register a control point for the presence configuration indication and disable to deregister. When this registration is enabled, the control point learns of presence configuration updates via the QMI_IMS_SETTINGS_PRESENCE_CONFIG_IND indication.

The media_config field must be set to enable to register a control point for the media configuration indication and disable to deregister. When this registration is enabled, the control point learns of media configuration updates via the QMI_IMS_SETTINGS_MEDIA_CONFIG_IND indication.

The qipcall_config field must be set to enable to register a control point for the QIPCall configuration indication and disable to deregister. When this registration is enabled, the control point learns of QIPCall configuration updates via the QMI_IMS_SETTINGS_QIPCALL_CONFIG_IND indication.

The sip_read_only_config field must be set to enable to register a control point for the SIP read-only configuration indication and disable to deregister. When this registration is enabled, the control point learns of SIP read-only configuration updates via the QMI_IMS_SETTINGS_SIP_READ_ONLY_CONFIG_IND indication.

The network_read_only_config field must be set to enable to register a control point for the network read-only configuration indication and disable to deregister. When this registration is enabled, the control point learns of network read-only configuration updates via the QMI_IMS_SETTINGS_NETWORK_READ_ONLY_CONFIG_IND indication.

The reg_mgr_extended_config field must be set to enable to register a control point for the registration manager extended configuration indication and disable to deregister. When this registration is enabled, the control point learns of registration manager extended configuration updates via the QMI_IMS_SETTINGS_REG_MGR_EXTENDED_CONFIG_IND indication.

The pol_mgr_config field must be set to enable to register a control point for the policy manager configuration indication and disable to deregister. When this registration is enabled, the control point learns of policy manager configuration updates via the QMI_IMS_SETTINGS_POL_MGR_CONFIG_IND indication.

The presence_ext_config field must be set to enable to register a control point for the presence extended configuration indication and disable to deregister. When this registration is enabled, the control point learns of presence extended configuration updates via the QMI_IMS_SETTINGS_PRESENCE_EXT_CONFIG_IND indication.

The rcs_sm_config field must be set to enable to register a control point for the RCS standalone messaging configuration indication and disable to deregister. When this registration is enabled, the control point learns of RCS standalone messaging configuration updates via the QMI_IMS_SETTINGS_RCS_SM_CONFIG_IND indication.

The ut_config field must be set to enable to register a control point for the Ut Interface configuration indication and disable to deregister. When this registration is enabled, the control point learns of Ut Interface configuration updates via the QMI_IMS_SETTINGS_UT_CONFIG_IND indication.

The client_provisioning_config field must be set to enable to register a control point for the client provisioning configuration indication and disable to deregister. When this registration is enabled, the control point learns of client provisioning configuration updates via the QMI_IMS_SETTINGS_CLIENT_PROVISIONING_CONFIG_IND indication.

3.14 QMI_IMS_SETTINGS_SIP_CONFIG_IND

Indicates when the SIP configuration parameters change.

IMSS message ID

0x002B

Version introduced

Major - 1, Minor - 0

3.14.1 Indication - QMI_IMS_SETTINGS_SIP_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
SIP Port Number	1.0	1.0
SIP Registration Timer	1.0	1.0
Subscribe Timer	1.0	1.0
Timer T1	1.0	1.0
Timer T2	1.0	1.0
Timer TF	1.0	1.0
Sigcomp Status	1.0	1.0
Timer TJ	1.4	1.10
Timer TJ Extended	1.10	1.10
Keep Alive Status	1.10	1.10
NAT-RTO Timer Value	1.10	1.10
SIP_TIMER_OPERATOR_MODE_A Timer Value	1.17	1.17
SIP Timer B Value	1.20	1.20
SIP GRUU Support Enable Flag	1.20	1.20
SIP Transport Protocol Switch Support	1.20	1.20

Name	Version introduced	Version last modified
SIP Maximum TCP Transport Backoff Timer Value	1.20	1.20
SIP GZIP Decoding Outbuffer Multiplier Value	1.20	1.20
SIP Timer D Value	1.23	1.23
SIP Timer T4	1.27	1.27
SIP Timer A	1.27	1.27
SIP Timer E	1.27	1.27
SIP Timer G	1.27	1.27
SIP Timer H	1.27	1.27
SIP Timer I	1.27	1.27
SIP Timer K	1.27	1.27

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	SIP Port Number
Length	2			2	
Value	→	uint16	sip_local_port	2	Primary call session control function SIP port number.
Type	0x11			1	SIP Registration Timer
Length	4			2	
Value	→	uint32	timer_sip_reg	4	Initial SIP registration duration, in seconds, from the UE.
Type	0x12			1	Subscribe Timer
Length	4			2	
Value	→	uint32	subscribe_timer	4	Duration, in seconds, of the subscription by the UE for IMS registration notifications.
Type	0x13			1	Timer T1
Length	4			2	
Value	→	uint32	timer_t1	4	RTT estimate, in milliseconds.
Type	0x14			1	Timer T2
Length	4			2	
Value	→	uint32	timer_t2	4	Maximum retransmit interval, in milliseconds, for non-invite requests and invite responses.
Type	0x15			1	Timer TF
Length	4			2	
Value	→	uint32	timer_tf	4	Non-invite transaction timeout timer, in milliseconds.
Type	0x16			1	Sigcomp Status
Length	1			2	
Value	→	boolean	sigcomp_enabled	1	Values: • TRUE – Enabled • FALSE – Disabled
Type	0x17			1	Timer TJ
Length	2			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint16	timer_tj	2	Wait time, in milliseconds, for the non-invite request retransmission. If the value exceeds the range of uint16, it is set to 0xFFFF.
Type	0x18			1	Timer TJ Extended
Length	4			2	
Value	→	uint32	timer_tj_ext	4	Wait time, in milliseconds, for the non-invite request retransmission.
Type	0x19			1	Keep Alive Status
Length	1			2	
Value	→	boolean	keepalive_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x1A			1	NAT-RTO Timer Value
Length	4			2	
Value	→	uint32	nat_rto_timer	4	Request timeout value, in milliseconds, used in NAT implementation.
Type	0x1B			1	SIP_TIMER_OPERATOR_MODE_A Timer Value
Length	4			2	
Value	→	uint32	sip_timer_operator_ mode_a	4	SIP timer operator mode A, in seconds; valid range of values is 0 to 30. If this TLV is not included in the request, a value of 6 seconds is used.
Type	0x1C			1	SIP Timer B Value
Length	4			2	
Value	→	uint32	timer_tb_value	4	SIP timer B's value, in milliseconds. If this TLV is not included in the request, a value of 0 is used.
Type	0x1D			1	SIP GRUU Support Enable Flag
Length	1			2	
Value	→	boolean	gruu_enabled	1	SIP GRUU support enable flag. If this TLV is not included in the request, a value of FALSE is used.
Type	0x1E			1	SIP Transport Protocol Switch Support
Length	1			2	
Value	→	boolean	transport_switch_enabled	1	SIP transport protocol switching support enable flag per RFC 3261. If this TLV is not included in the request, a value of FALSE is used.
Type	0x1F			1	SIP Maximum TCP Transport Backoff Timer Value
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint32	tcp_max_backoff_timer_value	4	Maximum timeout, in milliseconds, for TCP transport of SIP packets after which SIP packets are sent via UDP. If this TLV is not included in the request, a value of 10000 (i.e., 10 seconds) is used.
Type	0x20			1	SIP GZIP Decoding Outbuffer Multiplier Value
Length	1			2	
Value	→	uint8	gzip_decoding_outbuffer_multiplier	1	SIP GZIP decoding outbuffer multiplier, the compression multiplier value. If this TLV is not included in the request, a value of 40 is used.
Type	0x21			1	SIP Timer D Value
Length	4			2	
Value	→	uint32	timer_td_value	4	SIP timer D's value, in milliseconds. Timer D is the wait time for response retransmits of the invite client transactions.
Type	0x22			1	SIP Timer T4
Length	4			2	
Value	→	uint32	timer_t4	4	SIP timer T4's value, in milliseconds. Timer T4 is the maximum duration that a SIP message can remain in the network.
Type	0x23			1	SIP Timer A
Length	4			2	
Value	→	uint32	timer_ta_value	4	SIP timer A's value, in milliseconds. Timer A is the INVITE request retransmit interval, for UDP only
Type	0x24			1	SIP Timer E
Length	4			2	
Value	→	uint32	timer_te_value	4	SIP timer E's value, in milliseconds. Timer E is the value Non-INVITE request retransmit interval, for UDP only.
Type	0x25			1	SIP Timer G
Length	4			2	
Value	→	uint32	timer_tg_value	4	SIP timer G's value, in milliseconds. Timer G is the value of INVITE response retransmit interval.
Type	0x26			1	SIP Timer H
Length	4			2	
Value	→	uint32	timer_th_value	4	SIP timer H's value, in milliseconds. Timer H is the value of wait time for ACK receipt.
Type	0x27			1	SIP Timer I
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint32	timer_ti_value	4	SIP timer I's value, in milliseconds. Timer I is the value of wait time for ACK retransmits.
Type	0x28			1	SIP Timer K
Length	4			2	
Value	→	uint32	timer_tk_value	4	SIP timer K's value, in milliseconds. Timer K is the value of wait time for response retransmits.

3.14.2 Description of QMI_IMS_SETTINGS_SIP_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the SIP configuration parameters.

3.15 QMI_IMS_SETTINGS_REG_MGR_CONFIG_IND

Indicates when the registration manager configuration parameters change.

IMSS message ID

0x002C

Version introduced

Major - 1, Minor - 0

3.15.1 Indication - QMI_IMS_SETTINGS_REG_MGR_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Primary CSCF Port	1.0	1.0
CSCF Port	1.0	1.0
IMS Test Mode	1.0	1.0

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Primary CSCF Port
Length	2			2	
Value	→	uint16	regmgr_config_pcscf_port	2	Primary CSCF port.
Type	0x11			1	CSCF Port
Length	Var			2	
Value	→	string	regmgr_primary_cscf	Var	CSCF port, fully qualified domain name.
Type	0x12			1	IMS Test Mode
Length	1			2	
Value	→	boolean	ims_test_mode	1	Values: • TRUE – Enabled • FALSE – Disabled

3.15.2 Description of QMI_IMS_SETTINGS_REG_MGR_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the registration manager configuration parameters.

3.16 QMI_IMS_SETTINGS_SMS_CONFIG_IND

Indicates when the SMS configuration parameters change.

IMSS message ID

0x002D

Version introduced

Major - 1, Minor - 0

3.16.1 Indication - QMI_IMS_SETTINGS_SMS_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
SMS Format	1.0	1.0
SMS Over IP Network Indication Flag	1.0	1.0
Phone Context Universal Resource Identifier	1.0	1.0
SMS PSI String	1.27	1.27

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	SMS Format
Length	1			2	
Value	→	enum8	sms_format	1	Values: • IMS_SETTINGS_SMS_FORMAT_3GPP2 (0) – 3GPP2 • IMS_SETTINGS_SMS_FORMAT_3GPP (1) – 3GPP
Type	0x11			1	SMS Over IP Network Indication Flag
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	boolean	sms_over_ip_network_indicatidn		Values: • TRUE – MO SMS turned on • FALSE – MO SMS turned off
Type	0x12			1	Phone Context Universal Resource Identifier
Length	Var			2	
Value	→	string	phone_context_uri	Var	Phone context universal resource identifier.
Type	0x13			1	SMS PSI String
Length	Var			2	
Value	→	string	sms_psi	Var	SMS PSI string value.

3.16.2 Description of QMI_IMS_SETTINGS_SMS_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the SMS configuration parameters.

3.17 QMI_IMS_SETTINGS_USER_CONFIG_IND

Indicates when the user configuration parameters change.

IMSS message ID

0x002E

Version introduced

Major - 1, Minor - 0

3.17.1 Indication - QMI_IMS_SETTINGS_USER_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
IMS Domain Name	1.0	1.0

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	IMS Domain Name
Length	Var			2	
Value	→	string	ims_domain	Var	IMS domain name.

3.17.2 Description of QMI_IMS_SETTINGS_USER_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the user configuration parameters.

3.18 QMI_IMS_SETTINGS_VOIP_CONFIG_IND

Indicates when the VoIP configuration parameters change.

IMSS message ID

0x002F

Version introduced

Major - 1, Minor - 1

3.18.1 Indication - QMI_IMS_SETTINGS_VOIP_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Session Duration	1.1	1.1
Minimum Session Timer	1.1	1.1
Enable AMR WB	1.1	1.1
Enable SCR AMR NB	1.1	1.1
Enable SCR AMR WB	1.1	1.1
AMR NB Mode	1.1	1.1
AMR WB Mode	1.1	1.1
AMR NB Octet Aligned	1.1	1.1
AMR WB Octet Aligned	1.1	1.1
Ringing Timer Duration	1.1	1.1
Ringback Timer Duration	1.1	1.1
RTP/RTCP Inactivity Timer Duration	1.1	1.1
VoLTE to 1xRTT Silent Redial Flag	1.17	1.17
VoIP Preferred RTP Payload Type	1.19	1.19
VoIP Configuration Conference Factory URI	1.24	1.24

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Session Duration
Length	2			2	
Value	→	uint16	session_expiry_timer	2	Session duration, in seconds.
Type	0x11			1	Minimum Session Timer
Length	2			2	
Value	→	uint16	min_session_expiry	2	Minimum allowed value, in seconds, for the session timer.
Type	0x12			1	Enable AMR WB
Length	1			2	
Value	→	boolean	amr_wb_enable	1	Flag indicating AMR WB audio. Values: • TRUE – Enabled • FALSE – Disabled
Type	0x13			1	Enable SCR AMR NB
Length	1			2	
Value	→	boolean	scr_amr_enable	1	Flag indicating SCR for AMR NB audio. Values: • TRUE – Enabled • FALSE – Disabled
Type	0x14			1	Enable SCR AMR WB
Length	1			2	
Value	→	boolean	scr_amr_wb_enable	1	Flag indicating SCR for AMR WB audio. Values: • TRUE – Enabled • FALSE – Disabled
Type	0x15			1	AMR NB Mode
Length	1			2	
Value	→	uint8	amr_mode	1	Bitmask indicating AMR NB modes. Values: • 0x1 – 4.75 kbps • 0x2 – 5.15 kbps • 0x4 – 5.9 kbps • 0x8 – 6.17 kbps • 0x10 – 7.4 kbps • 0x20 – 7.95 kbps • 0x40 – 10.2 kbps • 0x80 – 12.2 kbps
Type	0x16			1	AMR WB Mode
Length	2			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint16	amr_wb_mode	2	Bitmask indicating AMR WB modes. Values: • 0x1 – 6.60 kbps • 0x2 – 8.85 kbps • 0x4 – 12.65 kbps • 0x8 – 14.25 kbps • 0x10 – 15.85 kbps • 0x20 – 18.25 kbps • 0x40 – 19.85 kbps • 0x80 – 23.05 kbps • 0x100 – 23.85 kbps
Type	0x17			1	AMR NB Octet Aligned
Length	1			2	
Value	→	boolean	amr_octet_align	1	Flag indicating if the octet is aligned for AMR NB audio. Values: • TRUE – Octet aligned • FALSE – Octet not aligned, Bandwidth Efficient mode
Type	0x18			1	AMR WB Octet Aligned
Length	1			2	
Value	→	boolean	amr_wb_octet_align	1	Flag indicating if the octet is aligned for AMR WB audio. Values: • TRUE – Octet aligned • FALSE – Octet not aligned, Bandwidth Efficient mode
Type	0x19			1	Ringing Timer Duration
Length	2			2	
Value	→	uint16	ringing_timer	2	Duration, in seconds, of the ringing timer. The ringing timer starts on the ringing event. If the call is not answered within the duration of this timer, the call is disconnected.
Type	0x1A			1	Ringback Timer Duration
Length	2			2	
Value	→	uint16	ringback_timer	2	Duration, in seconds, of the ringback timers. The ringback timer starts on the ringback event. If the call is not answered within the duration of this timer, the call is disconnected.
Type	0x1B			1	RTP/RTCP Inactivity Timer Duration
Length	2			2	
Value	→	uint16	rtp_rtcp_inactivity_timer	2	Duration, in seconds, of the RTP/RTCP inactivity timer. If no RTP/RTCP packet is received before the expiration of this timer, the call is disconnected.

