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# PureEthernetStructure\_Pac

## MW\_PureEthernetStructure\_Pac

Qualified Name: MicrowaveModel::ObjectClasses::PureEthernetStructure::MW\_PureEthernetStructure\_Pac

The pureEthernetStructure\_Pac and its attached classes MUST be provided on management interfaces of microwave devices, which are transporting Ethernet traffic only.

Applied stereotypes:

* OpenModelClass
* objectCreationNotification: YES
* objectDeletionNotification: YES
* support: CONDITIONAL\_MANDATORY
* condition: pure-ethernet In case the microwave device allows using the entire air interface capacity for Ethernet transport only, it has to support this feature on its management interface.

Table 1: Attributes for MW\_PureEthernetStructure\_Pac

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| \_layerProtocol | LayerProtocol  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 1 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | CoreModel-CoreNetworkModule-ObjectClasses:NetworkElement/\_ltpRefList/\_lpList/uuid |
| \_pureEthernetStructureCapability | PureEthernetStructureCapability  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | See referenced class |
| \_pureEthernetStructureConfiguration | PureEthernetStructureConfiguration  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | See referenced class |
| \_pureEthernetStructureStatus | PureEthernetStructureStatus  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | See referenced class |
| \_pureEthernetStructureCurrentProblems | PureEthernetStructureCurrentProblems  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | See referenced class |
| \_pureEthernetStructureCurrentPerformance | PureEthernetStructureCurrentPerformance  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | See referenced class |
| \_pureEthernetStructureHistoricalPerformances | PureEthernetStructureHistoricalPerformances  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | See referenced class |

## PureEthernetStructureCurrentProblems

Qualified Name: MicrowaveModel::ObjectClasses::PureEthernetStructure::PureEthernetStructureCurrentProblems

Applied stereotypes:

* OpenModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* support: MANDATORY

Table 2: Attributes for PureEthernetStructureCurrentProblems

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| currentProblemList | StructureCurrentProblemType  ./. | 0..\* | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY |  |

## PureEthernetStructureStatus

Qualified Name: MicrowaveModel::ObjectClasses::PureEthernetStructure::PureEthernetStructureStatus

Applied stereotypes:

* OpenModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* support: MANDATORY

Table 3: Attributes for PureEthernetStructureStatus

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| segmentStatusList | SegmentStatusType  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: YES * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Status of the Ethernet transport segment. Always just one segment. |
| lastStatusChange | DateTime  2010-11-20T14:00:00+01:00 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Time and date of the last update of the status information. \_format:yyyyMMddhhmmss.s[Z|{+|-}HHMm]; yyyy='0000'..'9999' year; MM='01'..'12' month; dd='01'..'31' day; hh='00'..'23' hour; mm='00'..'59' minute; ss='00'..'59' second; s='.0'..'.9'tenth of second (set to '.0' if EMS or NE cannot support this granularity); Z='Z' indicates UTC (rather than local time); {+|-}='+' or '-' delta from UTC; HH='00'..'23' time zone difference in hours; Mm='00'..'59' time zone difference in minutes. |

## PureEthernetStructureHistoricalPerformances

Qualified Name: MicrowaveModel::ObjectClasses::PureEthernetStructure::PureEthernetStructureHistoricalPerformances

Aggregated performance information of the structure of an pure Ethernet microwave for a pre-defined measurement interval.

Applied stereotypes:

* OpenModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* support: MANDATORY

Table 4: Attributes for PureEthernetStructureHistoricalPerformances

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| historicalPerformanceDataList | StructureHistoricalPerformanceType  ./. | 0..\* | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY |  |

## PureEthernetStructureConfiguration

Qualified Name: MicrowaveModel::ObjectClasses::PureEthernetStructure::PureEthernetStructureConfiguration

Applied stereotypes:

* OpenModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* support: MANDATORY

Table 5: Attributes for PureEthernetStructureConfiguration

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| performanceMonitoringCollectionIsOn | Boolean  false | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: YES * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Enables measurement, collection, storage and access to performance data. |
| problemKindSeverityList | StructureProblemSeverityType  ./. | 0..\* | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: YES * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Severity of the type of problem to be configured. |

## PureEthernetStructureCapability

Qualified Name: MicrowaveModel::ObjectClasses::PureEthernetStructure::PureEthernetStructureCapability

Describes the logical structuring of the physical capacity provided by a pure Ethernet microwave device. Segmentation is not available. No fixed segment size. No TDM transport.

