



Cisco IMC REST API Examples

This chapter includes the following sections:

- [Examples of Server Tasks, on page 1](#)
- [Examples of Server Tasks for 3.1\(3\), on page 47](#)
- [Examples of Server Tasks for 4.0\(4\), on page 80](#)

Examples of Server Tasks

This chapter includes the following examples on how to use the REST API to perform common server tasks:

- [Establishing Session-based Authentication, on page 3](#)
- [Retrieving Redfish Version without Authentication, on page 5](#)
- [Retrieving Service Root without Authentication, on page 6](#)
- [Retrieving Metadata without Authentication, on page 6](#)
- [Retrieving 'odata' without Authentication, on page 9](#)
- [Retrieving Chassis Details, on page 9](#)
- [Retrieving Chassis Power Details, on page 10](#)
- [Retrieving Chassis Thermal Details, on page 12](#)
- [Retrieving Chassis Log Services Details, on page 13](#)
- [Retrieving Chassis SEL Details, on page 13](#)
- [Retrieving Chassis SEL Entries Details, on page 14](#)
- [Retrieving Details of a Specific SEL Entry, on page 15](#)
- [Retrieving Manager Details, on page 15](#)
- [Retrieving Cisco IMC Information, on page 16](#)
- [Retrieving Serial Interface Details, on page 16](#)
- [Retrieving Network Protocol Details, on page 17](#)
- [Retrieving Ethernet Interfaces Details, on page 18](#)

- [Retrieving Message Registry Information, on page 18](#)
- [Enabling an Event Service, on page 19](#)
- [Configuring Event Subscribers, on page 20](#)
- [Retrieving a List of Subscribers, on page 20](#)
- [Retrieving Information about an Event Subscriber with Subscription Key, on page 21](#)
- [Updating Event Subscribers, on page 21](#)
- [Deleting an Event Subscription, on page 21](#)
- [Testing if an Event Receiver is Ready, on page 22](#)
- [Retrieving OEM Specific Actions, on page 22](#)
- [Retrieving Task Service, on page 23](#)
- [Retrieving Tasks, on page 24](#)
- [Updating BIOS Firmware, on page 24](#)
- [Retrieving BIOS Firmware Update Status, on page 25](#)
- [Updating Cisco IMC Firmware, on page 25](#)
- [Retrieving Cisco IMC Firmware Update Status, on page 25](#)
- [Triggering Cisco IMC Technical Support, on page 26](#)
- [Retrieving Cisco IMC Technical Support Status, on page 26](#)
- [Exporting Cisco IMC Configuration, on page 27](#)
- [Exporting Cisco IMC Configuration Status, on page 27](#)
- [Importing Cisco IMC Configuration, on page 27](#)
- [Importing Cisco IMC Configuration Status, on page 28](#)
- [Setting an Asset Tag Value, on page 28](#)
- [Setting an Indicator LED Value to 'Lit', on page 29](#)
- [Viewing Session Service, on page 30](#)
- [Sessions, on page 30](#)
- [Viewing Server ID, on page 30](#)
- [Viewing Specific System information, on page 30](#)
- [Viewing Processor Information, on page 31](#)
- [Viewing Storage Information, on page 33](#)
- [Viewing User Accounts, on page 34](#)
- [Viewing User Accounts, on page 34](#)
- [Roles, on page 35](#)

- [Logservices](#), on page 36
- [Thermal](#), on page 37
- [Establishing a Session](#), on page 44
- [Accessing the Session Details](#), on page 45
- [Accessing Details of a Particular Session](#), on page 45
- [Adding User](#), on page 46
- [Deleting User](#), on page 46
- [Modifying User](#), on page 46
- [Powering Off a Server](#), on page 46
- [Powering On a Server](#), on page 46
- [Clearing an SEL Log](#), on page 46

Establishing Session-based Authentication

Request:

```
curl -XPOST https://10.10.10.10/redfish/v1/SessionService/
Sessions --header "Content-Type: application/json;
charset=utf-8" -d '{"UserName": "admin", "Password": "admin123456"}'
--insecure -v
```

Response:

```
* About to connect() to 10.10.10.10 port 222 (#0)
* Trying 10.10.10.10... connected
* Connected to 10.10.10.10 (10.10.10.10) port 222 (#0)
* Initializing NSS with certpath: sql:/etc/pki/nssdb
* warning: ignoring value of ssl.verifyhost
* skipping SSL peer certificate verification
* SSL connection using TLS_RSA_WITH_AES_256_CBC_SHA256
* Server certificate:
* subject: E=null@null,CN=VASU-SL2,OU=PID,O=Cisco
  Self Signed,L=San Jose,ST=California,C=US
* start date: Dec 08 05:21:25 2016 GMT
* expire date: Dec 07 05:21:25 2021 GMT
* common name: VASU-SL2
* issuer: E=null@null,CN=VASU-SL2,OU=PID,
  O=Cisco Self Signed,L=San Jose,ST=California,C=US
> POST /redfish/v1/SessionService/Sessions HTTP/1.1
> User-Agent: curl/7.19.7 (x86_64-redhat-linux-gnu)
  libcurl/7.19.7 NSS/3.19.1 Basic ECC zlib/1.2.3 libidn/1.18 libssh2/1.4.2
> Host: 10.10.10.10
> Accept: */*
> Content-Type: application/json; charset=utf-8
> Content-Length: 47
>
< HTTP/1.1 200 OK
< Server: Monkey
< Date: Fri, 09 Dec 2016 06:01:12 GMT
```

```
< Transfer-Encoding: Chunked
< X-Auth-Token: 801854885944ad40a8544885a4950d8a
< Status: 201
< Content-Type: application/json
< Content-Length:140
<

{
  "@odata.id":"/redfish/v1/SessionService/Sessions/27",
  "Description":"Session of user: admin",
  "Name":"User Session #27",
  "Id":27
}
```

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Managers --header
"Authorization: OAuth 801854885944ad40a8544885a4950d8a" --insecure
```

Response:

```
{
  "Members":[{"@odata.id":"/redfish/v1/Managers/CIMC"}],
  "Description":"Collection of Managers",
  "@odata.type":"#Manager.1.0.0.ManagerCollection",
  "@odata.id":"/redfish/v1/Managers",
  "Members@odata.count":1,
  "Name":"Manager Collection",
  "@odata.context":"/redfish/v1/$metadata#Managers"
}
```

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Managers
/CIMC --header "Authorization: OAuth 801854885944ad40a8544885a4950d8a" --insecure
```

Response:

```
{
  "DateTimeLocalOffset":"UTC+0000",
  "Id":"CIMC",
  "Links":{
    "ManagerForChassis":["/redfish/v1/Chassis/1"],
    "ManagerForServers":["/redfish/v1/Systems/FCH1623V07J"]
  },
  "ManagerType":"CIMC",
  "@odata.context":"/redfish/v1/$metadata#Managers/Members/$entity",
  "@odata.id":"/redfish/v1/Managers/CIMC",
  "VirtualMedia":{
    "@odata.id":"/redfish/v1/Managers/CIMC/VirtualMedia"
  },
  "Description":"VASU-SL2",
  "LogServices":{

```

```

    "@odata.id":"/redfish/v1/Managers/CIMC/LogServices"
  },
  "SerialInterfaces":{
    "@odata.id":"/redfish/v1/Managers/CIMC/SerialInterfaces"
  },
  "FirmwareVersion":"3.0(1S12)",
  "UUID":"B2686A10-D5B1-43A3-A808-CC88380DD77B",
  "Status":{
    "State":"Enabled",
    "Health":"OK"
  },
  "ManagerNetworkProtocol":{
    "@odata.id":"/redfish/v1/Managers/CIMC/ManagerNetworkProtocol"
  },
  "Name":"Cisco Integrated Management Controller",
  "Actions":{
    "#Oem.ImportBmcConfig":{
      "Protocol@Redfish.AllowableValues":["TFTP","SCP","SFTP","FTP","HTTP"],
      "Passphrase@Redfish.AllowableValues":["Passphrase"],
      "RemoteUsername@Redfish.AllowableValues":["Remote Server Username"],
      "RemotePath@Redfish.AllowableValues":["Valid Remote Share Path"],
      "RemoteHostname@Redfish.AllowableValues":["Valid Hostname/IP Address"],
      "Target":"/redfish/v1/Managers/CIMC/Actions/Oem.ImportBmcConfig",
      "RemotePassword@Redfish.AllowableValues":["Remote Server Password"]
    },
    "#Oem.BmcFwUpdate":{
      "Protocol@Redfish.AllowableValues":["TFTP","SCP","SFTP","FTP","HTTP"],
      "Target":"/redfish/v1/Managers/CIMC/Actions/Oem.BmcFwUpdate",
      "RemoteUsername@Redfish.AllowableValues":["Remote Server Username"],
      "RemotePath@Redfish.AllowableValues":["Valid Remote Share Path"],
      "RemoteHostname@Redfish.AllowableValues":["Valid Hostname/IP Address"],
      "RemotePassword@Redfish.AllowableValues":["Remote Server Password"]
    },
    .
    .
    .

    "CommandShell":{
      "MaxConcurrentSessions":4,
      "ConnectTypesSupported":["SSH","Telnet","IPMI","XML API"],
      "ServiceEnabled":true
    },
    "SerialConsole":{
      "MaxConcurrentSessions":4,
      "ConnectTypesSupported":["SSH","Telnet","IPMI","XML API"],
      "ServiceEnabled":true
    },
    "Model":"UCSC-C240-M3L",
    "EthernetInterfaces":{
      "@odata.id":"/redfish/v1/Managers/CIMC/EthernetInterfaces"
    }
  }
}

```

Retrieving Redfish Version without Authentication

Request:

```
curl -GET https://10.10.10.10/redfish -k
```

Response:

```
{
  "v1":"/redfish/v1/"
}
```

Retrieving Service Root without Authentication

Request:

```
curl -GET https://10.10.10.10/redfish/v1 -k
```

Response:

```
{
  "Chassis":{
    "@odata.id":"/redfish/v1/Chassis"
  },
  "@odata.id":"/redfish/v1/",
  "JSONSchemas":{
    "@odata.id":"/redfish/v1/JSONSchemas"
  },
  "RedfishVersion":"1.0.0",
  "EventService":{
    "@odata.id":"/redfish/v1/EventService"
  },
  "Systems":{
    "@odata.id":"/redfish/v1/Systems"
  },
  "Description":"Root Service",
  "Name":"Cisco RESTful Root Service",
  "Links":{
    "Sessions":{
      "@odata.id":"/redfish/v1/SessionService/Sessions"
    }
  },
  "TaskService":{
    "@odata.id":"/redfish/v1/TaskService"
  },
  "Managers":{
    "@odata.id":"/redfish/v1/Managers"
  },
  "@odata.type":"#ServiceRoot.1.0.0.ServiceRoot",
  "SessionService":{
    "@odata.id":"/redfish/v1/SessionService"
  },
  "@odata.context":"/redfish/v1/$metadata#ServiceRoot",
  "Id":"RootService",
  "AccountService":{
    "@odata.id":"/redfish/v1/AccountService"
  },
  "MessageRegistry":{
    "@odata.id":"/redfish/v1/MessageRegistry"
  }
}
```

Retrieving Metadata without Authentication

Request:

```
curl -GET https://10.10.10.10/redfish/v1/$metadata -k
```

Response:

```
<?xml version="1.0" encoding="UTF-8"?><!--
Copyright 2014-2015 Distributed Management Task Force, Inc. (DMTF). All rights reserved.-->
<edmx:Edmx xmlns:edmx="http://docs.oasis-open.org/odata/ns/edmx" Version="4.0">

  <edmx:Reference Uri="http://docs.oasis-open.org/odata/odata/
v4.0/cs01/vocabularies/Org.OData.Core.V1.xml">
    <edmx:Include Namespace="Org.OData.Core.V1" Alias="OData"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/Resource.xml">
    <edmx:Include Namespace="Resource.1.0.0" />
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/RedfishExtensions.xml">
    <edmx:Include Namespace="RedfishExtensions.1.0.0" Alias="Redfish"/>
    <edmx:Include Namespace="Validation.1.0.0" Alias="Validation"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/EventService.xml">
    <edmx:Include Namespace="EventService"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/AccountService.xml">
    <edmx:Include Namespace="AccountService"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/ComputerSystemCollection.xml">
    <edmx:Include Namespace="ComputerSystemCollection"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/ChassisCollection.xml">
    <edmx:Include Namespace="ChassisCollection"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/ManagerCollection.xml">
    <edmx:Include Namespace="ManagerCollection"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/TaskService.xml">
    <edmx:Include Namespace="TaskService"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/SessionService.xml">
    <edmx:Include Namespace="SessionService"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/Message.xml">
    <edmx:Include Namespace="Message"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/JsonSchemaFileCollection.xml">
    <edmx:Include Namespace="JsonSchemaFileCollection"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/MessageRegistryFileCollection.xml">
    <edmx:Include Namespace="MessageRegistryFileCollection"/>
  </edmx:Reference>
  <edmx:Reference Uri="http://redfish.dmtf.org/schemas/v1/SessionCollection.xml">
    <edmx:Include Namespace="SessionCollection"/>
  </edmx:Reference>

  <edmx:DataServices>

    <Schema xmlns="http://docs.oasis-open.org/odata/ns/edm" Namespace="ServiceRoot">

      <EntityType Name="ServiceRoot" BaseType="Resource.1.0.0.Resource">
        <Annotation Term="OData.Description"
          String="This object represents the root Redfish service."/>
      </EntityType>
    </Schema>
  </edmx:DataServices>
</edmx:Edmx>
```

```

        <Annotation Term="OData.LongDescription"
          String="This object represents the root Redfish service.
          All values for resources described by this schema shall comply to the requirements
            as described in the Redfish specification."/>
      </EntityType>
    </Schema>

    <Schema xmlns="http://docs.oasis-open.org/odata/ns/edm" Namespace="ServiceRoot.1.0.0">

      <EntityContainer Name="ServiceContainer">
        <Singleton Name="Service" Type="ServiceRoot.ServiceRoot"/>
        <Singleton Name="Systems" Type="ComputerSystemCollection.ComputerSystemCollection"/>

        <Singleton Name="Chassis" Type="ChassisCollection.ChassisCollection"/>
        <Singleton Name="Managers" Type="ManagerCollection.ManagerCollection"/>
        <Singleton Name="Tasks" Type="TaskService.TaskService"/>
        <Singleton Name="AccountService" Type="AccountService.AccountService"/>
        <Singleton Name="SessionService" Type="SessionService.SessionService"/>
        <Singleton Name="EventService" Type="EventService.EventService"/>
        <Singleton Name="Registries"
          Type="MessageRegistryFileCollection.MessageRegistryFileCollection"/>
        <Singleton Name="JsonSchemas"
          Type="JsonSchemaFileCollection.JsonSchemaFileCollection"/>
        <Singleton Name="Sessions" Type="SessionCollection.SessionCollection"/>
      </EntityContainer>

      <EntityType Name="ServiceRoot" BaseType="ServiceRoot.ServiceRoot">
        <Annotation Term="OData.Description"
          String="This object represents the root Redfish service."/>
        <Annotation Term="OData.LongDescription"
          String="This object represents the root Redfish service.
          All values for resources described by this schema shall comply to the
          requirements as described in the Redfish specification."/>
        <Property Name="RedfishVersion" Type="Edm.String" Nullable="false">
          <Annotation Term="OData.Permissions" EnumMember="OData.Permissions/Read"/>
          <Annotation Term="OData.Description" String="The version of the Redfish service"/>

          <Annotation Term="OData.LongDescription" String="The value of this string shall
            represent the version of the Redfish service.
            The format of this string shall be of the format majorversion.minorversion.errata

            in compliance with Protocol Version section of the Redfish specification. "/>
          <Annotation Term="Validation.Pattern" String="^\d+\\.\\d+\\.\\d+$/>

          .
          .
          .
        </Property>
      </EntityType>

      <ComplexType Name="Links" BaseType="Resource.Links">
        <NavigationProperty Name="Sessions" Type="SessionCollection.SessionCollection">
          <Annotation Term="OData.Permissions" EnumMember="OData.Permissions/Read"/>
          <Annotation Term="OData.Description" String="Link to a collection of Sessions"/>
          <Annotation Term="OData.LongDescription"
            String="This property shall contain the link to a collection of Sessions."/>
          <Annotation Term="OData.AutoExpandReferences"/>
        </NavigationProperty>
      </ComplexType>

    </Schema>
  </edmx:DataServices>

```



```
</edmx:Edmx>
```

Retrieving 'odata' without Authentication

Request:

```
curl -GET https://10.10.10.10/redfish/v1/odata -k
```

Response:

```
{
  "Value": [{
    "url": "/redfish/v1",
    "name": "Service",
    "kind": "Singleton"
  }, {
    "url": "/redfish/v1/Systems",
    "name": "Systems",
    "kind": "Singleton"
  }, {
    "url": "/redfish/v1/Chassis",
    "name": "Chassis",
    "kind": "Singleton"
  }, {
    "url": "/redfish/v1/Managers",
    "name": "Managers",
    "kind": "Singleton"
  }, {
    "url": "/redfish/v1/TaskService",
    "name": "TaskService",
    "kind": "Singleton"
  }, {
    "url": "/redfish/v1/EventService",
    "name": "EventService",
    "kind": "Singleton"
  }, {
    "url": "/redfish/v1/AccountService",
    "name": "AccountService",
    "kind": "Singleton"
  }, {
    "url": "/redfish/v1/SessionService",
    "name": "SessionService",
    "kind": "Singleton"
  }, {
    "url": "/redfish/v1/JSONSchemas",
    "name": "JSONSchemas",
    "kind": "Singleton"
  }, {
    "url": "/redfish/v1/MessageRegistry",
    "name": "MessageRegistry",
    "kind": "Singleton"
  }
],
  "@odata.context": "/redfish/v1/$metadata"
}
```