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x1C			1	VoLTE to 1xRTT Silent Redial Flag
Length	1			2	
Value	→	boolean	voip_silent_redial_enabled	1	Flag that allows a device to silently redial over 1xRTT. If this TLV is not included in the request, a value of TRUE (i.e., enabled) is used.
Type	0x1D			1	VoIP Preferred RTP Payload Type
Length	2			2	
Value	→	uint16	voip_preferred_rtp_ payload_type	2	Values for the VoIP preferred codec mode. Must be set only when G.711 support is required in addition to AMR and AMR-WB. Refer to Real-TimeTransport Protocol (RTP) Parameters for possible values. If an unsupported codec value is set, CODEC MIME is used as the default audio codec and the G.711 codec is ignored.
Type	0x1E			1	VoIP Configuration Conference Factory URI
Length	Var			2	
Value	→	string	voip_config_confURI	Var	VoIP configuration conference factory URI.

3.18.2 Description of QMI_IMS_SETTINGS_VOIP_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the VoIP configuration parameters.

3.19 QMI_IMS_SETTINGS_SET_PRESENCE_CONFIG

Sets the IMS presence-related configuration parameters for the requesting control point.

IMSS message ID

0x0030

Version introduced

Major - 1, Minor - 2

3.19.1 Request - QMI_IMS_SETTINGS_SET_PRESENCE_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Publish Expiry Timer	1.2	1.2
Publish Extended Expiry Timer	1.2	1.2
Minimum Publish Interval	1.2	1.2
Capability Poll List Subscription Expiry Timer	1.2	1.2
Discovery Capability Enabled	1.2	1.2
Cache Capability Expiration	1.2	1.2
Cache Availability Expiration	1.2	1.2
Capability Poll Interval	1.2	1.2
Maximum Subscription List Entries	1.2	1.2
VoLTE User Opted In Status	1.2	1.2
Last Published ETAG	1.13	1.13
Last Published Time	1.13	1.13
Last Negotiated Published Expire	1.13	1.13
GZIP Enabled	1.13	1.13
Presence Notification Wait Duration	1.13	1.13
Publish Error Recovery Timer	1.13	1.16 (Deprecated)

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Publish Expiry Timer

Field	Field value	Field type	Parameter	Size (byte)	Description
Length	4			2	
Value	→	uint32	publish_expiry_timer	4	Publish timer, in seconds, when publish is sent on an IMS network using 4G radio access technology.
Type	0x11			1	Publish Extended Expiry Timer
Length	4			2	
Value	→	uint32	publish_extended_expiry_timer	4	Publish extended timer, in seconds, when publish is sent on an IMS network in a non-4G radio access technology or when in Airplane Power-Down mode in a 4G radio access technology.
Type	0x12			1	Minimum Publish Interval
Length	4			2	
Value	→	uint32	minimum_publish_interval	4	Duration, in seconds, between successive publish requests.
Type	0x13			1	Capability Poll List Subscription Expiry Timer
Length	4			2	
Value	→	uint32	capability_poll_list_subscription_expiry_timer	4	Expiry timer value, in seconds, for the list subscription request.
Type	0x14			1	Discovery Capability Enabled
Length	1			2	
Value	→	boolean	capability_discovery_enable	1	Flag indicating whether discovery capability is enabled. Values: • TRUE – Presence publishes/subscribes and processes any notification received. • FALSE – Presence does not publish/subscribe and ignores any notification received
Type	0x15			1	Cache Capability Expiration
Length	4			2	
Value	→	uint32	capabilites_cache_expiration	4	Duration of time, in seconds, for which the retrieved capability is considered valid.
Type	0x16			1	Cache Availability Expiration
Length	4			2	
Value	→	uint32	availability_cache_expiration	4	Duration of time, in seconds, for which the retrieved availability is considered valid.
Type	0x17			1	Capability Poll Interval
Length	4			2	
Value	→	uint32	capability_poll_interval	4	Duration of time, in seconds, between successive capability polling.
Type	0x18			1	Maximum Subscription List Entries
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint32	max_subcription_list_ entries	4	Maximum number of entries that can be kept in the list subscription.
Type	0x19			1	VoLTE User Opted In Status
Length	1			2	
Value	→	boolean	volte_user_opted_in_status	1	Flag indicating whether VoLTE service is accepted by the user. Values: • TRUE – Accepted • FALSE – Not accepted
Type	0x1A			1	Last Published ETAG
Length	Var			2	
Value	→	string	last_publish_etag	Var	Last published ETAG.
Type	0x1B			1	Last Published Time
Length	4			2	
Value	→	uint32	last_published_time	4	Last published time.
Type	0x1C			1	Last Negotiated Published Expire
Length	4			2	
Value	→	uint32	last_negotiated_published_ expire	4	Last negotiated published expire, in seconds.
Type	0x1D			1	GZIP Enabled
Length	1			2	
Value	→	boolean	gzip_enabled	1	Flag indicating whether GZIP compression enabled. Values: • TRUE – Enabled • FALSE – Disabled
Type	0x1E			1	Presence Notification Wait Duration
Length	2			2	
Value	→	uint16	presence_notify_wait_ duration	2	Presence notification wait duration, in seconds.
Type	0x1F			1	Publish Error Recovery Timer (Deprecated)
Length	4			2	
Value	→	uint32	publish_error_recovery_ timer	4	Publish error recovery timer, in seconds. This TLV is deprecated and is now part of QMI_IMS_SETTINGS_SET_ PRESENCE_EXT_CONFIG_REQ.

3.19.2 Response - QMI_IMS_SETTINGS_SET_PRESENCE_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.2	1.2

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.19.3 Description of QMI_IMS_SETTINGS_SET_PRESENCE_CONFIG REQ/RESP

The request message from the client sets the IMS presence configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.20 QMI_IMS_SETTINGS_GET_PRESENCE_CONFIG

Retrieves the presence-related configuration parameters.

IMSS message ID

0x0031

Version introduced

Major - 1, Minor - 2

3.20.1 Request - QMI_IMS_SETTINGS_GET_PRESENCE_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.20.2 Response - QMI_IMS_SETTINGS_GET_PRESENCE_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.2	1.2
Publish Timer	1.2	1.2
Publish Extended Expiry	1.2	1.2
Minimum Publish Interval	1.2	1.2

Name	Version introduced	Version last modified
Capability Poll List Subscription Expiry Timer	1.2	1.2
Discovery Capability Enabled	1.2	1.2
Cache Capability Expiration	1.2	1.2
Cache Availability Expiration	1.2	1.2
Capability Poll Interval	1.2	1.2
Maximum Subscription List Entries	1.2	1.2
VoLTE User Opted In Status	1.2	1.2
Last Published Entity Tag	1.13	1.13
Last Published Time	1.13	1.13
Last Negotiated Published Expire	1.13	1.13
GNU ZIP Enabled	1.13	1.13
Presence Notification Wait Duration	1.13	1.13
Publish Error Recovery Timer	1.13	1.16 (Deprecated)

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	Publish Timer
Length	4			2	
Value	→	uint32	publish_expiry_timer	4	Publish timer, in seconds, when publish is sent on an IMS network using 4G radio access technology.
Type	0x12			1	Publish Extended Expiry
Length	4			2	
Value	→	uint32	publish_extended_expiry_timer	4	Publish extended timer, in seconds, when publish is sent on an IMS network in a non-4G radio access technology, or when in Airplane Power-Down mode in a 4G radio access technology.
Type	0x13			1	Minimum Publish Interval
Length	4			2	
Value	→	uint32	minimum_publish_interval	4	Duration, in seconds, between successive publish requests.
Type	0x14			1	Capability Poll List Subscription Expiry Timer
Length	4			2	
Value	→	uint32	capability_poll_list_subscription_expiry_timer	4	Expiry timer value, in seconds, for the list subscription request.
Type	0x15			1	Discovery Capability Enabled
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	boolean	capability_discovery_ enable	1	Flag indicating whether or not discovery capability is enabled. Values: • TRUE – Presence publishes/subscribes and processes any notifications received • FALSE – Presence does not publish/subscribe and ignores any notification received
Type	0x16			1	Cache Capability Expiration
Length	4			2	
Value	→	uint32	capabilites_cache_ expiration	4	Duration of time, in seconds, for which the retrieved capability is considered valid.
Type	0x17			1	Cache Availability Expiration
Length	4			2	
Value	→	uint32	availability_cache_ expiration	4	Duration of time, in seconds, for which the retrieved capability is considered valid.
Type	0x18			1	Capability Poll Interval
Length	4			2	
Value	→	uint32	capability_poll_interval	4	Duration of time, in seconds, for which the retrieved capability is considered valid.
Type	0x19			1	Maximum Subscription List Entries
Length	4			2	
Value	→	uint32	max_subcription_list_ entries	4	Maximum number of entries that can be kept in the list subscription.
Type	0x1A			1	VoLTE User Opted In Status
Length	1			2	
Value	→	boolean	volte_user_opted_in_status	1	Flag indicating whether or not VoLTE service is accepted by the user. Values: • TRUE – Accepted • FALSE – Not accepted
Type	0x1B			1	Last Published Entity Tag
Length	Var			2	
Value	→	string	last_publish_etag	Var	Last published Entity Tag (ETAG).
Type	0x1C			1	Last Published Time
Length	4			2	
Value	→	uint32	last_published_time	4	Last published time.
Type	0x1D			1	Last Negotiated Published Expire
Length	4			2	
Value	→	uint32	last_negotiated_published_ expire	4	Last negotiated published expire, in seconds.
Type	0x1E			1	GNU ZIP Enabled
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	boolean	gzip_enabled	1	Flag indicating whether GZIP compression is enabled. Values: • TRUE – Enabled • FALSE – Disabled
Type	0x1F			1	Presence Notification Wait Duration
Length	2			2	
Value	→	uint16	presence_notify_wait_ duration	2	Presence notification wait duration, in seconds.
Type	0x20			1	Publish Error Recovery Timer (Deprecated)
Length	4			2	
Value	→	uint32	publish_error_recovery_ timer	4	Publish error recovery timer, in seconds. This TLV is deprecated and is now part of QMI_IMS_SETTINGS_GET_ PRESENCE_EXT_CONFIG_REQ.

3.20.3 Description of QMI_IMS_SETTINGS_GET_PRESENCE_CONFIG REQ/RESP

The request message retrieves the presence configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the presence configuration parameters to the control point.

3.21 QMI_IMS_SETTINGS_PRESENCE_CONFIG_IND

Indicates when the presence-related configuration parameters change.

IMSS message ID

0x0032

Version introduced

Major - 1, Minor - 2

3.21.1 Indication - QMI_IMS_SETTINGS_PRESENCE_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Publish Timer	1.2	1.2
Publish Extended Timer	1.2	1.2
Minimum Publish Interval	1.2	1.2
Capability Poll List Subscription Expiry Timer	1.2	1.2
Discovery Capability Enabled	1.2	1.2
Cache Capability Expiration	1.2	1.2
Cache Availability Expiration	1.2	1.2
Capability Poll Interval	1.2	1.2
Maximum Subscription List Entries	1.2	1.2
VoLTE User Opted In Status	1.2	1.2
Last Published Entity Tag	1.13	1.13
Last Published Time	1.13	1.13
Last Negotiated Published Expire	1.13	1.13
GNU ZIP Enabled	1.13	1.13
Presence Notification Wait Duration	1.13	1.13
Publish Error Recovery Timer	1.13	1.16 (Deprecated)

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Publish Timer
Length	4			2	
Value	→	uint32	publish_expiry_timer	4	Publish timer, in seconds, when publish is sent on an IMS network using 4G radio access technology.
Type	0x11			1	Publish Extended Timer
Length	4			2	
Value	→	uint32	publish_extended_expiry_timer	4	Publish extended timer, in seconds, when publish is sent on an IMS network using non-4G radio access technology, or when in Airplane Power-Down mode using 4G radio access technology.
Type	0x12			1	Minimum Publish Interval
Length	4			2	
Value	→	uint32	minimum_publish_interval	4	Duration of time, in seconds, between successive publish requests.
Type	0x13			1	Capability Poll List Subscription Expiry Timer
Length	4			2	
Value	→	uint32	capability_poll_list_subscription_expiry_timer	4	Timer, in seconds, for the list subscribe request.
Type	0x14			1	Discovery Capability Enabled
Length	1			2	
Value	→	boolean	capability_discovery_enable	1	Flag indicating whether or not discovery capability is enabled. Values: • TRUE – Presence publishes/subscribes and processes any notifications received • FALSE – Presence does not publish/subscribe and ignores any notification received
Type	0x15			1	Cache Capability Expiration
Length	4			2	
Value	→	uint32	capabilites_cache_expiration	4	Duration of time, in seconds, for which the retrieved capability is considered valid.
Type	0x16			1	Cache Availability Expiration
Length	4			2	
Value	→	uint32	availability_cache_expiration	4	Duration of time, in seconds, for which the retrieved availability is considered valid.
Type	0x17			1	Capability Poll Interval
Length	4			2	
Value	→	uint32	capability_poll_interval	4	Duration of time, in seconds, for which the retrieved availability is considered valid.
Type	0x18			1	Maximum Subscription List Entries
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint32	max_subcription_list_ entries	4	Maximum number of entries that can be kept in the list subscription.
Type	0x19			1	VoLTE User Opted In Status
Length	1			2	
Value	→	boolean	volte_user_opted_in_status	1	Flag indicating whether or not VoLTE service is accepted by the user. Values: • TRUE – Accepted • FALSE – Not accepted
Type	0x1A			1	Last Published Entity Tag
Length	Var			2	
Value	→	string	last_publish_etag	Var	Last published ETAG.
Type	0x1B			1	Last Published Time
Length	4			2	
Value	→	uint32	last_published_time	4	Last published time.
Type	0x1C			1	Last Negotiated Published Expire
Length	4			2	
Value	→	uint32	last_negotiated_published_ expire	4	Last negotiated published expire, in seconds.
Type	0x1D			1	GNU ZIP Enabled
Length	1			2	
Value	→	boolean	gzip_enabled	1	Flag indicating whether GZIP compression enabled. Values: • TRUE – Enabled • FALSE – Disabled
Type	0x1E			1	Presence Notification Wait Duration
Length	2			2	
Value	→	uint16	presence_notify_wait_ duration	2	Presence notification wait duration, in seconds.
Type	0x1F			1	Publish Error Recovery Timer (Deprecated)
Length	4			2	
Value	→	uint32	publish_error_recovery_ timer	4	Publish error recovery timer, in seconds. This TLV is now deprecated and is now part of QMI_IMS_SETTINGS_ PRESENCE_EXT_CONFIG_IND.

3.21.2 Description of QMI_IMS_SETTINGS_PRESENCE_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the presence configuration parameters.

