



PowerDirect Power Management Controller (PMC) Redfish

User Manual

Specification Number: 1PMC1S2Redfish

Model Number: PMC1S2Redfish

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Technical Support Site

If you encounter any installation or operational issues with your product, check the pertinent section of this manual to see if the issue can be resolved by following outlined procedures.

Visit <https://www.vertiv.com/support/> for additional assistance.

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Admonishments Used in this Document



DANGER! Warns of a hazard the reader ***will*** be exposed to that will ***likely*** result in death or serious injury if not avoided. (ANSI, OSHA)



WARNING! Warns of a potential hazard the reader ***may*** be exposed to that ***could*** result in death or serious injury if not avoided. This admonition is not used for situations that pose a risk only to equipment, software, data, or service. (ANSI)



CAUTION! Warns of a potential hazard the reader ***may*** be exposed to that ***could*** result in minor or moderate injury if not avoided. (ANSI, OSHA) This admonition is not used for situations that pose a risk only to equipment, data, or service, even if such use appears to be permitted in some of the applicable standards. (OSHA)



ALERT! Alerts the reader to an action that ***must be avoided*** in order to protect equipment, software, data, or service. (ISO)



ALERT! Alerts the reader to an action that ***must be performed*** in order to prevent equipment damage, software corruption, data loss, or service interruption. (ISO)



FIRE SAFETY! Informs the reader of fire safety information, reminders, precautions, or policies, or of the locations of fire-fighting and fire-safety equipment. (ISO)



SAFETY! Informs the reader of general safety information, reminders, precautions, or policies not related to a particular source of hazard or to fire safety. (ISO, ANSI, OSHA)

Important Safety Instructions

Safety Admonishments Definitions

Definitions of the safety admonishments used in this document are listed under “Admonishments Used in this Document” on page iii.

General Safety



DANGER! YOU MUST FOLLOW APPROVED SAFETY PROCEDURES.

Performing the following procedures may expose you to hazards. These procedures should be performed by qualified technicians familiar with the hazards associated with this type of equipment. These hazards may include shock, energy, and/or burns. To avoid these hazards:

- a) The tasks should be performed in the order indicated.
- b) Remove watches, rings, and other metal objects.
- c) Prior to contacting any uninsulated surface or termination, use a voltmeter to verify that no voltage or the expected voltage is present. Check the voltage with both DC voltmeters before making contact.
- d) Wear eye protection.
- e) Use certified and well maintained insulated tools. Use double insulated tools appropriately rated for the work to be performed.

Personal Protective Equipment (PPE)



DANGER! ARC FLASH AND SHOCK HAZARD.

Appropriate PPE and tools required when working on this equipment. An appropriate flash protection boundary analysis should be done to determine the “hazard/risk” category, and to select proper PPE.



Only authorized and properly trained personnel should be allowed to install, inspect, operate, or maintain the equipment.

Do not work on LIVE parts. If required to work or operate live parts, obtain appropriate Energized Work Permits as required by the local authority, per NFPA 70E “Standard for Electrical Safety in the Workplace”.

Handling Equipment Containing Static Sensitive Components



ALERT! Installation or removal of equipment containing static sensitive components requires careful handling. Before handling any equipment containing static sensitive components, read and follow the instructions contained on the Static Warning Page.

Static Warning



This equipment contains static sensitive components. The warnings listed below must be observed to prevent damage to these components. Disregarding any of these warnings may result in personal injury or damage to the equipment.

1. Strictly adhere to the procedures provided in this document.
2. Before touching any equipment containing static sensitive components, discharge all static electricity from yourself by wearing a wrist strap grounded through a one megohm resistor. Some wrist straps have a built-in one megohm resistor; no external resistor is necessary. Read and follow wrist strap manufacturer's instructions outlining use of a specific wrist strap.
3. Do not touch traces or components on equipment containing static sensitive components. Handle equipment containing static sensitive components only by the edges that do not have connector pads.
4. After removing equipment containing static sensitive components, place the equipment only on static dissipative surfaces such as conductive foam or ESD bag. Do not use ordinary Styrofoam or ordinary plastic.
5. Store and ship equipment containing static sensitive components only in static shielding containers.
6. If necessary to repair equipment containing static sensitive components, wear an appropriately grounded wrist strap, work on a conductive surface, use a grounded soldering iron, and use grounded test equipment.

1 Redfish Events

1.1 List SEL Entries

Table 1.1 List SEL Entries

Description	List SEL entries
Command	\$ curl -k -u <bmcuser>:<bmpass>, https://<bmcip>/redfish/v1/Systems/system/LogServices/EventLog/Entries

For example, list SEL entries:

\$curl -K, -U root: openBmc, https://192.168.1.70/redfish/v1/Systems/system/LogServices/EventLog/Entries

Example of return value:

```
{
  "@odata.id": "/redfish/v1/Systems/system/LogServices/EventLog/Entries", "@odata.type":
  "#LogEntryCollection.LogEntryCollection",
  "Description": "Collection of System Event Log Entries",
  "Members": [
    {"@odata.id":
    "/redfish/v1/Systems/system/LogServices/EventLog/Entries/28",
    "@odata.type": "#LogEntry.v1_12_0.LogEntry",
    "Created": "1970-01-01T08:00:28+08:00",
    "EntryType": "Event",
    "Id": "28",
    "Message": "Service timezone_update.service has exited unsuccessfully.", "MessageArgs": [
    "timezone_update.service"
    ],
    "MessageId": "OpenBMC.0.1.ServiceFailure",
    "Name": "System Event Log Entry",
    "Severity": "Warning"
    },
    {
    "@odata.id":
    "/redfish/v1/Systems/system/LogServices/EventLog/Entries/28_1",
    "@odata.type": "#LogEntry.v1_12_0.LogEntry",
    "Created": "1970-01-01T08:00:28+08:00",
    "EntryType": "Event",
    "Id": "28_1",
    "Message": "Service rngd.service has exited unsuccessfully.", "MessageArgs": [
    "rngd.service"
    ],
    "MessageId": "OpenBMC.0.1.ServiceFailure",
    "Name": "System Event Log Entry",
    "Severity": "Warning"
    },
    {
    "@odata.id":
    "/redfish/v1/Systems/system/LogServices/EventLog/Entries/32",
    "@odata.type": "#LogEntry.v1_12_0.LogEntry",
    "Created": "1970-01-01T08:00:32+08:00",
    "EntryType": "Event",
    "Id": "32",
    "Message": "Service phosphor-ipmi-net@eth1.service has exited unsuccessfully.",
    "MessageArgs": [
    "phosphor-ipmi-net@eth1.service"
    ],
    "MessageId": "OpenBMC.0.1.ServiceFailure", "Name": "System Event Log Entry",
    "Severity": "Warning"
    },
    {
    "@odata.id":
    "/redfish/v1/Systems/system/LogServices/EventLog/Entries/32_1",
    "@odata.type": "#LogEntry.v1_12_0.LogEntry",
```

```

"Created": "1970-01-01T08:00:32+08:00",
"EntryType": "Event",
"id": "32_1",
"Message": "Service phosphor-ipmi-net@usb0.service has exited unsuccessfully.",
"MessageArgs": [
  "phosphor-ipmi-net@usb0.service"
],
"MessageId": "OpenBMC.0.1.ServiceFailure", "Name": "System Event Log Entry",
"Severity": "Warning"
},
...
],
"Members@odata.count": 139,
"Name": "System Event Log Entries"
}

```

1.2 Redfish: Delete SEL entries

Table 1.2 Delete SEL entries

Description	Delete SEL entries
Command	\$ curl -k -u <bmcuser>:<bmpass>, https:// <bmcip> /redfish/v1/Systems/system/LogServices/EventLog/Actions/LogService.ClearLog -X POST

For example, delete SEL entries:

```
$curl -K, -U root:openBmc,
https://192.168.1.70/redfish/v1/Systems/system/LogServices/EventLog/Actions/LogService.ClearLog -X POST
```

Example of return value:

```

{
  "@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": "Successfully Completed Request", "MessageArgs": [],
      "MessageId": "Base.1.8.1.Success",
      "MessageSeverity": "OK",
      "Resolution": "None"
    }
  ]
}

```

1.3 Inventory

Table 1.3 Redfish: List chassis(shelf) inventory information

Description	List chassis(shelf) inventory information
Command	\$ curl -k -u <bmcuser>:<bmpass> https:// <bmcip> /redfish/v1/Chassis/PowerShelf_0

For example, get chassis inventory information:

```
$ curl -k -u root:OpenBmc https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0
```

Example of return value:

```

{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0", "@odata.type": "#Chassis.v1_23_0.Chassis",
  "Actions": {
    "#Chassis.Reset": {
      "@Redfish.ActionInfo":
        "/redfish/v1/Chassis/PowerShelf_0/ResetActionInfo",
      "target": "/redfish/v1/Chassis/PowerShelf_0/Actions/Chassis.Reset" }
  },
  "ChassisType": "RackMount",
  "Id": "PowerShelf_0",
  "Links": {
    "ComputerSystems": [

```

```

{
"@odata.id": "/redfish/v1/Systems/system"
}
],
"ManagedBy":[
{
"@odata.id": "/redfish/v1/Managers/PMC_0"
}
],
"Manufacturer": "$PRODUCT_MANUFACTURER",
"Model": "$PRODUCT_PRODUCT_NAME",
"Name": "PowerShelf_0",
"NetworkAdapters": {
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/NetworkAdapters" },
"Oem": {
"InsydeFRUData": {
"@odata.type": "#InsydeOEMExtensions.v1_0_0.FRUData", "FRUInfo": [
{
"Board": {
"AssetTag": null,
"FRUFileId": null,
"Manufacturer": "Vertiv",
"ManufacturerDateTime": "2025-07-31T06:43:00+00:00", "Name": "MPSC6000-MCU-I1-I2_1.5",
"PartNumber": "V1.5",
"Serial": "CZHZZPZ2503000500019",
"Version": null
},
"FRUDeviceID": "8",
"Language": "English", "Name": "MCU",
"Product": {
"AssetTag": "PETD11911R2803496600142", "FRUFileId": null,
"Manufacturer": "Vertiv",
"Name": "MPSC6000-MCU",
"PartNumber": null,
"Serial": "Z330068240800045",
"Version": "V2.000307"
}
},
},
{
"Board": {
"AssetTag": null,
"FRUFileId": null,
"Manufacturer": "Vertiv",
"ManufacturerDateTime": "2025-01-16T05:33:00+00:00", "Name": "MPSC6000-PMC-3-Vertiv",
"PartNumber": "Z520031244200001",
"Serial": "123456",
"Version": null
},
"FRUDeviceID": "0",
"Language": "English",
"Name": "Baseboard"
},
{
"Board": {
"AssetTag": null,
"FRUFileId": null,
"Manufacturer": "Vertiv",
"ManufacturerDateTime": "2025-01-16T05:33:00+00:00", "Name": "IPU433K-NB-AA1616-R-VT",
"PartNumber": "Z520031244200001",
"Serial": "123456",
"Version": null
},
"FRUDeviceID": "7",
"Language": "English", "Name": "Chassis"
"FRUDeviceID": "1",

```

```

"Language": "English", "Name": "PSU1",
"Product": {
  "AssetTag": null,
  "FRUFileId": null,
  "Manufacturer": "Vertiv",
  "Name": "IPS495500-AIT-N1AA", "PartNumber": "      ", "Serial": "Z420285253200107", "Version": "V01 "
}
},
{
  "FRUDeviceID": "2",
  "Language": "English", "Name": "PSU2",
  "Product": {
    "AssetTag": null,
    "FRUFileId": null,
    "Manufacturer": "Vertiv",
    "Name": "IPS495500-AIT-N1AA", "PartNumber": "      ", "Serial": "Z620068252100012", "Version": "V01 "
  }
},
{
  "FRUDeviceID": "3",
  "Language": "English", "Name": "PSU3",
  "Product": {
    "AssetTag": null,
    "FRUFileId": null,
    "Manufacturer": "Vertiv",
    "Name": "IPS495500-AIT-N1AA",
    "PartNumber": "      ",
    "Serial": "Z420285253200044",
    "Version": "V01 "
  }
},
{
  "FRUDeviceID": "4",
  "Language": "English", "Name": "PSU4",
  "Product": {
    "AssetTag": null,
    "FRUFileId": null,
    "Manufacturer": "Vertiv",
    "Name": "IPS495500-AIT-N1AA", "PartNumber": "      ", "Serial": "Z420285253200090", "Version": "V01 "
  }
},
{
  "FRUDeviceID": "5",
  "Language": "English", "Name": "PSU5",
  "Product": {
    "AssetTag": null,
    "FRUFileId": null,
    "Manufacturer": "Vertiv",
    "Name": "IPS495500-AIT-N1AA", "PartNumber": "      ", "Serial": "Z420285253200095", "Version": "V01 "
  }
},
{
  "FRUDeviceID": "6",
  "Language": "English", "Name": "PSU6",
  "Product": {
    "AssetTag": null,
    "FRUFileId": null,
    "Manufacturer": "Vertiv",
    "Name": "IPS495500-AIT-N1AA", "PartNumber": "      ", "Serial": "Z420285253200099", "Version": "V01 "
  }
},
],
},
{
  "PartNumber": "$PRODUCT_PART_NUMBER", "Power": {
    "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Power"
  }
}