Retrieving Chassis Details

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Chassis -k -u admin:Admin123
```

```
{
  "Members": [{
    "@odata.id": "/redfish/v1/Chassis/1"
  }],
  "@odata.type": "#Chassis.1.0.0.ChassisCollection",
  "@odata.id": "/redfish/v1/Chassis",
  "Name": "Chassis Collection",
  "Members@odata.count": "1",
  "@odata.context": "/redfish/v1/$metadata#Chassis"
}
{
  "SerialNumber": "FCH2005V1EN",
  "Links": {
    "PoweredBy": ["/redfish/v1/Chassis/1/Power"],
    "CooledBy": ["/redfish/v1/Chassis/1/Thermal"],
    "ComputerSystems": ["/redfish/v1/Systems/FCH2005V1EN"],
    "ManagedBy": ["/redfish/v1/Managers/CIMC"]
  },
  "@odata.id": "/redfish/v1/Chassis/1",
  "Status": {
    "State": "Enabled",
    "Health": "Warning"
  },
  "AssetTag": "Unknown",
  "Thermal": {
    "@odata.id": "/redfish/v1/Chassis/1/Thermal"
  },
  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity",
  "Power": {
    "@odata.id": "/redfish/v1/Chassis/1/Power"
  },
  "LogServices": {
    "@odata.id": "/redfish/v1/Chassis/1/LogServices"
  },
  "@odata.type": "#Chassis.1.0.0.Chassis",
  "ChassisType": "Rack",
  "Actions": {
    "#Chassis.Reset": {
      "Target": "/redfish/v1/Chassis/1/Actions/Chassis.Reset",
      "ResetType@Redfish.AllowableValues": ["On", "ForceOff"]
    }
  },
  "IndicatorLED": "Off",
  "Model": "UCS C240 M4S",
  "Id": "1"
}
```

Retrieving Chassis Power Details

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Chassis/1/Power -k -u admin:Admin123
```

```
{
  "Voltages": [{
    "@odata.id": "/redfish/v1/Chassis/1/Power#/Voltages/PSU1_VOUT",
    "Status": {
      "State": "Enabled",
      "Health": "OK"
    },
    "Name": "PSU1_VOUT",
  }],
}
```

```

    "UpperThresholdNonCritical": "N/A",
    "MemberID": 1,
    "LowerThresholdFatal": "N/A",
    "LowerThresholdCritical": "14.000",
    "UpperThresholdCritical": "N/A",
    "LowerThresholdNonCritical": "N/A",
    "ReadingVolts": "11.800",
    "UpperThresholdFatal": "N/A"
  }, {
    "@odata.id": "/redfish/v1/Chassis/1/Power#/Voltages/PSU2_VOUT",
    "Status": {
      "State": "Enabled",
      "Health": "OK"
    },
    "Name": "PSU2_VOUT",
    "UpperThresholdNonCritical": "N/A",
    "MemberID": 2,
    "LowerThresholdFatal": "N/A",
    "LowerThresholdCritical": "14.000",
    "UpperThresholdCritical": "N/A",
    "LowerThresholdNonCritical": "N/A",
    "ReadingVolts": "0.000",
    "UpperThresholdFatal": "N/A"
  }, .
  .
  {
    "@odata.id": "/redfish/v1/Chassis/1/Power#/Voltages/PVPP_GH",
    "Status": {
      "State": "Enabled",
      "Health": "OK"
    },
    "Name": "PVPP_GH",
    "UpperThresholdNonCritical": "N/A",
    "MemberID": 33,
    "LowerThresholdFatal": "N/A",
    "LowerThresholdCritical": "2.797",
    "UpperThresholdCritical": "N/A",
    "LowerThresholdNonCritical": "2.431",
    "ReadingVolts": "2.620",
    "UpperThresholdFatal": "N/A"
  } ],
  "@odata.id": "/redfish/v1/Chassis/1/Power",
  "@odata.type": "#Cisco_Power",
  "PowerSupplies": [ {
    "SerialNumber": "DCH2012T0SR",
    "FirmwareVersion": "10031006",
    "@odata.id": "/redfish/v1/Chassis/1/Power#/PowerSupplies/PSU1",
    "LineInputVoltage": "230",
    "Name": "PSU1",
    "MemberID": 1,
    "PartNumber": "341-0631-01",
    "PowerSupplyType": "AC",
    "Model": "DPST-1200DB A",
    "LastPowerOutputWatts": "144"
  }, {
    "SerialNumber": "DCH2012T0F9",
    "FirmwareVersion": "1006",
    "@odata.id": "/redfish/v1/Chassis/1/Power#/PowerSupplies/PSU2",
    "LineInputVoltage": "0",
    "Name": "PSU2",
    "MemberID": 2,
    "PartNumber": "341-0631-01",
    "PowerSupplyType": "AC",

```

```

        "Model": "DPST-1200DB A",
        "LastPowerOutputWatts": "0"
    }],
    "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/Power"
}

```

Retrieving Chassis Thermal Details

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Chassis/1/Thermal -k -u
admin:Admin123
```

```

{
  "Fans": [ {
    "UpperThresholdFatal": "N/A",
    "Status": {
      "State": "Enabled",
      "Health": "OK"
    },
    "FanName": "FAN1_SPEED",
    "LowerThresholdFatal": "N/A",
    "PhysicalContext": "Backplane",
    "MemberID": 1,
    "LowerThresholdNonCritical": "1600",
    "LowerThresholdCritical": "1200",
    "ReadingRPM": "5500",
    "UpperThresholdCritical": "N/A",
    "UpperThresholdNonCritical": "N/A",
    "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Fans/1"
  }, {
    "UpperThresholdFatal": "N/A",
    "Status": {
      "State": "Enabled",
      "Health": "OK"
    },
    "FanName": "FAN2_SPEED",
    "LowerThresholdFatal": "N/A",
    "PhysicalContext": "Backplane",
    "MemberID": 2,
    "LowerThresholdNonCritical": "1600",
    "LowerThresholdCritical": "1200",
    "ReadingRPM": "5500",
    "UpperThresholdCritical": "N/A",
    "UpperThresholdNonCritical": "N/A",
    "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Fans/2"
  },
  .
  .
  .
  .
  {
    "ReadingCelsius": "37.0",
    "Status": {
      "State": "Enabled",
      "Health": "OK"
    },
  },
  "Name": "RISER1_OUTLETTMP",
  "UpperThresholdNonCritical": "N/A",
  "MemberID": 18,
  "LowerThresholdFatal": "N/A",
  "LowerThresholdCritical": "70.0",
  "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Temperatures/RISER1_OUTLET
  TMP",

```

```

        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "60.0",
        "UpperThresholdFatal": "N/A"
    }, {
        "ReadingCelsius": "33.0",
        "Status": {
            "State": "Enabled",
            "Health": "OK"
        },
        "Name": "RISER2_OUTLETTMP",
        "UpperThresholdNonCritical": "N/A",
        "MemberID": 19,
        "LowerThresholdFatal": "N/A",
        "LowerThresholdCritical": "70.0",
"@odata.id": "/redfish/v1/Chassis/1/Thermal#/Temperatures/RISER2_OUTLET
TMP",
        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "60.0",
        "UpperThresholdFatal": "N/A"
    } ],
    "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/Therma
l"
}

```

Retrieving Chassis Log Services Details

Request:

```

curl -GET https://10.10.10.10/redfish/v1/Chassis/1/LogServices -k -u
admin:Admin123
{
  "Members": [ {
    "@odata.id": "/redfish/v1/Chassis/1/LogServices/SEL"
  } ],
  "@odata.type": "#LogService.1.0.0.LogServiceCollection",
  "@odata.id": "/redfish/v1/Chassis/1/LogServices",
  "Name": "Log Service Collection",
  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/LogSer
vices"
}

```

Retrieving Chassis SEL Details

Request:

```

curl -GET https://10.10.10.10/redfish/v1/Chassis/1/LogServices/SEL -k -u
admin:Admin123
{
  "@odata.id": "/redfish/v1/Chassis/1/LogServices/SEL",
  "Entries": {
    "@odata.id": "/redfish/v1/Chassis/1/LogServices/SEL/Entries"
  },
  "Name": "SEL Log Service",
  "ServiceEnabled": true,
  "MaxNumberOfRecords": 3008,
  "DateTime": "Tue Aug 23 23:06:50 2016\n",
  "@odata.type": "#LogService.1.0.0",
  "OverWritePolicy": "NeverOverWrites",
  "Id": "SEL",
  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/LogSer

```

```

vices/Members/$entity",
  "Actions":{
    "#LogService.ClearLog":{
      "Target":"/redfish/v1/Chassis/1/LogServices/SEL/Actions/LogService.ClearLog"
    }
  },
  "Description"
}

```

Retrieving Chassis SEL Entries Details

Request:

```

curl -GET
https://10.10.10.10/redfish/v1/Chassis/1/LogServices/SEL/Entries -k
-u admin:Admin123
{
  "Members":[{
    "@odata.id":"/redfish/v1/Managers/1/LogService/SEL/Entries/1250",
    "Id":"1250",
    "EntryType":"SEL",
    "Severity":"Normal",
    "Message":"Node Manager: Operational Capabilities, Policy
Interface:Available Monitoring:Available Power Limiting:Available ",
    "Created":"2016-08-23 22:43:54 "
  }],{
    "@odata.id":"/redfish/v1/Managers/1/LogService/SEL/Entries/1249",
    "Id":"1249",
    "EntryType":"SEL",
    "Severity":"Informational",
    "Message":"LED_HLTH_STATUS: Platform sensor, FAST BLINK event
was deasserted",
    "Created":"2016-08-23 22:43:26 "
  }],{
    "@odata.id":"/redfish/v1/Managers/1/LogService/SEL/Entries/1248",
    "Id":"1248",
    "EntryType":"SEL",
    "Severity":"Informational",
    "Message":"LED_HLTH_STATUS: Platform sensor, ON event was
asserted",
    "Created":"2016-08-23 22:43:26 "
  }],{
    "@odata.id":"/redfish/v1/Managers/1/LogService/SEL/Entries/1247",
    "Id":"1247",
    "EntryType":"SEL",
    "Severity":"Informational",
    "Message":"LED_FAN_STATUS: Platform sensor, AMBER was
deasserted",
    "Created":"2016-08-23 22:43:26 "
  }],{
    "@odata.id":"/redfish/v1/Managers/1/LogService/SEL/Entries/1246",
    "Id":"1246",
    "EntryType":"SEL",
    "Severity":"Informational",
    "Message":"LED_FAN_STATUS: Platform sensor, FAST BLINK event was
deasserted",
    "Created":"2016-08-23 22:43:26 "
  }
}
.
.
.

```

```

{
  "@odata.id":"/redfish/v1/Managers/1/LogService/SEL/Entries/1202",
  "Id":"1202",
  "EntryType":"SEL",
  "Severity":"Normal",
  "Message":"Node Manager: Operational Capabilities, Policy
Interface:Available Monitoring:Available Power Limiting:Available ",
  "Created":"2016-08-23 02:07:29 "
}, {
  "@odata.id":"/redfish/v1/Managers/1/LogService/SEL/Entries/1201",
  "Id":"1201",
  "EntryType":"SEL",
  "Severity":"Informational",
  "Message":"LED_HLTH_STATUS: Platform sensor, FAST BLINK event
was deasserted",
  "Created":"2016-08-23 02:07:04 "
}],
"@odata.count":"1250",
"@odata.id":"/redfish/v1/Chassis/1/LogServices/SEL/Entries",
"@odata.type":"#LogEntry.1.0.0.LogEntryCollection",
"@odata.context":"/redfish/v1/$metadata#Chassis/Members/$entity/LogSer
vices/Members/$entity/Entries"
}

```

Retrieving Details of a Specific SEL Entry

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Chassis/1/LogServices/SEL/Entries/1201 -k -u admin:Admin123
```

```
{
  "@odata.id": "/redfish/v1/Chassis/1/LogServices/SEL/Entries/1201",
  "EntryType": "SEL",
  "Message": "LED_PSU_STATUS: Platform sensor, GREEN was asserted",
  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/LogServices/Members/$entity/Entries/Members/$entity",
  "@odata.type": "#LogEntry.1.0.0",
  "Severity": "Informational",
  "Id": "1201",
  "Created": "2016-04-08 05:21:44 "
}
```

Retrieving Manager Details

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Managers -k -u admin:Admin123
```

```
{
  "Members": [{
    "@odata.id": "/redfish/v1/Managers/CIMC"
  }],
  "@odata.type": "#Manager.1.0.0.ManagerCollection",
  "@odata.id": "/redfish/v1/Managers",
  "Name": "Manager Collection",
  "@odata.context": "/redfish/v1/$metadata#Managers"
}
```

Retrieving Cisco IMC Information

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Managers/CIMC -k -u
admin:Admin123
{
  "Id": "CIMC",
  "Links": {
    "ManagerForChassis": ["/redfish/v1/Chassis/1"],
    "ManagerForServers": ["/redfish/v1/Systems/FCH2005V1EN"]
  },
  "ManagerType": "CIMC",
  "@odata.context": "/redfish/v1/$metadata#Managers/Members/$entity",
  "Description": "",
  "SerialInterfaces": {
    "@odata.id": "/redfish/v1/Managers/CIMC/SerialInterfaces"
  },
  "ManagerNetworkProtocol": {
    "@odata.id": "/redfish/v1/Managers/CIMC/ManagerNetworkProtocol"
  },
  "UUID": "B7F88A22-772A-468F-94EC-45E5B6405C03",
  "LogServices": {
    "@odata.id": "/redfish/v1/Managers/CIMC/LogServices"
  },
  "FirmwareVersion": "3.0(0.270)",
  "Name": "Manager",
  "Model": "UCSC-C240-M4S",
  "CommandShell": {
    "MaxConcurrentSessions": 4,
    "ConnectTypesSupported": ["SSH", "Telnet", "IPMI", "XML API"],
    "ServiceEnabled": true
  },
  "DateTime": "Tue Aug 23 23:20:10 2016\n",
  "@odata.type": "#Manager.1.0.0.Manager",
  "GraphicalConsole": {
    "MaxConcurrentSessions": 4,
    "ConnectTypesSupported": ["KVMIP", "WebUI"],
    "ServiceEnabled": true
  },
  "@odata.id": "/redfish/v1/Managers/CIMC",
  "SerialConsole": {
    "MaxConcurrentSessions": 4,
    "ConnectTypesSupported": ["SSH", "Telnet", "IPMI", "XML API"],
    "ServiceEnabled": true
  },
  "Actions": {
    "#Manager.Reset": {
      "Target": "/redfish/v1/Managers/CIMC/Actions/Manager.Reset",
      "ResetType@Redfish.AllowableValues": ["On", "ForceOff"]
    }
  },
  "EthernetInterfaces": {
    "@odata.id": "/redfish/v1/Managers/CIMC/EthernetInterfaces"
  }
}
```

Retrieving Serial Interface Details

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Managers/CIMC/SerialInterfaces -
```



```
k -u admin:Admin123
{
  "Members": [{
    "@odata.id": "/redfish/v1/Managers/CIMC/SerialInterfaces/TTY0"
  }],
  "@odata.type": "#SerialInterface.1.0.0.SerialInterfaceCollection",
  "@odata.id": "/redfish/v1/Managers/CIMC/SerialInterfaces",
  "Description": "Collection of Serial Interfaces for this System",
  "Name": "Serial Interface Collection",
  "@odata.context": "/redfish/v1/$metadata#Managers/Members/$entity/SerialInterfaces"
}
```

Request:

```
curl -GET
https://10.10.10.10/redfish/v1/Managers/CIMC/SerialInterfaces/TTY0 -
k -u admin:Admin123
{
  "@odata.id": "/redfish/v1/Managers/CIMC/SerialInterfaces/TTY0",
  "SignalType": "Rs232",
  "@odata.type": "#SerialInterface.1.0.0",
  "Id": "TTY0",
  "InterfaceEnabled": false,
  "Name": "Manager Serial Interface 1",
  "@odata.context": "/redfish/v1/$metadata#Managers/Members/$entity/SerialInterfaces/Members/$entity",
  "PinOut": "Cisco",
  "BitRate": "115200",
  "DataBits": "8",
  "FlowControl": "None",
  "StopBits": "1",
  "ConnectorType": "RJ45",
  "Parity": "None",
  "Description": "Management for Serial Interface"
}
```

Retrieving Network Protocol Details

Request:

```
curl -GET
https://10.10.10.10/redfish/v1/Managers/CIMC/ManagerNetworkProtocol
-k -u admin:Admin123
{
  "@odata.id": "/redfish/v1/Managers/CIMC/ManagerNetworkProtocol",
  "KVMIP": {
    "ProtocolEnabled": true,
    "Port": 2068
  },
  "SNMP": {
    "ProtocolEnabled": false,
    "Port": 161
  },
  "Id": "ManagerNetworkProtocol",
  "@odata.type": "#ManagerNetworkProtocol.1.0.0",
  "Name": "Manager Network Protocol",
  "@odata.context": "/redfish/v1/$metadata#Managers/Members/$entity/ManagerNetworkProtocol",
  "https": {
    "ProtocolEnabled": true,

```

```

        "Port":443
    },
    "HostName":"C240-FCH2005V1EN",
    "Telnet":{
        "ProtocolEnabled":true,
        "Port":23
    },
    "SSH":{
        "ProtocolEnabled":true,
        "Port":22
    },
    "IPMI":{
        "ProtocolEnabled":false
    },
    "https":{
        "ProtocolEnabled":true,
        "Port":80
    },
    "VirtualMedia":{
        "ProtocolEnabled":true
    },
    "Description":"Manager Network Service"
}
}

```

Retrieving Ethernet Interfaces Details

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Managers/CIMC/EthernetInterfaces
-k -u admin:Admin123
```

```

{
  "Members":[{"@odata.id":"/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs"}],
  "@odata.type":"#EthernetInterface.1.0.0.EthernetInterface",
  "@odata.id":"/redfish/v1/Managers/CIMC/EthernetInterfaces",
  "Description":"Collection of Ethernet Interfaces for this Manager",
  "Name":"Ethernet Intefaces Collection",
  "@odata.context":"/redfish/v1/$metadata#Managers/Members/$entity/EthernetInterfaces"
}