3.22 QMI_IMS_SETTINGS_SET_MEDIA_CONFIG

Sets the IMS media-related configuration parameters for the requesting control point. (Deprecated)

IMSS message ID

0x0033

Version introduced

Major - 1, Minor - 3

Version deprecated

Major - 1, Minor - 29

3.22.1 Request - QMI_IMS_SETTINGS_SET_MEDIA_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
H.264 Profile	1.3	1.3
H.264 Level	1.3	1.3
Video Bitrate	1.3	1.3
Video Refresh Rate	1.3	1.3
Video Display Resolution	1.3	1.3
Video Codec	1.3	1.3

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	H.264 Profile
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	enum	h264_profile	4	Profile used for the H.264 codec. Values: • IMS_SETTINGS_H264_PROFILE_ BASELINE (0x00) – Baseline profile • IMS_SETTINGS_H264_PROFILE_ MAIN (0x01) – Main profile • IMS_SETTINGS_H264_PROFILE_ EXTENDED (0x02) – Extended profile • IMS_SETTINGS_H264_PROFILE_ HIGH (0x03) – High profile
Type	0x11			1	H.264 Level
Length	4			2	
Value	→	enum	h264_level	4	Level used for the H.264 codec. Values: • IMS_SETTINGS_H264_LEVEL1 (0x00) – Level 1 • IMS_SETTINGS_H264_LEVEL1B (0x01) – Level 1b • IMS_SETTINGS_H264_LEVEL11 (0x02) – Level 1.1 • IMS_SETTINGS_H264_LEVEL12 (0x03) – Level 1.2 • IMS_SETTINGS_H264_LEVEL13 (0x04) – Level 1.3 • IMS_SETTINGS_H264_LEVEL2 (0x05) – Level 2 • IMS_SETTINGS_H264_LEVEL21 (0x06) – Level 2.1 • IMS_SETTINGS_H264_LEVEL22 (0x07) – Level 2.2 • IMS_SETTINGS_H264_LEVEL3 (0x08) – Level 3 • IMS_SETTINGS_H264_LEVEL31 (0x09) – Level 3.1 • IMS_SETTINGS_H264_LEVEL32 (0x0A) – Level 3.2 • IMS_SETTINGS_H264_LEVEL4 (0x0B) – Level 4 • IMS_SETTINGS_H264_LEVEL41 (0x0C) – Level 4.1 • IMS_SETTINGS_H264_LEVEL42 (0x0D) – Level 4.2 • IMS_SETTINGS_H264_LEVEL5 (0x0E) – Level 5 • IMS_SETTINGS_H264_LEVEL51 (0x0F) – Level 5.1
Type	0x12			1	Video Bitrate
Length	2			2	
Value	→	uint16	video_bitrate	2	Bitrate of the video, in kbps.

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x13			1	Video Refresh Rate
Length	1			2	
Value	→	uint8	video_frames_per_second	1	Video refresh rate, in frames per second.
Type	0x14			1	Video Display Resolution
Length	4			2	
Value	→	enum	video_resolution	4	Resolution of the video display. Values: • IMS_SETTINGS_SQCIF_ RESOLUTION (0x00) – SQCIF • IMS_SETTINGS_QCIF_ RESOLUTION (0x01) – QCIF • IMS_SETTINGS_CIF_ RESOLUTION (0x02) – CIF • IMS_SETTINGS_QQVGA_ RESOLUTION (0x03) – QQVGA • IMS_SETTINGS_QVGA_ RESOLUTION (0x04) – QVGA • IMS_SETTINGS_VGA_ RESOLUTION (0x05) – VGA
Type	0x15			1	Video Codec
Length	4			2	
Value	→	enum	video_codec	4	Codec used for the video. Values: • IMS_SETTINGS_CODEC_MPEG4_ XVID (0x00) – XVID MPEG4 codec • IMS_SETTINGS_CODEC_MPEG4_ ISO (0x01) – ISO MPEG4 codec • IMS_SETTINGS_CODEC_H263 (0x02) – H.263 codec • IMS_SETTINGS_CODEC_H264 (0x03) – H.264 codec

3.22.2 Response - QMI_IMS_SETTINGS_SET_MEDIA_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.3	1.3

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.3	1.3

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.22.3 Description of QMI_IMS_SETTINGS_SET_MEDIA_CONFIG REQ/RESP

This command is deprecated. There is no replacement.

The request message from the client sets the IMS media configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.23 QMI_IMS_SETTINGS_GET_MEDIA_CONFIG

Retrieves the media-related configuration parameters.

IMSS message ID

0x0034

Version introduced

Major - 1, Minor - 3

3.23.1 Request - QMI_IMS_SETTINGS_GET_MEDIA_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.23.2 Response - QMI_IMS_SETTINGS_GET_MEDIA_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.3	1.3

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.3	1.3
H.264 Profile	1.3	1.3
H.264 Level	1.3	1.3
Video Bitrate	1.3	1.3
Video Refresh Rate	1.3	1.3
Video Display Resolution	1.3	1.3
Video Codec	1.3	1.3
Lipsync Drop Upper Limit	1.29	1.29
Lipsync Drop Lower Limit	1.29	1.29
RTP MTU Size	1.29	1.29
QDJ Time Warping Enable Option	1.29	1.29
QDJ IBA Maximum Value	1.29	1.29
QDJ Maximum Frames to Start Dequeue	1.29	1.29
QDJ Maximum Dejitter Delay	1.29	1.29
QDJ Minimum Dejitter Delay	1.29	1.29
QDJ Optimization2 Information	1.29	1.29
QDJ Maximum Frames at Run	1.29	1.29
QDJ Maximum Bumped Delay	1.29	1.29
QDJ Jitter Increment	1.29	1.29
QDJ Target Underflow Rate	1.29	1.29
QDJ Drop Threshold	1.29	1.29
Gmin	1.29	1.29
Transmit System Delay	1.29	1.29
Receive System Delay	1.29	1.29
Audio Offload	1.29	1.29

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	H.264 Profile
Length	4			2	
Value	→	enum	h264_profile	4	Profile used for H.264 codec. Values: • IMS_SETTINGS_H264_PROFILE_BASELINE (0x00) – Baseline profile • IMS_SETTINGS_H264_PROFILE_MAIN (0x01) – Main profile • IMS_SETTINGS_H264_PROFILE_EXTENDED (0x02) – Extended profile • IMS_SETTINGS_H264_PROFILE_HIGH (0x03) – High profile

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x12			1	H.264 Level
Length	4			2	
Value	→	enum	h264_level	4	Level used for H.264 codec. Values: • IMS_SETTINGS_H264_LEVEL1 (0x00) – Level 1 • IMS_SETTINGS_H264_LEVEL1B (0x01) – Level 1b • IMS_SETTINGS_H264_LEVEL11 (0x02) – Level 1.1 • IMS_SETTINGS_H264_LEVEL12 (0x03) – Level 1.2 • IMS_SETTINGS_H264_LEVEL13 (0x04) – Level 1.3 • IMS_SETTINGS_H264_LEVEL2 (0x05) – Level 2 • IMS_SETTINGS_H264_LEVEL21 (0x06) – Level 2.1 • IMS_SETTINGS_H264_LEVEL22 (0x07) – Level 2.2 • IMS_SETTINGS_H264_LEVEL3 (0x08) – Level 3 • IMS_SETTINGS_H264_LEVEL31 (0x09) – Level 3.1 • IMS_SETTINGS_H264_LEVEL32 (0x0A) – Level 3.2 • IMS_SETTINGS_H264_LEVEL4 (0x0B) – Level 4 • IMS_SETTINGS_H264_LEVEL41 (0x0C) – Level 4.1 • IMS_SETTINGS_H264_LEVEL42 (0x0D) – Level 4.2 • IMS_SETTINGS_H264_LEVEL5 (0x0E) – Level 5 • IMS_SETTINGS_H264_LEVEL51 (0x0F) – Level 5.1
Type	0x13			1	Video Bitrate
Length	2			2	
Value	→	uint16	video_bitrate	2	Bitrate of the video, in kbps.
Type	0x14			1	Video Refresh Rate
Length	1			2	
Value	→	uint8	video_frames_per_second	1	Video refresh rate, in frames per second.
Type	0x15			1	Video Display Resolution
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	enum	video_resolution	4	Resolution of the video display. Values: • IMS_SETTINGS_SQCIF_ RESOLUTION (0x00) – SQCIF • IMS_SETTINGS_QCIF_ RESOLUTION (0x01) – QCIF • IMS_SETTINGS_CIF_ RESOLUTION (0x02) – CIF • IMS_SETTINGS_QQVGA_ RESOLUTION (0x03) – QQVGA • IMS_SETTINGS_QVGA_ RESOLUTION (0x04) – QVGA • IMS_SETTINGS_VGA_ RESOLUTION (0x05) – VGA
Type	0x16			1	Video Codec
Length	4			2	
Value	→	enum	video_codec	4	Codec used for the video. Values: • IMS_SETTINGS_CODEC_MPEG4_ XVID (0x00) – XVID MPEG4 codec • IMS_SETTINGS_CODEC_MPEG4_ ISO (0x01) – ISO MPEG4 codec • IMS_SETTINGS_CODEC_H263 (0x02) – H.263 codec • IMS_SETTINGS_CODEC_H264 (0x03) – H.264 codec
Type	0x17			1	Lipsync Drop Upper Limit
Length	2			2	
Value	→	uint16	lipsync_drop_upper_limit	2	Lipsync drop upper limit in units of video samples for video clock rate of 90kHz.
Type	0x18			1	Lipsync Drop Lower Limit
Length	2			2	
Value	→	uint16	lipsync_drop_lower_limit	2	Lipsync drop lower limit in units of video samples for video clock rate of 90kHz.
Type	0x19			1	RTP MTU Size
Length	2			2	
Value	→	uint16	rtp_mtu_size	2	RTP Maximum Transmission Unit (MTU) size.
Type	0x1A			1	QDJ Time Warping Enable Option
Length	1			2	
Value	→	boolean	qdj_time_warping_enabled	1	Qualcomm Dejitter buffer (QDJ) time warping. Values: • TRUE – Enable • FALSE – Disable
Type	0x1B			1	QDJ IBA Maximum Value
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint8	qdj_iba_max	1	Maximum number of chances given to a frame, which decides underflow in QDJ. While dequeuing a frame with sequence number x, this value is the maximum number of times to wait and look for x before moving to the next frame (x+1) dequeue.
Type	0x1C			1	QDJ Maximum Frames to Start Dequeue
Length	1			2	
Value	→	uint8	qdj_max_frames_at_start	1	Number of frames required in QDJ to start a dequeue.
Type	0x1D			1	QDJ Maximum Dejitter Delay
Length	1			2	
Value	→	uint8	qdj_max_delay	1	Maximum QDJ dejitter delay, in milliseconds.
Type	0x1E			1	QDJ Minimum Dejitter Delay
Length	1			2	
Value	→	uint8	qdj_min_delay	1	Minimum QDJ dejitter delay, in milliseconds.
Type	0x1F			1	QDJ Optimization2 Information
Length	5			2	
Value	→	boolean	qdj_optimization2_enabled	1	qdj_optimization2 enabled Flag.
		uint16	qdj_go_through_threshold	2	QDJ go through threshold value in Frame count, This will be used only when QDJ optimization 2 is enabled
		uint16	qdj_drop_threshold	2	QDJ drop threshold - Maximum delay in frame in milliseconds, This will be used only when QDJ optimization 2 is enabled
Type	0x20			1	QDJ Maximum Frames at Run
Length	1			2	
Value	→	uint8	qdj_max_frames_at_run	1	Maximum number of frames to keep in the queue. The oldest frame is dropped if received at frame (this value+1).
Type	0x21			1	QDJ Maximum Bumped Delay
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint8	qdj_max_bumped_up_ delay	1	QDJ maximum bumped delay, in milliseconds. This is QDJ-specific and used to decide whether to change the maximum target delay if the underflow is too large. The target delay varies from the minimum target delay to the maximum target delay. However, in certain extreme conditions where the underflow is huge or frequent packet bundling occurs, QDJ bumps up the target delay to a value higher than the maximum delay, but not greater than the maximum bumped delay.
Type	0x22			1	QDJ Jitter Increment
Length	1			2	
Value	→	uint8	qdj_jitter_increment	1	QDJ step delay, in milliseconds. This value is used when updating QDJ for each talk spurt.
Type	0x23			1	QDJ Target Underflow Rate
Length	2			2	
Value	→	uint16	qdj_target_underflow	2	Percentage of QDJ underflow, multiplied by 1000.
Type	0x24			1	QDJ Drop Threshold
Length	2			2	
Value	→	uint16	qdj_default_jitter	2	QDJ default jitter: the initial default jitter, in milliseconds, to be added in QDJ play out.
Type	0x25			1	Gmin
Length	1			2	
Value	→	uint8	gmin	1	Number of frames in a run that defines a gap and burst matrices in RTCP XR report per RFC 3611.
Type	0x26			1	Transmit System Delay
Length	1			2	
Value	→	uint8	tx_system_delay	1	Tx system delay, in milliseconds, that is used to calculate the end system delay in an RTCP XR report.
Type	0x27			1	Receive System Delay
Length	1			2	
Value	→	uint8	rx_system_delay	1	Rx system delay, in milliseconds, that is used to calculate the end system delay in an RTCP XR report.
Type	0x28			1	Audio Offload
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	enum8	audio_offload	1	Audio offload option. Values: • IMS_SETTINGS_AUDIO_OFFLOAD_AP (1) – Audio offload to AP • IMS_SETTINGS_AUDIO_OFFLOAD_NONE (2) – No audio offload • IMS_SETTINGS_AUDIO_OFFLOAD_MODEM (3) – Audio offload to MODEM

3.23.3 Description of QMI_IMS_SETTINGS_GET_MEDIA_CONFIG REQ/RESP

The request message retrieves the media configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the media configuration parameters to the control point.

3.24 QMI_IMS_SETTINGS_MEDIA_CONFIG_IND

Indicates when the media-related configuration parameters change.