```

```

},
"PowerState": "On",
"PowerSubsystem": {
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem"
},
"Sensors": {
"@odata.id": "/iShare_poweredfish/v1/Chassis/PowerShelf_0/Sensors" },
"SerialNumber": "$PRODUCT_SERIAL_NUMBER",
>Status": {
"Health": "OK",
"HealthRollup": "OK", "State": "Enabled"
},
"Thermal": {
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Thermal" },
"ThermalSubsystem": {
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/ThermalSubsystem"
}
}
}

```

1.4 List PSC inventory information

Table 1.4 Redfish: List chassis(shelf) inventory information

Description	List chassis(shelf) inventory information
Command	\$ curl -k -u <bmcuser>:<bmcpass> https://<bmcip> /redfish/v1/Chassis/PowerShelf_0

For example, get chassis inventory information:

```
$ curl -k -u root:OpenBmc https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0
```

Example of return value:

```

{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0", "@odata.type": "#Chassis.v1_23_0.Chassis",
"Actions": {
"#Chassis.Reset": {
"@Redfish.ActionInfo":
"/redfish/v1/Chassis/PowerShelf_0/ResetActionInfo",
"target": "/redfish/v1/Chassis/PowerShelf_0/Actions/Chassis.Reset" }
},
"ChassisType": "RackMount",
"Id": "PowerShelf_0",
"Links": {
"ComputerSystems": [
{
"@odata.id": "/redfish/v1/Systems/system"
}
],
"ManagedBy": [
{
"@odata.id": "/redfish/v1/Managers/PMC_0"
}
],
"Manufacturer": "$PRODUCT_MANUFACTURER",
"Model": "$PRODUCT_PRODUCT_NAME",
"Name": "PowerShelf_0",
"NetworkAdapters": {
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/NetworkAdapters" },
"Oem": {
"InsydeFRUData": {
"@odata.type": "#InsydeOEMExtensions.v1_0_0.FRUData", "FRUInfo": [
{
"Board": {
"AssetTag": null,
"FRUFileId": null,
"Manufacturer": "Vertiv",

```

```

"ManufacturerDateTime": "2025-07-31T06:43:00+00:00", "Name": "MPSC6000-MCU-I1-I2_1.5",
"PartNumber": "V1.5",
"Serial": "CZHZZPZ2503000500019",
"Version": null
},
"FRUDeviceID": "8",
"Language": "English", "Name": "MCU",
"Product": {
"AssetTag": "PETD11911R2803496600142", "FRUFileID": null,
"Manufacturer": "Vertiv",
"Name": "MPSC6000-MCU",
"PartNumber": null,
"Serial": "Z330068240800045",
"Version": "V2.000307"
}
},
{
"Board": {
"AssetTag": null,
"FRUFileID": null,
"Manufacturer": "Vertiv",
"ManufacturerDateTime": "2025-01-16T05:33:00+00:00", "Name": "MPSC6000-PMC-3-Vertiv",
"PartNumber": "Z520031244200001",
"Serial": "123456",
"Version": null
},
"FRUDeviceID": "0",
"Language": "English", "Name": "Baseboard"
},
{
"Board": {
"AssetTag": null,
"FRUFileID": null,
"Manufacturer": "Vertiv",
"ManufacturerDateTime": "2025-01-16T05:33:00+00:00", "Name": "IPU433K-NB-AA1616-R-VT",
"PartNumber": "Z520031244200001",
"Serial": "123456",
"Version": null
},
"FRUDeviceID": "7",
"Language": "English", "Name": "Chassis"
},
{
"FRUDeviceID": "1",
"Language": "English", "Name": "PSU1",
"Product": {
"AssetTag": null,
"FRUFileID": null,
"Manufacturer": "Vertiv",
"Name": "IPS495500-AIT-N1AA", "PartNumber": " ", "Serial": "Z420285253200107", "Version": "V01 "
}
},
{
"FRUDeviceID": "2",
"Language": "English", "Name": "PSU2",
"Product": {
"AssetTag": null,
"FRUFileID": null,
"Manufacturer": "Vertiv",
"Name": "IPS495500-AIT-N1AA", "PartNumber": " ", "Serial": "Z620068252100012", "Version": "V01 "
}
},
{
"FRUDeviceID": "3",
"Language": "English", "Name": "PSU3",

```

```
"Product": {
"AssetTag": null,
"FRUFileId": null,
"Manufacturer": "Vertiv",
"Name": "IPS495500-AIT-N1AA",
"PartNumber": "          ", "Serial": "Z420285253200044", "Version": "V01 "
}
},
{
"FRUDeviceID": "4",
"Language": "English", "Name": "PSU4",
"Product": {
"AssetTag": null,
"FRUFileId": null,
"Manufacturer": "Vertiv",
"Name": "IPS495500-AIT-N1AA", "PartNumber": "          ", "Serial": "Z420285253200090", "Version": "V01 "
}
},
{
"FRUDeviceID": "5",
"Language": "English", "Name": "PSU5",
"Product": {
"AssetTag": null,
"FRUFileId": null,
"Manufacturer": "Vertiv",
"Name": "IPS495500-AIT-N1AA", "PartNumber": "          ", "Serial": "Z420285253200099", "Version": "V01 "
}
}
]
},
"PartNumber": "$PRODUCT_PART_NUMBER", "Power": {
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Power"
},
"PowerState": "On",
"PowerSubsystem": {
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem"
},
"Sensors": {
"@odata.id": "/iShare_powerredfish/v1/Chassis/PowerShelf_0/Sensors" },
"SerialNumber": "$PRODUCT_SERIAL_NUMBER",
"Status": {
"Health": "OK",
"HealthRollup": "OK", "State": "Enabled"
},
"Thermal": {
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Thermal" },
"ThermalSubsystem": {
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/ThermalSubsystem"
}
}
AssetTag": null,
"FRUFileId": null,
"Manufacturer": "Vertiv",
"ManufacturerDateTime": "2025-07-31T06:43:00+00:00", "Name": "MPSC6000-MCU-I1-I2_1.5",
"PartNumber": "V1.5",
"Serial": "CZHZZPZ2503000500019",
"Version": null
```

1.5 List PSC inventory information

Table 1.5 Redfish: List PSC inventory information

Description	List PSC inventory information
-------------	--------------------------------

Command	\$ curl -k -u <bmcuser>:<bmpass> https://<bmcip> /redfish/v1/Managers/PMC_0
---------	---

For example, get PSC inventory information:

```
$ curl -k -u root:OpenBmc https://192.168.1.70/redfish/v1/Managers/PMC_0
```

Example of return value:

```
{
"@odata.id": "/redfish/v1/Managers/PMC_0", "@odata.type": "#Manager.v1_15_0.Manager", "Actions": {
"#Manager.Reset": {
"@Redfish.ActionInfo": "/redfish/v1/Managers/PMC_0/ResetActionInfo", "target":
"/redfish/v1/Managers/PMC_0/Actions/Manager.Reset"
},
"#Manager.ResetToDefaults": {
"ResetType@Redfish.AllowableValues": [
"ResetAll"
],
"target": "/redfish/v1/Managers/PMC_0/Actions/Manager.ResetToDefaults"
},
"Oem": {
"#InsydeOEMExtensions.v1_0_0.BackupBMCSettings": {
"target":
"/redfish/v1/Managers/PMC_0/Actions/Oem/InsydeOEMExtensions.BackupBMCSettings"
},
"#InsydeOEMExtensions.v1_0_0.VMInstance": {
"target":
"/redfish/v1/Managers/PMC_0/Actions/Oem/InsydeOEMExtensions.VMInstance"
}
},
"CommandShell": {
"ConnectTypesSupported": [
"SSH", "IPMI"
],
"MaxConcurrentSessions": 4, "ServiceEnabled": true
},
"DateTime": "2025-10-11T08:35:23+00:00",
"DateTimeLocalOffset": "+00:00",
"Description": "Baseboard Management Controller",
"EthernetInterfaces": {
"@odata.id": "/redfish/v1/Managers/PMC_0/EthernetInterfaces" },
"FirmwareVersion": "02.01.13.0930",
"GraphicalConsole": {
"ConnectTypesSupported": [
"KVMIP"
],
"MaxConcurrentSessions": 4, "ServiceEnabled": true
},
"Id": "bmc",
"LastResetTime": "2025-10-11T07:41:03+00:00", "Links": {
"ActiveSoftwareImage": {
"@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/bmc_active"
},
"ManagerForChassis": [
{
"@odata.id": "/redfish/v1/Chassis/MCU" }
],
"ManagerForChassis@odata.count": 1,
"ManagerForServers": [
{
"@odata.id": "/redfish/v1/Systems/system" }
],
"ManagerForServers@odata.count": 1,
"ManagerInChassis": {
"@odata.id": "/redfish/v1/Chassis/MCU"
},
"SoftwareImages":
{

```

```
"@odata.id":
"/redfish/v1/UpdateService/FirmwareInventory/bmc_active"
},
],
"SoftwareImages@odata.count":1
},
"LogServices": {
"@odata.id": "/redfish/v1/Managers/PMC_0/LogServices" },
"ManagerType": "BMC",
"Model": "OpenBmc",
"Name": "OpenBmc Manager",
"NetworkProtocol": {
"@odata.id": "/redfish/v1/Managers/PMC_0/NetworkProtocol"
},
"Oem": {
"@odata.id": "/redfish/v1/Managers/PMC_0#/Oem", "@odata.type": "#OemManager.Oem",
"IPAccessControl": {
"@odata.id":
"/redfish/v1/Managers/PMC_0/Oem/Insyde/IPv4AccessCollection"
},
"IPv6AccessControl": {
"@odata.id":
"/redfish/v1/Managers/PMC_0/Oem/Insyde/IPv6AccessCollection"
}
},
"OpenBmc": {
"@odata.id": "/redfish/v1/Managers/PMC_0#/Oem/OpenBmc",
"@odata.type": "#OemManager.OpenBmc",
"Certificates": {
"@odata.id": "/redfish/v1/Managers/PMC_0/Truststore/Certificates" },
"SyslogService": {
"@odata.id": "/redfish/v1/Managers/PMC_0/SyslogService"
}
},
},
"PowerState": "On", "SerialConsole": {
"ConnectTypesSupported": [
"IPMI", "SSH"
],
"MaxConcurrentSessions": 15, "ServiceEnabled": true
},
"ServiceEntryPointUUID": "c805994c-478c-43fb-844d-729457afdfaa", "Status": {
"Health": "OK",
"HealthRollup": "OK", "State": "Enabled"
},
},
"UUID": "17639c09-8482-457e-9866-f31723557d84"}
```

1.6 List power device inventory information

Table 1.6 Redfish: List power device inventory information

Description	View the overview information of power device
Command	\$ curl -k -u <bmcuser>:<bmcpass>https://<bmcip>/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/

PSU index start from 1.
For example, read the overview information for the 3th power device:
\$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3
Example of return value:
{
"@odata.id": "/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3", "@odata.type":
"#VertivPowerUnitStatus.VertivPowerUnitStatus",
"Actions": {
"#Vertiv.AlertMask": {

```

"target":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.AlertMask"
},
"#Vertiv.ClearFaults": {
"target":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.},
"#Vertiv.ClearFaultsDO": },
"#Vertiv.ClearStatus": {
"target":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.ClearStatus"
},
"#Vertiv.FanControl":{
"target":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.FanCont rol"
},
"#Vertiv.GetBlackBox": {
"target":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.GetBlac kBox"
},
"#Vertiv.PowerOff": {
"target":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.PowerOff"
},
"#Vertiv.PowerOn": {
"target":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.PowerOn "
},
"#Vertiv.UpdateService": {
"target":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.UpdateService"
},
"#Vertiv.VoutMode": {
"target":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.VoutMode"
}
},
"Id": 3,
"Name": "Power Supply Unit 3", "VSB_Output_Current": {
"Unit": "A",
"Value": 0.0
},
"VSB_Output_Power": {
"Unit": "W", "Value": 0.1
},
"VSB_Output_Voltage": {
"Unit": "V",
"Value": 11.96
},
"app_fw_info": "V7eB4f/V18Bb9", "boot_fw_info": "Vbfb02/VdcBdf", "customer_id": "Customer  ", "efficiency": "--",
"fan": {
"Unit": "RPMS", "Value": 4056.0
},
"fan2": {
"Unit": "RPMS",
"Value": "--"
},
"fan_command": 0.0, "frequency": 0.0,
"id": "Vertiv  ", "iin_oc_w_l": 40.0, "inlettemp": {
"Unit": "\u00b0C", "Value": 25.18
},
"iout_oc_f_l": 135.0,
"iout_oc_w_l": 120.0,
"mfr_pout_max": 5496.0,
"model_name": "IPS495500-AIT-N1BA", "operation": 128.0,
"ot_f_l": 65.0,
"ot_w_l": 55.0,

