



CHAPTER 19

InventoryApp Service

This chapter describes the DCNM web services' API methods for the InventoryApp service.

Information About InventoryApp Service

This chapter defines the APIs exposed by the Inventory service feature.

getAllChassisInNetwork

Returns a collection of all the Chassis managed by the application. Return an empty collection when no chassis is managed by the application.

Parameters

opContext—Operational context.

Return Value

List of Chassis object.

Following associations will be available for each Chassis object:

- NetworkElement.
- Slot collection.
- RedundancySetting.
- RedundancyStatus.
- ChassisPowerSupplySetting.
- com.cisco.dcbu.dcm.model.physical.chassisPowerSupplyStatus.

getAllNetworkElements

Returns all the Devices managed by the application. Returns empty collection when no devices are managed by application.

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Parameters

opContext—Operational context.

Return Value

A collection of NetworkElement objects.

Following association will be available for each NetworkElement object:

- Chassis association for that NetworkElement
- AbstractNetworkElementStatus

getAllPhysicalLinkInNetwork

Returns a collection of physical links present in a network element. Given InstanceNameId of the network element, returns a collection of physical link objects.

ValidationException is thrown if any of the following situation occurs:

- If the argument passed is null or it is not a valid network element InstanceNameId
- If a valid non-existing network element InstanceNameId is passed.

Parameters

opContext—Operational context.

neInstanceNameId—InstanceNameId of the network element.

Return Value

List of PhysicalLink objects corresponding to NetworkElement.

Following association will be available for each PhysicalLink objects:

- PhysicalPort collection.
- NetworkInterface.

getAllPhysicalLinks

Returns list of Physical Links present in the network.

Parameters

opContext—Operational context.

Return Value

List of PhysicalLink objects.

getCardsInChassis

Returns a collection of cards or modules available in the given chassis. The returned collection of card objects can be any/all of the following card objects:

- ProcessorCard.

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- NetworkCard.
- ServiceCard.

When the chassis does not contain any of the above mentioned cards, this API will return a empty collection.

ValidationException is thrown if any of the following situation occurs:

- If the argument passed is null or it is not a valid chassis InstanceNameId
- If a valid non-existing chassis InstanceNameId is passed.

Parameters

opContext—Operational context.

chassisId—InstanceNameId of chassis.

Return Value

List of all the Card objects present in the chassis.

Following association will be available for each Card object irrespective of its type:

- Slot.
- CardStatus.
- Sensor collection.

getCdpNeighbors

Returns a collection of network elements that physically connected to a network element. Given a InstanceNameId of the network element, returns a list of network element objects.

ValidationException is thrown if any of the following situation occurs:

- If srcInstanceNameId is null or if it is not a valid network element InstanceNameId

Parameters

opContext—Operational context.

srcInstanceNameId—InstanceNameId of a NetworkElement.

Return Value

List of NetworkElement objects that has a physical link with the input NetworkElement.

Following association will be available for each NetworkElement object:

- Chassis.

getChassis

Returns a collection of chassis objects managed by the application. Given the list of chassis InstanceNameId returns collection of Chassis objects.

ValidationException is thrown if any of the following situation occurs:

- If the argument passed is null

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- If the chassis InstanceNameId collection is empty or the collection contains invalid chassis InstanceNameId

Parameters

opContext—Operational context.

chassisIds—list of InstanceNameId of the chassis.

Return Value

List of Chassis object.

Following associations will be available for each Chassis object:

- NetworkElement.
- Slot collection.
- RedundancySetting.
- ChassisPowerSupplySetting.
- com.cisco.dcbu.dcm.model.physical.chassisPowerSupplyStatus.

fetchCurrentSensorsInCard

Given the InstanceNameId of a Card, returns the Sensors that are associated to it. The Sensors will contain details about current temperature, major threshold, minor threshold and sensor status.

ValidationException is thrown if any of the following situation occurs:

- if the argument passed is null.
- if Card InstanceNameId is invalid.
- if a valid non-existing Card InstanceNameId is passed.

Parameters

opContext—Operational context.

cardInstanceNameId—Card InstanceNameId

Return Value

List of Sensors associated with the Card.

Following associations will be available for each Sensor objects:

- Threshold.
- SensorStatus.
- SensorDataType.

fetchCurrentSensorsInChassis

Given a collection of chassis InstanceNameId, returns the sensors associated to it. The Sensors will contain details about current temperature, major threshold, minor threshold and sensor status.

ValidationException is thrown if any of the following situation occurs:

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- if the argument passed is null
- if the chassisIds collection is empty or the collection contains objects which are not a valid chassis InstanceNameIds

Parameters

opContext—Operational context.

chassisInstanceId—List of Chassis InstanceNameId

Return Value

List of Sensors associated with the Chassis.