IMSS message ID

0x0035

Version introduced

Major - 1, Minor - 3

3.24.1 Indication - QMI_IMS_SETTINGS_MEDIA_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
H.264 Profile	1.3	1.3
H.264 Level	1.3	1.3
Video Bitrate	1.3	1.3
Video Refresh Rate	1.3	1.3
Video Display Resolution	1.3	1.3
Video Codec	1.3	1.3
Lipsync Drop Upper Limit	1.29	1.29
Lipsync Drop Lower Limit	1.29	1.29
RTP MTU Size	1.29	1.29
QDJ Time Warping Enable Option	1.29	1.29
QDJ IBA Maximum Value	1.29	1.29
QDJ Maximum Frames to Start Dequeue	1.29	1.29
QDJ Maximum Dejitter Delay	1.29	1.29
QDJ Minimum Dejitter Delay	1.29	1.29
QDJ Optimization2 Information	1.29	1.29
QDJ Maximum Frames at Run	1.29	1.29
QDJ Maximum Bumped Delay	1.29	1.29

Name	Version introduced	Version last modified
QDJ Jitter Increment	1.29	1.29
QDJ Target Underflow Rate	1.29	1.29
QDJ Drop Threshold	1.29	1.29
Gmin	1.29	1.29
Transmit System Delay	1.29	1.29
Receive System Delay	1.29	1.29
Audio Offload	1.29	1.29

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	H.264 Profile
Length	4			2	
Value	→	enum	h264_profile	4	Profile used for H.264 codec. Values: • IMS_SETTINGS_H264_PROFILE_ BASELINE (0x00) – Baseline profile • IMS_SETTINGS_H264_PROFILE_ MAIN (0x01) – Main profile • IMS_SETTINGS_H264_PROFILE_ EXTENDED (0x02) – Extended profile • IMS_SETTINGS_H264_PROFILE_ HIGH (0x03) – High profile
Type	0x11			1	H.264 Level
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	enum	h264_level	4	Level used for H.264 codec. Values: • IMS_SETTINGS_H264_LEVEL1 (0x00) – Level 1 • IMS_SETTINGS_H264_LEVEL1B (0x01) – Level 1b • IMS_SETTINGS_H264_LEVEL11 (0x02) – Level 1.1 • IMS_SETTINGS_H264_LEVEL12 (0x03) – Level 1.2 • IMS_SETTINGS_H264_LEVEL13 (0x04) – Level 1.3 • IMS_SETTINGS_H264_LEVEL2 (0x05) – Level 2 • IMS_SETTINGS_H264_LEVEL21 (0x06) – Level 2.1 • IMS_SETTINGS_H264_LEVEL22 (0x07) – Level 2.2 • IMS_SETTINGS_H264_LEVEL3 (0x08) – Level 3 • IMS_SETTINGS_H264_LEVEL31 (0x09) – Level 3.1 • IMS_SETTINGS_H264_LEVEL32 (0x0A) – Level 3.2 • IMS_SETTINGS_H264_LEVEL4 (0x0B) – Level 4 • IMS_SETTINGS_H264_LEVEL41 (0x0C) – Level 4.1 • IMS_SETTINGS_H264_LEVEL42 (0x0D) – Level 4.2 • IMS_SETTINGS_H264_LEVEL5 (0x0E) – Level 5 • IMS_SETTINGS_H264_LEVEL51 (0x0F) – Level 5.1
Type	0x12			1	Video Bitrate
Length	2			2	
Value	→	uint16	video_bitrate	2	Bitrate of the video, in kbps.
Type	0x13			1	Video Refresh Rate
Length	1			2	
Value	→	uint8	video_frames_per_second	1	Video refresh rate, in frames per second.
Type	0x14			1	Video Display Resolution
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	enum	video_resolution	4	Resolution of the video display. Values: • IMS_SETTINGS_SQCIF_ RESOLUTION (0x00) – SQCIF • IMS_SETTINGS_QCIF_ RESOLUTION (0x01) – QCIF • IMS_SETTINGS_CIF_ RESOLUTION (0x02) – CIF • IMS_SETTINGS_QQVGA_ RESOLUTION (0x03) – QQVGA • IMS_SETTINGS_QVGA_ RESOLUTION (0x04) – QVGA • IMS_SETTINGS_VGA_ RESOLUTION (0x05) – VGA
Type	0x15			1	Video Codec
Length	4			2	
Value	→	enum	video_codec	4	Codec used for the video. Values: • IMS_SETTINGS_CODEC_MPEG4_ XVID (0x00) – XVID MPEG4 codec • IMS_SETTINGS_CODEC_MPEG4_ ISO (0x01) – ISO MPEG4 codec • IMS_SETTINGS_CODEC_H263 (0x02) – H.263 codec • IMS_SETTINGS_CODEC_H264 (0x03) – H.264 codec
Type	0x16			1	Lipsync Drop Upper Limit
Length	2			2	
Value	→	uint16	lipsync_drop_upper_limit	2	Lipsync drop upper limit in units of video samples for video clock rate of 90kHz.
Type	0x17			1	Lipsync Drop Lower Limit
Length	2			2	
Value	→	uint16	lipsync_drop_lower_limit	2	Lipsync drop lower limit in units of video samples for video clock rate of 90kHz.
Type	0x18			1	RTP MTU Size
Length	2			2	
Value	→	uint16	rtp_mtu_size	2	RTP MTU size.
Type	0x19			1	QDJ Time Warping Enable Option
Length	1			2	
Value	→	boolean	qdj_time_warping_enabled	1	Qualcomm Dejitter buffer (QDJ) time warping. Values: • TRUE – Enable • FALSE – Disable
Type	0x1A			1	QDJ IBA Maximum Value
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint8	qdj_iba_max	1	Maximum number of chances given to a frame, which decides underflow in QDJ. While dequeuing a frame with sequence number x, this value is the maximum number of times to wait and look for x before moving to the next frame (x+1) dequeue.
Type	0x1B			1	QDJ Maximum Frames to Start Dequeue
Length	1			2	
Value	→	uint8	qdj_max_frames_at_start	1	Number of frames required in QDJ to start a dequeue.
Type	0x1C			1	QDJ Maximum Dejitter Delay
Length	1			2	
Value	→	uint8	qdj_max_delay	1	Maximum QDJ dejitter delay, in milliseconds.
Type	0x1D			1	QDJ Minimum Dejitter Delay
Length	1			2	
Value	→	uint8	qdj_min_delay	1	Minimum QDJ dejitter delay, in milliseconds.
Type	0x1E			1	QDJ Optimization2 Information
Length	5			2	
Value	→	boolean	qdj_optimization2_enabled	1	qdj_optimization2 enabled Flag.
		uint16	qdj_go_through_threshold	2	QDJ go through threshold value in Frame count, This will be used only when QDJ optimization 2 is enabled
		uint16	qdj_drop_threshold	2	QDJ drop threshold - Maximum delay in frame in milliseconds, This will be used only when QDJ optimization 2 is enabled
Type	0x1F			1	QDJ Maximum Frames at Run
Length	1			2	
Value	→	uint8	qdj_max_frames_at_run	1	Maximum number of frames to keep in the queue. The oldest frame is dropped if received at frame (this value+1).
Type	0x20			1	QDJ Maximum Bumped Delay
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint8	qdj_max_bumped_up_ delay	1	QDJ maximum bumped delay, in milliseconds. This is QDJ-specific and used to decide whether to change the maximum target delay if the underflow is too large. The target delay varies from the minimum target delay to the maximum target delay. However, in certain extreme conditions where the underflow is huge or frequent packet bundling occurs, QDJ bumps up the target delay to a value higher than the maximum delay, but not greater than the maximum bumped delay.
Type	0x21			1	QDJ Jitter Increment
Length	1			2	
Value	→	uint8	qdj_jitter_increment	1	QDJ step delay, in milliseconds. This value is used when updating QDJ for each talk spurt.
Type	0x22			1	QDJ Target Underflow Rate
Length	2			2	
Value	→	uint16	qdj_target_underflow	2	Percentage of QDJ underflow, multiplied by 1000.
Type	0x23			1	QDJ Drop Threshold
Length	2			2	
Value	→	uint16	qdj_default_jitter	2	QDJ default jitter: the initial default jitter, in milliseconds, to be added in QDJ play out.
Type	0x24			1	Gmin
Length	1			2	
Value	→	uint8	gmin	1	Number of frames in a run that defines a gap and burst matrices in RTCP XR report per RFC 3611.
Type	0x25			1	Transmit System Delay
Length	1			2	
Value	→	uint8	tx_system_delay	1	Tx system delay, in milliseconds, that is used to calculate the end system delay in an RTCP XR report.
Type	0x26			1	Receive System Delay
Length	1			2	
Value	→	uint8	rx_system_delay	1	Rx system delay, in milliseconds, that is used to calculate the end system delay in an RTCP XR report.
Type	0x27			1	Audio Offload
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	enum8	audio_offload	1	Audio offload option. Values: • IMS_SETTINGS_AUDIO_OFFLOAD_AP (1) – Audio offload to AP • IMS_SETTINGS_AUDIO_OFFLOAD_NONE (2) – No audio offload • IMS_SETTINGS_AUDIO_OFFLOAD_MODEM (3) – Audio offload to MODEM

3.24.2 Description of QMI_IMS_SETTINGS_MEDIA_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the media configuration parameters.

3.25 QMI_IMS_SETTINGS_SET_QIPCALL_CONFIG

Sets the IMS QIPCall-related configuration parameters for the requesting control point.

IMSS message ID

0x0036

Version introduced

Major - 1, Minor - 7

3.25.1 Request - QMI_IMS_SETTINGS_SET_QIPCALL_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
VT Calling Status	1.7	1.7
Mobile Data Status	1.7	1.7
VoLTE Status	1.13	1.13
Emergency Call Timer	1.16	1.16
VT Quality Selector	1.19	1.19
Smallest RTP Port Number	1.27	1.27
Largest RTP Port Number	1.27	1.27
AMR-WB Octet Aligned Payload Type	1.27	1.27
AMR-WB Bandwidth Efficient Payload Type	1.27	1.27
AMR Octet Aligned Payload Type	1.27	1.27
AMR Bandwidth Efficient Payload Type	1.27	1.27
DTMF Wideband Payload Type	1.27	1.27
DTMF Narrowband Payload Type	1.27	1.27
AMR Default Encoding Mode	1.27	1.27

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	VT Calling Status
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	boolean	vt_calling_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x11			1	Mobile Data Status
Length	1			2	
Value	→	boolean	mobile_data_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x12			1	VoLTE Status
Length	1			2	
Value	→	boolean	volte_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x13			1	Emergency Call Timer
Length	4			2	
Value	→	uint32	emerg_call_timer	4	Emergency call timer.
Type	0x14			1	VT Quality Selector
Length	4			2	
Value	→	enum	vt_quality_selector	4	Values for video quality in a videotelephony (VT) call. If this TLV is not present in the request, a value of IMS_SETTINGS_VT_QUALITY_ LEVEL_0(i.e., high quality) is used. Values: • IMS_SETTINGS_VT_QUALITY_ LEVEL_0 (0x00) – VT quality selector level 0 • IMS_SETTINGS_VT_QUALITY_ LEVEL_1 (0x01) – VT quality selector level 1
Type	0x15			1	Smallest RTP Port Number
Length	2			2	
Value	→	uint16	speech_start_port	2	Smallest RTP port number for a speech codec.
Type	0x16			1	Largest RTP Port Number
Length	2			2	
Value	→	uint16	speech_end_port	2	Largest RTP port number for a speech codec.
Type	0x17			1	AMR-WB Octet Aligned Payload Type
Length	2			2	
Value	→	uint16	amr_wb_octet_aligned_ dynamic_pt	2	Dynamic payload type for AMR-WB in octet-aligned packetization. Valid range of values: 96 to 127.
Type	0x18			1	AMR-WB Bandwidth Efficient Payload Type
Length	2			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint16	amr_wb_bandwidth_ efficient_ dynamic_pt	2	Dynamic payload type for AMR-WB in bandwidth-efficient packetization. Valid range of values: 96 to 127.
Type	0x19			1	AMR Octet Aligned Payload Type
Length	2			2	
Value	→	uint16	amr_octet_aligned_ dynamic_pt	2	Dynamic payload type for AMR in octet-aligned packetization. Valid range of values: 96 to 127.
Type	0x1A			1	AMR Bandwidth Efficient Payload Type
Length	2			2	
Value	→	uint16	amr_bandwidth_efficient_dynamic_p	2	Dynamic payload type for AMR in bandwidth-efficient packetization. Valid range of values: 96 to 127.
Type	0x1B			1	DTMF Wideband Payload Type
Length	2			2	
Value	→	uint16	dtmf_wb_dynamic_pt	2	Dynamic payload type for DTMF at wideband. Valid range of values: 96 to 127.
Type	0x1C			1	DTMF Narrowband Payload Type
Length	2			2	
Value	→	uint16	dtmf_nb_dynamic_pt	2	Dynamic payload type for DTMF at narrowband. Valid range of values: 96 to 127.
Type	0x1D			1	AMR Default Encoding Mode
Length	1			2	
Value	→	uint8	amr_default_mode	1	AMR default encoding mode.

3.25.2 Response - QMI_IMS_SETTINGS_SET_QIPCALL_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.7	1.7

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.7	1.7

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.25.3 Description of QMI_IMS_SETTINGS_SET_QIPCALL_CONFIG REQ/RESP

The request message from the client sets the IMS QIPCall configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.26 QMI_IMS_SETTINGS_GET_QIPCALL_CONFIG

Retrieves the QIPCall-related configuration parameters.

IMSS message ID

0x0037

Version introduced

Major - 1, Minor - 7

3.26.1 Request - QMI_IMS_SETTINGS_GET_QIPCALL_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.26.2 Response - QMI_IMS_SETTINGS_GET_QIPCALL_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.7	1.7

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.7	1.7
VT Calling Status	1.7	1.7
Mobile Data Status	1.7	1.7
VoLTE Status	1.13	1.13
Emergency Call Timer	1.16	1.16
VT Quality Selector	1.19	1.19
Smallest RTP Port Number	1.27	1.27
Largest RTP Port Number	1.27	1.27
AMR-WB Octet Aligned Payload Type	1.27	1.27
AMR-WB Bandwidth Efficient Payload Type	1.27	1.27
AMR Octet Aligned Payload Type	1.27	1.27
AMR Bandwidth Efficient Payload Type	1.27	1.27
DTMF Wideband Payload Type	1.27	1.27
DTMF Narrowband Payload Type	1.27	1.27
AMR Default Encoding Mode	1.27	1.27

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	VT Calling Status
Length	1			2	
Value	→	boolean	vt_calling_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x12			1	Mobile Data Status
Length	1			2	
Value	→	boolean	mobile_data_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x13			1	VoLTE Status
Length	1			2	
Value	→	boolean	volte_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x14			1	Emergency Call Timer
Length	4			2	
Value	→	uint32	emerg_call_timer	4	Emergency call timer.
Type	0x15			1	VT Quality Selector
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	enum	vt_quality_selector	4	Values for video quality in a VT call. Values: • IMS_SETTINGS_VT_QUALITY_ LEVEL_0 (0x00) – VT quality selector level 0 • IMS_SETTINGS_VT_QUALITY_ LEVEL_1 (0x01) – VT quality selector level 1
Type	0x16			1	Smallest RTP Port Number
Length	2			2	
Value	→	uint16	speech_start_port	2	Smallest RTP port number for the speech codec.
Type	0x17			1	Largest RTP Port Number
Length	2			2	
Value	→	uint16	speech_end_port	2	Largest RTP port number for the speech codec.
Type	0x18			1	AMR-WB Octet Aligned Payload Type
Length	2			2	
Value	→	uint16	amr_wb_octet_aligned_ dynamic_pt	2	Dynamic payload type for AMR-WB in octet-aligned packetization.
Type	0x19			1	AMR-WB Bandwidth Efficient Payload Type
Length	2			2	
Value	→	uint16	amr_wb_bandwidth_ efficient_dynamic_pt	2	Dynamic payload type for AMR-WB in bandwidth-efficient packetization.
Type	0x1A			1	AMR Octet Aligned Payload Type
Length	2			2	
Value	→	uint16	amr_octet_aligned_ dynamic_pt	2	Dynamic payload type for AMR in octet-aligned packetization.
Type	0x1B			1	AMR Bandwidth Efficient Payload Type
Length	2			2	
Value	→	uint16	amr_bandwidth_efficient_ dynamic_pt	2	Dynamic payload type for AMR in bandwidth-efficient packetization.
Type	0x1C			1	DTMF Wideband Payload Type
Length	2			2	
Value	→	uint16	dtmf_wb_dynamic_pt	2	Dynamic payload type for DTMF at wideband.
Type	0x1D			1	DTMF Narrowband Payload Type
Length	2			2	
Value	→	uint16	dtmf_nb_dynamic_pt	2	Dynamic payload type for DTMF at narrowband.
Type	0x1E			1	AMR Default Encoding Mode
Length	1			2	
Value	→	uint8	amr_default_mode	1	AMR default encoding mode.

3.26.3 Description of QMI_IMS_SETTINGS_GET_QIPCALL_CONFIG REQ/RESP

The request message retrieves the QIPCall configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the QIPCall configuration parameters to the control point.

3.27 QMI_IMS_SETTINGS_QIPCALL_CONFIG_IND

Indicates when the QIPCall-related configuration parameters change.

