Content

[2 Classes 1](#_Toc147333187)

[2.1 BackupAndRestoreCapability 1](#_Toc147333188)

[2.2 BackupAndRestoreCcSpec 2](#_Toc147333189)

[2.3 BackupAndRestoreConfiguration 2](#_Toc147333190)

[2.4 BackupAndRestoreStatus 3](#_Toc147333191)

[2.5 BackupAndRestore\_Pac 4](#_Toc147333192)

[3 Data Types 5](#_Toc147333193)

[4 Enumeration Types 5](#_Toc147333194)

[4.1 BackupStatusType 5](#_Toc147333195)

[4.2 ReadinessStatusType 6](#_Toc147333196)

[4.3 RestoreStatusType 6](#_Toc147333197)

[5 Primitive Types 6](#_Toc147333198)

# Classes

## BackupAndRestoreCapability

Applied stereotypes:

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

Attributes for BackupAndRestoreCapability

Table 1: Attributes for BackupAndRestoreCapability

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| separateActivationIsRequired | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | True = Device requires calling applyRestoredConfiguration operation for activating the configuration, which has been loaded on the device by calling restoreSystem operation before. False = restoreSystem operation includes automatically restarting and activating the restored configuration. |
| confirmRestorationIsRequired | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | True = calling the confirmRestoration RPC within the confirmation period is required for preventing the system to perform a roll-back of the restoration. |

## BackupAndRestoreCcSpec

Applied stereotypes:

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

Attributes for BackupAndRestoreCcSpec

Table 1: Attributes for BackupAndRestoreCcSpec

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_backupAndRestore\_Pac | BackupAndRestore\_Pac  ./. | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |

## BackupAndRestoreConfiguration

Applied stereotypes:

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

Attributes for BackupAndRestoreConfiguration

Table 1: Attributes for BackupAndRestoreConfiguration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| lengthOfConfirmationPeriod | Integer  -1 | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: s  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: LENGTH\_16\_BIT | Period of time, in which the confirmRestoration() operation has to called for confirming successful establishing of a management connection and preventing the device to roll-back the restore operation. |
| lengthOfValidationPeriod | Integer  -1 | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: s  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: LENGTH\_16\_BIT | If backup configuration could not be restored, roll-back to former configuration shall be initiated until latest end of validationPeriod [s]. The value of lengthOfValidationPeriod needs to be smaller than the value of the lengthOfConfirmationPeriod. |

## BackupAndRestoreStatus

Applied stereotypes:

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

Attributes for BackupAndRestoreStatus

Table 1: Attributes for BackupAndRestoreStatus

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| backupOperationStatus | BackupStatusType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Operational status of the firmware. |
| restoreOperationStatus | RestoreStatusType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Operational status of the firmware. |
| readyForStartingNewOperation | ReadinessStatusType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Implementations are representing different status values at the end of the backup operation. This attribute shall harmonize indicating availability for starting a new backup operation. |

## BackupAndRestore\_Pac

Applied stereotypes:

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

Attributes for BackupAndRestore\_Pac

Table 1: Attributes for BackupAndRestore\_Pac

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_backupAndRestoreCapability | BackupAndRestoreCapability  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |
| \_backupAndRestoreConfiguration | BackupAndRestoreConfiguration  ./. | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |
| \_backupAndRestoreStatus | BackupAndRestoreStatus  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |

# Data Types

# Enumeration Types

## BackupStatusType

Contains Enumeration Literals:

* IDLE:
  + Status value to be represented whenever no operation is on-going.
* ONGOING:
* COMPLETED:
* FAILED:
* ABORTING:
* NOT\_YET\_DEFINED:

## ReadinessStatusType

Contains Enumeration Literals:

* READY:
* NOT\_READY:
* NOT\_YET\_DEFINED:

## RestoreStatusType

Contains Enumeration Literals:

* IDLE:
  + Status value to be represented whenever no restore operation is on-going.
* DOWNLOADING:
  + Indicates that the device could successfully start the download.
* DOWNLOADED:
  + After successfully downloading and verifying the configuration file, but before activating the downloaded configuration.
* RESTARTING:
* WAITING\_FOR\_CONFIRMATION:
  + After restarting with the restored configuration, the device is waiting for the confirmRestoration() operation being called as a confirmation for an existing management connection. If no call of the confirmRestoration() operation has been received before end of confirmation period, the device will automatically roll-back into its former configuration.
* COMPLETED:
  + After successfully activating the downloaded configuration and receiving the call of the confirmRestoration() operation (if supported by the device).
* FAILED:
  + Potential reasons for representing this status value are: device could not authenticate at the SFTP server, file could not be found, file content could not successfully be validated, operation failed for any other reason.
* ABORTING:
  + After abortRestoreOperation() operation has been called.
* NOT\_YET\_DEFINED:
  + This value to be represented, if the device does not support this status attribute.

# Primitive Types