Following associations will be available for each Sensor objects:

- Threshold.
- SensorStatus.
- SensorDataType.

getFansInChassis

Returns a collection of all fan present in the chassis. Given the InstanceNameId of the chassis, returns a collection of fan objects. When the chassis does not contain any fan units, this API will return a empty collection.

ValidationException is thrown if any of the following situation occurs:

- if the argument passed is null or it is not a valid chassis InstanceNameId
- If a valid non-existing chassis InstanceNameId is passed.

Parameters

opContext—Operational context.

chassisId—InstanceNameId of the chassis.

Return Value

List of Fan objects present in the chassis.

Following associations will be available for each Fan objects:

- Sensor collection.
- Chassis.
- FanStatus.

getFileSystemsInChassis

Deprecated.

Returns a collection of all file system present in the chassis. Given the InstanceNameId of the chassis, returns a collection of file system objects. When the chassis does not contain any file systems, this API will return a empty collection.

ValidationException is thrown if any of the following situation occurs:

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- If the argument passed is null or it is not a valid chassis InstanceNameId
- If a valid non-existing chassis InstanceNameId is passed.

Each Chassis may have a collection of FileSystems. The returned collection will contain a list of FileSystems for that input chassis id.

Parameters

opContext—Operational context.

chassisId—InstanceNameId of the chassis.

Return Value

List of FileSystem objects corresponding to Chassis.

getNetworkCardsInChassis

Returns a collection of all network cards present in the chassis. Given the InstanceNameId of the chassis, returns a collection of network card objects. Empty collection is returned when the chassis does not contain any network cards.

ValidationException is thrown if any of the following situation occurs:

- If the argument passed is null or it is not a valid chassis InstanceNameId
- If a valid non-existing chassis InstanceNameId is passed.

Parameters

opContext—Operational context.

chassisId—InstanceNameId of the chassis.

Return Value

List of NetworkCard objects present in the chassis.

Following associations will be available for each NetworkCard objects:

- Slot.
- Card sub-card collection for that NetworkCard if present.
- AsicChip collection for that NetworkCard if present.
- NetworkCardEtherChannelLoadBalanceSetting.

getPhysicalLinks

Returns a collection of physical links that exist between two network elements. Given the InstanceNameId of two network elements, this API will return a collection of physical link objects.

ValidationException is thrown if any of the following situation occurs:

- If both srcInstanceNameId, destInstanceNameId are null or is not a valid InstanceNameId of the network element.

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Parameters

opContext—Operational context.

srcInstanceNameId—InstanceNameId of a NetworkElement.

destInstanceNameId—InstanceNameId of a NetworkElement.

Return Value

List of PhysicalLink objects corresponding to the physical link that exist between the network elements.

Following associations will be available for each physical link objects:

- PhysicalPort collection for that PhysicalLink object.

getPhysicalPorts

Returns a collection of physical ports present in a particular slot of the chassis. Given the InstanceNameId of the chassis and the slot number, returns a collection of physical port objects.

ValidationException is thrown if any of the following situation occurs:

- If the passed chassis InstanceNameId is null or it is not a valid chassis InstanceNameId.
- If a valid non-existing chassis InstanceNameId is passed
- If the slot number passed is null.

Parameters

opContext—Operational context.

aChassisInstanceNameId—InstanceNameId of the chassis.

slotNumber—An Integer slot number.

Return Value

List of PhysicalPort objects corresponding to Chassis and the slotNumber.

Following associations will be available for each PhysicalPort objects:

- NetworkInterface
- Card

getPhysicalPortsInSlot

Returns a collection of physical ports present in a particular slot of the chassis. Given the InstanceNameId of the chassis and the slot number, returns a collection of physical port objects.

ValidationException is thrown if any of the following situation occurs:

- If the passed chassis InstanceNameId is null or it is not a valid chassis InstanceNameId.
- If a valid non-existing chassis InstanceNameId is passed.
- If the slot number passed is null.

Parameters

opContext—Operational context.

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aChassisInstanceId—InstanceId of the chassis.

slotNumber—an Integer slot number.

Return Value

List of PhysicalPort objects corresponding to Chassis and the slotNumber.

Following associations will be available for each PhysicalPort objects:

- NetworkInterface.
- Card.

getPowerSuppliesInChassis

Returns a collection of all power supplies present in the chassis. Given the InstanceNameId of the chassis, returns a collection of power supply objects. When the chassis does not contain any power supply, this API will return a empty collection.