IMSS message ID

0x0038

Version introduced

Major - 1, Minor - 7

3.27.1 Indication - QMI_IMS_SETTINGS_QIPCALL_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
VT Calling Status	1.7	1.7
Mobile Data Status	1.7	1.7
VoLTE Status	1.13	1.13
Emergency Call Timer	1.16	1.16
VT Quality Selector	1.19	1.19
Smallest RTP Port Number	1.27	1.27
Largest RTP Port Number	1.27	1.27
AMR-WB Octet Aligned Payload Type	1.27	1.27
AMR-WB Bandwidth Efficient Payload Type	1.27	1.27
AMR Octet Aligned Payload Type	1.27	1.27
AMR Bandwidth Efficient Payload Type	1.27	1.27
DTMF Wideband Payload Type	1.27	1.27
DTMF Narrowband Payload Type	1.27	1.27
AMR Default Encoding Mode	1.27	1.27

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	VT Calling Status
Length	1			2	
Value	→	boolean	vt_calling_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x11			1	Mobile Data Status
Length	1			2	
Value	→	boolean	mobile_data_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x12			1	VoLTE Status
Length	1			2	
Value	→	boolean	volte_enabled	1	Values: • TRUE – Enable • FALSE – Disable
Type	0x13			1	Emergency Call Timer
Length	4			2	
Value	→	uint32	emerg_call_timer	4	Emergency call timer.
Type	0x14			1	VT Quality Selector
Length	4			2	
Value	→	enum	vt_quality_selector	4	Values for video quality in a VT call. Values: • IMS_SETTINGS_VT_QUALITY_ LEVEL_0 (0x00) – VT quality selector level 0 • IMS_SETTINGS_VT_QUALITY_ LEVEL_1 (0x01) – VT quality selector level 1
Type	0x15			1	Smallest RTP Port Number
Length	2			2	
Value	→	uint16	speech_start_port	2	Smallest RTP port number for the speech codec.
Type	0x16			1	Largest RTP Port Number
Length	2			2	
Value	→	uint16	speech_end_port	2	Largest RTP port number for the speech codec.
Type	0x17			1	AMR-WB Octet Aligned Payload Type
Length	2			2	
Value	→	uint16	amr_wb_octet_aligned_ dynamic_pt	2	Dynamic payload type for AMR-WB in octet-aligned packetization.
Type	0x18			1	AMR-WB Bandwidth Efficient Payload Type
Length	2			2	
Value	→	uint16	amr_wb_bandwidth_ efficient_dynamic_pt	2	Dynamic payload type for AMR-WB in bandwidth-efficient packetization.
Type	0x19			1	AMR Octet Aligned Payload Type
Length	2			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint16	amr_octet_aligned_ dynamic_pt	2	Dynamic payload type for AMR in octet-aligned packetization.
Type	0x1A			1	AMR Bandwidth Efficient Payload Type
Length	2			2	
Value	→	uint16	amr_bandwidth_efficient_ dynamic_pt	2	Dynamic payload type for AMR in bandwidth-efficient packetization.
Type	0x1B			1	DTMF Wideband Payload Type
Length	2			2	
Value	→	uint16	dtmf_wb_dynamic_pt	2	Dynamic payload type for DTMF at wideband.
Type	0x1C			1	DTMF Narrowband Payload Type
Length	2			2	
Value	→	uint16	dtmf_nb_dynamic_pt	2	Dynamic payload type for DTMF at narrowband.
Type	0x1D			1	AMR Default Encoding Mode
Length	1			2	
Value	→	uint8	amr_default_mode	1	AMR default encoding mode.

3.27.2 Description of QMI_IMS_SETTINGS_QIPCALL_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the QIPCall configuration parameters.

3.28 QMI_IMS_SETTINGS_GET_SIP_READ_ONLY_CONFIG

Retrieves the SIP read-only-related configuration parameters.

IMSS message ID

0x0039

Version introduced

Major - 1, Minor - 7

3.28.1 Request - QMI_IMS_SETTINGS_GET_SIP_READ_ONLY_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.28.2 Response - QMI_IMS_SETTINGS_GET_SIP_READ_ONLY_-CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.7	1.7

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.7	1.7
Timer T4	1.7	1.7
TCP Threshold Value	1.7	1.7
Compact Form Enabled	1.7	1.7
Authentication Scheme	1.7	1.7
Initial Authorization Type	1.7	1.7
Authorization Header Value	1.7	1.7
Proxy Route Value	1.7	1.7

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	Timer T4
Length	4			2	
Value	→	uint32	timer_t4	4	Maximum duration, in milliseconds, that a message remains in the network.
Type	0x12			1	TCP Threshold Value
Length	2			2	
Value	→	uint16	tcp_threshold_value	2	Defines the packet size limiting value, in bytes.
Type	0x13			1	Compact Form Enabled
Length	1			2	
Value	→	boolean	compact_form_enabled	1	Indicates whether the SIP compact form is enabled.
Type	0x14			1	Authentication Scheme
Length	4			2	
Value	→	enum	settings_auth_scheme	4	Authentication scheme configuration. Values: • IMS_SETTINGS_CONFIG_AUTH_SCHEME_NONE (0x00) – No scheme used • IMS_SETTINGS_CONFIG_AUTH_SCHEME_DIGEST (0x01) – Digest • IMS_SETTINGS_CONFIG_AUTH_SCHEME_SAG (0x02) – Token • IMS_SETTINGS_CONFIG_AUTH_SCHEME_AKA (0x03) – AKA • IMS_SETTINGS_CONFIG_AUTH_SCHEME_CAVE (0x04) – CAVE • IMS_SETTINGS_CONFIG_AUTH_SCHEME_AKAV2 (0x05) – AKAv2

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x15			1	Initial Authorization Type
Length	4			2	
Value	→	enum	settings_initial_auth_config	4	Initial authorization type value. Values: • IMS_SETTINGS_CONFIG_INITIAL_AUTH_NONE (0x00) – None • IMS_SETTINGS_CONFIG_INITIAL_AUTH_AUTHORIZATION (0x01) – Authorization • IMS_SETTINGS_CONFIG_INITIAL_AUTH_PROXY_AUTHORIZATION (0x02) – Proxy authorization
Type	0x16			1	Authorization Header Value
Length	Var			2	
Value	→	string	auth_header_value	Var	Authorization header value.
Type	0x17			1	Proxy Route Value
Length	Var			2	
Value	→	string	proxy_route_value	Var	Route value to be used by the shared configuration.

3.28.3 Description of QMI_IMS_SETTINGS_GET_SIP_READ_ONLY_-CONFIG REQ/RESP

The request message from the client gets the SIP configuration read-only parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the SIP configuration parameters to the control point.

3.29 QMI_IMS_SETTINGS_SIP_READ_ONLY_CONFIG_IND

Indicates when the SIP read-only-related configuration parameters change.

IMSS message ID

0x003A

Version introduced

Major - 1, Minor - 7

3.29.1 Indication - QMI_IMS_SETTINGS_SIP_READ_ONLY_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Timer T4	1.7	1.7
TCP Threshold Value	1.7	1.7
Compact Form Enabled	1.7	1.7
Authentication Scheme	1.7	1.7
Initial Authorization Type	1.7	1.7
Authorization Header Value	1.7	1.7
Proxy Route Value	1.7	1.7

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Timer T4
Length	4			2	
Value	→	uint32	timer_t4	4	Maximum duration, in milliseconds, that a message remains in the network.
Type	0x11			1	TCP Threshold Value
Length	2			2	
Value	→	uint16	tcp_threshold_value	2	Packet size limiting value, in bytes.

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x12			1	Compact Form Enabled
Length	1			2	
Value	→	boolean	compact_form_enabled	1	Indicates whether the SIP compact form is enabled.
Type	0x13			1	Authentication Scheme
Length	4			2	
Value	→	enum	settings_auth_scheme	4	Authentication scheme configuration. Values: • IMS_SETTINGS_CONFIG_AUTH_SCHEME_NONE (0x00) – No scheme used • IMS_SETTINGS_CONFIG_AUTH_SCHEME_DIGEST (0x01) – Digest • IMS_SETTINGS_CONFIG_AUTH_SCHEME_SAG (0x02) – Token • IMS_SETTINGS_CONFIG_AUTH_SCHEME_AKA (0x03) – AKA • IMS_SETTINGS_CONFIG_AUTH_SCHEME_CAVE (0x04) – CAVE • IMS_SETTINGS_CONFIG_AUTH_SCHEME_AKAV2 (0x05) – AKAv2
Type	0x14			1	Initial Authorization Type
Length	4			2	
Value	→	enum	settings_initial_auth_config	4	Initial authorization type value. Values: • IMS_SETTINGS_CONFIG_INITIAL_AUTH_NONE (0x00) – None • IMS_SETTINGS_CONFIG_INITIAL_AUTH_AUTHORIZATION (0x01) – Authorization • IMS_SETTINGS_CONFIG_INITIAL_AUTH_PROXY_AUTHORIZATION (0x02) – Proxy authorization
Type	0x15			1	Authorization Header Value
Length	Var			2	
Value	→	string	auth_header_value	Var	Authorization header value.
Type	0x16			1	Proxy Route Value
Length	Var			2	
Value	→	string	proxy_route_value	Var	Route value to be used by the shared configuration.

3.29.2 Description of QMI_IMS_SETTINGS_SIP_READ_ONLY_CONFIG_-IND

This indication is sent to the control points that have registered for it when there are updates to the SIP read-only configuration parameters.

3.30 QMI_IMS_SETTINGS_GET_NETWORK_READ_ONLY_-CONFIG

Retrieves the network read-only-related configuration parameters.

IMSS message ID

0x003D

Version introduced

Major - 1, Minor - 7

3.30.1 Request - QMI_IMS_SETTINGS_GET_NETWORK_READ_ONLY_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.30.2 Response - QMI_IMS_SETTINGS_GET_NETWORK_READ_ONLY_-CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.7	1.7

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.7	1.7
IPv6 Enabled	1.7	1.7
IPSec Integrity Scheme	1.7	1.7
IPSec Encryption Algorithm	1.7	1.7
Chunk Size of MSRP Packet	1.19	1.19

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	IPv6 Enabled
Length	1			2	
Value	→	boolean	ipv6_enabled	1	Indicates whether the IPV6 address is enabled.
Type	0x12			1	IPSec Integrity Scheme
Length	8			2	
Value	→	mask	ip_sec_int_scheme	8	Bitmask indicating the integrity algorithm combination. Values: • IMS_SETTINGS_INTEG_ALGO_ HMAC_SHA_1_96 (0x01) – HMAC-SHA-1-96 algorithm is used for IPSec integrity • IMS_SETTINGS_INTEG_ALGO_ HMAC_MD5_96 (0x02) – HMAC-MD5-96 algorithm is used for IPSec integrity
Type	0x13			1	IPSec Encryption Algorithm
Length	8			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	mask	ip_sec_enc_algo	8	Bitmask indicating the IPSec encryption algorithm combination. Values: • IMS_SETTINGS_ENCRYPT_ ALGO_NULL (0x01) – NULL algorithm is used for IPSec encryption • IMS_SETTINGS_ENCRYPT_ ALGO_AES_CBC (0x02) – AES-CBC algorithm is used for IPSec encryption • IMS_SETTINGS_ENCRYPT_ ALGO_DES_EDE3_CBC (0x04) – DES-EDE3-CBC algorithm is used for IPSec encryption
Type	0x14			1	Chunk Size of MSRP Packet
Length	2			2	
Value	→	uint16	msrp_pkt_size	2	Indicates MSRP packet chunk size in KB (kilobytes). Default value: 2KB.

3.30.3 Description of QMI_IMS_SETTINGS_GET_NETWORK_READ_-ONLY_CONFIG REQ/RESP

The request message retrieves the network read-only configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the network read-only configuration parameters to the control point.

3.31 QMI_IMS_SETTINGS_NETWORK_READ_ONLY_CONFIG_-IND

Indicates when the network read-only-related configuration parameters change.

IMSS message ID

0x003E

Version introduced

Major - 1, Minor - 7

3.31.1 Indication - QMI_IMS_SETTINGS_NETWORK_READ_ONLY_-CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
IPv6 Enabled	1.7	1.7
IPSec Integrity Scheme	1.7	1.7
IPSec Encryption Algorithm	1.7	1.7
Chunk Size of MSRP Packet	1.19	1.19

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	IPv6 Enabled
Length	1			2	
Value	→	boolean	ipv6_enabled	1	Indicates whether the IPv6 address is enabled.
Type	0x11			1	IPSec Integrity Scheme
Length	8			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	mask	ip_sec_int_scheme	8	Bitmask indicating the integrity algorithm combination. Values: • IMS_SETTINGS_INTEG_ALGO_ HMAC_SHA_1_96 (0x01) – HMAC-SHA-1-96 algorithm is used for IPSec integrity • IMS_SETTINGS_INTEG_ALGO_ HMAC_MD5_96 (0x02) – HMAC-MD5-96 algorithm is used for IPSec integrity
Type	0x12			1	IPSec Encryption Algorithm
Length	8			2	
Value	→	mask	ip_sec_enc_algo	8	Bitmask indicating the IPSec encryption algorithm combination. Values: • IMS_SETTINGS_ENCRYPT_ ALGO_NULL (0x01) – NULL algorithm is used for IPSec encryption • IMS_SETTINGS_ENCRYPT_ ALGO_AES_CBC (0x02) – AES-CBC algorithm is used for IPSec encryption • IMS_SETTINGS_ENCRYPT_ ALGO_DES_EDE3_CBC (0x04) – DES-EDE3-CBC algorithm is used for IPSec encryption
Type	0x13			1	Chunk Size of MSRP Packet
Length	2			2	
Value	→	uint16	msrp_pkt_size	2	Indicates MSRP packet chunk size in KB (kilobytes). Default value: 2 kB.

3.31.2 Description of QMI_IMS_SETTINGS_NETWORK_READ_ONLY_-CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the network read-only configuration parameters.

3.32 QMI_IMS_SETTINGS_GET_VOIP_READ_ONLY_CONFIG

Retrieves the VoIP read-only-related configuration parameters.

IMSS message ID

0x003F

Version introduced

Major - 1, Minor - 10

3.32.1 Request - QMI_IMS_SETTINGS_GET_VOIP_READ_ONLY_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.32.2 Response - QMI_IMS_SETTINGS_GET_VOIP_READ_ONLY_-CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.10	1.10

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.10	1.10
VoIP Configuration Expiration	1.10	1.10
VoIP Session Timer Enabled	1.10	1.10

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	VoIP Configuration Expiration
Length	2			2	
Value	→	uint16	voip_config_expires	2	VoIP configuration expiration timer.
Type	0x12			1	VoIP Session Timer Enabled
Length	1			2	
Value	→	boolean	voip_session_timer_enabled	1	Indicates whether the VoIP session is timer enabled.

3.32.3 Description of QMI_IMS_SETTINGS_GET_VOIP_READ_ONLY_-CONFIG REQ/RESP

The request message retrieves the VoIP read-only configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the VoIP read-only configuration parameters to the control point.

3.33 QMI_IMS_SETTINGS_GET_USER_READ_ONLY_CONFIG

Retrieves the user read-only-related configuration parameters.

IMSS message ID

0x0040

Version introduced

Major - 1, Minor - 10

3.33.1 Request - QMI_IMS_SETTINGS_GET_USER_READ_ONLY_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.33.2 Response - QMI_IMS_SETTINGS_GET_USER_READ_ONLY_-CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.10	1.10

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.10	1.10
Registration Configuration User Name	1.10	1.10
Registration Configuration Private URI	1.10	1.10
Registration Configuration Display Name	1.12	1.12

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	Registration Configuration User Name
Length	Var			2	
Value	→	string	reg_config_userName	Var	Registration configuration user name.
Type	0x12			1	Registration Configuration Private URI
Length	Var			2	
Value	→	string	reg_config_privateURI	Var	Registration configuration private URI.
Type	0x13			1	Registration Configuration Display Name
Length	Var			2	
Value	→	string16	reg_config_displayName	Var	Registration configuration display name.

3.33.3 Description of QMI_IMS_SETTINGS_GET_USER_READ_ONLY_CONFIG REQ/RESP

The request message retrieves the user read-only configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the user read-only configuration parameters to the control point.

3.34 QMI_IMS_SETTINGS_GET_REG_MGR_READ_ONLY_-CONFIG

Retrieves the registration manager read-only-related configuration parameters.