```

```

"outlettemp": {
  "Unit": "\u00b0C",
  "Value": 51.87
},
"pin_op_w_l": 7200.0,
"pout_op_w_l": 6800.0,
"psu_pn": " ",
"serial_number": "Z230187255200099 ", "state": "On",
"status": "OK",
"status_cml": 0,
"status_cml_mask": 126,
"status_input": 0,
"status_input_mask": 124,
"status_iout": 0,
"status_iout_mask": 123,
"status_temperature": 0,
"status_temperature_mask": 125,
"status_vout": 0,
"status_vout_mask": 122,
"status_word": 0,
"vin_ov_f_l": 313.0,
"vin_uv_f_l": 167.0,
"vout_mode": 26,
"vout_ov_alert_limit": 52.5,
"vout_uv_alert_limit": 38.0,
"vsb_status_iout": 0,
"vsb_status_vout": 0,
"vsb_status_word": 0
}

```

2 Sensors

2.1 List sensors on PSC

Table 2.1 Redfish: List sensors on PSC

Description	List sensors on PSC
Command	\$ curl -k -u <bmcuser>:<bmcpass> -X GET https://<bmcip>/redfish/v1/Chassis/Power/Oem/Vertiv/PSC

For example, list all sensors on PSC:

```
$ curl -k -u root:OpenBmc -X GET
https://192.168.1.70/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PSC
```

Example of return value:

```

{
  "@odata.id": "/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PSC", "@odata.type": "#VertivPSCInfo.VertivPSCInfo",
  "BMC_Temp": {
    "Unit": "\u00b0C",
    "Value": 33.37
  },
  "Shelf_Addr_ID": 1.0,
  "busbar_temperature1": {
    "Unit": "\u00b0C", "Value": 33.65
  },
  "busbar_temperature2": {
    "Unit": "\u00b0C",
    "Value": 33.84 },
  "iin": {
    "Unit": "A", "Value": 0.54
  },
  "iout": {
    "Unit": "A",
    "Value": 0.81
  },

```

```

"ishare_current": {
  "Unit": "A", "Value": 0.0
},
"pin": {
  "Unit": "W",
  "Value": 46.0 },
"pout": {
  "Unit": "W",
  "Value": 40.5
},
"vin": {
  "Unit": "V",
  "Value": 231.5
},
"vout": {
  "Unit": "V",
  "Value":
50.36
}
}

```

2.2 Get PowerShelf-Sensors information

Table 2.2 Get PowerShelf-Sensors information

Description	Get Baseboard-Sensors information
Command	\$ curl -k -u <bmcuser>:<bmcpass> https:// <bmcip>/redfish/v1/Chassis/PowerShelf_0/Sensors

For example:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/Sensors
```

Example of return value:

```

{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors", "@odata.type": "#SensorCollection.SensorCollection",
  "Description": "Collection of Sensors for this Chassis", "Members": [
    {
      "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/bmc_temp"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/BusBarNTemp" },
    {
      "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/BusBarPTemp" },
    {
      "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ishare"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/current_in_A_A" },
    {
      "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/current_in_A_B" },
    {
      "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/current_in_A_C"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/current_in_B_A"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/current_in_B_B"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/current_in_B_C"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/average_current_out" },
    {

```

```

"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/total_current_out"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/hotswap_input_current" },
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_energy_in"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_energy_out"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_total_energy_in" },
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps2_energy_in"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps2_energy_out"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps2_total_energy_in" },
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps3_energy_in"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps3_energy_out"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps3_total_energy_in" },
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps4_energy_in"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps4_energy_out"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps4_total_energy_in" },
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps5_energy_in"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps5_energy_out"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps5_total_energy_in" },
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps6_energy_in"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps6_energy_out"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps6_total_energy_in" },
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/A_A_INPUT_POWER"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/A_B_INPUT_POWER"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/A_C_INPUT_POWER"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/B_A_INPUT_POWER"
},
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/B_B_INPUT_POWER"
}

```

```

},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/B_C_INPUT_POWER"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/total_power_in"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/total_power_out"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/hotswap_input_power" },
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/total_power_in_A" },
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/total_power_in_B" },
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_ithd_data"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps2_ithd_data"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps3_ithd_data"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps4_ithd_data"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps5_ithd_data"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps6_ithd_data"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/total_efficiency" },
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/voltage_in_A_A"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/voltage_in_A_B"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/voltage_in_A_C"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/voltage_in_B_A"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/voltage_in_B_B"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/voltage_in_B_C"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/average_voltage_out" },
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/max_voltage_out"
},
{
  "@odata.id":
"/redfish/v1/Chassis/PowerShelf_0/Sensors/SHELF_OUTPUT_VOLTAGE_TOTAL"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_input_current" },
{

```

```

"@odata.id":
"/redfish/v1/Chassis/PowerShelf_0/Sensors/PSU1_Max_Output_Current"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_output_current" },
{
  "@odata.id":
"/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_standby_output_current"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_fan1"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_input_power"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/PSU1_Max_Input_Power" },
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_output_power"
},
{
  "@odata.id":
"/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_standby_output_power"
},
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_temp_hotspot" },
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_powerfactor" },
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_input_voltage" },
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_output_voltage" },
{
  "@odata.id":
"/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_standby_outpu
}
],
"Members@odata.count": 72, "Name": "Sensors"

```

2.3 Get Powershell-iSense information

Table 2.3 Get Powershell-iSense information

Description	Get Powershell-iSense information
Command	\$ curl -k -u <bmcuser>:<bmcpass> https://<bmcip>/redfish/v1/Chassis/PowerShelf_0/Sensors/ishare

For example:

```

$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/Sensors/ishare
Example of return value:

```

```

{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/iSense", "@odata.type": "#Sensor.v1_5_0.Sensor",
  "Id": "iSense",
  "Name": "iSense",
  "PhysicalContext": "PowerSupply",
  "Reading": 0.23051200594220841,
  "ReadingRangeMax": 1.8,
  "ReadingRangeMin": 0,
  "ReadingType": "Percent",
  "ReadingUnits": "-",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

```

```

},
"Thresholds": {
"LowerCaution": {
"Reading": 0 },
"LowerCritical": {
"Reading": 0 },
"UpperCaution": {
"Reading": 2.7 },
"UpperCritical": {
"Reading": 3.24
}
}
}
}

```

2.4 Get Powershell-PsuInputCurrent information

Table 2.4 Get Powershell-PsuInputCurrent information

Description	Get Powershell-PsuInputCurrent information
Command	\$ curl -k -u <bmcuser>:<bmcpass> https:// <bmcip>/redfish/v1/Chassis/PowerShelf_0/Sensors/ps <BayId>_input_current

For example:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_input_current
```

Example of return value:

```

{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/PSU1_Input_Current", "@odata.type": "#Sensor.v1_5_0.Sensor",
"Id": "PSU1_Input_Current",
"Implementation": "PhysicalSensor",
"Name": "PSU1 Input Current",
"PhysicalContext": "PowerSupplyBay",
"PhysicalSubContext": "Input",
"Reading": 0.507,
"ReadingRangeMax": 20,
"ReadingRangeMin": 0,
"ReadingType": "Current",
"ReadingUnits": "A",
"Status": {
"Health": "OK",
"State": "Enabled"
},
"Thresholds": {
"LowerCaution": {
"Reading": 0 },
"LowerCritical": {
"Reading": 0 },
"UpperCaution": {
"Reading": 45 },
"UpperCritical": {
"Reading": 54
}
}
}
}

```

2.5 Get Powershell-PsuInputPower information

Table 2.5 Get Powershell-PsuInputPower information

Description	Get Powershell-PsuInputCurrent information
Command	\$ curl -k -u <bmcuser>:<bmcpass>https:// <bmcip>/redfish/v1/Chassis/PowerShelf_0/Sensors/ps <BayId>_input_power

For example:

```
$ curl -k -u root:OpenBmc
```

https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_input_power

Example of return value:

```
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/PSU1_Input_Power", "@odata.type": "#Sensor.v1_5_0.Sensor",
  "Id": "PSU1_Input_Power",
  "Implementation": "PhysicalSensor",
  "Name": "PSU1 Input Power",
  "PhysicalContext": "PowerSupplyBay",
  "PhysicalSubContext": "Input",
  "Reading": 7.75,
  "ReadingRangeMax": 5500.0,
  "ReadingRangeMin": 0.0,
  "ReadingType": "Power",
  "ReadingUnits": "W",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}
```

2.6 Get Powershell-PsuTemperature Internal information

Table 2.6 Get Powershell-PsuTemperature Internal information

Description Get Powershell-PsuTemperature Internal information	
Command	\$ curl -k -u <bmcuser>:<bmcpass>https://<bmcip>/redfish/v1/Chassis/PowerShelf_0/Sensors/ps <BayId>_temp_hotspot

For example:

\$ curl -k -u root:OpenBmc

https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_temp_hotspot

Example of return value:

```
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/PSU1_Temperature", "@odata.type": "#Sensor.v1_5_0.Sensor",
  "Id": "PSU1_Temperature",
  "Implementation": "PhysicalSensor",
  "Name": "PSU1 Temperature",
  "PhysicalContext": "PowerSupplyBay",
  "Reading": 32,
  "ReadingRangeMax": 127,
  "ReadingRangeMin": -128,
  "ReadingType": "Temperature", "ReadingUnits": "Cel",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  },
  "Thresholds": {
    "LowerCaution": {
      "Reading": 0
    },
    "LowerCritical": {
      "Reading": 0
    },
    "UpperCaution": {
      "Reading": 92
    },
    "UpperCritical": {
      "Reading": 115
    }
  }
}
```

2.7 Get Powershell-PsuInputVoltage information

Table 2.7 Get Powershell-PsuInputVoltage information

Description	Get Powershell-PsuInputVoltage information
Command	\$ curl -k -u <bmcuser>:<bmcpass>https://<bmcip>/redfish/v1/Chassis/PowerShelf_0/Sensors/ps<BayId>_input_voltage

For example:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_input_voltage
```

Example of return value:

```
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/PSU1_Input_Voltage", "@odata.type": "#Sensor.v1_5_0.Sensor",
  "Id": "PSU1_Input_Voltage",
  "Implementation": "PhysicalSensor",
  "Name": "PSU1 Input Voltage",
  "PhysicalContext": "PowerSupplyBay",
  "PhysicalSubContext": "Input",
  "Reading": 232.5,
  "ReadingRangeMax": 255.0,
  "ReadingRangeMin": 0.0,
  "ReadingType": "Voltage",
  "ReadingUnits": "V",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}
```

2.8 Get Powershell-PsuOutputPower information

Table 2.8 Get Powershell-PsuOutputPower information

Description	Get Powershell-PsuOutputPower information
Command	\$ curl -k -u <bmcuser>:<bmcpass> https://<bmcip>/redfish/v1/Chassis/PowerShelf_0/Sensors/ps<BayId>_output_power

For example:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_output_power
```

Example of return value:

```
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/PSU1_Output_Power", "@odata.type": "#Sensor.v1_5_0.Sensor",
  "Id": "PSU1_Output_Power",
  "Implementation": "PhysicalSensor",
  "Name": "PSU1 Output Power",
  "PhysicalContext": "PowerSupplyBay",
  "PhysicalSubContext": "Output",
  "Reading": 2.25,
  "ReadingRangeMax": 5500.0,
  "ReadingRangeMin": 0.0,
  "ReadingType": "Power",
  "ReadingUnits": "W",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}
```

2.9 Get Powershell-PsuFan information

Table 2.9 Powershell-PsuFan information

Description	Get Powershell-PsuFan information
Command	\$ curl -k -u <bmcuser>:<bmcpass> https://<bmcip>/redfish/v1/Chassis/PowerShelf_0/Sensors/ps <BayId>_fan <FanID>