Applied stereotypes:

* OpenModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* support: MANDATORY

Table 6: Attributes for PureEthernetStructureCapability

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| structureId | UniversalId  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 1 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Identifies the Structure for bundling and container. |
| supportedAlarmList | String  Supported alarms not yet defined. | 0..\* | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Available alarms to be listed. Mandatory:non. Names are to be separated by commas. Further alarms might be added by the vendor. |
| supportedAlarms | String  Supported alarms not yet defined. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY   Deprecated | Available alarms to be listed. Mandatory:non. Names are to be separated by commas. Further alarms might be added by the device. |

## PureEthernetStructureCurrentPerformance

Qualified Name: MicrowaveModel::ObjectClasses::PureEthernetStructure::PureEthernetStructureCurrentPerformance

Aggregated performance information of the structure of an pure Ethernet microwave at a particular moment.

Applied stereotypes:

* OpenModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* support: MANDATORY

Table 7: Attributes for PureEthernetStructureCurrentPerformance

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| currentPerformanceDataList | StructureCurrentPerformanceType  ./. | 1..2 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | At least values of the counters, which are reset every 15 minutes, are to be provided. If available, the current values of the counters, which are reset every 24 hour, can be provided, too. |

# Data Types

## SegmentIDType

Qualified Name: MicrowaveModel::TypeDefinitions::SegmentIDType

Identifies the segments, which are used to transport the container.

Table 8: Attributes for SegmentIDType

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| structureIdRef | UniversalId  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 1 * AVC: YES * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY |  |
| segmentIdRef | Integer  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 2 * AVC: YES * isInvariant: false * valueRange: no range constraint * bitLength: LENGTH\_16\_BIT * unit: no unit defined * support: MANDATORY | Combinations of structureId and segmentId must be unique inside the device to assure that every resource is used just once. |

## SegmentStatusType

Qualified Name: MicrowaveModel::TypeDefinitions::SegmentStatusType

Table 9: Attributes for SegmentStatusType

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| segmentStatusTypeId | Integer  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 1 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_16\_BIT * unit: no unit defined * support: MANDATORY |  |
| segmentIsReservedForTdm | Boolean  false | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | The number of segments, which is configured by Structure::StructureConfiguration::tdmReservedNumberOfSegements, has to be reserved for TDM. Starting from the lowest index value, these segments have to be marked with a 'true' in segmentIsReservedForTdm. |
| operationalStatus | OperationalState  DISABLED | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Current operational status of each segment. |
| obsoletePriorityClass | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: LENGTH\_8\_BIT * unit: no unit defined * support: MANDATORY   Obsolete | PriorityClass as inherited from the associated Container::ContainerConfiguration::priorityClass. In case the device is capable of adapting the sequence, in which segments are being dropped in case of decreasing capacity of the air interface, priorityClass shall be considered, while calculating the dropOrderRank. |
| obsoleteDropOrderRank | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: false * valueRange: no range constraint * bitLength: LENGTH\_16\_BIT * unit: no unit defined * support: MANDATORY   Obsolete | In case the device is NOT capable of adapting the sequence, in which segments are being dropped in case of decreasing capacity of the air interface, dropOrderRank is number of segments minus sequence number of the segment. In case the device is capable of adapting the sequence, dropOrderRank has to be calculated by the device in dependency to the assigned priorityClass. \_unique: within Structure::StructureStatus::segmentStatusList |

## StructureCurrentPerformanceType

Qualified Name: MicrowaveModel::TypeDefinitions::StructureCurrentPerformanceType

Turns performance information into current performance information by inheriting from OTN\_CurrentData.