```

Retrieving Message Registry Information

Request:

```
curl -GET https://10.10.10.10/redfish/v1/MessageRegistry -u
admin:password --insecure
```

Response:

```

{
  "RegistryVersion":"1.0.0",
  "OwningEntity":"Cisco Systems Inc.",
  "Name":"Message Registry",
  "@odata.context":"/redfish/v1/$metadata#MessageRegistry",
  "@odata.id":"/redfish/v1/MessageRegistry",
  "@odata.type":"#MessageRegistry.1.0.0.MessageRegistry",
}

```

```

"Language": "en",
"RegistryPrefix": "",
"Messages": {
  "F0381": {
    "Oem": {
      "MessageId": 12
    },
    "Message": "",
    "NumberOfArgs": 0,
    "Severity": "minor",
    "Resolution": "Check power supply status",
    "Description": "Power Supply temperature is upper non critical"
  },
  "F0395": {
    "Oem": {
      "MessageId": 25
    },
    "Message": "",
    "NumberOfArgs": 0,
    "Severity": "minor",
    "Resolution": "Check the air intake to the server",
    "Description": "Fan speed for fan-x is lower non critical"
  },
  "F0176": {
    "Oem": {
      "MessageId": 10
    },
    "Message": "",
    "NumberOfArgs": 0,
    "Severity": "major",
    "Resolution": "Check Cooling",
    "Description": "Processor Thermal threshold has crossed
upper critical threshold"
  },
  .
  .
  .
  .
    "Message": "",
    "NumberOfArgs": 0,
    "Severity": "major",
    "Resolution": "Check the air intake to the server",
    "Description": "Fan speed for fan-x is lower critical"
  },
  "F0424": {
    "Oem": {
      "MessageId": 20
    },
    "Message": "",
    "NumberOfArgs": 0,
    "Severity": "major",
    "Resolution": "Replace Battery",
    "Description": "Battery voltage level is lower critical"
  }
},
"Id": "Message Registry",
"Description": "This registry defines the Fault messages for Redfish"
}

```

Enabling an Event Service

Request:

```
curl -XPATCH https://10.10.10.10/redfish/v1/EventService -d
'{"ServiceEnabled":true}' -u admin:password -insecure
```

Response:

```
{
  "Status":{
    "State":"Disabled",
    "Health":"OK"
  },
  "DeliveryRetryIntervalInSeconds":30,
  "EventTypesForSubscription":["Alert"],
  "Id":"EventService",
  "DeliveryRetryAttempts":3,
  "ServiceEnabled":true,
  "Name":"Event Service",
  "Description":"Event Service represents the properties for the service"
}
```

Configuring Event Subscribers

Request:

```
curl -XPOST https://10.10.10.10/redfish/v1/EventService
/Subscriptions -d '{"Protocol":"Redfish","Destination":"10.104.255.59"
,"Context":"ffff","EventTypes":["Alert"]',
"HttpHeaders":["Authorization:BasicYWRtaW46cGFzc3dvcmQ=","
X-MyHeader:123"]}' -u admin:password -insecure
```

Response:

```
{
  "subscriberKey":"351357385644ea45d8544885d7655a8d"
}
```

Retrieving a List of Subscribers

Request:

```
curl -GET https://10.10.10.10/redfish/v1/EventService
/Subscriptions -u admin:password -k
```

Response:

```
{
  "Members":[{
    "@odata.id":"/redfish/v1/EventService/Subscriptions
/771756785144ea475854488556157a85"
  },{
    "@odata.id":"/redfish/v1/EventService/Subscriptions
/881856885144ea489854488596158a49"
  }],
  "Description":"List of Event subscriptions",
  "@odata.type":"#EventService.1.0.0.EventDestinationCollection",
  "@odata.id":"/redfish/v1/EventService/Subscriptions",
}
```

```

    "Members@odata.count":2,
    "Name":"Event Subscriptions Collection",
    "@odata.context":"/redfish/v1/$metadata#EventService/Subscriptions"
  }

```

Retrieving Information about an Event Subscriber with Subscription Key

Request:

```

curl -GET https://10.10.10.10/redfish/v1/EventService
/Subscriptions/771756785144ea475854488556157a85 -u admin:password -k

```

Response:

```

{
  "@odata.id":"/redfish/v1/EventService/Subscriptions/771756785144ea475854488556157a85",
  "Protocol":"Redfish",
  "Name":"EventSubscription 771756785144ea475854488556157a85",
  "Context":"abcsd",
  "Description":"Event Subscription Details",
  "@odata.type":"#EventDestination.1.0.0.EventDestination",
  "Destination":"10.104.255.16",
  "@odata.context":"/redfish/v1/$metadata#EventService/Subscriptions/Members/$entity",
  "Id":"771756785144ea475854488556157a85",
  "EventTypes":["Alert"]
}

```

Updating Event Subscribers

Request:

```

curl -XPATCH https://10.10.10.10/redfish/v1
/EventService/Subscriptions
/351357385644ea45d8544885d7655a8d -d
'{"Context":"Cisco"}' -u admin:password --insecure

```

Response:

```

{
  "Description":"Event Subscription Details",
  "Context":"Cisco",
  "Id":"351357385644ea45d8544885d7655a8d",
  "Destination":"10.104.255.59",
  "Protocol":"Redfish",
  "Name":"EventSubscription 351357385644ea45d8544885d7655a8d",
  "EventTypes":["Alert"]
}

```

Deleting an Event Subscription

Request:

```

curl -XDELETE https://10.10.10.10/redfish/v1/EventService

```

```
/Subscriptions/351357385644ea45d8544885d7655a8d -u
admin:password --insecure
```

Response:

Note: curl with verbose option enabled receives an http response '200 OK' for the above query.

Testing if an Event Receiver is Ready

Request:

```
curl -XPOST https://10.10.10.10/redfish/v1/EventService/Actions
/EventService.SubmitTestEvent -d '{"Protocol":"redfish",
"Destination":10.10.10.10,"EventType":["Alert"],"Context":"mike-alert"} -u
admin:Admin123
```

Response:

```
{"EventType":"Alert","MessageId":"F000",
"Message":"Test event from Cisco IMC Redfish Engine",
"Context":"mike-alert"
}
```

Retrieving OEM Specific Actions

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Managers/CIMC --insecure -u
admin:password
```

Response:

```
{
  "DateTimeLocalOffset":"UTC+0530",
  "Id":"CIMC",
  "Links":{
    "ManagerForChassis":["/redfish/v1/Chassis/1"],
    "ManagerForServers":["/redfish/v1/Systems/FCH2005V1E4"]
  },
  "ManagerType":"CIMC",
  "@odata.context":"/redfish/v1/$metadata#Managers/Members/$entity",
  "@odata.id":"/redfish/v1/Managers/CIMC",
  "VirtualMedia":{
    "@odata.id":"/redfish/v1/Managers/CIMC/VirtualMedia"
  },
  "Description": "",
  "LogServices":{
    "@odata.id":"/redfish/v1/Managers/CIMC/LogServices"
  },
  "SerialInterfaces":{
    "@odata.id":"/redfish/v1/Managers/CIMC/SerialInterfaces"
  },
  "FirmwareVersion":"3.0(1S8)",
  "UUID":"E320FC46-31AC-4D93-BA64-C7FE5A139628",
}
```

```

"Status":{
  "State":"Enabled",
  "Health":"OK"
.
.
.
.
},
"Name":"Cisco Integrated Management Controller",
"Actions":{
  "#Oem.ImportBmcConfig":{
    "Protocol@Redfish.AllowableValues":["TFTP","SCP","SFTP","FTP","HTTP"],
    "Passphrase@Redfish.AllowableValues":["Passphrase"],
    "RemoteUsername@Redfish.AllowableValues":["Remote Server Username"],
    "RemotePath@Redfish.AllowableValues":["Valid Remote Share Path"],
    "RemoteHostname@Redfish.AllowableValues":["Valid Hostname/IP Address"],
    "Target":"/redfish/v1/Managers/CIMC/Actions/Oem.ImportBmcConfig",
    "RemotePassword@Redfish.AllowableValues":["Remote Server Password"]
  },
  "#Oem.BmcFwUpdate":{
    "Protocol@Redfish.AllowableValues":["TFTP","SCP","SFTP","FTP","HTTP"],
    "Target":"/redfish/v1/Managers/CIMC/Actions/Oem.BmcFwUpdate",
    "RemoteUsername@Redfish.AllowableValues":["Remote Server Username"],
    "RemotePath@Redfish.AllowableValues":["Valid Remote Share Path"],
    "RemoteHostname@Redfish.AllowableValues":["Valid Hostname/IP Address"],
    "RemotePassword@Redfish.AllowableValues":["Remote Server Password"]
  },
  "#Manager.Reset":{
    "Target":"/redfish/v1/Managers/CIMC/Actions/Manager.Reset",
    "ResetType@Redfish.AllowableValues":["ForceRestart"]
  },
  "#Oem.BiosFwUpdate":{
    "Protocol@Redfish.AllowableValues":["TFTP","SCP","SFTP","FTP","HTTP"],
    "Target":"/redfish/v1/Managers/CIMC/Actions/Oem.BiosFwUpdate",
    "RemoteUsername@Redfish.AllowableValues":["Remote Server Username"],
    "RemotePath@Redfish.AllowableValues":["Valid Remote Share Path"],
    "RemoteHostname@Redfish.AllowableValues":["Valid Hostname/IP Address"],
    "RemotePassword@Redfish.AllowableValues":["Remote Server Password"]
  },
  "#Oem.ExportBmcConfig":{
    "Protocol@Redfish.AllowableValues":["TFTP","SCP","SFTP","FTP","HTTP"],
    "Passphrase@Redfish.AllowableValues":["Passphrase"],
    "RemoteUsername@Redfish.AllowableValues":["Remote Server Username"],
    "RemotePath@Redfish.AllowableValues":["Valid Remote Share Path"],
    "RemoteHostname@Redfish.AllowableValues":["Valid Hostname/IP Address"],
    "Target":"/redfish/v1/Managers/CIMC/Actions/Oem.ExportBmcConfig",
    "RemotePassword@Redfish.AllowableValues":["Remote Server Password"]
  },
  "#Oem.BmcTechSupportExport":{
    "Protocol@Redfish.AllowableValues":["TFTP","SCP","SFTP","FTP","HTTP"],
    "Target":"/redfish/v1/Managers/CIMC/Actions/Oem.BmcTechSupportExport",
    "RemoteUsername@Redfish.AllowableValues":["Remote Server Username"],
    "RemotePath@Redfish.AllowableValues":["Valid Remote Share Path"],
    "RemoteHostname@Redfish.AllowableValues":["Valid Hostname/IP Address"],
    "RemotePassword@Redfish.AllowableValues":["Remote Server Password"]
  }
},

```

Retrieving Task Service

Request:

```
curl -GET https://10.10.10.10/redfish/v1/TaskService -u admin:password -k
```

Response:

```
{
  "Tasks": {
    "@odata.id": "/redfish/v1/TaskService/Tasks"
  },
  "@odata.id": "/redfish/v1/TaskService",
  "LifeCycleEventOnTaskStateChange": false,
  "Name": "Tasks Service",
  "ServiceEnabled": true,
  "@odata.type": "#TaskService.1.0.0",
  "CompletedTaskOverWritePolicy": "Oldest",
  "@odata.context": "/redfish/v1/$metadata#TaskService",
  "Id": "TaskService",
  "Status": {
    "State": "Enabled",
    "Health": "OK"
  },
  "Description": "Tasks Service"
}
```

Retrieving Tasks

Request:

```
curl -GET https://10.10.10.10/redfish/v1/TaskService/Tasks -u admin:password -k
```

Response:

```
{
  "Members": [ {
    "@odata.id": "/redfish/v1/TaskService/Tasks/BmcFwUpdate"
  }, {
    "@odata.id": "/redfish/v1/TaskService/Tasks/BiosFwUpdate"
  }, {
    "@odata.id": "/redfish/v1/TaskService/Tasks/BmcTechSupportExport"
  }, {
    "@odata.id": "/redfish/v1/TaskService/Tasks/ImportBmcConfig"
  }, {
    "@odata.id": "/redfish/v1/TaskService/Tasks/ExportBmcConfig"
  } ],
  "Description": "Tasks",
  "@odata.type": "#TaskCollection.1.0.0.TaskCollection",
  "@odata.id": "/redfish/v1/TaskService/Tasks",
  "Members@odata.count": 5,
  "Name": "Tasks",
  "@odata.context": "/redfish/v1/$metadata#TaskService/Tasks"
}
```

Updating BIOS Firmware

Request:


```
curl-XPOST https://10.10.10.10/redfish/v1/Managers/CIMC/Actions/Oem.BiosFwUpdate -d '{"RemoteHostname":"10.10.10.10","RemotePath":"krigovin/FW/C220M4-BIOS-3-0-0-6.cap", "Protocol":"TFTP"}' --insecure -u admin:password
```

Response:

Note: curl with verbose option enabled receives an http response '202 Accepted' for the above query.

Retrieving BIOS Firmware Update Status

Request:

```
curl -GET https://10.10.10.10/redfish/v1/TaskService/Tasks/BiosFwUpdate --insecure -u admin:password
```

Response:

```
{
  "@odata.id": "/redfish/v1/TaskService/Tasks/BiosFwUpdate",
  "Name": "Task BiosFwUpdate",
  "@odata.context": "/redfish/v1/$metadata#TaskService/Tasks/Members/$entity",
  "TaskStatus": "OK",
  "@odata.type": "#Task.1.0.0",
  "Id": "BiosFwUpdate",
  "TaskState": "Running",
  "Oem": {
    "FWVersion": "C240M4.3.0.0.8.0925161827",
    "UpdateStatus": "Image Download (5 %), OK"
  },
  "Description": "BIOS firmware version"
}
```

Updating Cisco IMC Firmware

Request:

```
curl-XPOST https://10.10.10.10/redfish/v1/Managers/CIMC/Actions/Oem.BmcFwUpdate -d '{"RemoteHostname":"10.10.10.10","RemotePath":"mike/FW/upd-pkg-c220-m4-cimc.full.3.0.0.275.bin", "Protocol":"TFTP"}' --insecure -u admin:password
```

Response:

Note: curl with verbose option enabled receives an http response '202 Accepted' for the above query.

Retrieving Cisco IMC Firmware Update Status

Request:

```
curl -GET https://10.10.10.10/redfish/v1/TaskService/Tasks/BmcFwUpdate --insecure -u admin:password
```

Response:

```
{
  "@odata.id": "/redfish/v1/TaskService/Tasks/BmcFwUpdate",
  "Name": "Task BmcFwUpdate",
  "@odata.context": "/redfish/v1/$metadata#TaskService/Tasks/Members/$entity",
  "TaskStatus": "OK",
  "@odata.type": "#Task.1.0.0",
  "Id": "BmcFwUpdate",
  "TaskState": "Running",
  "Oem": {
    "FWVersion": "3.0 (0.369)",
    "UpdateStatus": "Downloading (5%)"
  },
  "Description": "Cisco IMC backup firmware version"
}
```

Triggering Cisco IMC Technical Support

Request:

```
curl -POST https://10.10.10.10/redfish/v1/Managers/CIMC/Actions/Oem.BmcTechSupportExport -d '{"RemoteHostname": "10.10.10.10",
"RemotePath": "/home/mike/dan/techSupport.tar.gz",
"Protocol": "SCP", "RemoteUsername": "mike",
"RemotePassword": "1234game"}' --insecure -u admin:password
```

Response:

Note: curl with verbose option enabled receives an http response '202 Accepted' for the above query.

Retrieving Cisco IMC Technical Support Status

Request:

```
curl -GET https://10.10.10.10/redfish/v1/TaskService/Tasks/BmcTechSupportExport --insecure -u admin:password
```

Response:

```
{
  "@odata.id": "/redfish/v1/TaskService/Tasks/BmcTechSupportExport",
  "Name": "Task BmcTechSupportExport",
  "@odata.context": "/redfish/v1/$metadata#TaskService/Tasks/Members/$entity",
  "TaskStatus": "OK",
  "@odata.type": "#Task.1.0.0",
  "Id": "BmcTechSupportExport",
  "TaskState": "Running",
  "Oem": {
    "RemoteHostName": "10.10.10.10",
    "RemotePath": "/home/mike/dan/techSupport.tar.gz",
    "ExportStatus": "Collecting Data (0%)"
  }
}
```

```

    "Protocol": "scp",
    "RemoteUsername": "mike"
  },
  "Description": "BMC Technical Support Export"
}

```

Exporting Cisco IMC Configuration

Request:

```

curl -POST https://10.10.10.10/redfish/v1/Managers/CIMC/Actions/
Oem.ExportBmcConfig -d '{"RemoteHostname":"10.10.10.10",
"RemotePath":"/home/mike/dan/cimc_export.xml","Passphrase":"testtest",
"Protocol":"scp","RemoteUsername":"mike",
"RemotePassword":"1234game"}' --insecure -u admin:password

```

Response:

Note: curl with verbose option enabled receives an http response '202 Accepted' for the above query.

Exporting Cisco IMC Configuration Status

Request:

```

curl -GET https://10.10.10.10/redfish/v1/TaskService/Tasks/
ExportBmcConfig --insecure -u admin:password

```

Response:

```

{
  "@odata.id": "/redfish/v1/TaskService/Tasks/ExportBmcConfig",
  "Name": "Task ExportBmcConfig",
  "@odata.context": "/redfish/v1/$metadata#TaskService/Tasks/Members/$entity",
  "TaskStatus": "OK",
  "@odata.type": "#Task.1.0.0",
  "Id": "ExportBmcConfig",
  "TaskState": "Completed",
  "Oem": {
    "ExportStatus": "Completed"
  },
  "Description": "Export BMC Configuration"
}

```

Importing Cisco IMC Configuration

Request:

```

curl -POST https://10.10.10.10/redfish/v1/Managers/CIMC/Actions/
Oem.ImportBmcConfig -d '{"RemoteHostname":"10.10.10.10",
"RemotePath":"/home/mike/tom/cimc_export.xml",
"Passphrase":"testtest","Protocol":"scp",
"RemoteUsername":"mike",
"RemotePassword":"1234game"}' --insecure -u
admin:password

```

Response:

Note: curl with verbose option enabled receives an http response '202 Accepted' for the above query.

Importing Cisco IMC Configuration Status

Request:

```
curl -GET https://10.10.10.10/redfish/v1/TaskService/Tasks/ImportBmcConfig --insecure -u admin:password
```

Response:

```
{
  "@odata.id": "/redfish/v1/TaskService/Tasks/ImportBmcConfig",
  "Name": "Task ImportBmcConfig",
  "@odata.context": "/redfish/v1/$metadata#TaskService/Tasks/Members/$entity",
  "TaskStatus": "OK",
  "@odata.type": "#Task.1.0.0",
  "Id": "ImportBmcConfig",
  "TaskState": "Running",
  "Oem": {
    "ImportStatus": "Applying configuration"
  },
  "Description": "Import BMC Configuration"
}
```

Setting an Asset Tag Value

Request:

```
curl -XPATCH https://10.10.10.10/redfish/v1/Systems/FCH2005V1E4 -d '{"AssetTag":"Cisco123"}' --insecure -u admin:password
```

Response:

```
{
  "SerialNumber": "FCH2005V1E4",
  "Boot": {
    "BootSourceOverrideEnabled": "Disabled",
    "BootSourceOverrideTarget": "None"
  },
  "Id": "FCH2005V1E4",
  "AssetTag": "Cisco123",
  "PowerState": "On",
  "SystemType": "Physical",
  "ProcessorSummary": {
    "Model": "Intel(R) Xeon(R) CPU E5-2640 v3 @ 2.60GHz",
    "Count": 2
  },
  "HostName": "C240-FCH2005V1E4",
  "MemorySummary": {
    "TotalSystemMemoryGiB": 128,
    "State": {
      "HealthRollup": "OK",
      "Health": "OK"
    }
  }
}
```

```

    },
    "Description": "",
    "UUID": "E320FC46-31AC-4D93-BA64-C7FE5A139628",
    "Status": {
        "State": "Enabled",
        "Health": "Warning"
    },
    "Name": "UCS C240 M4S",
    "Manufacturer": "Cisco Systems",
    "IndicatorLED": "Off",
    "Model": "UCS C240 M4S",
    "BiosVersion": "C240M4.2.0.9b.0.012520161828"
}

```

Setting an Indicator LED Value to 'Lit'

Request:

```
curl -XPATCH https://10.10.10.10/redfish/v1/Systems/FCH2005V1E4 -d '{"IndicatorLED":"Lit"}' --insecure -u admin:password
```

Response:

```

{
  "SerialNumber": "FCH2005V1E4",
  "Boot": {
    "BootSourceOverrideEnabled": "Disabled",
    "BootSourceOverrideTarget": "None"
  },
  "Id": "FCH2005V1E4",
  "AssetTag": "Cisc0123",
  "PowerState": "On",
  "SystemType": "Physical",
  "ProcessorSummary": {
    "Model": "Intel(R) Xeon(R) CPU E5-2640 v3 @ 2.60GHz",
    "Count": 2
  },
  "HostName": "C240-FCH2005V1E4",
  "MemorySummary": {
    "TotalSystemMemoryGiB": 128,
    "State": {
      "HealthRollup": "OK",
      "Health": "OK"
    }
  },
  "Description": "",
  "UUID": "E320FC46-31AC-4D93-BA64-C7FE5A139628",
  "Status": {
    "State": "Enabled",
    "Health": "Warning"
  },
  "Name": "UCS C240 M4S",
  "Manufacturer": "Cisco Systems",
  "IndicatorLED": "Lit",
  "Model": "UCS C240 M4S",
  "BiosVersion": "C240M4.2.0.9b.0.012520161828"
}

```

Viewing Session Service

Request:

```
curl -GET https://10.10.10.10/redfish/v1/SessionService -k -u
admin:Admin123
{
  "@odata.type": "#SessionService.1.0.0",
  "@odata.id": "/redfish/v1/SessionService",
  "Sessions": {
    "@odata.id": "/redfish/v1/SessionService/Sessions"
  },
  "Name": "Session Service",
  "@odata.context": "/redfish/v1/$metadata#SessionService"
}
```

Sessions

Request:

```
curl -GET https://10.10.10.10/redfish/v1/SessionService/Sessions -k -u
admin:Admin123
{
  "Members": [],
  "@odata.type": "#SessionCollection.1.0.0.SessionCollection",
  "@odata.id": "/redfish/v1/SessionService/Sessions",
  "Name": "Session Collection",
  "Members@odata.count": 0,
  "@odata.context": "/redfish/v1/$metadata#SessionService/Sessions"
}
```

Viewing Server ID

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Systems -k -u admin:Admin123
{
  "Members": [{
    "@odata.id": "/redfish/v1/Systems/FCH2005V1EN"
  }],
  "@odata.type": "#Cisco.ComputerSystemCollection",
  "@odata.id": "/redfish/v1/Systems",
  "Name": "Computer System Collection",
  "@odata.context": "/redfish/v1/$metadata#Systems"
}
```

Viewing Specific System information

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN -k -u
admin:Admin123
{
  "SerialNumber": "FCH2005V1EN",
  "Boot": {
    "BootSourceOverrideEnabled": "Disabled",
    "BootSourceOverrideTarget": "None"
  },
  "Id": "FCH2005V1EN",
}
```

```

"AssetTag": "Unknown",
"PowerState": "On",
"SystemType": "Physical",
"ProcessorSummary": {
  "Model": "Intel(R) Xeon(R) CPU E5-2640 v3 @ 2.60GHz",
  "Count": 2
},
"HostName": "C240-FCH2005V1EN",
"MemorySummary": {
  "TotalSystemMemoryGiB": 128,
  "State": {
    "Health": "OK"
  }
},
"Processors": {
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/Processors"
},
"Description": "",
"SimpleStorage": {
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/SimpleStorage"
},
"UUID": "B7F88A22-772A-468F-94EC-45E5B6405C03",
"Status": {
  "State": "Enabled",
  "Health": "Warning"
},
"Links": {
  "CooledBy": ["/redfish/v1/Chassis/1/Thermal"],
  "Chassis": ["/redfish/v1/Chassis/1"],
  "PoweredBy": ["/redfish/v1/Chassis/1/Power"],
  "ManagedBy": ["/redfish/v1/Managers/CIMC"]
},
"Name": "UCS C240 M4S",
"BiosVersion": "C240M4.2.0.9b.0.012520161828",
"LogServices": {
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/LogServices"
},
"Actions": {
  "#System.Reset": {
    "Target": "/redfish/v1/Systems/FCH2005V1EN/Actions/System.Reset",
    "ResetType@Redfish.AllowableValues": ["On", "ForceOff", "GracefulShutdown", "ForceRestart", "Nmi"]
  }
},
"@odata.type": "#Cisco_ComputerSystem",
"@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity",
"@odata.id": "/redfish/v1/Systems/FCH2005V1EN",
"IndicatorLED": "Off",
"Model": "UCS C240 M4S",
"EthernetInterfaces": {
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/EthernetInterfaces"
}
}

```

Viewing Processor Information

Request:

```

curl -GET https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/Processors -
k -u admin:Admin123
{

```

```

"Members": [{
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/Processors/CPU1"
}, {
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/Processors/CPU2"
}],
"@odata.type": "#Cisco_ComputerProcessorCollection",
"@odata.id": "/redfish/v1/Systems/FCH2005V1EN/Processors",
"Name": "Processors Collection",
"@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Processors"
}

```

curl -GET

https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/Processors/CPU1 -k -u admin:Admin123

```

{
  "Description": "Intel(R) Xeon(R) CPU E5-2640 v3 @ 2.60GHz/90W 8C/20MB  
Cache/DDR4 1866MHz",
  "ProcessorArchitecture": "x86",
  "Status": {
    "State": "Enabled"
  },
  "ProcessorType": "CPU",
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Processors/Members/$entity",
  "TotalThreads": "16",
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/Processors/CPU1",
  "TotalCores": "8",
  "@odata.type": "#Cisco_ComputerProcessor",
  "Id": "1",
  "Manufacturer": "Intel(R) Corporation",
  "MaxSpeedMHz": "4000",
  "Model": "Intel(R) Xeon(R) CPU E5-2640 v3 @ 2.60GHz",
  "Socket": "CPU1"
}

```

curl -GET

https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/Processors/CPU2 -k -u admin:Admin123

```

{
  "Description": "Intel(R) Xeon(R) CPU E5-2640 v3 @ 2.60GHz/90W 8C/20MB  
Cache/DDR4 1866MHz",
  "ProcessorArchitecture": "x86",
  "Status": {
    "State": "Enabled"
  },
  "ProcessorType": "CPU",
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Processors/Members/$entity",
  "TotalThreads": "16",
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/Processors/CPU2",
  "TotalCores": "8",
  "@odata.type": "#Cisco_ComputerProcessor",
  "Id": "2",
  "Manufacturer": "Intel(R) Corporation",
  "MaxSpeedMHz": "4000",
  "Model": "Intel(R) Xeon(R) CPU E5-2640 v3 @ 2.60GHz",
  "Socket": "CPU2"
}

```


Viewing Storage Information

Request:

```
curl -GET
https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/SimpleStorage -k
-u admin:Admin123
{
  "Members": [{
    "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/SimpleStorage/SLOTHBA"
  }],
  "@odata.type": "#Cisco_ComputerStorageCollection",
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/SimpleStorage",
  "Name": "Simple Storage Collection",
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/SimpleStorage"
}

curl -GET
https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/SimpleStorage/SLOT-HBA -k -u admin:Admin123
{
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/SimpleStorage/SLOTHBA",
  "Id": "SLOT-HBA",
  "@odata.type": "#Cisco_ComputerStorage",
  "Devices": [{
    "Status": {
      "State": "Enabled",
      "Health": "Good"
    },
    "Name": "PD-1",
    "Manufacturer": "HITACHI"
  }, {
    "Status": {
      "State": "Enabled",
      "Health": "Good"
    },
    "Name": "PD-2",
    "Manufacturer": "HITACHI"
  }, {
    "Name": "PD-3",
    "Status": {
      "State": "Absent"
    }
  }, {
    "Name": "PD-4",
    "Status": {
      "State": "Absent"
    }
  }, {
    "Name": "PD-5",
    "Status": {
      "State": "Absent"
    }
  }, {
    "Name": "PD-6",
    "Status": {
      "State": "Absent"
    }
  }, {
    "Name": "PD-7",
    "Status": {
      "State": "Absent"
    }
  }
}
```

```

    }
  }, {
    "Name": "PD-8",
    "Status": {
      "State": "Absent"
    }
  }
],
"Status": {
  "State": "Optimal",
  "Health": "Ok"
},
"Name": "Cisco 12G SAS Modular Raid Controller",
"@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/SimpleStorage/Members/$entity"
}

```

Viewing User Accounts

Request:

```
curl -GET https://10.10.10.10/redfish/v1/AccountService -k -u
admin:Admin123
```

```

{
  "Accounts": {
    "@odata.id": "/redfish/v1/AccountService/Accounts"
  },
  "Id": "AccountService",
  "Name": "Account Service",
  "@odata.context": "/redfish/v1/$metadata#AccountService",
  "@odata.type": "#AccountService.1.0.0",
  "Roles": {
    "@odata.id": "/redfish/v1/AccountService/Roles"
  },
  "ServiceEnabled": true,
  "@odata.id": "/redfish/v1/AccountService",
  "Description": "Account Service"
}

```

Viewing User Accounts

Request:

```
curl -GET https://10.10.10.10/redfish/v1/AccountService/Accounts -k -u
admin:Admin123
```

```

{
  "Members": [ {
    "@odata.id": "/redfish/v1/AccountService/Accounts/1"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Accounts/2"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Accounts/3"
  } ],
  "@odata.type": "#ManagerAccountCollection.1.0.0.ManagerAccountCollection",
  "@odata.id": "/redfish/v1/AccountService/Accounts",
  "Name": "Account Collection",
  "@odata.context": "/redfish/v1/$metadata#AccountService/Accounts"
}

```

```
curl -GET https://10.10.10.10/redfish/v1/AccountService/Accounts/1 -k -u
admin:Admin123
```

```
{
  "@odata.id": "/redfish/v1/AccountService/Accounts/1",
  "Links": {
    "Role": ["/redfish/v1/AccountService/Roles/admin"]
  },
  "Name": "User Account",
  "@odata.context": "/redfish/v1/$metadata#AccountService/Accounts/Member
s/$entity",
  "@odata.type": "#ManagerAccount.1.0.0",
  "RoleId": "admin",
  "Description": "User Account",
  "Id": "1",
  "Enabled": true,
  "Locked": false,
  "UserName": "admin"
}
```

```
curl -GET https://10.10.10.10/redfish/v1/AccountService/Accounts/2 -k -u
admin:Admin123
```

```
{
  "@odata.id": "/redfish/v1/AccountService/Accounts/2",
  "Links": {
    "Role": ["/redfish/v1/AccountService/Roles/user"]
  },
  "Name": "User Account",
  "@odata.context": "/redfish/v1/$metadata#AccountService/Accounts/Member
s/$entity",
  "@odata.type": "#ManagerAccount.1.0.0",
  "RoleId": "user",
  "Description": "User Account",
  "Id": "2",
  "Enabled": true,
  "Locked": false,
  "UserName": "username"
}
```

Roles

Request:

```
curl -GET https://10.10.10.10/redfish/v1/AccountService/Roles -k -u
admin:Admin123
```

```
{
  "Members": [{
    "@odata.id": "/redfish/v1/AccountService/Roles/admin"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Roles/user"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Roles/read-only"
  }],
  "@odata.type": "#RoleCollection.1.0.0.RoleCollection",
  "@odata.id": "/redfish/v1/AccountService/Roles",
  "Name": "Roles Collection",
  "@odata.context": "/redfish/v1/$metadata#AccountService/Roles"
}
```

```
curl -GET https://10.10.10.10/redfish/v1/AccountService/Roles/admin -k -u
admin:Admin123
```

```
{
  "IsPredefined":true,
  "@odata.id":"/redfish/v1/AccountService/Roles/admin",
  "AssignedPrivileges":["Login","ConfigureManager","ConfigureUsers","ConfigureSelf","ConfigureComponents"],
  "Name":"User Role",
  "@odata.context":"/redfish/v1/$metadata#AccountService/Roles/Members/$entity",
  "@odata.type":"#Role.1.0.0",
  "OEMPrivileges":["OemClearLog","OemPowerControl"],
  "Id":"admin",
  "Description":"Admin User Role"
}
```

```
curl -GET https://10.10.10.10/redfish/v1/AccountService/Roles/user -k -u
admin:Admin123
```

```
{
  "IsPredefined":true,
  "@odata.id":"/redfish/v1/AccountService/Roles/user",
  "AssignedPrivileges":["Login","ConfigureSelf","ConfigureComponents"],
  "Name":"User Role",
  "@odata.context":"/redfish/v1/$metadata#AccountService/Roles/Members/$entity",
  "@odata.type":"#Role.1.0.0",
  "OEMPrivileges":[],
  "Id":"user",
  "Description":"User Role"
}
```

```
curl -GET https://10.10.10.10/redfish/v1/AccountService/Roles/read-only -k -u admin:Admin123
```

```
{
  "IsPredefined":true,
  "@odata.id":"/redfish/v1/AccountService/Roles/read-only",
  "AssignedPrivileges":["Login"],
  "Name":"User Role",
  "@odata.context":"/redfish/v1/$metadata#AccountService/Roles/Members/$entity",
  "@odata.type":"#Role.1.0.0",
  "OEMPrivileges":[],
  "Id":"read-only",
  "Description":"ReadOnly User Role"
}
```

Logservices

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Chassis/1/LogServices/SEL/Entries\?$top=2 -k -u admin:Admin123
```

```
{
  "Members":[{"
    "@odata.id":"/redfish/v1/Managers/1/LogService/SEL/Entries/1250",
    "Id":"1250",
    "EntryType":"SEL",
    "Severity":"Normal",
    "Message":"Node Manager: Operational Capabilities, Policy
    Interface:Available Monitoring:Available Power Limiting:Available "
  }]
```

```

    "Created": "2016-08-23 22:43:54 "
  }, {
"@odata.id": "/redfish/v1/Managers/1/LogServices/SEL/Entries/1249",
    "Id": "1249",
    "EntryType": "SEL",
    "Severity": "Informational",
    "Message": "LED_HLTH_STATUS: Platform sensor, FAST BLINK event
was deasserted",
    "Created": "2016-08-23 22:43:26 "
  }],
  "@odata.count": "1250",
"@odata.id": "/redfish/v1/Chassis/1/LogServices/SEL/Entries",
  "@odata.type": "#LogEntry.1.0.0.LogEntryCollection",
"@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/LogSer
vices/Members/$entity/Entries"
}

```

```

curl -GET https://10.10.10.10/redfish/v1/Managers/CIMC/LogServices
/SEL/Entries/?\&$skip=2&\&$top=2 -u admin:admin123 --insecure