For example:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/Sensors/ps1_fan1
```

Example of return value:

```
{
"@odata.id": "/redfish/v1/Chassis/PowerShelf_0/Sensors/PSU1_Fan_Speed_1", "@odata.type": "#Sensor.v1_5_0.Sensor",
"Id": "PSU1_Fan_Speed_1",
"Name": "PSU1 Fan Speed 1",
"PhysicalContext": "Fan",
"Reading": 6320,
"ReadingRangeMax": 5000,
"ReadingRangeMin": 0,
"ReadingType": "Rotational",
"ReadingUnits": "RPM",
"Status": {
"Health": "Critical", "State": "Enabled"
}
}
```

2.10 Get Powershell Action

Table 2.10 Powershell Action

Description	Get Powershell Action
Command	\$ curl -k -u <bmcuser>:<bmcpass> https://<bmcip>/redfish/v1/Chassis/PowerShelf_0/Actions/Chassis.Reset -X POST -d '{"ResetType": "On"}'

type: Force Off, On

For example:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/Actions/Chassis.Reset -X POST -d '{"ResetType": "On"}'
```

Example of return value:

```
{
"Result": "success"
}
```

3 Factory Reset operation

Table 3.1 Factory Reset

Description	Factory Reset
Command	\$ curl -k -X POST -u <bmcuser>:<bmcpass> https://<bmcip>/redfish/v1/Managers/PMC_0/Actions/Manager.ResetToDefaults -d '{"ResetToDefaultsType": "ResetAll"}'

For example, conduct Factory Reset on PSC:

```
$ curl -k -X POST -u root:OpenBmc https://192.168.1.70/redfish/v1/
```

```
Managers/PMC_0/Actions/Manager.ResetToDefaults -d '{"ResetToDefaultsType": "ResetAll"}'
```

Example of return value:

```
{
"@Message.ExtendedInfo": [
{
"@odata.type": "#Message.v1_1_1.Message",
"Message": "The request completed successfully.", "MessageArgs": [],
```

```
"MessageId": "Base.1.11.0.Success",
"MessageSeverity": "OK",
"Resolution": "None"
}}
}
```

4 Firmware operation

Table 4.1 List available PSC firmware

Description	List available PSC firmware
Command	\$ curl -k -u <bmcuser>:<bmpass>https://<bmcip>/redfish/v1/UpdateService/FirmwareInventory

For example, list PSC firmware on PSC:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/UpdateService/FirmwareInventory/
```

Example of return value:

```
{
"@odata.id": "/redfish/v1/UpdateService/FirmwareInventory",
"@odata.type": "#SoftwareInventoryCollection.SoftwareInventoryCollection", "Members": [
{
"@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/backupbmc_active" },
{
"@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/bios_active"
}],
{
"@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/bmc_active"
}],
{
"@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/cpld_active"
}],
{
"@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/mcu_active"
}],
{
"@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/psu_active_4" },
{
"@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/psu_active_5" },
{
"@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/psu_active_6"
}
}],
"Members@odata.count": 8,
"Name": "Software Inventory Collection" }
```

4.1 Firmware detailed information

Table 4.2 List available PSC firmware

Description	Get detailed information for PSC firmware
Command	\$ curl -k -u <bmcuser>:<bmpass>https://<bmcip>/redfish/v1/UpdateService/FirmwareInventory/bmc_active

For example, get detailed information of PSC:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/UpdateService/FirmwareInventory/bmc_active
```

Example of return value:

```
{
"@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/bmc_active", "@odata.type":
"#SoftwareInventory.v1_7_0.SoftwareInventory",
"ActiveImage": "Backup",
"Description": "BMC image",
"Id": "bmc_active",
```

```

"Name": "Software Inventory",
"RelatedItem": [
{
"@odata.id": "/redfish/v1/Managers/PMC_0" }
],
"RelatedItem@odata.count": 1,
"Status": {
"Health": "OK",
"HealthRollup": "OK", "State": "Enabled"
},
"Updateable": true, "Version": "V02B01"
}

```

Table 4.3 Update PSC firmware

Description	Update PSC firmware
Command	<pre> \$ curl -k -u <bmcuser>:<bmcpass> https://<bmcip>/redfish/v1/UpdateService -X PATCH -d '{"HttpPushUriOptions": {"HttpPushUriApplyTime":{"ApplyTime": "Immediate"}}}' \$ curl -k -H "Content-Type: application/octet-stream" -u <bmcuser>:<bmcpass> -X POST -T https://<bmcip>/redfish/v1/UpdateService </pre>

For example, update PSC firmware:

```

$ curl -k -u root:OpenBmc https://192.168.1.70/redfish/v1/UpdateService -X PATCH -d '{"HttpPushUriOptions":
{"HttpPushUriApplyTime":{"ApplyTime": "Immediate"}}}'

```

Example of return value:

```

{
"@Message.ExtendedInfo":[
{
"@odata.type": "#Message.v1_1_1.Message",
"Message": "Successfully Completed Request", "MessageArgs": [],
"MessageId": "Base.1.8.1.Success",
"MessageSeverity": "OK",
"Resolution": "None"
}
]
}

```

```

$ curl -k -H "Content-Type: application/octet-stream" -u root:OpenBmc -X POST -T /home/user/psc.tar
https://192.168.1.70/redfish/v1/UpdateService

```

Example of return value:

```

{
"@odata.id": "/redfish/v1/TaskService/Tasks/1", "@odata.type": "#Task.v1_4_3.Task",
"Id": "1",
"TaskState": "Running",
"TaskStatus": "OK"
}

```

5 Power operation

5.1 Power on power unit

Table 5.1 Power on power unit

Description	Power on power unit
Command	<pre> \$ curl -k -u <bmcuser>:<bmcpass>https://<bmcip>/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU<1>/Actions/Vertiv.PowerOn </pre>

For example, Power on the 1st PSU:

```

$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Actions/Vertiv.PowerOn

```

Example of return value:

```

{
"Result": "success"
}

```

```
}

```

Table 5.2 Power off power unit

Description	Power off power unit
Command	<pre>\$ curl -k -u <bmcuser>:<bmcpass> https://<bmcip>/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits//Actions/Vertiv.PowerOff</pre>

For example, Power on the 1st PSU:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.170/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Actions/Vertiv.PowerOff
```

Example of return value:

```
{
  "Result": "success"
}
```

6 Date and time

6.1 Get time synchronization mode

For example, get time synchronization mode:

```
$ curl -k -u root:OpenBmc -X GET
```

```
https://192.168.170/redfish/v1/Managers/PMC_0/NetworkProtocol
```

Example of return value:

```
{
  "@odata.id": "/redfish/v1/Managers/PMC_0/NetworkProtocol",
  "@odata.type": "#ManagerNetworkProtocol.v1_8_1.ManagerNetworkProtocol", "Description": "Manager Network Service",
  "FQDN": "evb-ast2620-insyde",
  "HTTP": {
    "Port": 0,
    "ProtocolEnabled": false
  },
  "HTTPS": {
    "Certificates": {
      "@odata.id":
"/redfish/v1/Managers/PMC_0/NetworkProtocol/HTTPS/Certificates"
    },
    "Port": 443,
    "ProtocolEnabled": true
  },
  "HostName": "evb-ast2620-insyde", "IPMI": {
    "Port": 623,
    "ProtocolEnabled": true
  },
  "Id": "NetworkProtocol", "NTP": {
    "NTPServers": [],
    "ProtocolEnabled": true
  },
  "Name": "Manager Network Protocol", "SNMP": {
    "CommunityStrings": [
      {
        "AccessMode": "Limited", "CommunityString": ""
      },
      {
        "AccessMode": "Full", "CommunityString": ""
      }
    ],
    "EnableSNMPv1": false, "EnableSNMPv2c": false, "EnableSNMPv3": true, "Port": 161,
    "ProtocolEnabled": true
  },
  "SSH": {
    "Port": 22,
    "ProtocolEnabled": true
  },
}
```

```

"Status": {
"Health": "OK",
"HealthRollup": "OK",
"State": "Enabled"
}
}

```

6.2 Manual Mode

Table 6.1 Manual mode

Description	Set time synchronization mode to Manual
Command	<pre>\$ curl -k -u <bmcuser>: <bmcpass> -X PATCH https:// <bmcip>/redfish/v1/Managers/PMC_0/NetworkProtocol -d "NTP":"ProtocolEnabled": false'</pre>

For example, set time synchronization mode to Manual:

```
$ curl -k -u root:OpenBmc -X PATCH
```

```
https://192.168.170/redfish/v1/Managers/PMC_0/NetworkProtocol -d "NTP":"ProtocolEnabled": false'
```

No return value.

6.3 NTP Mode

Table 6.2 NTP mode

Description	Set time synchronization mode to NTP
Command	<pre>\$ curl -k -u <bmcuser>: <bmcpass> -X PATCH https:// <bmcip>/redfish/v1/Managers/PMC_0/NetworkProtocol -d "NTP":"ProtocolEnabled": true'</pre>

For example, set time synchronization mode to NTP:

```
$ curl -k -u root:OpenBmc -X PATCH
```

```
https://192.168.170/redfish/v1/Managers/PMC_0/NetworkProtocol -d "NTP":"ProtocolEnabled": true'
```

Example of return value:

```

{
"@Message.ExtendedInfo":[
{
"@odata.type": "#Message.v1_1_1.Message",
"Message": "Successfully Completed Request", "MessageArgs": [],
"MessageId": "Base.1.8.1.Success",
"MessageSeverity": "OK",
"Resolution": "None"
}
]
}

```

6.4 Configure the NTP servers

Table 6.3 NTP mode

Description	Configure the NTP servers
Command	<pre>\$ curl -k -u <bmcuser>: <bmcpass> -X PATCH https:// <bmcip>/redfish/v1/Managers/PMC_0/NetworkProtocol -d '{"NTP":{"NTPServers":["",]}}'</pre>

For example, set NTP servers to time.google.com, time.apple.com, time.windows.com:

```
$ curl -k -u root:OpenBmc -X PATCH
```

```
https://192.168.170/redfish/v1/Managers/PMC_0/NetworkProtocol -d
```

```
'{"NTP":{"NTPServers":["time.google.com","time.apple.com","time.windows.com"]}]}'
```

Example of return value:

```

{
"@Message.ExtendedInfo":[
{

```

```
"@Message.ExtendedInfo":
{
"@odata.type": "#Message.v1_1_1.Message",
"Message": "Successfully Completed Request", "MessageArgs": [],
"MessageId": "Base.1.8.1.Success",
"MessageSeverity": "OK",
"Resolution": "None"
}
]
```

For example, set NTP servers to time.google.com, time.apple.com, time.windows.com:

```
$ curl -k -u root:OpenBmc -X PATCH
https://192.168.170/redfish/v1/Managers/PMC_0/NetworkProtocol -d
'{"NTP":{"NTPServers":["time.google.com","time.apple.com","time.windows.com"]}}'
```

Example of return value:

```
{
"@Message.ExtendedInfo":[
[
"@odata.type": "#Message.v1_1_1.Message",
"Message": "Successfully Completed Request", "MessageArgs": [],
"MessageId": "Base.1.8.1.Success",
"MessageSeverity": "OK",
"Resolution": "None"
]
]
```

7 Network Configuration

7.1 Available Ethernet Interfaces

Table 7.1 Available Ethernet Interfaces

Description	List available ethernet interfaces on PSC
Command	\$ curl -k -u <bmcuser>:<bmcpass> https://<bmcip>/redfish/v1/Managers/PMC_0/EthernetInterfaces/

For example, list available ethernet interfaces on PSC:

```
$ curl -k -u root:OpenBmc
https://192.168.170/redfish/v1/Managers/PMC_0/EthernetInterfaces/
```

Example of return value:

```
{
"@odata.id": "/redfish/v1/Managers/PMC_0/EthernetInterfaces",
"@odata.type": "#EthernetInterfaceCollection.EthernetInterfaceCollection", "Description": "Collection of EthernetInterfaces for this Manager",
"Members": [
{
"@odata.id": "/redfish/v1/Managers/PMC_0/EthernetInterfaces/eth0" }
],
"Members@odata.count": 1,
"Name": "Ethernet Network Interface Collection"
}
```

7.2 Detailed Information of Ethernet Interface

Table 7.2 Detailed Information of Ethernet Interface

Description	List detailed information of ethernet interface
Command	\$ curl -k -u <bmcuser>:<bmcpass> https://<bmcip>/redfish/v1/Managers/PMC_0/EthernetInterfaces/eth0

For example, detailed configuration of eth0:

```
$ curl -k -u root:OpenBmc https://192.168.170/redfish/v1/Managers/PMC_0/EthernetInterfaces/eth0
```

Example of return value:

```
{
```

```

"@odata.id": "/redfish/v1/Managers/PMC_0/EthernetInterfaces/eth0", "@odata.type":
"#EthernetInterface.v1_8_0.EthernetInterface",
"DHCPv4": {
"DHCPEnabled": false, "UseDNSServers": true, "UseDomainName": false, "UseNTPServers": true
},
"DHCPv6": {
"OperatingMode": "Disabled", "UseDNSServers": true,
"UseDomainName": false,
"UseNTPServers": true
},
"Description": "Management Network Interface", "FQDN": "evb-ast2620-insyde",
"HostName": "evb-ast2620-insyde",
"IPv4Addresses": [
{
"Address": "192.168.1.70",
"AddressOrigin": "Static",
"Gateway": "192.168.1.1",
"SubnetMask": "255.255.255.0"
}
],
"IPv4StaticAddresses": [
{
"Address": "192.168.1.70",
"AddressOrigin": "Static",
"Gateway": "192.168.1.1",
"SubnetMask": "255.255.255.0"
}
],
"IPv6AddressPolicyTable": [], "IPv6Addresses": [
{
"Address": "fe80::80e2:2fff:fe25:2c6c", "AddressOrigin": "LinkLocal",
"AddressState": null,
"PrefixLength": 64
}
],
"IPv6DefaultGateway": "0:0:0:0:0:0:0:0", "IPv6StaticAddresses": [],
"Id": "eth0",
"InterfaceEnabled": true,
"LinkStatus": "LinkUp",
"MACAddress": "82:e2:2f:25:2c:6c",
"Name": "Manager Ethernet Interface",
"NameServers": [],
"SpeedMbps": 1000,
"StaticNameServers": [],
"Status": {
"Health": "OK",
"HealthRollup": "OK",
"State": "Enabled" },
"VLANS": {
"@odata.id": "/redfish/v1/Managers/PMC_0/EthernetInterfaces/eth0/VLANS"
}
}

```

7.3 Configure Ethernet Interface to DHCP Mode

Table 7.3 Configure Ethernet Interface to DHCP Mode

Description	Configure ethernet interface to DHCP mode
Command	\$ curl -k -u <bmcuser>:<bmpass> -X PATCH https://<bmcip>/redfish/v1/Managers/PMC_0/EthernetInterfaces/ -d '{"DHCPv4":{"DHCPEnabled": true}}'

For example, configure eth0 to DHCP mode:

```
$ curl -k -u root:OpenBmc -X PATCH
```

```
https://192.168.1.70/redfish/v1/Managers/PMC_0/EthernetInterfaces/eth0 -d '{"DHCPv4":{"DHCPEnabled": true}}'
```

Example of return value:

```
{
```

```

"@Message.ExtendedInfo":[
  {
    "@odata.type": "#Message.v1_1_1.Message",
    "Message": "Successfully Completed Request", "MessageArgs": [],
    "MessageId": "Base.1.8.1.Success",
    "MessageSeverity": "OK",
    "Resolution": "None"
  }
]
}

```

7.4 Configure Ethernet Interface to Static Mode

Table 7.4 Configure Ethernet Interface to Static Mode

Description	Configure Ethernet Interface to Static Mode
Command	<pre>\$ curl -k -u <bmcuser>:<bmcpass> -X PATCH https://<bmcip>/redfish/v1/Managers/PMC_0/EthernetInterfaces/ -d '{"DHCPv4":{"DHCPEnabled": true}}'</pre>

For example, configure eth0 to Static mode:

```
$ curl -k -u root:OpenBmc -X PATCH
https://192.168.1.70/redfish/v1/Managers/PMC_0/EthernetInterfaces/eth0 -d '{"DHCPv4":{"DHCPEnabled": false}}'
```

Example of return value:

```

{
"@Message.ExtendedInfo":[
  {
    "@odata.type": "#Message.v1_1_1.Message",
    "Message": "Successfully Completed Request", "MessageArgs": [],
    "MessageId": "Base.1.8.1.Success",
    "MessageSeverity": "OK",
    "Resolution": "None"
  }
]
}

```

7.5 Add Static IP Address

Table 7.5 Add Static IP Address

Description	Add Static IP Address
Command	<pre>\$ curl -k -u <bmcuser>:<bmcpass> -X PATCH https://<bmcip>/redfish/v1/Managers/PMC_0/EthernetInterfaces/ -d '{"IPv4StaticAddresses": [{"Address": "10.19.73.42", "Gateway": "10.19.73.1", "SubnetMask": "255.255.255.0"}], {"Address": "10.19.73.43", "Gateway": "10.19.73.1", "SubnetMask": "255.255.255.0"}], {"Address": "10.19.73.44", "Gateway": "10.19.73.1", "SubnetMask": "255.255.255.0"}]}'</pre>

For example, Add static IP address 10.19.73.42 to eth0:

```
$ curl -k -u root:OpenBmc -X PATCH
https://192.168.1.70/redfish/v1/Managers/PMC_0/EthernetInterfaces/eth0
-d '{"IPv4StaticAddresses": [{"Address": "10.19.73.42", "Gateway": "10.19.73.1", "SubnetMask": "255.255.255.0"}]}'
```

No return value.

For example, Add static IP address 10.19.73.42, 10.19.73.43, 10.19.73.44 to eth0

```
$ curl -k -u root:OpenBmc -X PATCH
https://192.168.1.70/redfish/v1/Managers/PMC_0/EthernetInterfaces/eth0
-d '{"IPv4StaticAddresses": [{"Address": "10.19.73.42", "Gateway": "10.19.73.1",
"SubnetMask": "255.255.255.0"}, {"Address": "10.19.73.43", "Gateway": "10.19.73.1", "SubnetMask": "255.255.255.0"},
{"Address": "10.19.73.44", "Gateway": "10.19.73.1", "SubnetMask": "255.255.255.0"}]}'
```

No return value.

8 Sessions

8.1 Connection sessions

Table 8.1 Connection sessions

Description	List connection sessions
Command	\$ curl -k -u <bmcuser>:<bmpass> https://<bmcip>/redfish/v1/SessionService/Sessions

For example, list all connection sessions on PSC:

```
$ curl -k -u root:OpenBmc https://192.168.1.70/redfish/v1/SessionService/Sessions
```

Example of return value

```
{
"@odata.context": "/redfish/v1/$metadata#SessionCollection.SessionCollection", "@odata.id": "/redfish/v1/SessionService/Sessions",
"@odata.type": "#SessionCollection.SessionCollection",
"Name": "Session Collection",
"Description": "The SessionCollection schema describes a collection of session instances."
"Members":[
{
"@odata.id": "/redfish/v1/SessionService/Sessions/WEB0" }
],
"Members@odata.count": 1
}
```

8.2 Session details

Table 8.2 Session details

Description	View session details
Command	\$ curl -k -u <bmcuser>:<bmpass>https://<bmcip>/redfish/v1/SessionService/Sessions/

For example, view connection session:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/SessionService/Sessions/WEB0
```

Example of return value:

```
{
"@odata.context": "/redfish/v1/$metadata#Session.Session",
"@odata.id": "/redfish/v1/SessionService/Sessions/WEB0",
"@odata.type": "#Session.v1_3_0.Session",
"Id": "WEB0",
"Name": "User Session",
"Description": "Manager User Session",
"UserName": "root",
"SessionType": "WebUI"
}
```

9 User management

9.1 List Supported Roles

Table 9.1 List Supported Roles

Description	List Supported Roles
Command	\$ curl -k -u <bmcuser> :<bmpass> https://<bmcip> /redfish/v1/AccountService/Roles/

For example, list roles:

```
$ curl -k -u root:OpenBmc https://192.168.1.70/redfish/v1/AccountService/Roles/
```

Example of return value:

```
{
"@odata.id": "/redfish/v1/AccountService/Roles",
```

```

"@odata.type": "#RoleCollection.RoleCollection",
"Description": "BMC User Roles",
"Members": [
{
"@odata.id": "/redfish/v1/AccountService/Roles/Administrator"
},
{
"@odata.id": "/redfish/v1/AccountService/Roles/Operator"
},
{
"@odata.id": "/redfish/v1/AccountService/Roles/ReadOnly"
},
{
"@odata.id": "/redfish/v1/AccountService/Roles/NoAccess"
}
],
"Members@odata.count": 4,
"Name": "Roles Collection"
}

```

9.2 List users on PSC

Table 9.2 List users on PSC

Description	List users on PSC
Command	\$ curl -k -u <bmcuser> : <bmcpass>https:// <bmcip> /redfish/v1/AccountService/Accounts

For example, list users on PSC:

```
$ curl -k -u root:OpenBmc https://192.168.1.70/redfish/v1/AccountService/Accounts
```

Example of return value:

```

{
"@odata.id": "/redfish/v1/AccountService/Accounts",
"@odata.type": "#ManagerAccountCollection.ManagerAccountCollection",
"Description": "BMC User Accounts",
"Members": [
{
"@odata.id": "/redfish/v1/AccountService/Accounts/root"
}
],
"Members@odata.count": 1,
"Name": "Accounts Collection"
}

```

9.3 List Detailed Information for User

Table 9.3 List Detailed Information for User

Description	List detailed information for user
Command	\$ curl -k -u <bmcuser> : <bmcpass>https:// <bmcip> /redfish/v1/AccountService/Accounts/

For example, list user root:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/AccountService/Accounts/root
```

Example of return value:

```

{
"@odata.id": "/redfish/v1/AccountService/Accounts/root",
"@odata.type": "#ManagerAccount.v1_9_0.ManagerAccount",
"AccountTypes": [
"Redfish"
],
"Description": "User Account",
"Enabled": true,
"Id": "root",
"Links": {
"Role": {
"@odata.id": "/redfish/v1/AccountService/Roles/Administrator"
}
}
}

```

```
}
},
"Locked": false,
"Locked@Redfish.AllowableValues": [
  "false"
],
"Name": "User Account",
"Oem": {
  "Insyde": {
    "@odata.type": "#OemManagerAccount.Insyde",
    "UID": 1
  },
  "InsydeAccount": {
    "@odata.type": "#InsydeOEMExtensions.v1_0_0.InsydeAccount",
    "CreationTime": "2026-03-12T00:00:00+00:00",
    "Email": null,
    "IPMIMessaging": true,
    "Privilege": [
      {
        "ChannelId": "0",
        "MediumType": "IPMB(I2C)",
        "PrivilegeLevel": null
      },
      {
        "ChannelId": "1",
        "MediumType": "802.3 LAN",
        "PrivilegeLevel": "Administrator"
      },
      ...
    ],
    "SNMPAccess": false,
    "SNMPAccessLevel": null
  },
  "Password": null,
  "PasswordChangeRequired": false,
  "PasswordExpiration": null,
  "RoleId": "Administrator",
  "SNMP": {
    "AuthenticationKey": null,
    "AuthenticationProtocol": null,
    "EncryptionKey": null,
    "EncryptionProtocol": null
  },
  "UserName": "root"
}
```

9.4 Set password

Table 9.4 Set password

Description	Set password for user
Command	\$ curl -k -u <bmcuser> : <bmcpass>https:// <bmcip> /redfish/v1/AccountService/Accounts/ -X PATCH -d '{"Password": '}

For example, change password for root to OpenPsc:
\$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/AccountService/Accounts/root -X PATCH -d
'{"Password": "OpenPsc8.."}'
Example of return value:
{

```

"@Message.ExtendedInfo": [
{
"@odata.type": "#Message.v1_1_1.Message",
"Message": "Successfully Completed Request",
"MessageArgs": [],
"MessageId": "Base.1.8.1.Success",
"MessageSeverity": "OK",
"Resolution": "None"
}
]
}

```

9.5 Create user

Table 9.5 Create user

Description	Create user
Command	\$ curl -k -u <bmcuser> : <bmcpass> -X POST https:// <bmcip> /redfish/v1/AccountService/Accounts/-d '{"UserName": "admin", "Password": "OpenPsc8.", "RoleId": "Administrator"}'

For example, create new user admin with password OpenPsc8 and Administrator role:

```

curl -k -u root:OpenBmc -X POST
https://192.168.1.70/redfish/v1/AccountService/Accounts/-d '{"UserName": "admin",
"Password": "OpenPsc8.", "RoleId": "Administrator"}'

```

Example of return value:

```

{
"@Message.ExtendedInfo": [
{
"@odata.type": "#Message.v1_1_1.Message",
"Message": "Successfully Completed Request",
"MessageArgs": [],
"MessageId": "Base.1.8.1.Success",
"MessageSeverity": "OK",
"Resolution": "None"
},
{
"@odata.type": "#Message.v1_1_1.Message",
"Message": "The resource has been created successfully",
"MessageArgs": [],
"MessageId": "Base.1.8.1.Created",
"MessageSeverity": "OK",
"Resolution": "None"
}
]
}

```

9.6 Delete user

Table 9.6 Delete user

Description	Delete user
Command	\$ curl -k -u <bmcuser> : <bmcpass> -X DELETE https:// <bmcip> /redfish/v1/AccountService/Accounts/

For example, delete user admin:

```

$ curl -k -u root:OpenBmc -X DELETE
https://192.168.1.70/redfish/v1/AccountService/Accounts/admin

```

Example of return value:

```

{
"@Message.ExtendedInfo": [
{
"@odata.type": "#Message.v1_1_1.Message",
"Message": "The account was successfully removed.",
"MessageArgs": [],
"MessageId": "Base.1.8.1.AccountRemoved",
"MessageSeverity": "OK",
"Resolution": "No resolution is required."
}
]
}

```

]
}

10 Overview of power units

10.1 All Connected Power Devices

Table 10.1 All connected power devices

Description	List all power devices connected to the PSC
Command	\$ curl -k -u <bmcuser> : <bmcpass>https:// <bmcip> /redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/

For example, list all connected power devices:

\$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/
Example of return value:

```
{
  "@odata.id": "/redfish/v1/AccountService/Accounts/root",
  "@odata.type": "#ManagerAccount.v1_9_0.ManagerAccount",
  "AccountTypes": [
    "Redfish"
  ],
  "Description": "User Account",
  "Enabled": true,
  "Id": "root",
  "Links": {
    "Role": {
      "@odata.id": "/redfish/v1/AccountService/Roles/Administrator"
    }
  },
  "Locked": false,
  "Locked@Redfish.AllowableValues": [
    "false"
  ],
  "Name": "User Account",
  "Oem": {
    "Insyde": {
      "@odata.type": "#OemManagerAccount.Insyde",
      "UID": 1
    }
  },
  "InsydeAccount": {
    "@odata.type": "#InsydeOEMExtensions.v1_0_0.InsydeAccount",
    "CreationTime": "2026-02-03T00:00:00+00:00",
    "Email": null,
    "IPMIMessaging": true,
    "Privilege": [
      {
        "ChannelId": "0",
        "MediumType": "IPMB(I2C)",
        "PrivilegeLevel": null
      },
      {
        "ChannelId": "1",
        "MediumType": "802.3 LAN",
        "PrivilegeLevel": "Administrator"
      },
      {
        "ChannelId": "2",
        "MediumType": "Other LAN",
        "PrivilegeLevel": "Administrator"
      },
      {
        "ChannelId": "3",
        "MediumType": null,
        "PrivilegeLevel": null
      }
    ]
  }
}
```

```

{
  "ChannelId": "4",
  "MediumType": null,
  "PrivilegeLevel": null
},
{
  "ChannelId": "5",
  "MediumType": null,
  "PrivilegeLevel": null
},
{
  "ChannelId": "6",
  "MediumType": "IPMB(I2C)",
  "PrivilegeLevel": null
},
{
  "ChannelId": "7",
  "MediumType": null,
  "PrivilegeLevel": null
},
{
  "ChannelId": "8",
  "MediumType": "Oem",
  "PrivilegeLevel": null
},
{
  "ChannelId": "9",
  "MediumType": "IPMB(I2C)",
  "PrivilegeLevel": null
},
{
  "ChannelId": "10",
  "MediumType": "System Interface",
  "PrivilegeLevel": null
},
{
  "ChannelId": "11",
  "MediumType": null,
  "PrivilegeLevel": null
},
{
  "ChannelId": "12",
  "MediumType": null,
  "PrivilegeLevel": null
},
{
  "ChannelId": "13",
  "MediumType": null,
  "PrivilegeLevel": null
},
{
  "ChannelId": "14",
  "MediumType": "Oem",
  "PrivilegeLevel": null
},
{
  "ChannelId": "15",
  "MediumType": "System Interface",
  "PrivilegeLevel": null
},
},
"SNMPAccess": false,
"SNMPAccessLevel": null
}
},
"Password": null,

```

```

"PasswordChangeRequired": false,
"PasswordExpiration": null,
"RoleId": "Administrator",
"SNMP": {
  "AuthenticationKey": null,
  "AuthenticationProtocol": null,
  "EncryptionKey": null,
  "EncryptionProtocol": null
},
"UserName": "root"
}

```

10.2 Overview Information of Power Device

Table 10.2 Overview Information of Power Device

Description	List all power devices connected to the PSC
Command	\$ curl -k -u <bmcuser> : <bmcpass>https:// <bmcip> /redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/

For example, read the overview information for the 3th power device:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3
```

Example of return value:

```

{
  "@odata.id": "/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3",
  "@odata.type": "#VertivPowerUnitStatus.VertivPowerUnitStatus",
  "Actions": {
    "#Vertiv.AlertMask": {
      "target":
        "/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.AlertMa
        sk"
    },
    "#Vertiv.ClearFaults": {
      "target":
        "/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.ClearFa
        ults"
    },
    "#Vertiv.ClearFaultsDO": {
      "target":
        "/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.ClearFa
        ultsDO"
    },
    "#Vertiv.ClearStatus": {
      "target":
        "/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.ClearSt
        atus"
    },
    "#Vertiv.FanControl": {
      "target":
        "/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.FanCont
        rol"
    },
    "#Vertiv.GetBlackBox": {
      "target":
        "/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.GetBlac
        kBox"
    },
    "#Vertiv.PowerOff": {
      "target":
        "/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.PowerOf
        f"
    },
    "#Vertiv.PowerOn": {
      "target":
        "/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.PowerOn
        "
    }
  }
}

```

```

},
"#Vertiv.UpdateService": {
  "target":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.UpdateS
ervice"
},
"#Vertiv.VoutMode": {
  "target":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU3/Actions/Vertiv.VoutMod
e"
}
},
"id": 3,
"Input_Current": {
  "Unit": "A",
  "Value": 0.47
},
"Input_Power": {
  "Unit": "W",
  "Value": 6.75
},
"Input_Voltage": {
  "Unit": "V",
  "Value": 231.5
},
"Name": "Power Supply Unit 3",
"Output_Current": {
  "Unit": "A",
  "Value": 0.02
},
"Output_Power": {
  "Unit": "W",
  "Value": 1.25
},
"Output_Voltage": {
  "Unit": "V",
  "Value": 49.83
},
"VSB_Output_Current": {
  "Unit": "A",
  "Value": 0.0
},
"VSB_Output_Power": {
  "Unit": "W",
  "Value": 0.06
},
"VSB_Output_Voltage": {
  "Unit": "V",
  "Value": 12.01
},
"app_fw_info": "V99B05/V99B05",
"boot_fw_info": "V00B06/V00B07",
"customer_id": "NVIDIA",
"efficiency": "--",
"fan": {
  "Unit": "RPMS",
  "Value": 4032.0
},
"fan2": {
  "Unit": "RPMS",
  "Value": "--"
},
"fan_command": 0.0,
"frequency": 0.0,
"hotspottemp": {
  "Unit": "\u00b0C",

```

```

"Value": 28.5
},
"id": "Vertiv",
"iin_oc_w_l": 40.0,
"inlettemp": {
"Unit": "\u00b0C",
"Value": 22.93
},
"iout_oc_f_l": 135.0,
"iout_oc_w_l": 120.0,
"mfr_pout_max": 5496.0,
"model_name": "IPS495500-AIT-N1BA",
"operation": 128.0,
"ot_f_l": 65.0,
"ot_w_l": 55.0,
"outlettemp": {
"Unit": "\u00b0C",
"Value": 28.68
},
"pin_op_w_l": 7200.0,
"pout_op_w_l": 6800.0,
"psu_pn": " ",
"serial_number": "Z230187255200064",
"state": "On",
"status": "OK",
"status_cml": 128,
"status_cml_mask": 224,
"status_input": 0,
"status_input_mask": 0,
"status_iout": 0,
"status_iout_mask": 0,
"status_temperature": 0,
"status_temperature_mask": 0,
"status_vout": 0,
"status_vout_mask": 0,
"status_word": 2,
"vin_ov_f_l": 313.0,
"vin_uv_f_l": 167.0,
"vout_mode": 24,
"vout_ov_alert_limit": 52.5,
"vout_uv_alert_limit": 38.0,
"vsb_status_iout": 0,
"vsb_status_vout": 0,
"vsb_status_word": 2
}

```

11 Operations of power units

11.1 Firmware update for power device

Table 11.1 Firmware update for power device

Description	Update firmware for power unit
Command	\$ curl -k -H "Content-Type: application/octet-stream" -u <bmcuser> : <bmcpass> --data-binary @ -X POST https:// <bmcip> /redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Actions/Vertiv.UpdateService

For example, update firmware for the 1st power device with image psu.bin(need to convert hex file to bin file):

```

$ curl -k -H "Content-Type: application/octet-stream" -u root:OpenBmc
--data-binary @/home/user/psu.bin -X POST
https://192.168.1.70/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Act
ions/Vertiv.UpdateService

```

Example of return value:

```

{
"Result": "success" }
}

```

11.2 Control the fan speed

Table 11.2 Control the fan speed

Description	Control the fan speed for power unit
Command	\$ curl -k -u <bmcuser> : <bmcpass>https:// <bmcip> redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits//Actions/Vertiv.FanControl -X POST -d '{"Id": , "Level": }'

[!NOTE]

For now fanid is always 0 because there is only 1 fan per PSU.

[!NOTE]

Fanlevel is an integer between 0 and 100, it will be truncated if it exceeds this range.

For example, set the speed of the 1st fan for the 1st power unit to level 60:

```
"vout_uv_alert_limit": 38.0,
```

```
"vsb_status_iout": 0,
```

```
"vsb_status_vout": 0,
```

```
"vsb_status_word": 2
```

```
}
```

```
$ curl -k -H "Content-Type: application/octet-stream" -u root:OpenBmc
```

```
--data-binary @/home/user/psu.bin -X POST
```

```
https://192.168.1.70/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Actions/Vertiv.UpdateService
```

```
{
"Result": "success" }
```

```
}
```

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Actions/Vertiv.FanControl -X POST -d '{"Id": 1, "Level": 60}'
```

Example of return value:

```
{
"Result": "success"
}
```

11.3 Get the Blackbox

Table 11.3 Get the blackbox

Description	Read the blackbox of power unit
Command	\$ curl -k -u <bmcuser> : <bmcpass>https:// <bmcip> /redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits//Actions/Vertiv.GetBlackBox

For example, read the blackbox of the 1st PSU:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Actions/Vertiv.GetBlackBox
```

Example of return value:

```
{
"@odata.id":
"/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Actions/Vertiv.GetBlackBox",
"@odata.type": "#VertivBlackbox.VertivBlackbox",
"BlackBox": [
{
"Blackbox_Version": 0,
"Bulk_voltage": 0,
"Event_Fault": 256,
"Event_Number": 3,
"FW_Version": "00000002",
"Fan_Speed1": 0,
"Fan_Speed2": 0,
"Inlet_Temperature": -40,
"Input_Current": 0,
"Input_Frequency": 0,
"Input_Power": 0,
"Input_Voltage": 0,
```

```

"Input_Voltage_Peak": 0,
"LLC_Status00": 0,
"LLC_Status01": 0,
"LLC_Status02": 0,
"Oring_Temperature": 33.875,
"Outlet_Temperature": -40,
"Output_Current": 0.453125,
"Output_Internal_Voltage": 3.3203125,
"Output_Power": 0,
"Output_Voltage": 3.3203125,
"PFC_Status01": 0,
"PSUPosNo": 2,
"PSU_Fault_Counter": 35584,
"PSU_MAX_Temp": 37.25,
"PSU_MIN_Temp": -40,
"PSU_SN": "",
"Primary_temperature": 0,
"RTE_uLLcStatus00": 0,
"Repetitions": 0,
"Runtime_Counter": 2490368,
"SR_Temperature": 37.25,
"Status_lout": 0,
"Status_Temperature": 0,
"Status_Vout": 16,
"Status_Word": 16520,
"TEMP_STATUS": 0,
"Total_Runtime_Counter": 10802691
},
.....
],
"Description": "Collection of Blackbox for this psu"
}

```

11.4 Modify Power Unit SMBALERT_MASK

Table 11.4 Modify power unit SMBALERT_MASK

Description	Modify power unit SMBALERT_MASK
Command	\$ curl -k -u <bmcuser> : <bmcpass>https:// <bmcip> /redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits//Actions/Vertiv.AlertMask