IMSS message ID

0x0041

Version introduced

Major - 1, Minor - 10

3.34.1 Request - QMI_IMS_SETTINGS_GET_REG_MGR_READ_ONLY_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.34.2 Response - QMI_IMS_SETTINGS_GET_REG_MGR_READ_ONLY_-CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.10	1.10

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.10	1.10
Registration Configuration Mode	1.10	1.10
RegMgr PDP Profile Name	1.10	1.10

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	Registration Configuration Mode
Length	4			2	
Value	→	enum	settings_regmgr_mode_config	4	Registration configuration mode value. Values: • IMS_SETTINGS_REGMGR_CONFIG_IETF (0x00) – IETF Configuration mode • IMS_SETTINGS_REGMGR_CONFIG_EARLY_IMS (0x01) – Early IMS Configuration mode • IMS_SETTINGS_REGMGR_CONFIG_IMS (0x02) – IMS Configuration mode • IMS_SETTINGS_REGMGR_CONFIG_IMS_NO_IPSEC (0x03) – IMS No IPSec Configuration mode • IMS_SETTINGS_REGMGR_CONFIG_IMS_NONE (0x04) – No configuration mode
Type	0x12			1	RegMgr PDP Profile Name
Length	Var			2	
Value	→	string	regmgr_pdp_profilename	Var	Registration manager PDP profile name.

3.34.3 Description of QMI_IMS_SETTINGS_GET_REG_MGR_READ_-ONLY_CONFIG REQ/RESP

The request message retrieves the registration manager read-only configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the registration manager read-only configuration parameters to the control point.

3.35 QMI_IMS_SETTINGS_GET_RCS_AUTO_CONFIG_READ_-ONLY_CONFIG

Retrieves the RCS automatic configuration read-only-related configuration parameters.

IMSS message ID

0x0042

Version introduced

Major - 1, Minor - 10

3.35.1 Request - QMI_IMS_SETTINGS_GET_RCS_AUTO_CONFIG_-READ_ONLY_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.35.2 Response - QMI_IMS_SETTINGS_GET_RCS_AUTO_CONFIG_-READ_ONLY_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.10	1.10

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.10	1.10
Device Type	1.10	1.10
RCS PDP Profile Name	1.10	1.10
Internet PDP Profile Name	1.10	1.10
PCO Configuration Priority	1.10	1.10
ISIM Configuration Priority	1.10	1.10
Preconfiguration Priority	1.10	1.10
Automatic Configuration Priority	1.10	1.10
RCS LTE FT List	1.10	1.10
RCS HSPA FT List	1.10	1.10
RCS Wi-Fi FT List	1.10	1.10
Disable Auto Configuration	1.16	1.16

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	Device Type
Length	1			2	
Value	→	uint8	rcsOnly_device_type	1	RCS device type configuration.
Type	0x12			1	RCS PDP Profile Name
Length	Var			2	
Value	→	string	rcs_pdp_profilename	Var	RCS APN profile name.
Type	0x13			1	Internet PDP Profile Name
Length	Var			2	
Value	→	string	internet_pdp_profilename	Var	Internet APN profile name.
Type	0x14			1	PCO Configuration Priority
Length	1			2	
Value	→	uint8	pco_config_priority	1	Priority of PCO configuration
Type	0x15			1	ISIM Configuration Priority
Length	1			2	
Value	→	uint8	isim_config_priority	1	Priority of ISIM configuration.
Type	0x16			1	Preconfiguration Priority
Length	1			2	
Value	→	uint8	preconfig_priority	1	Preconfiguration priority.

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x17			1	Automatic Configuration Priority
Length	1			2	
Value	→	uint8	autoconfig_priority	1	Automatic configuration priority.
Type	0x18			1	RCS LTE FT List
Length	Var			2	
Value	→	string	rcs_lte_ft_list	Var	List of RCS FTs to be supported in the LTE RAT.
Type	0x19			1	RCS HSPA FT List
Length	Var			2	
Value	→	string	rcs_hspa_ft_list	Var	List of RCS FTs to be supported in the HSPA RAT.
Type	0x1A			1	RCS Wi-Fi FT List
Length	Var			2	
Value	→	string	rcs_wifi_ft_list	Var	List of RCS FTs to be supported in the Wi-Fi® RAT.
Type	0x1B			1	Disable Auto Configuration
Length	1			2	
Value	→	boolean	disable_auto_config	1	Flag indicating whether to disable auto configuration of RCS. Values: • TRUE – Disable • FALSE – Enable

3.35.3 Description of QMI_IMS_SETTINGS_GET_RCS_AUTO_CONFIG_-READ_ONLY_CONFIG REQ/RESP

The request message retrieves the RCS automatic configuration read-only configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the RCS automatic configuration read-only configuration parameters to the control point.

3.36 QMI_IMS_SETTINGS_GET_RCS_IMSCORE_AUTO_-CONFIG_READ_ONLY_CONFIG

Retrieves the RCS IMS core automatic configuration read-only-related configuration parameters.

IMSS message ID

0x0043

Version introduced

Major - 1, Minor - 10

3.36.1 Request - QMI_IMS_SETTINGS_GET_RCS_IMSCORE_AUTO_-CONFIG_READ_ONLY_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.36.2 Response - QMI_IMS_SETTINGS_GET_RCS_IMSCORE_AUTO_-CONFIG_READ_ONLY_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.10	1.10

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.10	1.10
RCS Timer T1	1.10	1.10
RCS Timer T2	1.10	1.10
RCS Timer T4	1.10	1.10

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	RCS Timer T1
Length	4			2	
Value	→	uint32	rcs_timer_t1	4	SIP timer 1 is retrieved using RCS automatic configuration.
Type	0x12			1	RCS Timer T2
Length	4			2	
Value	→	uint32	rcs_timer_t2	4	SIP timer 2 is retrieved using RCS automatic configuration.
Type	0x13			1	RCS Timer T4
Length	4			2	
Value	→	uint32	rcs_timer_t4	4	SIP timer 4 is retrieved using RCS automatic configuration.

3.36.3 Description of QMI_IMS_SETTINGS_GET_RCS_IMSCORE_-AUTO_CONFIG_READ_ONLY_CONFIG REQ/RESP

The request message retrieves the RCS IMS core automatic configuration read-only configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the RCS IMS core automatic configuration read-only configuration parameters to the control point.

3.37 QMI_IMS_SETTINGS_SET_REG_MGR_EXTENDED_CONFIG

Sets the IMS registration manager extended configuration parameters for the requesting control point.

IMSS message ID

0x0044

Version introduced

Major - 1, Minor - 13

3.37.1 Request - QMI_IMS_SETTINGS_SET_REG_MGR_EXTENDED_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Reregistration Delay	1.13	1.13
Delay Length for iRAT Transition	1.17	1.19 (Deprecated)
RegRetryBaseTime	1.28	1.28
RegRetryMaxTime	1.28	1.28

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Reregistration Delay
Length	2			2	
Value	→	uint16	reregistration_delay	2	IMS reregistration wait time when RAT transitions from eHRPD to LTE, in seconds.
Type	0x11			1	Delay Length for iRAT Transition (Deprecated)
Length	2			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint16	t_delay	2	Delay length for an Inter-Radio Access Technology (iRAT) transition, in seconds; allowed integer value range is 0 to 600. If this TLV is not present in the request, a value of 0 is used. **Note:** This TLV is deprecated; it was a duplicate. Use the Reregistration Delay TLV instead.
Type	0x12			1	RegRetryBaseTime
Length	2			2	
Value	→	uint16	reg_retry_base_time	2	RegRetryBaseTime value, in seconds. RegRetryBaseTime is the value of the base-time parameter of the flow recovery algorithm.
Type	0x13			1	RegRetryMaxTime
Length	2			2	
Value	→	uint16	reg_retry_max_time	2	RegRetryMaxTime value, in seconds. RegRetryMaxTime is the value of the max-time parameter of the flow recovery algorithm.

3.37.2 Response - QMI_IMS_SETTINGS_SET_REG_MGR_EXTENDED_-CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.13	1.13

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.37.3 Description of QMI_IMS_SETTINGS_SET_REG_MGR_-EXTENDED_CONFIG REQ/RESP

The request message from the client sets the IMS QIPCall configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.38 QMI_IMS_SETTINGS_GET_REG_MGR_EXTENDED_CONFIG

Retrieves the registration manager extended configuration parameters.

IMSS message ID

0x0045

Version introduced

Major - 1, Minor - 13

3.38.1 Request - QMI_IMS_SETTINGS_GET_REG_MGR_EXTENDED_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.38.2 Response - QMI_IMS_SETTINGS_GET_REG_MGR_EXTENDED_-CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.13	1.13

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.13	1.13
Reregistration Delay	1.13	1.13
Delay Length for iRAT Transition	1.17	1.19 (Deprecated)
RegRetryBaseTime	1.28	1.28
RegRetryMaxTime	1.28	1.28

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	Reregistration Delay
Length	2			2	
Value	→	uint16	reregistration_delay	2	IMS reregistration wait time when RAT transitions from eHRPD to LTE, in seconds.
Type	0x12			1	Delay Length for iRAT Transition (Deprecated)
Length	2			2	
Value	→	uint16	t_delay	2	The length of the delay for an iRAT transition, in seconds; allowed integer value range is 0 to 600. If this TLV is not present in the request, a value of 0 is used. **Note:** This TLV is deprecated and was a duplicate. Use the Reregistration Delay TLV instead.
Type	0x13			1	RegRetryBaseTime
Length	2			2	
Value	→	uint16	reg_retry_base_time	2	RegRetryBaseTime value, in seconds. RegRetryBaseTime is the value of the base-time parameter of the flow recovery algorithm.
Type	0x14			1	RegRetryMaxTime
Length	2			2	
Value	→	uint16	reg_retry_max_time	2	RegRetryMaxTime value, in seconds. RegRetryMaxTime is the value of the max-time parameter of the flow recovery algorithm.

3.38.3 Description of QMI_IMS_SETTINGS_GET_REG_MGR_-EXTENDED_CONFIG REQ/RESP

The request message gets the registration manager extended configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the registration manager extended configuration parameters to the control point.

3.39 QMI_IMS_SETTINGS_REG_MGR_EXTENDED_CONFIG_IND

Indicates when the registration manager extended configuration parameters change.

IMSS message ID

0x0046

Version introduced

Major - 1, Minor - 13

3.39.1 Indication - QMI_IMS_SETTINGS_REG_MGR_EXTENDED_-CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Reregistration Delay	1.13	1.13
Delay Length for iRAT Transition	1.17	1.19 (Deprecated)
RegRetryBaseTime	1.28	1.28
RegRetryMaxTime	1.28	1.28

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Reregistration Delay
Length	2			2	
Value	→	uint16	reregistration_delay	2	IMS reregistration wait time when RAT transitions from eHRPD to LTE, in seconds.
Type	0x11			1	Delay Length for iRAT Transition (Deprecated)
Length	2			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	uint16	t_delay	2	Length of the delay for an iRAT transition, in seconds; allowed integer value range is 0 to 600. If this TLV is not present in the request, a value of 0 is used. **Note:** This TLV is deprecated and was a duplicate. Use the Reregistration Delay TLV instead.
Type	0x12			1	RegRetryBaseTime
Length	2			2	
Value	→	uint16	reg_retry_base_time	2	RegRetryBaseTime value, in seconds. RegRetryBaseTime is the value of the base-time parameter of the flow recovery algorithm.
Type	0x13			1	RegRetryMaxTime
Length	2			2	
Value	→	uint16	reg_retry_max_time	2	RegRetryMaxTime value, in seconds. RegRetryMaxTime is the value of the max-time parameter of the flow recovery algorithm.

3.39.2 Description of QMI_IMS_SETTINGS_REG_MGR_EXTENDED_-CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the registration manager extended configuration parameters.

3.40 QMI_IMS_SETTINGS_SET_POL_MGR_CONFIG

Sets the IMS policy manager configuration parameters for the requesting control point. (Deprecated)

IMSS message ID

0x0047

Version introduced

Major - 1, Minor - 14

Version deprecated

Major - 1, Minor - 19

3.40.1 Request - QMI_IMS_SETTINGS_SET_POL_MGR_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Policy Manager RAT APN Information Array	1.14	1.14
Policy Manager RAT APN Fallback and Service Priority Information Array	1.14	1.14
Policy Manager Allowed Services Over WLAN	1.14	1.14
Policy Manager Add All Feature Tags	1.14	1.14
Policy Manager ACS Priority	1.14	1.14
Policy Manager ISIM Priority	1.14	1.14
Policy Manager NV Priority	1.14	1.14
Policy Manager PCO Priority	1.14	1.14
Policy Manager IMS Service Priority	1.14	1.14
Policy Manager Access Point Name List	1.14	1.14

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Policy Manager RAT APN Information Array (Array of RAT and APN and their information parameters.)
Length	70			2	
Value	→	uint16	rat	2	RAT.
		uint8	apn_type_apn_index	1	APN type APN index.
		uint16	service_mask	2	Service mask.
		uint8	auth_type_security_type	1	Authentication type security type.
		uint8	ip_type_info	1	IP type info.
Type	0x11			1	Policy Manager RAT APN Fallback and Service Priority Information Array (Array of RAT and APN and their fallback and service priority information parameters.)
Length	40			2	
Value	→	uint16	pol_mgr_rat_apn_fallback	2	Sequence of the fallback APN for a particular RAT.
		uint16	pol_mgr_service_priority_wwan	2	Priority of a specific service on WWAN over WLAN.
Type	0x12			1	Policy Manager Allowed Services Over WLAN
Length	8			2	
Value	→	mask	pol_mgr_allowed_services_wlan	8	Bitmask indicating which services are allowed over WLAN.
Type	0x13			1	Policy Manager Add All Feature Tags
Length	1			2	
Value	→	boolean	pol_mgr_add_all_fts	1	Indicates whether to add all feature tag list or application.
Type	0x14			1	Policy Manager ACS Priority
Length	1			2	
Value	→	uint8	pol_mgr_acs_priority	1	Priority of ACS values.
Type	0x15			1	Policy Manager ISIM Priority
Length	1			2	
Value	→	uint8	pol_mgr_isim_priority	1	Priority of ISIM values.
Type	0x16			1	Policy Manager NV Priority
Length	1			2	
Value	→	uint8	pol_mgr_nv_priority	1	Priority of preconfiguration NV values.
Type	0x17			1	Policy Manager PCO Priority
Length	1			2	
Value	→	uint8	pol_mgr_pco_priority	1	Priority of PCO values.
Type	0x18			1	Policy Manager IMS Service Priority
Length	8			2	
Value	→	mask	pol_mgr_ims_service_status	8	Bitmask indicating the services that are enabled on the device.
Type	0x19			1	Policy Manager Access Point Name List (IMS access point names.)

Field	Field value	Field type	Parameter	Size (byte)	Description
Length	Var			2	
Value	→	uint8	pol_mgr_apn_name_len	1	Number of sets of the following elements: • pol_mgr_apn_name
		string	pol_mgr_apn_name	Var	Access point.

3.40.2 Response - QMI_IMS_SETTINGS_SET_POL_MGR_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.14	1.14

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.40.3 Description of QMI_IMS_SETTINGS_SET_POL_MGR_CONFIG REQ/RESP

This command is deprecated. There is no replacement.

The request message sets the IMS policy manager configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.41 QMI_IMS_SETTINGS_GET_POL_MGR_CONFIG

Retrieves the policy manager configuration parameters.