```

```

{
  "Members": [ {
    "EntryCode": "State Asserted",
"@odata.id": "/redfish/v1/Managers/CIMC/LogServices/SEL/Entries/279",
    "EntryType": "SEL",
    "Message": "PSU1 PSU1_AC_OK: Power Supply sensor for PSU1, State Asserted",
    "Description": "Log Entry 279",
    "Name": "Log Entry 279",
    "Severity": "Normal",
    "Id": "279",
    "Created": "2016-12-09 04:11:24 "
  }, {
    "EntryCode": "State Asserted",
"@odata.id": "/redfish/v1/Managers/CIMC/LogServices/SEL/Entries/278",
    "EntryType": "SEL",
    "Message": "PSU1 PSU1_PWRGD: Power Supply sensor for PSU1, State Asserted",
    "Description": "Log Entry 278",
    "Name": "Log Entry 278",
    "Severity": "Normal",
    "Id": "278",
    "Created": "2016-12-09 04:11:24 "
  } ],
  "@odata.count": "281",
"@odata.id": "/redfish/v1/Managers/CIMC/LogServices/SEL/Entries",
  "@odata.type": "#LogEntry.1.0.0.LogEntryCollection",
  "Members@odata.count": "2",
"@odata.context": "/redfish/v1/$metadata#Managers
/Members/$entity/LogServices/Members/$entity/Entries"
}

```

Thermal

Request:

```

curl -GET
https://10.10.10.10/redfish/v1/Chassis/1/Thermal#/Temperatures/MLOM_
TMP -k -u admin:Admin123
{
  "Fans": [
    {
      "UpperThresholdFatal": "N/A",
      "Status": {

```

```

        "State": "Enabled",
        "Health": "OK"
    },
    "FanName": "FAN1_SPEED",
    "LowerThresholdFatal": "N/A",
    "PhysicalContext": "Backplane",
    "MemberID": 1,
    "LowerThresholdNonCritical": "1600",
    "LowerThresholdCritical": "1200",
    "ReadingRPM": "5500",
    "UpperThresholdCritical": "N/A",
    "UpperThresholdNonCritical": "N/A",
    "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Fans/1"
},
{
    "UpperThresholdFatal": "N/A",
    "Status": {
        "State": "Enabled",
        "Health": "OK"
    },
    "FanName": "FAN2_SPEED",
    "LowerThresholdFatal": "N/A",
    "PhysicalContext": "Backplane",
    "MemberID": 2,
    "LowerThresholdNonCritical": "1600",
    "LowerThresholdCritical": "1200",
    "ReadingRPM": "5500",
    "UpperThresholdCritical": "N/A",
    "UpperThresholdNonCritical": "N/A",
    "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Fans/2"
},
{
    "UpperThresholdFatal": "N/A",
    "Status": {
        "State": "Enabled",
        "Health": "OK"
    },
    "FanName": "FAN3_SPEED",
    "LowerThresholdFatal": "N/A",
    "PhysicalContext": "Backplane",
    "MemberID": 3,
    "LowerThresholdNonCritical": "1600",
    "LowerThresholdCritical": "1200",
    "ReadingRPM": "5500",
    "UpperThresholdCritical": "N/A",
    "UpperThresholdNonCritical": "N/A",
    "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Fans/3"
},
{
    "UpperThresholdFatal": "N/A",
    "Status": {
        "State": "Enabled",
        "Health": "OK"
    },
    "FanName": "FAN4_SPEED",
    "LowerThresholdFatal": "N/A",
    "PhysicalContext": "Backplane",
    "MemberID": 4,
    "LowerThresholdNonCritical": "1600",
    "LowerThresholdCritical": "1200",
    "ReadingRPM": "5700",
    "UpperThresholdCritical": "N/A",
    "UpperThresholdNonCritical": "N/A",
    "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Fans/4"
}

```

```

    },
    {
      "UpperThresholdFatal": "N/A",
      "Status": {
        "State": "Enabled",
        "Health": "OK"
      },
      "FanName": "FAN5_SPEED",
      "LowerThresholdFatal": "N/A",
      "PhysicalContext": "Backplane",
      "MemberID": 5,
      "LowerThresholdNonCritical": "1600",
      "LowerThresholdCritical": "1200",
      "ReadingRPM": "5500",
      "UpperThresholdCritical": "N/A",
      "UpperThresholdNonCritical": "N/A",
      "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Fans/5"
    },
    {
      "UpperThresholdFatal": "N/A",
      "Status": {
        "State": "Enabled",
        "Health": "OK"
      },
      "FanName": "FAN6_SPEED",
      "LowerThresholdFatal": "N/A",
      "PhysicalContext": "Backplane",
      "MemberID": 6,
      "LowerThresholdNonCritical": "1600",
      "LowerThresholdCritical": "1200",
      "ReadingRPM": "5500",
      "UpperThresholdCritical": "N/A",
      "UpperThresholdNonCritical": "N/A",
      "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Fans/6"
    }
  ],
  "@odata.id": "/redfish/v1/Chassis/1/Thermal",
  "@odata.type": "#Cisco_Thermal",
  "Temperatures": [
    {
      "ReadingCelsius": "43.0",
      "Status": {
        "State": "Enabled",
        "Health": "OK"
      },
      "Name": "MLOM_TMP",
      "UpperThresholdNonCritical": "N/A",
      "MemberID": 1,
      "LowerThresholdFatal": "N/A",
      "LowerThresholdCritical": "90.0",
      "@odata.id":
"/redfish/v1/Chassis/1/Thermal#/Temperatures/MLOM_TMP",
      "LowerThresholdNonCritical": "N/A",
      "UpperThresholdCritical": "85.0",
      "UpperThresholdFatal": "N/A"
    },
    {
      "ReadingCelsius": "26.0",
      "Status": {
        "State": "Enabled",
        "Health": "OK"
      },
      "Name": "FP_TEMP_SENSOR",
      "UpperThresholdNonCritical": "N/A",

```

```

        "MemberID": 2,
        "LowerThresholdFatal": "N/A",
        "LowerThresholdCritical": "45.0",
        "@odata.id":
"/redfish/v1/Chassis/1/Thermal#/Temperatures/FP_TEMP_SENSOR",
        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "40.0",
        "UpperThresholdFatal": "N/A"
    },
    {
        "ReadingCelsius": "31.0",
        "Status": {
            "State": "Enabled",
            "Health": "OK"
        },
        "Name": "DDR4_P1_A1_TEMP",
        "UpperThresholdNonCritical": "N/A",
        "MemberID": 3,
        "LowerThresholdFatal": "N/A",
        "LowerThresholdCritical": "85.0",
        "@odata.id":
"/redfish/v1/Chassis/1/Thermal#/Temperatures/DDR4_P1_A1_TEMP",
        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "65.0",
        "UpperThresholdFatal": "N/A"
    },
    {
        "ReadingCelsius": "31.0",
        "Status": {
            "State": "Enabled",
            "Health": "OK"
        },
        "Name": "DDR4_P1_B1_TEMP",
        "UpperThresholdNonCritical": "N/A",
        "MemberID": 4,
        "LowerThresholdFatal": "N/A",
        "LowerThresholdCritical": "85.0",
        "@odata.id":
"/redfish/v1/Chassis/1/Thermal#/Temperatures/DDR4_P1_B1_TEMP",
        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "65.0",
        "UpperThresholdFatal": "N/A"
    },
    {
        "ReadingCelsius": "32.0",
        "Status": {
            "State": "Enabled",
            "Health": "OK"
        },
        "Name": "DDR4_P1_C1_TEMP",
        "UpperThresholdNonCritical": "N/A",
        "MemberID": 5,
        "LowerThresholdFatal": "N/A",
        "LowerThresholdCritical": "85.0",
        "@odata.id":
"/redfish/v1/Chassis/1/Thermal#/Temperatures/DDR4_P1_C1_TEMP",
        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "65.0",
        "UpperThresholdFatal": "N/A"
    },
    {
        "ReadingCelsius": "31.0",
        "Status": {
            "State": "Enabled",

```



```

        "Health": "OK"
    },
    "Name": "DDR4_P1_D1_TEMP",
    "UpperThresholdNonCritical": "N/A",
    "MemberID": 6,
    "LowerThresholdFatal": "N/A",
    "LowerThresholdCritical": "85.0",
    "@odata.id":
    "/redfish/v1/Chassis/1/Thermal#/Temperatures/DDR4_P1_D1_TEMP",
    "LowerThresholdNonCritical": "N/A",
    "UpperThresholdCritical": "65.0",
    "UpperThresholdFatal": "N/A"
},
{
    "ReadingCelsius": "30.0",
    "Status": {
        "State": "Enabled",
        "Health": "OK"
    },
    "Name": "DDR4_P2_E1_TEMP",
    "UpperThresholdNonCritical": "N/A",
    "MemberID": 7,
    "LowerThresholdFatal": "N/A",
    "LowerThresholdCritical": "85.0",
    "@odata.id":
    "/redfish/v1/Chassis/1/Thermal#/Temperatures/DDR4_P2_E1_TEMP",
    "LowerThresholdNonCritical": "N/A",
    "UpperThresholdCritical": "65.0",
    "UpperThresholdFatal": "N/A"
},
{
    "ReadingCelsius": "29.0",
    "Status": {
        "State": "Enabled",
        "Health": "OK"
    },
    "Name": "DDR4_P2_F1_TEMP",
    "UpperThresholdNonCritical": "N/A",
    "MemberID": 8,
    "LowerThresholdFatal": "N/A",
    "LowerThresholdCritical": "85.0",
    "@odata.id":
    "/redfish/v1/Chassis/1/Thermal#/Temperatures/DDR4_P2_F1_TEMP",
    "LowerThresholdNonCritical": "N/A",
    "UpperThresholdCritical": "65.0",
    "UpperThresholdFatal": "N/A"
},
{
    "ReadingCelsius": "33.0",
    "Status": {
        "State": "Enabled",
        "Health": "OK"
    },
    "Name": "DDR4_P2_G1_TEMP",
    "UpperThresholdNonCritical": "N/A",
    "MemberID": 9,
    "LowerThresholdFatal": "N/A",
    "LowerThresholdCritical": "85.0",
    "@odata.id":
    "/redfish/v1/Chassis/1/Thermal#/Temperatures/DDR4_P2_G1_TEMP",
    "LowerThresholdNonCritical": "N/A",
    "UpperThresholdCritical": "65.0",
    "UpperThresholdFatal": "N/A"
},

```

```

{
  "ReadingCelsius": "29.0",
  "Status": {
    "State": "Enabled",
    "Health": "OK"
  },
  "Name": "DDR4_P2_H1_TEMP",
  "UpperThresholdNonCritical": "N/A",
  "MemberID": 10,
  "LowerThresholdFatal": "N/A",
  "LowerThresholdCritical": "85.0",
  "@odata.id":
  "/redfish/v1/Chassis/1/Thermal#/Temperatures/DDR4_P2_H1_TEMP",
  "LowerThresholdNonCritical": "N/A",
  "UpperThresholdCritical": "65.0",
  "UpperThresholdFatal": "N/A"
},
{
  "ReadingCelsius": "48.5",
  "Status": {
    "State": "Enabled",
    "Health": "OK"
  },
  "Name": "P1_TEMP_SENS",
  "UpperThresholdNonCritical": "N/A",
  "MemberID": 11,
  "LowerThresholdFatal": "N/A",
  "LowerThresholdCritical": "82.0",
  "@odata.id":
  "/redfish/v1/Chassis/1/Thermal#/Temperatures/P1_TEMP_SENS",
  "LowerThresholdNonCritical": "N/A",
  "UpperThresholdCritical": "77.0",
  "UpperThresholdFatal": "N/A"
},
{
  "ReadingCelsius": "45.5",
  "Status": {
    "State": "Enabled",
    "Health": "OK"
  },
  "Name": "P2_TEMP_SENS",
  "UpperThresholdNonCritical": "N/A",
  "MemberID": 12,
  "LowerThresholdFatal": "N/A",
  "LowerThresholdCritical": "82.0",
  "@odata.id":
  "/redfish/v1/Chassis/1/Thermal#/Temperatures/P2_TEMP_SENS",
  "LowerThresholdNonCritical": "N/A",
  "UpperThresholdCritical": "77.0",
  "UpperThresholdFatal": "N/A"
},
{
  "ReadingCelsius": "32.0",
  "Status": {
    "State": "Enabled",
    "Health": "OK"
  },
  "Name": "PSU1_TEMP",
  "UpperThresholdNonCritical": "N/A",
  "MemberID": 13,
  "LowerThresholdFatal": "N/A",
  "LowerThresholdCritical": "65.0",
  "@odata.id":
  "/redfish/v1/Chassis/1/Thermal#/Temperatures/PSU1_TEMP",

```

```

        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "60.0",
        "UpperThresholdFatal": "N/A"
    },
    {
        "ReadingCelsius": "32.0",
        "Status": {
            "State": "Enabled",
            "Health": "OK"
        },
        "Name": "PSU2_TEMP",
        "UpperThresholdNonCritical": "N/A",
        "MemberID": 14,
        "LowerThresholdFatal": "N/A",
        "LowerThresholdCritical": "65.0",
        "@odata.id":
"/redfish/v1/Chassis/1/Thermal#/Temperatures/PSU2_TEMP",
        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "60.0",
        "UpperThresholdFatal": "N/A"
    },
    {
        "ReadingCelsius": "36.0",
        "Status": {
            "State": "Enabled",
            "Health": "OK"
        },
        "Name": "PCH_TEMP_SENS",
        "UpperThresholdNonCritical": "N/A",
        "MemberID": 15,
        "LowerThresholdFatal": "N/A",
        "LowerThresholdCritical": "85.0",
        "@odata.id":
"/redfish/v1/Chassis/1/Thermal#/Temperatures/PCH_TEMP_SENS",
        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "80.0",
        "UpperThresholdFatal": "N/A"
    },
    {
        "ReadingCelsius": "34.0",
        "Status": {
            "State": "Enabled",
            "Health": "OK"
        },
        "Name": "RISER2_INLET_TMP",
        "UpperThresholdNonCritical": "N/A",
        "MemberID": 16,
        "LowerThresholdFatal": "N/A",
        "LowerThresholdCritical": "70.0",
        "@odata.id":
"/redfish/v1/Chassis/1/Thermal#/Temperatures/RISER2_INLET_TMP",
        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "60.0",
        "UpperThresholdFatal": "N/A"
    },
    {
        "ReadingCelsius": "33.0",
        "Status": {
            "State": "Enabled",
            "Health": "OK"
        },
        "Name": "RISER1_INLET_TMP",
        "UpperThresholdNonCritical": "N/A",
        "MemberID": 17,

```

```

        "LowerThresholdFatal": "N/A",
        "LowerThresholdCritical": "70.0",
        "@odata.id":
"/redfish/v1/Chassis/1/Thermal#/Temperatures/RISER1_INLET_TMP",
        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "60.0",
        "UpperThresholdFatal": "N/A"
    },
    {
        "ReadingCelsius": "37.0",
        "Status": {
            "State": "Enabled",
            "Health": "OK"
        },
        "Name": "RISER1_OUTLETTMP",
        "UpperThresholdNonCritical": "N/A",
        "MemberID": 18,
        "LowerThresholdFatal": "N/A",
        "LowerThresholdCritical": "70.0",
        "@odata.id":
"/redfish/v1/Chassis/1/Thermal#/Temperatures/RISER1_OUTLETTMP",
        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "60.0",
        "UpperThresholdFatal": "N/A"
    },
    {
        "ReadingCelsius": "33.0",
        "Status": {
            "State": "Enabled",
            "Health": "OK"
        },
        "Name": "RISER2_OUTLETTMP",
        "UpperThresholdNonCritical": "N/A",
        "MemberID": 19,
        "LowerThresholdFatal": "N/A",
        "LowerThresholdCritical": "70.0",
        "@odata.id":
"/redfish/v1/Chassis/1/Thermal#/Temperatures/RISER2_OUTLETTMP",
        "LowerThresholdNonCritical": "N/A",
        "UpperThresholdCritical": "60.0",
        "UpperThresholdFatal": "N/A"
    }
],
"@odata.context":
"/redfish/v1/$metadata#Chassis/Members/$entity/Thermal"
}

```

Establishing a Session

Request:

```

curl -XPOST https://10.10.10.10/redfish/v1/SessionService/Sessions --header 'Content-Type:
application/json; charset=utf-8' -d{"Username": "admin", "Password": "password123"}'
-insecure -v
> POST /redfish/v1/SessionService/Sessions https/1.1
> User-Agent: curl/7.19.7 (i386-redhat-linux-gnu) libcurl/7.19.7
NSS/3.14.0.0 zlib/1.2.3 libidn/1.18 libssh2/1.4.2
> Host: 10.10.10.10
> Accept: */*
> Content-Type: application/json; charset=utf-8
> Content-Length: 46
>

```

```
< https/1.1 200 OK
< Server: Monkey
< Date: Wed, 24 Aug 2016 06:12:36 GMT
< Transfer-Encoding: Chunked
< X-Auth-Token: a81a53a75544d448d7544775d355840d
< Status: 201
< Content-Type: application/json
< Content-Length:143
<
{
  "@odata.id":"/redfish/v1/SessionService/Sessions/117",
  "Description":"Session of user: admin",
  "Name":"User Session #117",
  "Id":117
}
```

Accessing the Session Details

Request:

```
curl -GET https://10.10.10.10/redfish/v1/SessionService/Sessions --header 'Authorization:
OAuth
a81a53a75544d448d7544775d355840d' --insecure
{
  "Members":[{
    "@odata.id":"/redfish/v1/SessionService/Sessions/117"
  },{
    "@odata.id":"/redfish/v1/SessionService/Sessions/116"
  },{
    "@odata.id":"/redfish/v1/SessionService/Sessions/115"
  },{
    "@odata.id":"/redfish/v1/SessionService/Sessions/114"
  }],
  "@odata.type":"#SessionCollection.1.0.0.SessionCollection",
  "@odata.id":"/redfish/v1/SessionService/Sessions",
  "Name":"Session Collection",
  "Members@odata.count":4,
  "@odata.context":"/redfish/v1/$metadata#SessionService/Sessions"
}
```