For example, Modify the SMBALERT_MASK of 1st PSU:

```
$ curl -k -u root:OpenBmc --data '{"Reg":1,"Alert Mask":1}'
https://192.168.1.70/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Act
```

ions/Vertiv.AlertMask

Example of return value:

```
{
"Result": "success"
}
```

11.5 Modify power unit Vout mode

Table 11.5 Modify power unit Vout mode

Description	Modify power unit Vout mode
Command	\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits//Actions/Vertiv.VoutMode

For example, Modify the Vout mode of 1st PSU:

```
$ curl -k -u root:OpenBmc --data '{"Vout Mode": 1}'
https://192.168.1.70/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Act
```

ions/Vertiv.VoutMode

Example of return value:

```
{
"Result": "success"
}
```

}

11.6 Clear power unit Status

Table 11.6 Clear power unit Status

Description	Clear power unit Status
Command	<pre>\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits//Actions/Vertiv.ClearStatus</pre>

For example, Clear Status of 1st PSU:

```
$ curl -k -u root:OpenBmc --data '{"Status":1,"Value":1}'
```

```
https://192.168.170/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Actions/Vertiv.ClearStatus
```

Example of return value:

```
{
  "Result": "success"
}
```

11.7 Clear power unit Faults

Table 11.7 Clear power unit Faults

Description	Clear power unit Faults
Command	<pre>\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits//Actions/Vertiv.ClearFaults</pre>

For example, Clear Faults of 1st PSU:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.170/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Actions/Vertiv.ClearFaults
```

Example of return value:

```
{
  "Result": "success"
}
```

11.8 Clear Power Unit Faults through DO

Table 11.8 Clear power unit Faults through DO

Description	Clear power unit Faults
Command	<pre>\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits//Actions/Vertiv.ClearFaultsDO</pre>

For example:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.170/redfish/v1/Chassis/chassis/Power/Oem/Vertiv/PowerUnits/PSU1/Actions/Vertiv.ClearFaultsDO
```

Example of return value:

```
{
  "Result": "success"
}
```

12 Power Subsystem

12.1 Get power subsystem

Table 12.1 Get power subsystem

Description	Get power subsystem
Command	<pre>\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/Chassis/PowerShelf_0/PowerSubsystem</pre>

For example:

```
$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem
Example of return value:
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem",
  "@odata.type": "#PowerSubsystem.v1_1_0.PowerSubsystem",
  "CapacityWatts": 33000,
  "Id": "PowerSubsystem",
  "Name": "Power Subsystem",
  "PowerSupplies": [
    "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies"
  ],
  "RedundancyType": "NotRedundant",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}
```

12.2 Get Power Supplies

Table 12.2 Get Power Supplies

Description	Get Power Supplies
Command	<pre>\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies</pre>

For example:

```
$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies
Example of return value:
{
  "@odata.id": "/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies",
  "@odata.type": "#PowerSupplyCollection.PowerSupplyCollection",
  "Description": "The collection of PowerSupply resource instances PowerShelf_0",
  "Members": [
    {
      "@odata.id":
        "/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay1"
    },
    {
      "@odata.id":
        "/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay2"
    },
    {
      "@odata.id":
        "/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay3"
    },
    {
      "@odata.id":
        "/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay4"
    },
    {
      "@odata.id":
        "/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay5"
    },
    {
      "@odata.id":
        "/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay6"
    }
  ],
  "Members@odata.count": 6,
  "Name": "Power Supply Collection"
}
```

12.3 Get Power Supply

Table 12.3 Get Power Supply

Description	Get Power Supply
Command	<pre>\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay <BayId></pre>

For example:

```
$ curl -k -u root:OpenBmc
```

```
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay3
```

Example of return value:

```
{
"@odata.id":
"/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay3",
"@odata.type": "#PowerSupply.v1_4_0.PowerSupply",
"Actions": {
"#PowerSupply.Reset": [
"target",
"/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay3/Actions/PowerSupply.Reset"
]
},
"EfficiencyRatings": [
{
"EfficiencyPercent": 90
}
],
"FirmwareVersion": "010300010500000000",
"HotPluggable": true,
"Id": "PsuBay3",
"LineInputStatus": "Normal",
"Location": {
"PartLocation": {
"LocationOrdinalValue": 2,
"LocationType": "Bay",
"ServiceLabel": "PSU 3"
}
},
"Manufacturer": "Vertiv",
"Metrics": {
"@odata.id":
"/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay3/Metrics"
},
"Model": "IPS495500-AIT-N1AA",
"Name": "PsuBay3",
"PartNumber": " ",
"PowerCapacityWatts": 5500,
"PowerSupplyType": "ACorDC",
"SerialNumber": "Z620068252100076",
"Status": {
"Health": "OK",
"State": "Enabled"
},
"Version": "V01 "
}
```

12.4 Get power supply metrics

Table 12.4 Get Power Supply metrics

Description	Get Power Supply metrics
Command	<pre>\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay <BayId> /Metrics</pre>

For example:

```
$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/Ps
uBay5/Metrics
```

Example of return value:

```
{
"@odata.id":
"/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay5/Metrics",
"@odata.type": "#PowerSupplyMetrics.v1_0_1.PowerSupplyMetrics",
"FanSpeedsPercent": [
{
"DataSourceUri":
"/redfish/v1/Chassis/PowerShelf_0/Sensors/PSU5_Fan_Speed_1",
"Reading": 0.12596825396825398,
"SpeedRPM": 3968
}
],
"Id": "PowerSupplyMetrics",
"Name": "Chassis Power Metrics",
"OutputPowerWatts": {
"DataSourceUri":
"/redfish/v1/Chassis/PowerShelf_0/Sensors/PSU5_Output_Power",
"Reading": 1.25
},
"Status":
{"State": "Enabled"}
}
```

12.5 Control PSU

Table 12.5 Control PSU

Description	Control PSU
Command	<pre>\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/PsuBay <BayId> /Actions/PowerSupply.Reset -X POST -d "ResetType": "ForceRestart"</pre>

ResetType: ForceOff, On

For example:

```
$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/Chassis/PowerShelf_0/PowerSubsystem/PowerSupplies/Ps
uBay3/Actions/PowerSupply.Reset -X POST -d "ResetType": "On"
```

Example of return value:

```
{
"Result": "success"
}
```

13 PowerEquipment

13.1 PowerEquipment/PowerShelves/1

Table 13.1 PowerEquipment/PowerShelves/1

Description	PowerEquipment/ PowerShelves/1
Command	<pre>\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/PowerEquipment/PowerShelves/1</pre>

For example:

```
$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/PowerEquipment/PowerShelves/1
```

Example of return value:

```
{
"@odata.id": "/redfish/v1/PowerEquipment/PowerShelves/1",
"@odata.type": "#Collection.Collection",
```

```

"Members": [
{
"@odata.id": "/redfish/v1/PowerEquipment/PowerShelves/1/Mains"
},
{
"@odata.id": "/redfish/v1/PowerEquipment/PowerShelves/1/Branches"
},
{
"@odata.id": "/redfish/v1/PowerEquipment/PowerShelves/1/PowerSupplies"
}
],
"Members@odata.count": 3,
"Name": "PowerShelf Mains And Branch Collection"
}

```

13.2 PowerEquipment/Mains

Table 13.2 PowerEquipment/Mains

Description	PowerEquipment/Mains
Command	\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/PowerEquipment/PowerShelves/1/Mains

For example:

```
$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/PowerEquipment/PowerShelves/1/Mains
```

Example of return value:

```

{
"@odata.id": "/redfish/v1/PowerEquipment/PowerShelves/1/Mains",
"@odata.type": "#CircuitCollection.CircuitCollection",
"Members": [
{
"@odata.id": "/redfish/v1/PowerEquipment/PowerShelves/1/Mains/A"
},
{
"@odata.id": "/redfish/v1/PowerEquipment/PowerShelves/1/Mains/B"
}
],
"Members@odata.count": 2
}

```

13.3 PowerEquipment/Mains/A(B)

Table 13.3 PowerEquipment/Mains/A(B)

Description	PowerEquipment/Mains/A(B)
Command	\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/PowerEquipment/PowerShelves/1/Mains/A(B)

For example:

```
$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/PowerEquipment/PowerShelves/1/Mains/A
```

Example of return value:

```

{
"@odata.id": "/redfish/v1/PowerEquipment/PowerShelves/1/Mains/A",
"@odata.type": "#Circuit.v1_3_0.Circuit",
"Id": "A",
"Name": "Mains Circuit A",
"PolyPhaseCurrentAmps": {
"Line1": {
"DataSourceUri": "/redfish/v1/Chassis/chassis/Sensors/current_in_A_A",
"Reading": 0
},
"Line2": {
"DataSourceUri": "/redfish/v1/Chassis/chassis/Sensors/current_in_A_B",
"Reading": 0
},

```

```

"Line3": {
  "DataSourceUri": "/redfish/v1/Chassis/chassis/Sensors/current_in_A_C",
  "Reading": 0
},
"PolyPhaseVoltage": {
  "Line1ToNeutral": {
    "DataSourceUri": "/redfish/v1/Chassis/chassis/Sensors/voltage_in_A_A",
    "Reading": 0
  },
  "Line2ToNeutral": {
    "DataSourceUri": "/redfish/v1/Chassis/chassis/Sensors/voltage_in_A_B",
    "Reading": 0
  },
  "Line3ToNeutral": {
    "DataSourceUri": "/redfish/v1/Chassis/chassis/Sensors/voltage_in_A_C",
    "Reading": 0
  }
},
"PowerWatts": {
  "DataSourceUri": "/redfish/v1/Chassis/chassis/Sensors/total_power_in_A",
  "Reading": 0
}
}

```

13.4 PowerEquipment/Branches

Table 13.4 PowerEquipment/Branches

Description	PowerEquipment/Branches
Command	\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/PowerEquipment/PowerShelves/1/Branches

For example:

```

$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/PowerEquipment/PowerShelves/1/Branches
Example of return value:

```

```

{
  "@odata.id": "/redfish/v1/PowerEquipment/PowerShelves/1/Branches",
  "@odata.type": "#CircuitCollection.CircuitCollection",
  "Members": [
    {
      "@odata.id": "/redfish/v1/PowerEquipment/PowerShelves/1/Branches/1"
    }
  ],
  "Members@odata.count": 1,
  "Name": "PowerShelf Branch Collection"
}

```

13.5 PowerEquipment/Branches/1

Table 13.5 PowerEquipment/Branches/1

Description	PowerEquipment/Branches/1
Command	\$ curl -k -u <bmcuser> : <bmcpass> https:// <bmcip> /redfish/v1/PowerEquipment/PowerShelves/1/Branches/1

For example:

```

$ curl -k -u root:OpenBmc
https://192.168.1.70/redfish/v1/PowerEquipment/PowerShelves/1/Branches/1
Example of return value:

```

```

{
  "@odata.id": "/redfish/v1/PowerEquipment/PowerShelves/1/Branches/1",
  "@odata.type": "#Circuit.v1_3_0.Circuit",
  "CurrentAmps": {
    "DataSourceUri": "/redfish/v1/Chassis/chassis/Sensors/total_current_out",
    "Reading": 0.128
  }
}

```

```

},
"Id": "1",
"Name": "Branch Circuit",
"PowerWatts": {
  "DataSourceUri": "/redfish/v1/Chassis/chassis/Sensors/total_power_out",
  "Reading": 6.730468
},
"Voltage": {
  "DataSourceUri": "/redfish/v1/Chassis/chassis/Sensors/max_voltage_out",
  "Reading": 49.87433333333333
}
}

```

14 IPMI

14.1 IPMI: Device location

Table 14.1 IPMI: Device location

Description	Device location
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmcpass> chassis identify

For example:

```
$ ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc chassis identify
```

Example of return value:

Chassis identify interval: default (15 seconds)

14.2 IPMI: Get Sensor Info

Table 14.2 IPMI: Get Sensor Info

Description	Get Sensor Info
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmcpass> OpenBmc sensor

For example:

```
$ ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc sensor
```

Example of return value:

```

BMC CPU Util | 25.000 | percent | ok | na | na | na | na | na | na
BMC ECC Err | 0x0 | discrete | 0x0080 | na | na | na | na | na | na
BMC FW Health | 0x0 | discrete | 0x0080 | na | na | na | na | na | na
BMC Mem Free | 800.000 | megabyte | ok | na | na | na | na | na | na
BMC Mem Util | 20.000 | percent | ok | na | na | na | na | na | na
IPMI Watchdog | 0x0 | discrete | 0x0080 | na | na | na | na | na | na
System Event | 0x0 | discrete | 0x0080 | na | na | na | na | na | na
System Event Log | 0x0 | discrete | 0x0080 | na | na | na | na | na | na
BMC Temp | 27.000 | degrees C | ok | na | -25.000 | -5.000 | 60.000 | 70.000 | na