Table 10: Attributes for StructureCurrentPerformanceType

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| performanceData | StructurePerformanceType  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY |  |

## StructureCurrentProblemType

Qualified Name: MicrowaveModel::TypeDefinitions::StructureCurrentProblemType

Table 11: Attributes for StructureCurrentProblemType

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| problemName | String  Problem name not specified. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Name of the alarm according to Structure::StructureCapability::supportedAlarms |

## StructureHistoricalPerformanceType

Qualified Name: MicrowaveModel::TypeDefinitions::StructureHistoricalPerformanceType

Turns performance information into historical performance information by inheriting from OTN\_HistoryData.

Table 12: Attributes for StructureHistoricalPerformanceType

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| performanceData | StructurePerformanceType  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY |  |

## StructurePerformanceType

Qualified Name: MicrowaveModel::TypeDefinitions::StructurePerformanceType

Consolidated performance information of the Structure.

Table 13: Attributes for StructurePerformanceType

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| timePeriod | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_32\_BIT * unit: s * support: MANDATORY | Total length of the measurement period in seconds. |
| es | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_32\_BIT * unit: s * support: MANDATORY | Number of errored seconds. 1+0: Same value as for single air interface. 1+1 and Diversity: Value representing the combined signals. |
| ses | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_32\_BIT * unit: s * support: MANDATORY | Number of severely errored seconds. 1+0: Same value as for single air interface. 1+1 and Diversity: Value representing the combined signals. |
| cses | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_32\_BIT * unit: s * support: MANDATORY | Number of consecutive severely errored seconds. 1+0: Same value as for single air interface. 1+1 and Diversity: Value representing the combined signals. |
| unavailability | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_32\_BIT * unit: s * support: MANDATORY | Total time of unavailability in seconds. 1+0: Same value as for single air interface. 1+1 and Diversity: Value representing the combined signals. |
| rxLevelMin | Integer  99 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_8\_BIT * unit: dBm * support: MANDATORY | Minimum receive level. 1+0: Same value as for single air interface. 1+1: Value representing the combined signals. Diversity: To be left on default value. |
| rxLevelMax | Integer  99 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_8\_BIT * unit: dBm * support: MANDATORY | Maximum receive level. 1+0: Same value as for single air interface. 1+1: Value representing the combined signals. Diversity: To be left on default value. |
| rxLevelAvg | Integer  99 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_8\_BIT * unit: dBm * support: MANDATORY | Averaged receive level. 1+0: Same value as for single air interface. 1+1: Value representing the combined signals. Diversity: To be left on default value. |

## StructureProblemSeverityType

Qualified Name: MicrowaveModel::TypeDefinitions::StructureProblemSeverityType

Table 14: Attributes for StructureProblemSeverityType

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| problemKindName | String  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 1 * AVC: NA * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Name of the alarm according to Structure::StructureCapability::supportedAlarms |
| problemKindSeverity | SeverityType  WARNING | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: YES * isInvariant: false * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Severity of this type of alarm. |

# Enumeration Types

## GranularityPeriodType

Qualified Name: MicrowaveModel::TypeDefinitions::GranularityPeriodType

The enumeration with the options for granularity period of the performance data.

Contains Enumeration Literals:

* UNKNOWN:
* PERIOD-15-MIN:
* PERIOD-24-HOURS:

## LoopBackType

Qualified Name: MicrowaveModel::TypeDefinitions::LoopBackType

Contains Enumeration Literals:

* RF\_TO\_REMOTE:
  + Returning the header information of the remote site back to the remote site on the radio interface between both outdoor units.
* RF\_TO\_LOCAL:
  + Returning the header information of the local site back to the local site on the radio interface between both outdoor units.
* IF\_TO\_REMOTE:
  + Returning the header information of the remote site back to the remote site on the intermediate frequency interface between local indoor unit and outdoor unit.
* IF\_TO\_LOCAL:
  + Returning the header information of the local site back to the local site on the intermediate frequency interface between local indoor unit and outdoor unit.
* NONE:
* IF:
  + Intermediate Frequency on the interface between indoor and outdoor unit.
    - Deprecated
* RF:
  + Radio Frequency on the interface between outdoor unit and outdoor unit at the remote site.
    - Deprecated
* NON:
  + - Deprecated