Accessing Details of a Particular Session

Request:

```
curl -GET https://10.10.10.10/redfish/v1/SessionService/Sessions/117 --header 'Authorization:
OAuth
a81a53a75544d448d7544775d355840d' --insecure
{
  "Id":117,
  "Name":"User Session #117",
  "@odata.context":"/redfish/v1/$metadata#SessionService/Sessions/Member
s/$entity",
  "Oem":{
    "SessionType":"redfish",
    "RemoteIP":"10.10.10.10"
  },
  "@odata.type":"#Session.1.0.0",
  "UserName":"admin",
  "@odata.id":"/redfish/v1/SessionService/Sessions/117",
  "Description":"redfish session for user admin"
```

```
}
```

Adding User

Request:

```
curl -XPOST https://10.10.10.10/redfish/v1/AccountService/Accounts/5 -d
'{"UserName":"test5","Password":"Password123","RoleId":"admin","Enabled":"true"}' -u
admin:Admin123 --insecure -v
```

Deleting User

Request:

```
curl -XDELETE https://10.10.10.10/redfish/v1/AccountService/Accounts/5 -u admin:Admin123
--
insecure -v
```

Modifying User

Request:

```
curl -XPATCH https://10.10.10.10/redfish/v1/AccountService/Accounts/5 -d
'{"UserName":"test5","Password":"Password123","RoleId":"admin","Enabled":"false"}' -u
admin:Admin123 --insecure -v
{
  "Locked":false,
  "RoleId":"admin",
  "Id":"5",
  "Description":"User Account",
  "Enabled":false,
  "Name":"User Account",
  "UserName":"test5"
}
```

Powering Off a Server

Request:

```
curl -vv https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/Actions/System.Reset -d
'{"ResetType":"ForceOff"}' --insecure -u admin:Admin123
```

Powering On a Server

Request:

```
curl -vv https://10.10.10.10/redfish/v1/Systems
/FCH2005V1EN/Actions/System.Reset -d
'{"ResetType":"On"}' --insecure -u admin:Admin123
```

Clearing an SEL Log

Request:

```
curl -GET https://10.10.10.10/redfish/v1/Chassis/1
/LogServices/SEL/Actions/LogService.ClearLog -d '{}' -
u admin:Admin123 --insecure -v
```

Examples of Server Tasks for 3.1(3)

This chapter includes the following sections:

- [Examples of Updates from Previous Releases, on page 47](#)
- [Examples of New Additions in 3.1\(3\) Release, on page 55](#)

Examples of Updates from Previous Releases

This section includes the following updates to responses from previous releases:

- [Viewing Specific System Information, on page 47](#)
- [Retrieving Chassis, on page 49](#)
- [Retrieving Chassis Power Details, on page 50](#)
- [Retrieving Cisco IMC Information, on page 51](#)
- [Retrieving Details of a Specific SEL Entry, on page 53](#)
- [Retrieving Service Root without Authentication, on page 54](#)
- [Viewing User Accounts, on page 54](#)

Viewing Specific System Information

Response:

```
{
  "SerialNumber": "FCH1845V1X6",
  "Id": "FCH1845V1X6",
  "IndicatorLED": "Off",
  "PowerState": "On",
  "ProcessorSummary": {
    "Model": "Intel(R) Xeon(R) CPU E5-2695 v3 @ 2.30GHz",
    "Count": 2
  },
  "NetworkInterfaces": {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/NetworkInterfaces"
  },
  "Storage": {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage"
  },
  "BIOS": {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/BIOS"
  },
  "UUID": "C68B1C5B-C012-4C08-BACC-A45BFE15CC8F",
  "Name": "UCS C220 M4L",
  "@odata.type": "#Cisco_ComputerSystem",
  "Manufacturer": "Cisco Systems",
  "Actions": {
    "#ComputerSystem.Reset": {
```

```

        "target":"/redfish/v1/Systems/FCH1845V1X6/Actions/ComputerSystem.Reset",
        "ResetType@Redfish.AllowableValues":["On","ForceOff","GracefulShutdown",
"ForceRestart","Nmi","PowerCycle"]
    },
    },
    "EthernetInterfaces":{
        "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/EthernetInterfaces"
    },
    "Boot":{
        "BootSourceOverrideTarget":"None",

"BootSourceOverrideTarget@Redfish.AllowableValues":["None","Pxe","Floppy","Cd","Hdd","BiosSetup",
"Diags"],
        "BootSourceOverrideEnabled@Redfish.AllowableValues":["Once","Continuous","Disabled"],
        "BootSourceOverrideEnabled":"Disabled"
    },
    "@odata.id":"/redfish/v1/Systems/FCH1845V1X6",
    "AssetTag":"Unknown",
    "PCIEFunctions":[{"
        "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/PCIEFunctions/L"
    },{
        "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/PCIEFunctions/MLOM"
    },{
        "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/PCIEFunctions/HBA"
    }],
    "SystemType":"Physical",
    "BiosVersion":"C220M4.4.0.1b.0.0629181250",
    "HostName":"svbu-qa-blr-dn1-103-bmc",
    "MemorySummary":{
        "TotalSystemMemoryGiB":64,
        "State":{
            "HealthRollup":"OK",
            "Health":"OK"
        }
    },
    },
    "Processors":{
        "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/Processors"
    },
    "PCIEFunctions@odata.count":3,
    "Description":"",
    "SimpleStorage":{
        "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/SimpleStorage"
    },
    "PCIEDevices":[{"
        "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/PCIEDevices/L"
    },{
        "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/PCIEDevices/MLOM"
    },{
        "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/PCIEDevices/HBA"
    }],
    "Status":{
        "State":"Enabled",
        "Health":"Ok"
    },
    },
    "Links":{
        "CooledBy":["/redfish/v1/Chassis/1/Thermal"],
        "Chassis":["/redfish/v1/Chassis/1"],
        "PoweredBy":["/redfish/v1/Chassis/1/Power"],
        "ManagedBy":["/redfish/v1/Managers/CIMC"]
    },
    "SecureBoot":{
        "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/SecureBoot"
    },
    },
    "LogServices":{

```



```

    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/LogServices"
  },
  "Model": "UCS C220 M4L",
  "TrustedModules": {
    "InterfaceType": "TPM1_2",
    "InterfaceTypeSelection": "BiosSetting",
    "FirmwareVersion": "1.2",
    "Status": {
      "State": "Enabled",
      "Health": "OK"
    }
  },
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity",
  "Memory": {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Memory"
  },
  "PCIeDevices@odata.count": 3

```

Retrieving Chassis

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Chassis/1 | json_reformat
```

Response:

```

{
  "SerialNumber": "FCH2005V1EN",
  "NetworkAdapter": {
    "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter"
  },
  "@odata.id": "/redfish/v1/Chassis/1",
  "WeightKg": 24,
  "AssetTag": "TEST REDFISH123",
  "PowerState": "On",
  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity",
  "ChassisType": "Rack",
  "DepthMm": 766,
  "Description": "It represents the properties for physical components for any system. This one object is intended to represent racks, rackmount servers, blades, standalone, modular systems, enclosures, and all other containers. The non-cpu/device centric parts of the schema are all accessed either directly or indirectly through this resource",
  "Thermal": {
    "@odata.id": "/redfish/v1/Chassis/1/Thermal"
  },
  "Links": {
    "Drives": [
      "/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA/Drives/PD-1",
      "/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA/Drives/PD-2",
      "/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA/Drives/PD-3",
      "/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA/Drives/PD-4",
      "/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA/Drives/PD-5",
      "/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA/Drives/PD-6",
      "/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA/Drives/PD-7",
      "/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA/Drives/PD-8",
      "/redfish/v1/Systems/FCH2005V1EN/Storage/FlexFlash-0/Drives/SLOT-1",
      "/redfish/v1/Systems/FCH2005V1EN/Storage/FlexFlash-0/Drives/SLOT-2"
    ],
    "CooledBy": [

```

```

        "/redfish/v1/Chassis/1/Thermal"
    ],
    "ComputerSystems": [
        "/redfish/v1/Systems/FCH2005V1EN"
    ],
    "PCIeDevices": [
        "/redfish/v1/Systems/FCH2005V1EN/PCIeDevice/L",
        "/redfish/v1/Systems/FCH2005V1EN/PCIeDevice/MLOM",
        "/redfish/v1/Systems/FCH2005V1EN/PCIeDevice/HBA"
    ],
    "Storage": [
        "/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA",
        "/redfish/v1/Systems/FCH2005V1EN/Storage/FlexFlash-0"
    ],
    "PoweredBy": [
        "/redfish/v1/Chassis/1/Power"
    ],
    "ManagedBy": [
        "/redfish/v1/Managers/CIMC"
    ]
},
"Status": {
    "State": "Enabled",
    "Health": "OK"
},
"LogServices": {
    "@odata.id": "/redfish/v1/Chassis/1/LogServices"
},
"Name": "Computer System Chassis",
"HeightMm": 87,
"Power": {
    "@odata.id": "/redfish/v1/Chassis/1/Power"
},
"WidthMm": 482,
"@odata.type": "#Chassis.1.0.0.Chassis",
"Actions": {
    "#Chassis.Reset": {
        "Target": "/redfish/v1/Chassis/1/Actions/Chassis.Reset",
        "ResetType@Redfish.AllowableValues": [
            "On",
            "ForceOff"
        ]
    }
},
"Manufacturer": "Cisco Systems Inc.",
"IndicatorLED": "Off",
"Model": "UCS C240 M4S",
"Id": "1"
}

```

Retrieving Chassis Power Details

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Chassis/1/Power | json_reformat
```

Response:

```

<SNIP>
"PowerControl": {
    "PhysicalContext": "PowerSupply",

```

```

    "PowerConsumedWatts": "184",
    "PowerMetric": {
      "IntervalInMin": 0.0833,
      "MinConsumedWatts": "182",
      "AverageConsumedWatts": "187",
      "MaxConsumedWatts": "197"
    }
  },
  "PowerSupplies": [
    {
      "SerialNumber": "DCH2012T0SR",
      "FirmwareVersion": "10031006",
      "@odata.id": "/redfish/v1/Chassis/1/Power#/PowerSupplies/PSU1",
      "Status": {
        "state": "Enabled"
      },
      "LineInputVoltage": "230",
      "Name": "PSU1",
      "InputRanges": [
        {
          "InputType": "AC",
          "OutputWattage": 800,
          "MaximumFrequencyHz": 63,
          "MaximumVoltage": 140,
          "MinimumVoltage": 90,
          "MinimumFrequencyHz": 47
        },
        {
          "MinimumVoltage": 180,
          "MaximumFrequencyHz": 63,
          "MaximumVoltage": 264,
          "OutputWattage": 1200,
          "InputType": "AC",
          "MinimumFrequencyHz": 47
        }
      ],
      "Manufacturer": "Cisco Systems Inc",
      "MemberID": 1,
      "LastPowerOutputWatts": "168",
      "SparePartNumber": "341-0631-01",
      "PartNumber": "341-0631-01",
      "PowerSupplyType": "AC",
      "Model": "DPST-1200DB A",
      "LineInputVoltageType": "AC"
    }
  ]
}

```

Retrieving Cisco IMC Information

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Managers/CIMC
```

Response:

```

{
  "DateTimeLocalOffset": "UTC+0000",
  "Id": "CIMC",
  "Links": {
    "ManagerForChassis": ["/redfish/v1/Chassis/1"],
    "ManagerForServers": ["/redfish/v1/Systems/WZP21080FBD"],
    "ManagerInChassis": ["/redfish/v1/Chassis/1"]
  }
}

```

```

},
"ManagerType": "CIMC",
"@odata.context": "/redfish/v1/$metadata#Managers/Members/$entity",
"@odata.id": "/redfish/v1/Managers/CIMC",
"VirtualMedia": {
  "@odata.id": "/redfish/v1/Managers/CIMC/VirtualMedia"
},
"Description": "",
"LogServices": {
  "@odata.id": "/redfish/v1/Managers/CIMC/LogServices"
},
"SerialInterfaces": {
  "@odata.id": "/redfish/v1/Managers/CIMC/SerialInterfaces"
},
"FirmwareVersion": "3.1(2.257)",
"UUID": "5C67BE5B-DA03-4067-A9DD-1DC9128A8E18",
"Status": {
  "State": "Enabled",
  "Health": "OK"
},
"ManagerNetworkProtocol": {
  "@odata.id": "/redfish/v1/Managers/CIMC/ManagerNetworkProtocol"
},
"Name": "Cisco Integrated Management Controller",
"Actions": {
  "#Oem.ImportBmcConfig": {
    "Protocol@Redfish.AllowableValues": ["TFTP", "SCP", "SFTP", "FTP", "HTTP"],
    "Passphrase@Redfish.AllowableValues": ["Passphrase"],
    "RemoteUsername@Redfish.AllowableValues": ["Remote Server Username"],
    "RemotePath@Redfish.AllowableValues": ["Valid Remote Share Path"],
    "RemoteHostname@Redfish.AllowableValues": ["Valid Hostname/IP Address"],
    "Target": "/redfish/v1/Managers/CIMC/Actions/Oem.ImportBmcConfig",
    "RemotePassword@Redfish.AllowableValues": ["Remote Server Password"]
  },
  "#Oem.BmcFwUpdate": {
    "Protocol@Redfish.AllowableValues": ["TFTP", "SCP", "SFTP", "FTP", "HTTP"],
    "Target": "/redfish/v1/Managers/CIMC/Actions/Oem.BmcFwUpdate",
    "RemoteUsername@Redfish.AllowableValues": ["Remote Server Username"],
    "RemotePath@Redfish.AllowableValues": ["Valid Remote Share Path"],
    "RemoteHostname@Redfish.AllowableValues": ["Valid Hostname/IP Address"],
    "RemotePassword@Redfish.AllowableValues": ["Remote Server Password"]
  },
  "#Manager.Reset": {
    "Target": "/redfish/v1/Managers/CIMC/Actions/Manager.Reset",
    "ResetType@Redfish.AllowableValues": ["ForceRestart"]
  },
  "#Oem.BiosFwUpdate": {
    "Protocol@Redfish.AllowableValues": ["TFTP", "SCP", "SFTP", "FTP", "HTTP"],
    "Target": "/redfish/v1/Managers/CIMC/Actions/Oem.BiosFwUpdate",
    "RemoteUsername@Redfish.AllowableValues": ["Remote Server Username"],
    "RemotePath@Redfish.AllowableValues": ["Valid Remote Share Path"],
    "RemoteHostname@Redfish.AllowableValues": ["Valid Hostname/IP Address"],
    "RemotePassword@Redfish.AllowableValues": ["Remote Server Password"]
  },
  "#Oem.ExportBmcConfig": {
    "Protocol@Redfish.AllowableValues": ["TFTP", "SCP", "SFTP", "FTP", "HTTP"],
    "Passphrase@Redfish.AllowableValues": ["Passphrase"],
    "RemoteUsername@Redfish.AllowableValues": ["Remote Server Username"],
    "RemotePath@Redfish.AllowableValues": ["Valid Remote Share Path"],
    "RemoteHostname@Redfish.AllowableValues": ["Valid Hostname/IP Address"],
    "Target": "/redfish/v1/Managers/CIMC/Actions/Oem.ExportBmcConfig",
    "RemotePassword@Redfish.AllowableValues": ["Remote Server Password"]
  },
  "#Oem.BmcTechSupportExport": {

```

```

        "Protocol@Redfish.AllowableValues":["TFTP","SCP","SFTP","FTP","HTTP"],
        "Target":"/redfish/v1/Managers/CIMC/Actions/Oem.BmcTechSupportExport",
        "RemoteUsername@Redfish.AllowableValues":["Remote Server Username"],
        "RemotePath@Redfish.AllowableValues":["Valid Remote Share Path"],
        "RemoteHostname@Redfish.AllowableValues":["Valid Hostname/IP Address"],
        "RemotePassword@Redfish.AllowableValues":["Remote Server Password"]
    }
},
"ServiceEntryPointUUID":"5C67BE5B-DA03-4067-A9DD-1DC9128A8E18",
"DateTime":"Sat Jan 20 18:26:34 2018",
"@odata.type":"#Manager.1.0.0.Manager",
"GraphicalConsole":{
    "MaxConcurrentSessions":4,
    "ConnectTypesSupported":["KVMIP","WebUI"],
    "ServiceEnabled":false
},
"CommandShell":{
    "MaxConcurrentSessions":4,
    "ConnectTypesSupported":["SSH","IPMI","XML API"],
    "ServiceEnabled":true
},
"SerialConsole":{
    "MaxConcurrentSessions":4,
    "ConnectTypesSupported":["SSH","IPMI","XML API"],
    "ServiceEnabled":true
},
"Model":"UCSC-C220-M5SX",
"EthernetInterfaces":{
    "@odata.id":"/redfish/v1/Managers/CIMC/EthernetInterfaces"
}
}
}

```

Retrieving Details of a Specific SEL Entry

Request:

```
curl -k -u admin:xxxx https://10.10.10.10/redfish/v1/Managers/CIMC/LogServices/SEL/Entries/1
```

Response:

```

{
    "EntryCode":"State Asserted",
    "EventTimestamp":"2018-07-17 23:38:32 ",
    "Id":"1",
    "EntryType":"SEL",
    "Name":"Log Entry 1",

"@odata.context":"/redfish/v1/$metadata#Managers/Members/$entity/LogServices/Members/$entity/Entries/Members/$entity",

    "EventType":"StatusChange",
    "@odata.type":"#LogEntry.1.0.0",
    "EventId":"1",
    "Message":"FRU_RAM SEL_FULLNESS: Event Log sensor for FRU_RAM, Log Area Reset/Cleared was asserted",
    "Description":"Log Entry 1",
    "Severity":"Normal",
    "@odata.id":"/redfish/v1/Managers/CIMC/LogServices/SEL/Entries/1",
    "Created":"2018-07-17 23:38:32 "
}

```

Retrieving Service Root without Authentication

Response:

```
{
  "Chassis":{
    "@odata.id":"/redfish/v1/Chassis"
  },
  "@odata.id":"/redfish/v1/",
  "JSONSchemas":{
    "@odata.id":"/redfish/v1/JSONSchemas"
  },
  "RedfishVersion":"1.2.0",
  "EventService":{
    "@odata.id":"/redfish/v1/EventService"
  },
  "Systems":{
    "@odata.id":"/redfish/v1/Systems"
  },
  "UpdateService":{
    "@odata.id":"/redfish/v1/UpdateService"
  },
  "Links":{
    "Sessions":{
      "@odata.id":"/redfish/v1/SessionService/Sessions"
    }
  },
  "Name":"Cisco RESTful Root Service",
  "Description":"Root Service",
  "TaskService":{
    "@odata.id":"/redfish/v1/TaskService"
  },
  "MessageRegistry":{
    "@odata.id":"/redfish/v1/MessageRegistry"
  },
  "@odata.type":"#ServiceRoot.1.2.0.ServiceRoot",
  "SessionService":{
    "@odata.id":"/redfish/v1/SessionService"
  },
  "@odata.context":"/redfish/v1/$metadata#ServiceRoot",
  "Managers":{
    "@odata.id":"/redfish/v1/Managers"
  },
  "AccountService":{
    "@odata.id":"/redfish/v1/AccountService"
  },
  "Id":"RootService"
}
```

Viewing User Accounts

Response:

```
{
  "Accounts":{
    "@odata.id":"/redfish/v1/AccountService/Accounts"
  },
  "AccountLockoutThreshold":0,
  "Id":"AccountService",
  "AccountLockoutDuration":0,
  "MaxPasswordLength":20,
  "MinPasswordLength":8,
  "AccountLockoutCounterResetAfter":0,
  "Description":"Account Service",
}
```

```
"PrivilegeMap":{
  "@odata.id":"/redfish/v1/AccountService/PrivilegeMap"
},
"Name":"Account Service",
"Roles":{
  "@odata.id":"/redfish/v1/AccountService/Roles"
},
"@odata.type":"#AccountService.1.0.0",
"ServiceEnabled":true,
"AuthFailureLoggingThreshold":0,
"@odata.id":"/redfish/v1/AccountService",
"@odata.context":"/redfish/v1/$metadata#AccountService"
}
```

Examples of New Additions in 3.1(3) Release

This section includes the following examples on how to use the REST API to perform common server tasks for 3.1(3) release:

- [Retrieving Cisco IMC Managers Ethernet Interfaces and NICS, on page 56](#)
- [Retrieving Cisco IMC Log Entries, on page 57](#)
- [Retrieving BIOS Tokens, on page 58](#)
- [Configuring BIOS Tokens, on page 60](#)
- [Resetting BIOS Action, on page 62](#)
- [Retrieving Storage Collection, on page 62](#)
- [Retrieving Individual Storage Controller, on page 62](#)
- [Retrieving Individual Drives, on page 63](#)
- [Performing SecureErase on Drives, on page 64](#)
- [Retrieving Volumes, on page 64](#)
- [Retrieving Individual Volumes, on page 65](#)
- [Performing Initialize Action on Volumes, on page 65](#)
- [Performing SetEncryptionKey Action on Storage Controller, on page 66](#)
- [Retrieving FlexFlash Storage Information, on page 66](#)
- [Getting DHCP and NTP in ManagerNetworkProtocol, on page 67](#)
- [Retrieving Memory Collection, on page 67](#)
- [Retrieving Individual DIMM, on page 68](#)
- [Retrieving Network Adapter Collection, on page 69](#)
- [Retrieving Network Adapter, on page 69](#)
- [Performing Reset Settings to Default Action on Network Adapter, on page 70](#)
- [Retrieving Network Device Function Collection, on page 70](#)
- [Retrieving Network Device Function, on page 71](#)

- [Retrieving Network Ports Collection, on page 72](#)
- [Retrieving Network Ports, on page 72](#)
- [Retrieving Update Service, on page 72](#)
- [Retrieving Firmware Inventory, on page 73](#)
- [Retrieving Software Inventory, on page 73](#)
- [Retrieving Network Interface in System, on page 74](#)
- [Retrieving Individual Network Interface, on page 74](#)
- [Retrieving Secure Boot, on page 75](#)
- [Configuring Secure Boot, on page 75](#)
- [Configuring Port and Protocol Enabled in Manager Network Protocol, on page 75](#)
- [Retrieving PCIe Devices, on page 76](#)
- [Retrieving PCIe Functions, on page 77](#)
- [Retrieving Privilege Map, on page 77](#)

Retrieving Cisco IMC Managers Ethernet Interfaces and NICS

Request:

```
curl -k -u admin:xxxx https://10.10.10.10/redfish/v1/Managers/CIMC/EthernetInterfaces/NICS
```

Response:

```
{
  "FQDN": "svbu-qa-blr-dn1-103-bmc",
  "IPv6DefaultGateway": ":::",
  "Id": "NICs",
  "NameServers": ["171.70.168.183", "171.68.226.120"],
  "AutoNeg": true,
  "@odata.context": "/redfish/v1/$metadata#Managers/Members/$entity/EthernetInterfaces/Members/$entity",
  "SpeedMbps": "10",
  "HostName": "svbu-qa-blr-dn1-103-bmc",
  "IPv6Addresses": {
    "Address": ":::",
    "PrefixLength": "64",
    "AddressOrigin": "Static"
  },
  "FullDuplex": true,
  "IPv4Addresses": {
    "Gateway": "10.225.78.1",
    "Address": "10.225.78.210",
    "SubnetMask": "255.255.255.0",
    "AddressOrigin": "Static"
  },
  "VLAN": {
    "VLANId": 1,
    "VLANEnable": false
  },
  "InterfaceEnabled": true,
  "MACAddress": "A0:EC:F9:CD:BB:28",
}
```



```

    "Name": "Manager Ethernet Interface",
    "Links": {
      "Chassis": ["/redfish/v1/Chassis/1"]
    },
    "@odata.id": "/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs",
    "@odata.type": "#EthernetInterface.1.0.0",
    "MaxIPv6StaticAddresses": 1,
    "MTUSize": 1500,
    "Description": "Manager Network Interface",
    "PermanentMACAddress": "A0:EC:F9:CD:BB:28",
    "IPv6StaticAddresses": {
      "PrefixLength": "64",
      "Address": ":::"
    }
  }
}

```

Retrieving Cisco IMC Log Entries

Request:

```
curl -k -u admin:xxxx https://10.10.10.10/redfish/v1/Managers/CIMC/LogServices/CIMC/Entries
```

Response:

```

{
  "Members": [
    {
      "EventTimestamp": "2019 May  3 11:29:45 UTC",
      "Id": 1,
      "EntryType": "CIMC",
      "Name": "Log Entry 1",
      "EventType": "Alert",
      "EventId": 1,
      "Message": " pam_ldap_manager(redfish:auth): Start ----->\n",
      "Description": "Log Entry 1",
      "Severity": "Informational",
      "@odata.id": "/redfish/v1/Managers/CIMC/LogServices/CIMC/Entries/1",
      "Created": "2019 May  3 11:29:45 UTC"
    },
    {
      "EventTimestamp": "2019 May  3 11:29:41 UTC",
      "Id": 2,
      "EntryType": "CIMC",
      "Name": "Log Entry 2",
      "EventType": "Alert",
      "EventId": 2,
      "Message": " CIMC log cleared by User:admin from Interface:webgui\n",
      "Description": "Log Entry 2",
      "Severity": "Notice",
      "@odata.id": "/redfish/v1/Managers/CIMC/LogServices/CIMC/Entries/2",
      "Created": "2019 May  3 11:29:41 UTC"
    },
    {
      "EventTimestamp": "2019 May  3 11:29:41 UTC",
      "Id": 3,
      "EntryType": "CIMC",
      "Name": "Log Entry 3",
      "EventType": "Alert",
      "EventId": 3,
      "Message": " obj/../../src/LogAgent.cc:956:CIMC log clear\n",
      "Description": "Log Entry 3",
      "Severity": "Notice",
      "@odata.id": "/redfish/v1/Managers/CIMC/LogServices/CIMC/Entries/3",
      "Created": "2019 May  3 11:29:41 UTC"
    }
  ],
}

```

```

"@odata.count":3,
"@odata.id":"/redfish/v1/Managers/CIMC/LogServices/CIMC/Entries",
"@odata.type":"#LogEntry.1.0.0.LogEntryCollection",
"Members@odata.count":3,

"@odata.context":"/redfish/v1/$metadata#Managers/Members/$entity/LogServices/Members/$entity/Entries"
}

```

Request:

```
curl -k -u admin:xxxx https://10.10.10.10/redfish/v1/Managers/CIMC/LogServices/CIMC/Entries/1
```

Response:

```

{
  "EventTimestamp":"2019 May  3 11:29:45 UTC",
  "Id":"1",
  "EntryType":"CIMC",
  "Name":"Log Entry 1",

  "@odata.context":"/redfish/v1/$metadata#Managers/Members/$entity/LogServices/Members/$entity/Entries/Members/$entity",
  "EventType":"Alert",
  "@odata.type":"#LogEntry.1.0.0",
  "EventId":"1",
  "Message":" pam_ldap_manager(redfish:auth): Start ----->\n",
  "Description":"Log Entry 1",
  "Severity":"Informational",
  "@odata.id":"/redfish/v1/Managers/CIMC/LogServices/CIMC/Entries/1",
  "Created":"2019 May  3 11:29:45 UTC"
}

```

Retrieving BIOS Tokens

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/BIOS
```

Response:

```

{
  "Id":"BiosToken",
  "Name":"BiosToken",
  "@odata.context":"/redfish/v1/$metadata#Systems/Members/$entity/BIOS",
  "@odata.type":"#Cisco_BiosToken",
  "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/BIOS",
  "Attributes":{
    "IntelVT":"Enabled",
    "PcieSlotRiser1LinkSpeed":"GEN3",
    "AllLomPortControl":"Enabled",
    "NUMAOptimize":"Enabled",
    "PchUsb30Mode":"Disabled",
    "cdnEnable":"Disabled",
    "EnhancedIntelSpeedStep":"Enabled",
    "LegacyUSBSupport":"Enabled",
    "PcieSlotMLOMLinkSpeed":"GEN3",
    "QPILinkFrequency":"Auto",
    "UsbPortRear":"Enabled",
    "IntelHyperThread":"Enabled",
    "SrIov":"Enabled",

```

```
"PCIROMCLP":"Disabled",
"SelectMemoryRAS":"Maximum Performance",
"CoherencySupport":"Disabled",
"PcieOptionROMs":"Enabled",
"RedirectionAfterPOST":"Always Enable",
"TPMAdminCtrl":"Enabled",
"UsbEmul6064":"Enabled",
"FlowCtrl":"None",
"PuttyFunctionKeyPad":"ESCN",
"PwrPerfTuning":"OS",
"PatrolScrub":"Enabled",
"BootPerformanceMode":"Max Performance",
"CPUPowerManagement":"Performance",
"PcieSlot1OptionROM":"Enabled",
"CpuPerformanceProfile":"Enterprise",
"PsdCoordType":"HW ALL",
"ProcessorC3Report":"Disabled",
"OSBootWatchdogTimerTimeout":"10 mins",
"PcieSlotRiser2LinkSpeed":"GEN3",
"PcieSlotN2OptionROM":"Enabled",
"HardwarePrefetch":"Enabled",
"OSBootWatchdogTimerPolicy":"Power Down",
"AllUsbDevices":"Enabled",
"FRB-2":"Enabled",
"UsbPortInt":"Enabled",
"comSpcrEnable":"Disabled",
"PcieSlotHBAlinkSpeed":"GEN3",
"WorkLdConfig":"Balanced",
"ConsoleRedir":"COM 0",
"RankInterLeave":"Auto",
"POPSupport":"Disabled",
"UsbXhciSupport":"Enabled",
"SataModeSelect":"AHCI",
"UsbPortKVM":"Enabled",
"ProcessorC1E":"Enabled",
"UsbPortFront":"Enabled",
"AdjacentCacheLinePrefetch":"Enabled",
"TerminalType":"VT100",
"BaudRate":"115200",
"MemoryMappedIOAbove4GB":"Enabled",
"CpuEngPerfBias":"Balanced Performance",
"PassThroughDMA":"Disabled",
"LomOpromControlPort0":"Enabled",
"UsbPortVMedia":"Enabled",
"QpiSnoopMode":"Auto",
"HWPMEEnable":"Disabled",
"DcuIpPrefetch":"Enabled",
"PcieSlotMLOMOptionROM":"Enabled",
"InterruptRemap":"Enabled",
"DemandScrub":"Enabled",
"DirectCacheAccess":"Auto",
"CmciEnable":"Enabled",
"AutonomousCstateEnable":"Disabled",
"ChannelInterLeave":"Auto",
"IntelTurboBoostTech":"Enabled",
"PcieSlotN1OptionROM":"Enabled",
"IntelVTD":"Enabled",
"ATS":"Enabled",
"ExecuteDisable":"Enabled",
"DcuStreamerPrefetch":"Enabled",
"PCIESSDHotPlugSupport":"Disabled",
"PcieSlot2OptionROM":"Enabled",
"LomOpromControlPort1":"Enabled",
"CoreMultiProcessing":"All",
```

```

    "VgaPriority": "Onboard",
    "PackageCstateLimit": "C0/C1",
    "LocalX2Apic": "XAPIC",
    "PcieSlotFrontSlot6LinkSpeed": "Auto",
    "Altitude": "300 M",
    "PcieSlotFrontSlot5LinkSpeed": "Auto",
    "PcieSlotHBAOptionROM": "Enabled",
    "OSBootWatchdogTimer": "Disabled",
    "ProcessorC6Report": "Enabled"
  },
  "Actions": {
    "#Bios.ResetBios": {
      "target": "/redfish/v1/Systems/FCH1845V1X6/BIOS/Actions/Bios.ResetBios"
    }
  },
  "Description": "BIOS Configuration Current Settings"
}

```

Configuring BIOS Tokens

Request:

```

curl -XPATCH -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/BIOS
-d '{
  "TPMAdminCtrl": "Disabled", "SelectMemoryRAS": "Mirroring" }'

```

Response:

```

{
  "Id": "BiosToken",
  "Status": {
    "State": "Enabled",
    "Health": "OK"
  },
  "Attributes": {
    "TPMAdminCtrl": "Disabled",
    "POPSupport": "Disabled",
    "OSBootWatchdogTimerPolicy": "Power Down",
    "OSBootWatchdogTimerTimeout": "15 mins",
    "FRB-2": "Enabled",
    "OSBootWatchdogTimer": "Enabled",
    "IntelVT": "Enabled",
    "AllLomPortControl": "Enabled",
    "NUMAOptimize": "Enabled",
    "PchUsb30Mode": "Disabled",
    "cdnEnable": "Disabled",
    "CmciEnable": "Disabled",
    "LegacyUSBSupport": "Enabled",
    "PcieSlotHBAOptionROM": "Enabled",
    "PcieSlot5OptionROM": "Disabled",
    "QPILinkFrequency": "Auto",
    "UsbPortRear": "Enabled",
    "IntelHyperThread": "Disabled",
    "Sriov": "Enabled",
    "PCIROMCLP": "Disabled",
    "SelectMemoryRAS": "Mirroring",
    "DirectCacheAccess": "Enabled",
    "PcieOptionROMs": "Enabled",
    "RedirectionAfterPOST": "Always Enable",
    "UsbEmul6064": "Enabled",
    "FlowCtrl": "None",
  }
}

```

```

"PcieSlotN1OptionROM":"Disabled",
"PwrPerfTuning":"OS",
"PatrolScrub":"Enabled",
"BootPerformanceMode":"Max Performance",
"CPUPowerManagement":"Energy Efficient",
"PcieSlot1OptionROM":"Disabled",
"CpuPerformanceProfile":"Enterprise",
"PsdCoordType":"HW ALL",
"ProcessorC3Report":"Disabled",
"comSpcrEnable":"Disabled",
"WorkLdConfig":"Balanced",
"PcieSlot2OptionROM":"Disabled",
"UsbXhciSupport":"Enabled",
"UsbPortVMedia":"Enabled",
"PcieSlotN2OptionROM":"Disabled",
"ATS":"Enabled",
"UsbPortKVM":"Enabled",
"AllUsbDevices":"Enabled",
"UsbPortFront":"Enabled",
"UsbPortInt":"Enabled",
"TerminalType":"VT100",
"PcieSlotHBAlinkSpeed":"GEN3",
"SataModeSelect":"AHCI",
"PcieSlot4OptionROM":"Disabled",
"PcieSlotSSDSlot2LinkSpeed":"GEN3",
"IntelTurboBoostTech":"Enabled",
"RankInterLeave":"Auto",
"QpiSnoopMode":"Home Snoop",
"PuttyFunctionKeyPad":"ESCN",
"ProcessorC1E":"Enabled",
"ProcessorC6Report":"Enabled",
"AdjacentCacheLinePrefetch":"Enabled",
"PcieSlotRiser1Slot3LinkSpeed":"Auto",
"BaudRate":"115200",
"MemoryMappedIOAbove4GB":"Enabled",
"CpuEngPerfBias":"Performance",
"PassThroughDMA":"Disabled",
"LomOpromControlPort0":"Enabled",
"PcieSlot6OptionROM":"Disabled",
"DcuIpPrefetch":"Enabled",
"HWPMEEnable":"Disabled",
"DemandScrub":"Enabled",
"PcieSlotMLOMOptionROM":"Enabled",
"InterruptRemap":"Enabled",
"HardwarePrefetch":"Enabled",
"PcieSlotRiser2Slot4LinkSpeed":"GEN3",
"LocalX2Apic":"XAPIC",
"ChannelInterLeave":"Auto",
"ConsoleRedir":"COM 0",
"PcieSlotFLOMLinkSpeed":"GEN3",
"CoherencySupport":"Disabled",
"IntelVTD":"Disabled",
"DcuStreamerPrefetch":"Enabled",
"ExecuteDisable":"Enabled",
"LomOpromControlPort1":"Enabled",
"PCIeSSDHotPlugSupport":"Disabled",
"PackageCstateLimit":"C6 Retention",
"CoreMultiProcessing":"All",
"PcieSlotRiser1Slot1LinkSpeed":"GEN3",
"VgaPriority":"Onboard",
"Altitude":"300 M",
"AutonomousCstateEnable":"Disabled",
"PcieSlotSSDSlot1LinkSpeed":"GEN3",
"EnhancedIntelSpeedStep":"Enabled",