```

14.3 IPMI: Get FRU Info

Table 14.3 IPMI: Get FRU Info

Description	Get FRU Info
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmcpass> OpenBmc fru

For example:

```
$ ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc fru
```

Example of return value:

```

FRU Device Description : Builtin FRU Device (ID 0)
Board Mfg Date : Thu Jan 16 13:33:00 2025
Board Mfg : Vertiv
Board Product : MPSC6000-PMC-3-Vertiv
Board Serial : 123456
Board Part Number : Z520031244200001

```

FRU Device Description : Chassis (ID 7)
 Board Mfg Date : Thu Jan 16 13:33:00 2025
 Board Mfg : Vertiv
 Board Product : IPU433K-NB-AA1616-R-VT
 Board Serial : 123456
 Board Part Number : Z520031244200001

14.4 IPMI: Get System Time

Table 14.4 IPMI: Get System Time

Description	Get System Time
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmpass> OpenBmc sel time get

For example:

```
$ ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc sel time get
```

Example of return value:

```
01/10/2026 02:42:37
```

14.5 IPMI: ipmitool Get Session Info

Table 14.5 IPMI: ipmitool Get Session Info

Description	Get Session Info
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmpass> session info active

For example:

```
$ ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc session info active
```

Example of return value:

```
info active
```

```
session handle : 1
```

```
slot count : 15
```

```
active sessions : 1
```

```
user id : 1
```

```
privilege level : ADMINISTRATOR
```

```
session type : IPMIv2/RMCP+
```

```
channel number : 0x01
```

```
console ip : 10.19.85.191
```

```
console mac : 00:00:00:00:00:00
```

```
console port : 52630
```

14.6 IPMI: Reboot PMC

Table 14.6 IPMI: Reboot PMC

Description	Reboot PMC
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmpass> bmc reset cold

For example:

```
$ ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc bmc reset cold
```

Example of return value:

```
NA (Sent cold reset command to MC,PMC reboot)
```

14.7 IPMI: PSU FW、SN、FRU

Table 14.7 IPMI: PSU FW、SN、FRU

Description	PSU FW、SN、FRU
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmpass> fru print

For example:

```
$ ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc fru print
```

Example of return value:

FRU Device Description : Built-in FRU Device (ID 0)

Board Mfg Date : Tue Oct 21 17:59:00 2025

Board Mfg : Vertiv

Board Product : MPSC6000-PMC-3-Vertiv

Board Serial : Z330028255200019

Board Part Number : R07020592

FRU Device Description : Chassis (ID 7)

Board Mfg Date : Thu Jan 16 13:33:00 2025

Board Mfg : Vertiv

Board Product : IPU433K-NB-AA1616-R-VT

Board Serial : 123456

Board Part Number : Z520031244200001

FRU Device Description : MCU (ID 8)

Board Mfg Date : Mon Jan 5 09:57:00 2026

Board Mfg : Vertiv

Board Product : MPSC6000-MCU-I1-I2_1.5

Board Serial : CZHZZPZ2503000500019

Board Part Number : V1.5

Product Manufacturer : Vertiv

Product Name : MPSC6000-MCU

Product Serial : Z330068240800045

Product Asset Tag : PETD11911R2803496600142

14.8 IPMI: Set System Time

Table 14.8 IPMI: Set System Time

Description	Set System Time
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmpass> sel time set <bmcdate>

For example:

```
$ ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc sel time set
```

```
"01/10/2026 10:50:57"
```

Example of return value:

```
01/29/2026 07:38:26
```

14.9 IPMI: Get network Info

Table 14.9 IPMI: Get network Info

Description	Get network Info
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmpass> lan print <lanchannel>

For example:

```
ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc lan print 1
```

Example of return value:

```
C:\Users\M00031182>ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc lan print 1
```

```
Set in Progress : Set Complete
```

```
Auth Type Support : MD5 PASSWORD
```

```
Auth Type Enable : Callback :
```

```
: User :
```

```
: Operator :
```

```
: Admin :
```

```
: OEM :
```

```
IP Address Source : DHCP Address
```

```
IP Address : 192.168.1.70
```

```
Subnet Mask : 255.255.255.0
```

```
MAC Address : 42:ce:21:e6:72:fc
```

```
SNMP Community String : public
```

```
IP Header : TTL=0x40 Flags=0x40 Precedence=0x00 TOS=0x10
```

```
BMC ARP Control : ARP Responses Enabled, Gratuitous ARP Disabled
```

```
Gratuitous ARP Intrvl : 2.0 seconds
```

Default Gateway IP : 10.19.73.1
 Default Gateway MAC : c4:c0:63:0f:ac:01
 Backup Gateway IP : 0.0.0.0
 Backup Gateway MAC : 00:00:00:00:00:00
 802.1q VLAN ID : Disabled
 802.1q VLAN Priority : 0
 RMCP+ Cipher Suites : 17
 Cipher Suite Priv Max : aaaaaaaaaaaaaa
 : X=Cipher Suite Unused
 : c=CALLBACK
 : u=USER
 : o=OPERATOR
 : a=ADMIN
 : O=OEM
 Bad Password Threshold : 3
 Invalid password disable: yes
 Attempt Count Reset Int.: 30
 User Lockout Interval : 10

14.10 IPMI: Set IP mode to DHCP

Table 14.10 IPMI: Set IP mode to DHCP

Description	Set IP mode to DHCP
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmpass> lan set <lanchannel> ipsrc dhcp

For example:

```
ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc lan set 1 ipsrc dhcp
```

Example of return value:

NA

14.11 IPMI: Set IP Address

Table 14.11 IPMI: Set IP Address

Description	Set IP Address
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmpass> lan set <lanchannel> ipsrc <bmcip>

For example:

```
ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc lan set 1 ipaddr
```

10.19.73.149

Example of return value:

Setting LAN IP Address to 10.19.73.149

14.12 Set BMC Netmask

Table 14.12 IPMI: Set BMC Netmask

Description	Set BMC Netmask
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmpass> lan set <lanchannel> netmask <bmcip>

For example:

```
ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc lan set 1 netmask 255.255.0.0
```

Example of return value:

Setting LAN Subnet Mask to 255.255.0.0

```
C:\Users\M00031182>ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc lan
```

```
print 1
```

Set in Progress : Set Complete

Auth Type Support : MD5 PASSWORD

Auth Type Enable : Callback :

: User :

: Operator :

: Admin :

: OEM :

IP Address Source : Static Address
 IP Address : 192.168.1.70
 Subnet Mask : 255.255.0.0
 MAC Address : 42:ce:21:e6:72:fc
 SNMP Community String : public
 IP Header : TTL=0x40 Flags=0x40 Precedence=0x00 TOS=0x10
 BMC ARP Control : ARP Responses Enabled, Gratuitous ARP Disabled
 Gratuitous ARP Intrvl : 2.0 seconds
 Default Gateway IP : 10.19.73.1
 Default Gateway MAC : c4:c0:63:0f:ac:01
 Backup Gateway IP : 0.0.0.0
 Backup Gateway MAC : 00:00:00:00:00:00
 802.1q VLAN ID : Disabled
 802.1q VLAN Priority : 0
 RMCP+ Cipher Suites : 17
 Cipher Suite Priv Max : aaaaaaaaaaaaaa
 : X=Cipher Suite Unused
 : c=CALLBACK
 : u=USER
 : o=OPERATOR
 : a=ADMIN
 : O=OEM
 Bad Password Threshold : 3
 Invalid password disable: yes
 Attempt Count Reset Int.: 30
 User Lockout Interval : 10

14.13 IPMI: Set BMC Gateway

Table 14.13 IPMI: Set BMC Gateway

Description	Set BMC Gateway
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmcpass> lan set <lanchannel> netmask <bmcip>

For example:

```
ipmitool -I lanplus -C 17 -H 192.168.1.70 -U root -P OpenBmc lan set 1 defgw
ipaddrss 10.19.73.2
```

Example of return value:

Setting LAN Default Gateway IP to 10.19.73.2

Set in Progress : Set Complete

Auth Type Support : MD5 PASSWORD

Auth Type Enable : Callback :

: User :

: Operator :

: Admin :

: OEM :

IP Address Source : Static Address

IP Address : 192.168.1.70

Subnet Mask : 255.255.0.0

MAC Address : 42:ce:21:e6:72:fc

SNMP Community String : public

IP Header : TTL=0x40 Flags=0x40 Precedence=0x00 TOS=0x10

BMC ARP Control : ARP Responses Enabled, Gratuitous ARP Disabled

Gratuitous ARP Intrvl : 2.0 seconds

Default Gateway IP : 10.19.73.2

Default Gateway MAC : 00:00:00:00:00:00

Backup Gateway IP : 0.0.0.0

Backup Gateway MAC : 00:00:00:00:00:00

802.1q VLAN ID : Disabled

802.1q VLAN Priority : 0

RMCP+ Cipher Suites : 17

Cipher Suite Priv Max : aaaaaaaaaaaaaa

: X=Cipher Suite Unused

: c=CALLBACK

: u=USER

: o=OPERATOR
 : a=ADMIN
 : O=OEM
 Bad Password Threshold : 3
 Invalid password disable: yes
 Attempt Count Reset Int.: 30
 User Lockout Interval : 10

14.14 IPMI: Change User Password

Table 14.14 IPMI: Change User Password

Description	Change user password
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U c -P <bmcpass> user set password <bmcuserid> OpenBmc

For example:

ipmitool -C 17 -I lanplus -H 192.168.1.70 -U root -P OpenBmc user set password 1 OpenBmc

Example of return value:

Set User Password command successful (user 1)

14.15 IPMI: Print All Users

Table 14.15 IPMI: Print All Users

Description	Print all users
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmcpass> OpenBmc user list

For example:

ipmitool -C 17 -I lanplus -H 192.168.1.70 -U root -P OpenBmc user list

Example of return value:

ID	Name	Callin	Link Auth	IPMI Msg	Channel Priv Limit
1	root	false	true	true	ADMINISTRATOR
2		true	false	false	NO ACCESS
3		true	false	false	NO ACCESS
4		true	false	false	NO ACCESS
5		true	false	false	NO ACCESS
6		true	false	false	NO ACCESS
7		true	false	false	NO ACCESS
8		true	false	false	NO ACCESS
9		true	false	false	NO ACCESS
10		true	false	false	NO ACCESS
11		true	false	false	NO ACCESS
12		true	false	false	NO ACCESS
13		true	false	false	NO ACCESS
14		true	false	false	NO ACCESS
15		true	false	false	NO ACCESS

14.16 IPMI: Create a user

Table 14.16 IPMI: Create a user

Description	Create a user
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmcpass> OpenBmc user set name <bmcuserid> <bmcuser>

For example:

ipmitool -C 17 -I lanplus -H 192.168.1.70 -U root -P OpenBmc user set name 2 user

Example of return value:

NA

14.17 IPMI: Change User Name

Table 14.17 IPMI: Change User Name

Description	Change User Name
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmcpass> OpenBmc user set name <bmcuserid> <bmcuser>

For example:

ipmitool -C 17 -I lanplus -H 192.168.1.70 -U root -P OpenBmc user set name 2 Vertiv

Example of return value:

NA

14.18 IPMI: User Enable

Table 14.18 IPMI: User Enable

Description	User Enable
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmcpass> OpenBmc user enable <bmcuserid>

For example:

ipmitool -C 17 -I lanplus -H 192.168.1.70 -U root -P OpenBmc user enable 2

Example of return value:

NA

14.19 IPMI: Set User Permissions

Table 14.19 IPMI: Set user permissions

Description	Set user permissions
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmcpass> OpenBmc user priv <bmcuserid> <Operator Level> <lanchannel>

For example:

ipmitool -C 17 -I lanplus -H 192.168.1.70 -U root -P OpenBmc user priv 2 0x4 1

Example of return value:

Set Privilege Level command successful (user 2)

14.20 IPMI: Set User Permissions

Table 14.20 IPMI: Set Channel

Description	Set Channel
Command	\$ ipmitool -I lanplus -C 17 -H <bmcip> -U <bmcuser> -P <bmcpass> OpenBmc channel setaccess <lanchannel> <bmcuserid> callin=on ipmi=on link=on privilege= <Operator Level>

For example:

ipmitool -C 17 -I lanplus -H 192.168.1.70 -U root -P OpenBmc channel set access 1 2 callin=on ipmi=on link=on privilege=4

Example of return value:

Set User Access (channel 1 id 2) successful.

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