## SeverityType

Qualified Name: MicrowaveModel::TypeDefinitions::SeverityType

According to ITU-T M.3160

Contains Enumeration Literals:

* NON\_ALARMED:
* WARNING:
* MINOR:
* MAJOR:
* CRITICAL:

# Super Classes

## MwCurrentProblem

Qualified Name: MicrowaveModel::ObjectClasses::SuperClasses::MwCurrentProblem

Applied stereotypes:

* OpenModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* support: MANDATORY

Table 15: Attributes for MwCurrentProblem

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| sequenceNumber | Integer  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 1 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_32\_BIT * unit: no unit defined * support: MANDATORY | Unique sequence number of the current problem object. |
| timeStamp | DateTime  2010-11-20T14:00:00+01:00 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Time and date of the problem. \_format:yyyyMMddhhmmss.s[Z|{+|-}HHMm]; yyyy='0000'..'9999' year; MM='01'..'12' month; dd='01'..'31' day; hh='00'..'23' hour; mm='00'..'59' minute; ss='00'..'59' second; s='.0'..'.9'tenth of second (set to '.0' if EMS or NE cannot support this granularity); Z='Z' indicates UTC (rather than local time); {+|-}='+' or '-' delta from UTC; HH='00'..'23' time zone difference in hours; Mm='00'..'59' time zone difference in minutes. |
| problemSeverity | SeverityType  WARNING | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Severity of the alarm. |

# Notifications

## AttributeValueChangedNotification

Qualified Name: MicrowaveModel::Notifications::AttributeValueChangedNotification

To be sent when an attribute has changed and one or more controllers have to update their data.

Applied stereotypes:

* OpenModelNotification
* triggerConditionList: invalid
* support: MANDATORY

Table 16: Attributes for AttributeValueChangedNotification

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| counter | Integer  -1 | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_32\_BIT * unit: no unit defined * support: MANDATORY | Counts attribute value changed notifications. |
| timeStamp | DateTime  2010-11-20T14:00:00+01:00 | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY |  |
| objectIdRef | UniversalId  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | ID of the affected MW\_AirInterface\_Pac, MW\_AirInterfaceDiversity\_Pac, MW\_Structure\_Pac, MW\_PureEthernetStructure\_Pac, MW\_HybridMwStructure\_Pac, MW\_Container\_Pac, MW\_EthernetContainer\_Pac or MW\_TdmContainer\_Pac. |
| attributeName | String  Attribute name not specified. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Name of the attribute that has been changed. |
| newValue | String  New value not specified. | 0..1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Attribute value converted to a string (xml, json, ...) |

## ObjectCreationNotification

Qualified Name: MicrowaveModel::Notifications::ObjectCreationNotification

To be sent when a new MW\_AirInterface\_Pac, MW\_AirInterfaceDiversity\_Pac, MW\_Structure\_Pac, MW\_PureEthernetStructure\_Pac, MW\_HybridMwStructure\_Pac, MW\_Container\_Pac, MW\_EthernetContainer\_Pac or MW\_TdmContainer\_Pac has to be instancieted in the controller.

Applied stereotypes:

* OpenModelNotification
* triggerConditionList: invalid
* support: MANDATORY

Table 17: Attributes for ObjectCreationNotification

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| counter | Integer  -1 | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_32\_BIT * unit: no unit defined * support: MANDATORY | Counts object creation notifications. |
| timeStamp | DateTime  2010-11-20T14:00:00+01:00 | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY |  |
| objectIdRef | UniversalId  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | ID of the affected MW\_AirInterface\_Pac, MW\_AirInterfaceDiversity\_Pac, MW\_Structure\_Pac, MW\_PureEthernetStructure\_Pac, MW\_HybridMwStructure\_Pac, MW\_Container\_Pac, MW\_EthernetContainer\_Pac or MW\_TdmContainer\_Pac. |
| objectType | String  Type of created object not specified. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Type of Object to be chosen from the following list of values: 'MW\_AirInterface\_Pac', 'MW\_AirInterfaceDiversity\_Pac', 'MW\_Structure\_Pac', 'MW\_PureEthernetStructure\_Pac', 'MW\_HybridMwStructure\_Pac', 'MW\_Container\_Pac', 'MW\_EthernetContainer\_Pac' or 'MW\_TdmContainer\_Pac'. |