IMSS message ID

0x0048

Version introduced

Major - 1, Minor - 14

3.41.1 Request - QMI_IMS_SETTINGS_GET_POL_MGR_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.41.2 Response - QMI_IMS_SETTINGS_GET_POL_MGR_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.14	1.14

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.14	1.14
Policy Manager RAT APN Information Array	1.14	1.14
Policy Manager RAT APN Fallback and Service Priority Information Array	1.14	1.14
Policy Manager Allowed Services Over WLAN	1.14	1.14
Policy Manager Add All Feature Tags	1.14	1.14
Policy Manager ACS Priority	1.14	1.14
Policy Manager ISIM Priority	1.14	1.14
Policy Manager NV Priority	1.14	1.14
Policy Manager PCO Priority	1.14	1.14
Policy Manager IMS Service Priority	1.14	1.14
Policy Manager Access Point Name List	1.14	1.14

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	Policy Manager RAT APN Information Array (Array of RAT and APN and their fallback and service priority information parameters.)
Length	70			2	
Value	→	uint16	rat	2	RAT.
		uint8	apn_type_apn_index	1	APN type APN index.
		uint16	service_mask	2	Service mask.
		uint8	auth_type_security_type	1	Authentication type security type.
		uint8	ip_type_info	1	IP type info.
Type	0x12			1	Policy Manager RAT APN Fallback and Service Priority Information Array (Array of RAT and APN and their fallback and service priority information parameters.)
Length	40			2	
Value	→	uint16	pol_mgr_rat_apn_fallback	2	Sequence of the fallback APN for a particular RAT.
		uint16	pol_mgr_service_priority_wwan	2	Priority of a specific service on WWAN over WLAN.
Type	0x13			1	Policy Manager Allowed Services Over WLAN
Length	8			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	mask	pol_mgr_allowed_ services_wlan	8	Bitmask indicating which services are allowed over WLAN.
Type	0x14			1	Policy Manager Add All Feature Tags
Length	1			2	
Value	→	boolean	pol_mgr_add_all_fts	1	Indicates whether to add all the feature tag list or application.
Type	0x15			1	Policy Manager ACS Priority
Length	1			2	
Value	→	uint8	pol_mgr_acs_priority	1	Priority of ACS values.
Type	0x16			1	Policy Manager ISIM Priority
Length	1			2	
Value	→	uint8	pol_mgr_isim_priority	1	Priority of ISIM values.
Type	0x17			1	Policy Manager NV Priority
Length	1			2	
Value	→	uint8	pol_mgr_nv_priority	1	Priority of preconfiguration NV values.
Type	0x18			1	Policy Manager PCO Priority
Length	1			2	
Value	→	uint8	pol_mgr_pco_priority	1	Priority of PCO values.
Type	0x19			1	Policy Manager IMS Service Priority
Length	8			2	
Value	→	mask	pol_mgr_ims_service_ status	8	Bitmask indicating which services are enabled on the device.
Type	0x1A			1	Policy Manager Access Point Name List (IMS access point names.)
Length	Var			2	
Value	→	uint8	pol_mgr_apn_name_len	1	Number of sets of the following elements: • pol_mgr_apn_name
		string	pol_mgr_apn_name	Var	Access point.

3.41.3 Description of QMI_IMS_SETTINGS_GET_POL_MGR_CONFIG REQ/RESP

The request message gets the policy manager configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the policy manager configuration parameters to the control point.

3.42 QMI_IMS_SETTINGS_POL_MGR_CONFIG_IND

Indicates when the policy manager configuration parameters change.

IMSS message ID

0x0049

Version introduced

Major - 1, Minor - 14

3.42.1 Indication - QMI_IMS_SETTINGS_POL_MGR_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Policy Manager RAT APN Information Array	1.14	1.14
Policy Manager RAT APN Fallback and Service Priority Information Array	1.14	1.14
Policy Manager Allowed Services Over WLAN	1.14	1.14
Policy Manager Add All Feature Tags	1.14	1.14
Policy Manager ACS Priority	1.14	1.14
Policy Manager ISIM Priority	1.14	1.14
Policy Manager NV Priority	1.14	1.14
Policy Manager PCO Priority	1.14	1.14
Policy Manager IMS Service Priority	1.14	1.14
Policy Manager Access Point Name List	1.14	1.14

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Policy Manager RAT APN Information Array (Array of RAT and APN information parameters.)
Length	70			2	
Value	→	uint16	rat	2	RAT.
		uint8	apn_type_apn_index	1	APN type APN index.
		uint16	service_mask	2	Service mask.
		uint8	auth_type_security_type	1	Authentication type security type.
		uint8	ip_type_info	1	IP type info.
Type	0x11			1	Policy Manager RAT APN Fallback and Service Priority Information Array (Array of RAT and APN and their fallback and service priority information parameters.)
Length	40			2	
Value	→	uint16	pol_mgr_rat_apn_fallback	2	Sequence of the fallback APN for a particular RAT.
		uint16	pol_mgr_service_priority_wwan	2	Priority of a specific service on WWAN over WLAN.
Type	0x12			1	Policy Manager Allowed Services Over WLAN
Length	8			2	
Value	→	mask	pol_mgr_allowed_services_wlan	8	Bitmask indicating which services are allowed over WLAN.
Type	0x13			1	Policy Manager Add All Feature Tags
Length	1			2	
Value	→	boolean	pol_mgr_add_all_fts	1	Indicates whether to add all the feature tag list or application.
Type	0x14			1	Policy Manager ACS Priority
Length	1			2	
Value	→	uint8	pol_mgr_acs_priority	1	Priority of ACS values.
Type	0x15			1	Policy Manager ISIM Priority
Length	1			2	
Value	→	uint8	pol_mgr_isim_priority	1	Priority of ISIM values.
Type	0x16			1	Policy Manager NV Priority
Length	1			2	
Value	→	uint8	pol_mgr_nv_priority	1	Priority of preconfiguration NV values.
Type	0x17			1	Policy Manager PCO Priority
Length	1			2	
Value	→	uint8	pol_mgr_pco_priority	1	Priority of PCO values.
Type	0x18			1	Policy Manager IMS Service Priority
Length	8			2	
Value	→	mask	pol_mgr_ims_service_status	8	Bitmask indicating the services that are enabled on the device.
Type	0x19			1	Policy Manager Access Point Name List (IMS access point names.)

Field	Field value	Field type	Parameter	Size (byte)	Description
Length	Var			2	
Value	→	uint8	pol_mgr_apn_name_len	1	Number of sets of the following elements: • pol_mgr_apn_name
		string	pol_mgr_apn_name	Var	Access point.

3.42.2 Description of QMI_IMS_SETTINGS_POL_MGR_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the policy manager configuration parameters.

3.43 QMI_IMS_SETTINGS_SET_PRESENCE_EXT_CONFIG

Sets the IMS presence extended-related configuration parameters for the requesting control point.

IMSS message ID

0x004A

Version introduced

Major - 1, Minor - 16

3.43.1 Request - QMI_IMS_SETTINGS_SET_PRESENCE_EXT_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Publish Error Recovery Timer	1.16	1.16
Publish User Agent	1.30	1.30

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Publish Error Recovery Timer
Length	4			2	
Value	→	uint32	publish_error_recovery_ timer	4	Publish error recovery timer, in seconds.
Type	0x11			1	Publish User Agent
Length	Var			2	
Value	→	string	publish_user_agent	Var	User agent.

3.43.2 Response - QMI_IMS_SETTINGS_SET_PRESENCE_EXT_-CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.16	1.16

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.16	1.16

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.43.3 Description of QMI_IMS_SETTINGS_SET_PRESENCE_EXT_-CONFIG REQ/RESP

The request message from the client sets the IMS presence extended configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.44 QMI_IMS_SETTINGS_GET_PRESENCE_EXT_CONFIG

Retrieves the presence extended-related configuration parameters.

IMSS message ID

0x004B

Version introduced

Major - 1, Minor - 16

3.44.1 Request - QMI_IMS_SETTINGS_GET_PRESENCE_EXT_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.44.2 Response - QMI_IMS_SETTINGS_GET_PRESENCE_EXT_-CONFIG_RSP

Message type

Response

Sender

Settings service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.16	1.16

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.19	1.19
Publish Error Recovery Timer	1.16	1.16
Publish User Agent	1.30	1.30

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	Publish Error Recovery Timer
Length	4			2	
Value	→	uint32	publish_error_recovery_timer	4	Publish error recovery timer, in seconds.
Type	0x12			1	Publish User Agent
Length	Var			2	
Value	→	string	publish_user_agent	Var	User agent.

3.44.3 Description of QMI_IMS_SETTINGS_GET_PRESENCE_EXT_CONFIG REQ/RESP

The request message retrieves the presence extended configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the presence extended configuration parameters to the control point.

3.45 QMI_IMS_SETTINGS_PRESENCE_EXT_CONFIG_IND

Indicates when the presence extended-related configuration parameters change.

IMSS message ID

0x004C

Version introduced

Major - 1, Minor - 16

3.45.1 Indication - QMI_IMS_SETTINGS_PRESENCE_EXT_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Publish Error Recovery Timer	1.16	1.16
Publish User Agent	1.30	1.30

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Publish Error Recovery Timer
Length	4			2	
Value	→	uint32	publish_error_recovery_ timer	4	Publish error recovery timer, in seconds.
Type	0x11			1	Publish User Agent
Length	Var			2	
Value	→	string	publish_user_agent	Var	User agent.

3.45.2 Description of QMI_IMS_SETTINGS_PRESENCE_EXT_CONFIG_-IND

This indication is sent to the control points that have registered for it when there are updates to the presence extended configuration parameters.

3.46 QMI_IMS_SETTINGS_SET_RCS_SM_CONFIG

Sets the IMS RCS standalone messaging configuration parameters for the requesting control point.

IMSS message ID

0x004D

Version introduced

Major - 1, Minor - 16

3.46.1 Request - QMI_IMS_SETTINGS_SET_RCS_SM_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
RCS Standalone Messaging Authorization	1.16	1.16
RCS Standalone Message Maximum Size	1.16	1.16
RCS Standalone Message Explorer URI	1.16	1.16

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	RCS Standalone Messaging Authorization
Length	1			2	
Value	→	boolean	standalone_message_auth	1	Values: • TRUE - Authorized • FALSE - Unauthorized
Type	0x11			1	RCS Standalone Message Maximum Size
Length	4			2	
Value	→	uint32	standalone_message_max_size	4	Maximum size of a standalone message.
Type	0x12			1	RCS Standalone Message Explorer URI
Length	Var			2	
Value	→	string	standalone_message_explorer_uri	Var	Standalone message explorer URI.

3.46.2 Response - QMI_IMS_SETTINGS_SET_RCS_SM_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.16	1.16

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.16	1.16

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.46.3 Description of QMI_IMS_SETTINGS_SET_RCS_SM_CONFIG REQ/RESP

The request message sets the IMS RCS standalone messaging configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.47 QMI_IMS_SETTINGS_GET_RCS_SM_CONFIG

Retrieves the RCS standalone messaging configuration parameters.

IMSS message ID

0x004E

Version introduced

Major - 1, Minor - 16

3.47.1 Request - QMI_IMS_SETTINGS_GET_RCS_SM_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.47.2 Response - QMI_IMS_SETTINGS_GET_RCS_SM_CONFIG_RSP

Message type

Response

Sender

Settings service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.16	1.16

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.16	1.16
RCS Standalone Messaging Authorization	1.16	1.16
RCS Standalone Message Maximum Size	1.16	1.16
RCS Standalone Message Explorer URI	1.16	1.16

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.
Type	0x11			1	RCS Standalone Messaging Authorization
Length	1			2	
Value	→	boolean	standalone_message_auth	1	Values: • TRUE - Authorized • FALSE - Unauthorized
Type	0x12			1	RCS Standalone Message Maximum Size
Length	4			2	
Value	→	uint32	standalone_message_max_size	4	Maximum size of a standalone message.
Type	0x13			1	RCS Standalone Message Explorer URI
Length	Var			2	
Value	→	string	standalone_message_explorer_uri	Var	Standalone message explorer URI.

3.47.3 Description of QMI_IMS_SETTINGS_GET_RCS_SM_CONFIG REQ/RESP

The request message retrieves the RCS standalone messaging configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the RCS standalone messaging configuration parameters to the control point.

3.48 QMI_IMS_SETTINGS_RCS_SM_CONFIG_IND

Indicates when the RCS standalone messaging configuration parameters change.

IMSS message ID

0x004F

Version introduced

Major - 1, Minor - 16

3.48.1 Indication - QMI_IMS_SETTINGS_RCS_SM_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
RCS Standalone Messaging Authorization	1.16	1.16
RCS Standalone Message Maximum Size	1.16	1.16
RCS Standalone Message Explorer URI	1.16	1.16

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	RCS Standalone Messaging Authorization
Length	1			2	
Value	→	boolean	standalone_message_auth	1	Values: • TRUE - Authorized • FALSE - Unauthorized
Type	0x11			1	RCS Standalone Message Maximum Size
Length	4			2	
Value	→	uint32	standalone_message_max_size	4	Maximum size of a standalone message.

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x12			1	RCS Standalone Message Explorer URI
Length	Var			2	
Value	→	string	standalone_message_ explorer_uri	Var	Standalone message explorer URI.

3.48.2 Description of QMI_IMS_SETTINGS_RCS_SM_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the RCS standalone messaging configuration parameters.

3.49 QMI_IMS_SETTINGS_SET_UT_CONFIG

Sets the IMS Ut Interface configuration parameters for the requesting control point.

IMSS message ID

0x0050

Version introduced

Major - 1, Minor - 18

3.49.1 Request - QMI_IMS_SETTINGS_SET_UT_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Disable Ut Interface Status	1.18	1.18
Ut Interface Access Point Name	1.21	1.21
Ut Interface IP Address Type	1.21	1.21

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Disable Ut Interface Status
Length	1			2	
Value	→	boolean	disable_ut	1	Values: • TRUE – Disable • FALSE – Enable (default) If this TLV is not included in the request, a value of FALSE (i.e., Enable) is used.
Type	0x11			1	Ut Interface Access Point Name
Length	Var			2	
Value	→	string	ut_apn_name	Var	Ut Interface APN string.
Type	0x12			1	Ut Interface IP Address Type
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	enum	ut_ip_addr_type	4	Ut Interface IP address type. If this TLV is not present in the request, a value of IMS_SETTINGS_IP_TYPE_ UNKNOWN is used. Values: • IMS_SETTINGS_IP_TYPE_ UNKNOWN (0x00) – Unknown IP address type • IMS_SETTINGS_IP_TYPE_ IPV4 (0x01) – IPv4 address • IMS_SETTINGS_IP_TYPE_ IPV6 (0x02) – IPv6 address

3.49.2 Response - QMI_IMS_SETTINGS_SET_UT_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.18	1.18

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.18	1.18

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.49.3 Description of QMI_IMS_SETTINGS_SET_UT_CONFIG REQ/RESP

The request message sets the IMS Ut Interface configuration parameters for the requesting control point. The response message indicates success or failure based upon the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.50 QMI_IMS_SETTINGS_GET_UT_CONFIG

Retrieves the Ut Interface configuration parameters.

IMSS message ID

0x0051

Version introduced

Major - 1, Minor - 18

3.50.1 Request - QMI_IMS_SETTINGS_GET_UT_CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.50.2 Response - QMI_IMS_SETTINGS_GET_UT_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.18	1.18
Disable Ut Interface Status	1.18	1.18
Ut Interface Access Point Name	1.21	1.21
Ut Interface IP Address Type	1.21	1.21

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	Settings response.
Type	0x11			1	Disable Ut Interface Status
Length	1			2	
Value	→	boolean	disable_ut	1	Values: • TRUE – Disable • FALSE – Enable
Type	0x12			1	Ut Interface Access Point Name
Length	Var			2	
Value	→	string	ut_apn_name	Var	Ut Interface APN string.
Type	0x13			1	Ut Interface IP Address Type
Length	4			2	
Value	→	enum	ut_ip_addr_type	4	Ut Interface IP address type. Values: • IMS_SETTINGS_IP_TYPE_ UNKNOWN (0x00) – Unknown IP address type • IMS_SETTINGS_IP_TYPE_ IPV4 (0x01) – IPv4 address • IMS_SETTINGS_IP_TYPE_ IPV6 (0x02) – IPv6 address

3.50.3 Description of QMI_IMS_SETTINGS_GET_UT_CONFIG REQ/RESP

The request message from the client gets the Ut Interface configuration parameters from the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. The response message returns the Ut Interface configuration parameters to the control point.