ValidationException is thrown if any of the following situation occurs:

- If the argument passed is null or it is not a valid chassis InstanceNameId
- If a valid non-existing chassis InstanceNameId is passed.

Parameters

opContext—Operational context.

chassisId—InstanceId of the chassis.

Return Value

List of PowerSupply objects present in the chassis.

Following associations will be available for each PowerSupply objects:

- Sensor collection.
- Chassis.
- PowerSupplyStatus collection.

getProcessorCardsInChassis

Returns a collection of all processor cards present in the chassis. Given the InstanceNameId of the chassis, returns a collection of processor card objects. When the chassis does not contain any processor cards, this API will return a empty collection.

ValidationException is thrown if any of the following situation occurs:

- If the argument passed is null or it is not a valid chassis InstanceNameId
- If a valid non-existing chassis InstanceNameId is passed.

Parameters

opContext—Operational context.

chassisId—InstanceId of chassis.

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Return Value

List of ProcessorCard objects in the chassis.

Following association will be available for each ProcessorCard object:

- SoftwareIdentity.
- Slot.
- Card sub-card collection for that ProcessorCard if present.
- AsicChip collection for that ProcessorCard if present.

getSensorsInChassis

Returns a collection of all sensors present in the chassis. Given the InstanceNameId of the chassis, returns a collection of sensor objects. When the chassis does not contain any sensors, this API will return an empty collection.

ValidationException is thrown if any of the following situation occurs:

- If the argument passed is null or it is not a valid chassis InstanceNameId
- If a valid non-existing chassis InstanceNameId is passed.

Parameters

opContext—Operational context.

chassisId—InstanceNameId of the chassis.

Return Value

List of Sensor objects corresponding to Chassis.

Following associations will be available for each Sensor objects:

- Threshold.
- SensorStatus.
- SensorDataType.

getServiceCardsInChassis

Returns a collection of all service cards present in the chassis. Given the InstanceNameId of the chassis, returns a collection of service card objects. When the chassis does not contain any service cards, this API will return a empty collection.

ValidationException is thrown if any of the following situation occurs:

- If the argument passed is null or it is not a valid chassis InstanceNameId
- If a valid non-existing chassis InstanceNameId is passed.

Parameters

opContext—Operational context.

chassisId—InstanceNameId of chassis.

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Return Value

List of ServiceCard objects present in the chassis.

Following association will be available for each ServiceCard object:

- Slot.
- Card sub-card collection for that ServiceCard if present
- AsicChip collection for that ServiceCard if present

getSlotsInChassis

Returns a collection of slots available in the given chassis. When the chassis does not contain any slots, this API will return an empty collection.

ValidationException is thrown if any of the following situation occurs:

- If InstanceNameId of chassis is null or if it is not a valid chassis InstanceNameId

Parameters

opContext—Operational context.

chassisInstanceNameId—InstanceNameId of a Chassis.

Return Value

List of Slot objects corresponding to the input chassis InstanceNameId.

Following association will be available for each Slot object:

- Chassis association for each Slot object.

getSlotsInNetworkElement

In case of Catalyst 6500 series switches, slots present in the device will be returned. In case of Nexus 7000 series switch, slots present in the VDC will be returned. Returns a collection of slot number of the slots present in Virtual Network Element for Nexus 7000 series switch. Collection of slot number of the slots present in Device is returned for Catalyst 6500 series switches.

Parameters

opContext—Operational context.

aneInstanceNameId—InstanceNameId of AbstractNetworkElement.

Return Value

List of SlotNumbers

getSoftwareIdentitiesInNetwork

Returns a collection of all software identities from the active processor cards present in the network elements. Given a list of InstanceNameId of the network elements, this API returns a collection of software identities collected from the active processor cards.

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ValidationException is thrown if any of the following situation occurs:

- If network element InstanceNameId collection is null, empty or if the collection does not contain InstanceNameId of the network element or virtual network element.

Parameters

opContext—Operational context.

aneInstanceNameIds—List of InstanceNameId of the NetworkElement.

Return Value

List of SoftwareIdentity objects corresponding to NetworkElement or VirtualNetworkElement

getSystemUpTime

Deprecated.

Returns the System uptime of the device for the given chassis InstanceNameIds. System up time returned is in the same order of chassis InstanceNameIds passed.

ValidationException is thrown if any of the following situation occurs:

- if the argument passed is null
- if the chassisIds collection is empty or the collection contains objects which are not a valid chassis InstanceNameIds

Parameters

opContext—Operational context.

chassisInstanceNameIds—List of Chassis InstanceNameId

Return Value

List containing System up time.

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