## ObjectDeletionNotification

Qualified Name: MicrowaveModel::Notifications::ObjectDeletionNotification

To be sent when a new MW\_AirInterface\_Pac, MW\_AirInterfaceDiversity\_Pac, MW\_Structure\_Pac, MW\_PureEthernetStructure\_Pac, MW\_HybridMwStructure\_Pac, MW\_Container\_Pac, MW\_EthernetContainer\_Pac or MW\_TdmContainer\_Pac instance has to be deleted in the controller.

Applied stereotypes:

* OpenModelNotification
* triggerConditionList: invalid
* support: MANDATORY

Table 18: Attributes for ObjectDeletionNotification

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| counter | Integer  -1 | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_32\_BIT * unit: no unit defined * support: MANDATORY | Counts object deletion notifications. |
| timeStamp | DateTime  2010-11-20T14:00:00+01:00 | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY |  |
| objectIdRef | UniversalId  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | ID of the affected MW\_AirInterface\_Pac, MW\_AirInterfaceDiversity\_Pac, MW\_Structure\_Pac, MW\_PureEthernetStructure\_Pac, MW\_HybridMwStructure\_Pac, MW\_Container\_Pac, MW\_EthernetContainer\_Pac or MW\_TdmContainer\_Pac. |

## ProblemNotification

Qualified Name: MicrowaveModel::Notifications::ProblemNotification

To be sent when a problem occurs at a MW\_AirInterface\_Pac, MW\_AirInterfaceDiversity\_Pac, MW\_Structure\_Pac, MW\_PureEthernetStructure\_Pac, MW\_HybridMwStructure\_Pac, MW\_Container\_Pac, MW\_EthernetContainer\_Pac or MW\_TdmContainer\_Pac.

Applied stereotypes:

* OpenModelNotification
* triggerConditionList: invalid
* support: MANDATORY

Table 19: Attributes for ProblemNotification

| **Attribute Name** | **Type DefaultValue** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| --- | --- | --- | --- | --- | --- |
| counter | Integer  -1 | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: LENGTH\_32\_BIT * unit: no unit defined * support: MANDATORY | Counts problem notifications |
| timeStamp | DateTime  2010-11-20T14:00:00+01:00 | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY |  |
| objectIdRef | UniversalId  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | ID of the affected MW\_AirInterface\_Pac, MW\_AirInterfaceDiversity\_Pac, MW\_Structure\_Pac, MW\_PureEthernetStructure\_Pac, MW\_HybridMwStructure\_Pac, MW\_Container\_Pac, MW\_EthernetContainer\_Pac or MW\_TdmContainer\_Pac. |
| problem | String  Problem name not specified. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Name of the problem according to AirInterface::AirInterfaceCapability::supportedAlarms or AirInterfaceDiversity::AirInterfaceDiversityCapability::supportedAlarms or Structure::StructureCapability::supportedAlarms or PureEthernetStructure::PureEthernetStructureCapability::supportedAlarms or HybridMwStructure::HybridMwStructureCapability::supportedAlarms or Container::ContainerCapability::supportedAlarms or EthernetContainer::EthernetContainerCapability::supportedAlarms or TdmContainer::TdmContainerCapability::supportedAlarms. |
| severity | SeverityType  WARNING | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * AVC: NO * isInvariant: true * valueRange: no range constraint * bitLength: NA * unit: no unit defined * support: MANDATORY | Severity of the problem according to AirInterface::AirInterfaceConfiguration::problemSeverityList, AirInterfaceDiversity::AirInterfaceDiversityConfiguration::problemSeverityList, Structure::StructureConfiguration::problemSeverityList, PureEthernetStructure::PureEthernetStructureConfiguration::problemSeverityList, HybridMwStructure::HybridMwStructureConfiguration::problemSeverityList, Container::ContainerConfiguration::problemSeverityList, EthernetContainer::EthernetContainerConfiguration::problemSeverityList or TdmContainer::TdmContainerConfiguration::problemSeverityList |