3.51 QMI_IMS_SETTINGS_UT_CONFIG_IND

Indicates when the Ut Interface configuration parameters change.

IMSS message ID

0x0052

Version introduced

Major - 1, Minor - 18

3.51.1 Indication - QMI_IMS_SETTINGS_UT_CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Ut Interface Disable Status	1.18	1.18
Ut Interface Access Point Name	1.21	1.21
Ut Interface IP Address Type	1.21	1.21

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Ut Interface Disable Status
Length	1			2	
Value	→	boolean	ut_disabled	1	Values: • TRUE – Disable • FALSE – Enable
Type	0x11			1	Ut Interface Access Point Name
Length	Var			2	
Value	→	string	ut_apn_name	Var	Ut Interface APN string.
Type	0x12			1	Ut Interface IP Address Type
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	enum	ut_ip_addr_type	4	Ut Interface IP address type. Values: • IMS_SETTINGS_IP_TYPE_ UNKNOWN (0x00) – Unknown IP address type • IMS_SETTINGS_IP_TYPE_ IPV4 (0x01) – IPv4 address • IMS_SETTINGS_IP_TYPE_ IPV6 (0x02) – IPv6 address

3.51.2 Description of QMI_IMS_SETTINGS_UT_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the Ut Interface configuration parameters.

3.52 QMI_IMS_SETTINGS_SET_CLIENT_PROVISIONING_-CONFIG

Sets the IMS client provisioning configuration parameters for the requesting control point.

IMSS message ID

0x0053

Version introduced

Major - 1, Minor - 22

3.52.1 Request - QMI_IMS_SETTINGS_SET_CLIENT_PROVISIONING_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Enable Client Provisioning	1.22	1.22
Enable VoLTE Support Through Client Provisioning	1.22	1.22
Enable VT Support Through Client Provisioning	1.22	1.22
Enable Presence Support Through Client Provisioning	1.22	1.22
Wi-Fi Call Setting	1.25	1.25
Wi-Fi Call Preference Setting	1.25	1.25
Wi-Fi Call Roaming Setting	1.26	1.26

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Enable Client Provisioning
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	boolean	enable_client_provisioning	1	Values: • TRUE – Enable • FALSE – Disable (default) If this TLV is not included in the request, a value of FALSE (i.e., Disable) is used.
Type	0x11			1	Enable VoLTE Support Through Client Provisioning
Length	1			2	
Value	→	boolean	enable_volte	1	Values: • TRUE – Enable • FALSE – Disable (default) If this TLV is not included in the request, a value of FALSE (i.e., Disable) is used.
Type	0x12			1	Enable VT Support Through Client Provisioning
Length	1			2	
Value	→	boolean	enable_vt	1	Values: • TRUE – Enable • FALSE – Disable (default) If this TLV is not included in the request, a value of FALSE (i.e., Disable) is used.
Type	0x13			1	Enable Presence Support Through Client Provisioning
Length	1			2	
Value	→	boolean	enable_presence	1	Values: • TRUE – Enable • FALSE – Disable (default) If this TLV is not included in the request, a value of FALSE (i.e., Disable) is used.
Type	0x14			1	Wi-Fi Call Setting
Length	4			2	
Value	→	enum	wifi_call	4	Wi-Fi Call (WFC) status. Values: • IMS_SETTINGS_WFC_STATUS_ NOT_SUPPORTED (0) – WFC is not supported • IMS_SETTINGS_WFC_STATUS_ ON (1) – WFC is enabled • IMS_SETTINGS_WFC_STATUS_ OFF (2) – WFC is disabled
Type	0x15			1	Wi-Fi Call Preference Setting
Length	4			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	enum	wifi_call_preference	4	WFC preference mode. Values: • IMS_SETTINGS_WFC_CALL_PREF_NONE (0) – None • IMS_SETTINGS_WFC_WLAN_PREFERRED (1) – WLAN preferred mode • IMS_SETTINGS_WFC_WLAN_ONLY (2) – WLAN only mode • IMS_SETTINGS_WFC_CELLULAR_PREFERRED (3) – Cellular preferred mode • IMS_SETTINGS_WFC_CELLULAR_ONLY (4) – Cellular only mode
Type	0x16			1	Wi-Fi Call Roaming Setting
Length	4			2	
Value	→	enum	wifi_call_roaming	4	WFC roaming mode. Values: • IMS_SETTINGS_WFC_ROAMING_NOT_SUPPORTED (0) – WFC roaming is not supported • IMS_SETTINGS_WFC_ROAMING_ENABLED (1) – WFC roaming is enabled • IMS_SETTINGS_WFC_ROAMING_DISABLED (2) – WFC roaming is disabled

3.52.2 Response - QMI_IMS_SETTINGS_SET_CLIENT_PROVISIONING_CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.22	1.22

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.22	1.22

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.52.3 Description of QMI_IMS_SETTINGS_SET_CLIENT_-PROVISIONING_CONFIG REQ/RESP

The request message sets the IMS client provisioning configuration parameters for the requesting control point. The response message indicates success or failure based on the outcome of the request message processing by the service. When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

3.53 QMI_IMS_SETTINGS_GET_CLIENT_PROVISIONING_-CONFIG

Retrieves the client provisioning configuration parameters.

IMSS message ID

0x0054

Version introduced

Major - 1, Minor - 22

3.53.1 Request - QMI_IMS_SETTINGS_GET_CLIENT_PROVISIONING_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.53.2 Response - QMI_IMS_SETTINGS_GET_CLIENT_PROVISIONING_-CONFIG_RSP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.22	1.22

Optional TLVs

Name	Version introduced	Version last modified
Settings Response	1.22	1.22
Enable Client Provisioning	1.22	1.22
Enable VoLTE Support Through Client Provisioning	1.22	1.22
Enable VT Support Through Client Provisioning	1.22	1.22
Enable Presence Support Through Client Provisioning	1.22	1.22
Wi-Fi Call Setting	1.25	1.25
Wi-Fi Call Preference Setting	1.25	1.25
Wi-Fi Call Roaming Setting	1.26	1.26

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Response
Length	1			2	
Value	→	enum8	settings_resp	1	Settings response.
Type	0x11			1	Enable Client Provisioning
Length	1			2	
Value	→	boolean	enable_client_provisioning	1	Values: • TRUE – Enable • FALSE – Disable (default)
Type	0x12			1	Enable VoLTE Support Through Client Provisioning
Length	1			2	
Value	→	boolean	enable_volte	1	Values: • TRUE – Enable • FALSE – Disable (default)
Type	0x13			1	Enable VT Support Through Client Provisioning
Length	1			2	
Value	→	boolean	enable_vt	1	Values: • TRUE – Enable • FALSE – Disable (default)
Type	0x14			1	Enable Presence Support Through Client Provisioning
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	boolean	enable_presence	1	Values: • TRUE – Enable • FALSE – Disable (default)
Type	0x15			1	Wi-Fi Call Setting
Length	4			2	
Value	→	enum	wifi_call	4	WFC status. Values: • IMS_SETTINGS_WFC_STATUS_NOT_SUPPORTED (0) – WFC is not supported • IMS_SETTINGS_WFC_STATUS_ON (1) – WFC is enabled • IMS_SETTINGS_WFC_STATUS_OFF (2) – WFC is disabled
Type	0x16			1	Wi-Fi Call Preference Setting
Length	4			2	
Value	→	enum	wifi_call_preference	4	WFC preference mode. Values: • IMS_SETTINGS_WFC_CALL_PREF_NONE (0) – None • IMS_SETTINGS_WFC_WLAN_PREFERRED (1) – WLAN preferred mode • IMS_SETTINGS_WFC_WLAN_ONLY (2) – WLAN only mode • IMS_SETTINGS_WFC_CELLULAR_PREFERRED (3) – Cellular preferred mode • IMS_SETTINGS_WFC_CELLULAR_ONLY (4) – Cellular only mode
Type	0x17			1	Wi-Fi Call Roaming Setting
Length	4			2	
Value	→	enum	wifi_call_roaming	4	WFC roaming mode. Values: • IMS_SETTINGS_WFC_ROAMING_NOT_SUPPORTED (0) – WFC roaming is not supported • IMS_SETTINGS_WFC_ROAMING_ENABLED (1) – WFC roaming is enabled • IMS_SETTINGS_WFC_ROAMING_DISABLED (2) – WFC roaming is disabled

3.53.3 Description of QMI_IMS_SETTINGS_GET_CLIENT_-PROVISIONING_CONFIG REQ/RESP

The request message from the client gets the client provisioning configuration parameters from the requesting control point. The response message indicates success or failure based upon the outcome of the request message processing by the service. The response message returns the client provisioning configuration parameters to the control point.

3.54 QMI_IMS_SETTINGS_CLIENT_PROVISIONING_CONFIG_-IND

Indicates when the client provisioning configuration parameters change.

IMSS message ID

0x0055

Version introduced

Major - 1, Minor - 22

3.54.1 Indication - QMI_IMS_SETTINGS_CLIENT_PROVISIONING_-CONFIG_IND

Message type

Indication

Sender

Settings Service

Scope

Per control point (unicast)

Mandatory TLVs

None

Optional TLVs

Name	Version introduced	Version last modified
Client Provisioning Enabled Status	1.22	1.22
Enabled VoLTE Support Through Client Provisioning	1.22	1.22
Enabled VT Support Through Client Provisioning	1.22	1.22
Enabled Presence Support Through Client Provisioning	1.22	1.22
Wi-Fi Call Setting	1.25	1.25
Wi-Fi Call Preference Setting	1.25	1.25
Wi-Fi Call Roaming Setting	1.26	1.26

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Client Provisioning Enabled Status
Length	1			2	

Field	Field value	Field type	Parameter	Size (byte)	Description
Value	→	boolean	client_provisioning_ enabled	1	Values: • TRUE – Enable • FALSE – Disable (default)
Type	0x11			1	Enabled VoLTE Support Through Client Provisioning
Length	1			2	
Value	→	boolean	volte_enabled	1	Values: • TRUE – Enable • FALSE – Disable (default)
Type	0x12			1	Enabled VT Support Through Client Provisioning
Length	1			2	
Value	→	boolean	vt_enabled	1	Values: • TRUE – Enable • FALSE – Disable (default)
Type	0x13			1	Enabled Presence Support Through Client Provisioning
Length	1			2	
Value	→	boolean	presence_enabled	1	Values: • TRUE – Enable • FALSE – Disable (default)
Type	0x14			1	Wi-Fi Call Setting
Length	4			2	
Value	→	enum	wifi_call	4	WFC status. Values: • IMS_SETTINGS_WFC_STATUS_ NOT_SUPPORTED (0) – WFC is not supported • IMS_SETTINGS_WFC_STATUS_ ON (1) – WFC is enabled • IMS_SETTINGS_WFC_STATUS_ OFF (2) – WFC is disabled
Type	0x15			1	Wi-Fi Call Preference Setting
Length	4			2	
Value	→	enum	wifi_call_preference	4	WFC preference mode. Values: • IMS_SETTINGS_WFC_CALL_ PREF_NONE (0) – None • IMS_SETTINGS_WFC_WLAN_ PREFERRED (1) – WLAN preferred mode • IMS_SETTINGS_WFC_WLAN_ ONLY (2) – WLAN only mode • IMS_SETTINGS_WFC_CELLULAR_ PREFERRED (3) – Cellular preferred mode • IMS_SETTINGS_WFC_CELLULAR_ ONLY (4) – Cellular only mode
Type	0x16			1	Wi-Fi Call Roaming Setting

Field	Field value	Field type	Parameter	Size (byte)	Description
Length	4			2	
Value	→	enum	wifi_call_roaming	4	WFC roaming mode. Values: • IMS_SETTINGS_WFC_ROAMING_NOT_SUPPORTED (0) – WFC roaming is not supported • IMS_SETTINGS_WFC_ROAMING_ENABLED (1) – WFC roaming is enabled • IMS_SETTINGS_WFC_ROAMING_DISABLED (2) – WFC roaming is disabled

3.54.2 Description of QMI_IMS_SETTINGS_CLIENT_PROVISIONING_CONFIG_IND

This indication is sent to the control points that have registered for it when there are updates to the client provisioning configuration parameters.

3.55 QMI_IMS_SETTINGS_SET_APCS_COMPLETE_CONFIG

Sets the APCS_COMPLETE status for the requesting control point.

IMSS message ID

0x0056

Version introduced

Major - 1, Minor - 27

3.55.1 Request - QMI_IMS_SETTINGS_SET_APCS_COMPLETE_-CONFIG_REQ

Message type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.55.2 Response - QMI_IMS_SETTINGS_SET_APCS_COMPLETE_-CONFIG_RESP

Message type

Response

Sender

Settings Service

Mandatory TLVs

The Result Code TLV (defined in Section 2.3.1) is always present in the response.

Name	Version introduced	Version last modified
Result Code	1.18	1.18

Optional TLVs

Name	Version introduced	Version last modified
Settings Standard Response Type	1.18	1.18

Field	Field value	Field type	Parameter	Size (byte)	Description
Type	0x10			1	Settings Standard Response Type
Length	1			2	
Value	→	enum8	settings_resp	1	A settings-specific error code is returned when the standard response error type is QMI_ERR_CAUSE_CODE.

3.55.3 Description of QMI_IMS_SETTINGS_SET_APCS_COMPLETE_-CONFIG REQ/RESP

The request message sets the APCS_COMPLETE indication to IMS. The response message indicates success or failure based on the outcome of the request message processing by the service.

When the request message does not contain any configuration parameters, the service does no processing and returns QMI_RESULT_SUCCESS.

A References

A.1 Related Documents

Title	Number
Qualcomm Technologies	
QMI Client API Interface Specification	80-N1123-1
QMI Common Service Interface API Interface Specification	80-N1123-2
Qualcomm Messaging Interface (QMI) Architecture	80-VB816-1
Standards	
SIP: Session Initiation Protocol	RFC 3261
RTP Control Protocol Extended Reports (RTCP XR)	RFC 3611
Resources	
Real-Time Transport Protocol (RTP) Parameters	www.iana.org

A.2 Acronyms and Terms

Acronym or term	Definition
ACS	adjacent channel selectivity
AMR	adaptive multirate codec
APN	access point name
CSCF	call session control function
ETAG	entity tag
FT	file transfer
GRUU	Globally Routable User-Agent URI
GZIP	GNU Zip
HSPA	high-speed packet access
IMS	IP multimedia subsystem
IMSS	IP multimedia subsystem settings
iRAT	inter-radio access technology
ISIM	IP multimedia services identity module
MO	mobile-originated
MSRP	Message Session Relay Protocol
MTU	Maximum Transmission Unit
NAT	network access translation
NB	narrowband
NV	nonvolatile
PCO	protocol configuration option
PDP	Packet Data Protocol
QDJ	Qualcomm Dejitter buffer

Acronym or term	Definition
QMI	Qualcomm messaging interface
RAT	radio access technology
RCS	rich communication services
RTCP	RTP Control Protocol
RTO	requested time out
RTP	Real-Time Transport Protocol
RTT	round-trip time
SCR	source controlled rate
SIP	Session Initiation Protocol
SMS	short messaging service
TLV	type-length-value
UE	user equipment
URI	universal resource identifier
VoIP	voice over Internet Protocol
VoLTE	voice over LTE
VT	videotelephony
WB	wideband
WFC	Wi-Fi® call