```

```

        "PcieSlotRiser2Slot6LinkSpeed": "GEN3",
        "PcieSlot3OptionROM": "Disabled",
        "PcieSlotRiser1Slot2LinkSpeed": "GEN3",
        "PcieSlotRiser2Slot5LinkSpeed": "GEN3"
    }
},
{
    "Name": "BiosToken",
    "Description": "BIOS Configuration Current Settings"
}
}

```

Resetting BIOS Action

Request:

```

curl -XPOST -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/BIOS/Actions/Bios.ResetBios -d '{}'

```

Retrieving Storage Collection

Request:

```

curl -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/Storage

```

Response:

```

{
  "Members": [
    {
      "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA"
    },
    {
      "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/FlexFlash-0"
    }
  ],
  "Description": "Collection of storage resource instances for this system",
  "@odata.type": "#Cisco_StorageCollection",
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/Storage",
  "Members@odata.count": 2,
  "Name": "Storage Collection",
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Storage"
}

```

Retrieving Individual Storage Controller

Request:

```

curl -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA

```

Response:

```

{
  "Drives": [
    {
      "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Drives/PD-1"
    },
    {
      "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Drives/PD-2"
    },
    {
      "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Drives/PD-3"
    },
    {
      "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Drives/PD-4"
    }
  ]
}

```

```

    }},
    "Links":{
      "Enclosures":["/redfish/v1/Chassis/1"]
    },
    "@odata.type":"#Cisco_Storage",
    "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA",
    "Volumes":{
      "@odata.id":"/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Volumes"
    },
    "StorageControllers":{
      "SerialNumber":"SV43929084",
      "SupportedDeviceProtocols":"SATA, SAS, NVMe",
      "SupportedControllerProtocols":"PCIe",
      "Status":{
        "State":"Enabled",
        "Health":"OK",
        "HealthRollup":"OK"
      },
      "Name":"Cisco 12G SAS Modular Raid Controller",
      "MemberId":"RAID",
      "Manufacturer":"LSI Logic",
      "Model":"Cisco 12G SAS Modular Raid Controller",
      "FirmwareVersion":"4.620.00-7309"
    },
    "Actions":{
      "#Storage.SetEncryptionKey":{
        "SecurityKey@Redfish.AllowableValues":["Security Key"],
        "target":"/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Actions/Storage.SetEncryptionKey",
        "SecurityKeyId@Redfish.AllowableValues":["Security Key Identifier"]
      }
    },
    "@odata.context":"/redfish/v1/$metadata#Systems/Members/$entity/Storage/Members/$entity"
  }
}

```

Retrieving Individual Drives

Request:

```
curl -k -u admin:password
https://10.10.10.10/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Drives/PD-1
```

Response:

```

{
  "SerialNumber":"Z1W2Q2J20000W502J4QN",
  "Id":"PD-1",
  "IndicatorLED":"Off",
  "@odata.context":"/redfish/v1/$metadata#Systems/Members/$entity/Storage/Members/$entity/Drives/Members/$entity",
  "CapableSpeedGbs":"6.0",
  "Location":"SLOT-1",
  "StatusIndicator":"OK",
  "MediaType":"HDD",
  "Actions":{
    "#Drive.SecureErase":{
      "target":"/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Drives/PD-1/Actions/Drive.SecureErase"
    }
  }
}

```

```

    }
  },
  "@odata.type": "#Cisco_Drives",
  "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Drives/PD-1",
  "Links": {
    "Volumes": [ {
      "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Volumes/VD-0"
    } ],
    "Volumes@odata.count": 1,
    "Chassis": "/redfish/v1/Chassis"
  },
  "BlockSizeBytes": 512,
  "Status": {
    "State": "Enabled",
    "Health": "OK"
  },
  "Protocol": "SAS",
  "Name": "PD-1",
  "EncryptionStatus": "Unencrypted",
  "Revision": "0003",
  "EncryptionAbility": "None",
  "CapacityBytes": 1000204140544,
  "HotspareType": "None",
  "Manufacturer": "SEAGATE",
  "PredictedMediaLifeLeftPercent": "0",
  "Model": "ST1000NM0023",
  "FailurePredicted": "false"
}

```

Performing SecureErase on Drives

Request:

```

curl -XPOST -k -u admin:password
https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA/Drives/PD-8/Actions/Drive.SecureErase
-d '{}'

```

Response:

```

{
  "error": {
    "message": "Specified physical drive is not FDE capable",
    "code": "InternalError"
  }
}

```

Retrieving Volumes

Request:

```

curl -k -u admin:password
https://10.10.10.10/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Volumes

```

Response:

```

{
  "Members": [ {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Volumes/VD-0"
  } ],
}

```



```

    "Description": "Collection of Storage resource instances",
    "@odata.type": "#Cisco_VolumesCollection",
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Volumes",
    "Members@odata.count": 1,
    "Name": "Volumes Collection",

"@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Storage/Members/$entity/Volumes"
}

```

Retrieving Individual Volumes

Request:

```

curl -k -u admin:password
https://10.10.10.10/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Volumes/VD-0

```

Response:

```

{
  "Encrypted": "false",
  "Status": {
    "State": "Enabled",
    "Health": "OK"
  },
  "Operations": {
    "PercentageComplete": "0",
    "OperationName": "No operation in progress"
  },
  "Name": "",

"@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Storage/Members/$entity/Volumes/Members/$entity",

  "Actions": {
    "#Volume.Initialize": {

"target": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Volumes/VD-0/Actions/Volume.Initialize"

    }
  },
  "@odata.type": "#Cisco_Volumes",
  "CapacityBytes": 998999326720,
  "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Volumes/VD-0",
  "Links": {
    "Drives": [{
      "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Drives/PD-1"
    }, {
      "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Storage/SLOT-HBA/Drives/PD-2"
    }],
    "Drives@odata.count": 2
  },
  "Id": "0",
  "VolumeType": "Mirrored",
  "BlockSizeBytes": 65536
}

```

Performing Initialize Action on Volumes

Request:

```
curl -XPOST -k -u admin:password
https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA/Volumes/VD-0/Actions/
Volume.Initialize -d '{}'
```

Performing SetEncryptionKey Action on Storage Controller

Request:

```
curl -XPOST -k -u admin:password
https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/Storage/SLOT-HBA/Actions/Storage.SetEncryptionKey
-d'
{"SecurityKeyId":"abcd", "SecurityKey":"12345"}'
```

Retrieving FlexFlash Storage Information

Request:

```
curl -k -u admin:password
https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/Storage/FlexFlash-0
```

Response:

```
{
  "Drives": [{
    "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/Storage/FlexFlash-0/Drives/SLOT-1"
  }, {
    "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/Storage/FlexFlash-0/Drives/SLOT-2"
  }],
  "Links": {
    "Enclosures": ["/redfish/v1/Chassis/1"]
  },
  "@odata.type": "#Cisco_Storage",
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/Storage/FlexFlash-0",
  "Volumes": [],
  "StorageControllers": {
    "SupportedControllerProtocols": "USB",
    "MemberId": "FlexFlash",
    "Status": {
      "State": "Disabled",
      "Health": "OK",
      "HealthRollup": "OK"
    }
  },
  "Name": "Cisco FlexFlash",
  "FirmwareVersion": "1.3.2 build 169",
  "Model": "Cisco FlexFlash",
  "Manufacturer": "Cypress"
},
  "Actions": {
    "#Storage.SetEncryptionKey": {
      "SecurityKey@Redfish.AllowableValues": ["Security Key"],
      "SecurityKeyId@Redfish.AllowableValues": ["Security Key Identifier"]
    }
  },
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Storage/Members/$entity"
}
```

Getting DHCP and NTP in ManagerNetworkProtocol

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Managers/CIMC/ManagerNetworkProtocol
```

Response:

```
{
  "FQDN": "svbu-qa-blr-dn1-103-bmc",
  "SNMP": {
    "ProtocolEnabled": false,
    "Port": 161
  },
  "Id": "ManagerNetworkProtocol",
  "@odata.context": "/redfish/v1/$metadata#Managers/Members/$entity/ManagerNetworkProtocol",

  "HostName": "svbu-qa-blr-dn1-103-bmc",
  "VirtualMedia": {
    "ProtocolEnabled": true,
    "Port": 2068
  },
  "Description": "Manager Network Service",
  "KVMIP": {
    "ProtocolEnabled": true,
    "Port": 2068
  },
  "HTTP": {
    "ProtocolEnabled": true,
    "Port": 80
  },
  "DHCP": {
    "ProtocolEnabled": false,
    "Port": "null"
  },
  "HTTPS": {
    "ProtocolEnabled": true,
    "Port": 443
  },
  "SSH": {
    "ProtocolEnabled": true,
    "Port": 22
  },
  "@odata.type": "#ManagerNetworkProtocol.1.0.0",
  "IPMI": {
    "ProtocolEnabled": true,
    "Port": 623
  },
  "Name": "Manager Network Protocol",
  "@odata.id": "/redfish/v1/Managers/CIMC/ManagerNetworkProtocol",
  "NTP": {
    "ProtocolEnabled": false,
    "Port": 123,
    "NTPServers": [ " ", " ", " ", " ", " ", " " ]
  }
}
```

Retrieving Memory Collection

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH1845V1X6/Memory
```

Response:

```
{
  "Members": [{
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Memory/DIMM_A1"
  }, {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Memory/DIMM_A2"
  }, {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Memory/DIMM_B1"
  }, {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Memory/DIMM_B2"
  }, {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Memory/DIMM_C1"
  }, {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Memory/DIMM_C2"
  }, {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Memory/DIMM_D1"
  }, {
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Memory/DIMM_D2"
  }],
  "Description": "Collection of Memory resource instances for this system",
  "@odata.type": "#Cisco_ComputerMemoryCollection",
  "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Memory",
  "Members@odata.count": 8,
  "Name": "Memory Collection",
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Memory"
}
```

Retrieving Individual DIMM

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH1845V1X6/Memory/DIMM_A1
```

Response:

```
{
  "SerialNumber": "01E7998C",
  "MemoryDeviceType": "DDR4",
  "Id": "1",
  "Links": {
    "Chassis": ["/redfish/v1/Chassis/1"]
  },
  "MemoryMedia": "DRAM",
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Memory/Members/$entity",
  "PartNumber": "M393A1G40DB0-CPB",
  "CapacityMiB": "8192",
  "MemoryLocation": {
    "Channel": "0",
    "Slot": "0",
    "Socket": "0"
  },
  "MemoryType": "DRAM",
  "DeviceLocator": "DIMM_A1",
  "Name": "DIMM_A1",
  "@odata.type": "#Cisco_ComputerMemory",
  "DataWidthBits": "64",
}
```

```

    "Manufacturer": "0xCE00",
    "OperatingSpeedMhz": "2133",
    "Status": "Operable",
    "@odata.id": "/redfish/v1/Systems/FCH1845V1X6/Memory/DIMM_A1"
  }

```

Retrieving Network Adapter Collection

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Chassis/1/NetworkAdapter
```

Response:

```

{
  "Members": [
    {
      "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter/MLOM"
    }
  ],
  "Description": "Collection of NetworkAdapter resource instances for this system",
  "@odata.type": "#Cisco_NetworkAdapterCollection",
  "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter",
  "Members@odata.count": 1,
  "Name": "NetworkAdapter Collection",
  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/NetworkAdapter"
}

```

Retrieving Network Adapter

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Chassis/1/NetworkAdapter/MLOM
```

Response:

```

{
  "SerialNumber": "FCH18457F1M",
  "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter/MLOM",
  "NetworkPorts": {
    "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkPorts"
  },
  "Name": "Adapter Card MLOM",
  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/NetworkAdapter/Members/$entity",
  "NetworkDeviceFunctions": {
    "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions"
  },
  "Controllers": {
    "ControllerCapabilities": {
      "NetworkDeviceFunctionCount": 4,
      "NetworkPortCount": 2
    },
    "FirmwarePackageVersion": "4.3(1a)",
    "Links": {
      "NetworkPorts": [
        {
          "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkPorts/Port-0"
        }, {
          "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkPorts/Port-1"
        }
      ]
    }
  }
}

```

```

    "NetworkDeviceFunctions@odata.count":4,
    "NetworkDeviceFunctions":[{"@odata.id":"/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions/eth0"
    },{
      "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions/eth1"
    },{
      "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions/fc0"
    },{
      "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions/fc1"
    }],
    "NetworkPorts@odata.count":2
  }
},
"@odata.type":"#Cisco_NetworkAdapter",
"Actions":{"
  "#NetworkAdapter.ResetSettingsToDefault":{"
    "target":"/redfish/v1/Chassis/1/NetworkAdapter/MLOM/Actions/NetworkAdapter.ResetSettingsToDefault"
  }
},
"Manufacturer":"Cisco Systems Inc",
"PartNumber":"73-15890-03",
"Model":"UCS VIC 1227",
"Id":"UCSC-MLOM-CSC-02"
}

```

Performing Reset Settings to Default Action on Network Adapter

Request:

```

curl -XPOST -k -u admin:password https://10.10.10.10/redfish/v1/Chassis/1/NetworkAdapter/MLOM/Actions/NetworkAdapter.ResetSettingsToDefault -d '{}'

```

Retrieving Network Device Function Collection

Request:

```

curl -k -u admin:password https://10.10.10.10/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions

```

Response:

```

{
  "Members":[{"@odata.id":"/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions/eth0"
  },{
    "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions/eth1"
  },{
    "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions/fc0"
  },{
    "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions/fc1"
  }],
  "Description":"Collection of NetworkDeviceFunction resource instances for this system",
  "@odata.type":"#Cisco_NetworkDeviceFunctionCollection",
  "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions",
}

```

```

    "Members@odata.count":4,
    "Name":"NetworkDeviceFunction Collection",

"@odata.context":"/redfish/v1/$metadata#Chassis/Members/$entity/NetworkAdapter/Members/$entity/NetworkDeviceFunctions"
}

```

Retrieving Network Device Function

Request:

```

curl -k -u admin:password
https://10.10.10.10/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions/eth0

```

Response:

```

{
  "Ethernet":{
    "MTUSize":"1500",
    "MACAddress":"00:78:88:F0:94:C6"
  },
  "Id":"eth0",
  "Name":"eth0",

"@odata.context":"/redfish/v1/$metadata#Chassis/Members/$entity/NetworkAdapter/Members/$entity/NetworkDeviceFunctions/Members/$entity",

"@odata.type":"#Cisco_NetworkDeviceFunction",
  "FibreChannel":{
    "WWNSource":"ConfiguredLocally",
    "WWPN":"",
    "FCoELocalVLANId":"NONE",
    "BootTarget":{
      "BootPriority":"",
      "LUNID":"",
      "WWPN":""
    },
    "WWNN":""
  },
  "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkDeviceFunctions/eth0",
  "iSCSIBoot":{
    "IPAddressType":"",
    "SecondaryTargetName":"",
    "InitiatorDefaultGateway":"",
    "InitiatorIPAddress":"",
    "SecondaryLUN":"",
    "PrimaryTargetIPAddress":"",
    "PrimaryLUN":"",
    "SecondaryDNS":"",
    "AuthenticationMethod":"None",
    "InitiatorName":"",
    "PrimaryTargetName":"",
    "IPMaskDNSViaDHCP":true,
    "InitiatorNetmask":"",
    "PrimaryTargetTCPPort":"",
    "TargetInfoViaDHCP":false,
    "SecondaryTargetTCPPort":"",
    "SecondaryTargetIPAddress":"",
    "PrimaryDNS":""
  }
}

```

Retrieving Network Ports Collection

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkPorts
```

Response:

```
{
  "Members": [{
    "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkPorts/Port-0"
  }, {
    "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkPorts/Port-1"
  }],
  "Description": "Collection of NetworkPort resource instances for this system",
  "@odata.type": "#Cisco_NetworkPortCollection",
  "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkPorts",
  "Members@odata.count": 2,
  "Name": "NetworkPort Collection",

  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/NetworkAdapter/Members/$entity/NetworkPorts"
}
```

Retrieving Network Ports

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkPorts/Port-0
```

Response:

```
{
  "AssociatedNetworkAddresses": "00:78:88:F0:94:BA",
  "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapter/MLOM/NetworkPorts/Port-0",
  "Name": "Port-0",

  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/NetworkAdapter/Members/$entity/NetworkPorts/Members/$entity",

  "@odata.type": "#Cisco_NetworkPort",
  "LinkStatus": "Down",
  "Id": "0",
  "SupportedLinkCapabilities": {
    "LinkSpeedMbps": "-",
    "LinkNetworkTechnology": "Ethernet"
  },
  "PhysicalPortNumber": "0"
}
```

Retrieving Update Service

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/UpdateService
```

Response:


```
{
  "FirmwareInventory": [{
    "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/slot-L"
  }, {
    "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/slot-MLOM"
  }, {
    "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/slot-HBA"
  }, {
    "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/CIMC"
  }, {
    "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/BIOS"
  }, {
    "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/FlexFlash-0"
  } ],
  "@odata.type": "#Cisco_UpdateService",
  "@odata.id": "/redfish/v1/UpdateService",
  "@odata.context": "/redfish/v1/$metadata#UpdateService",
  "SoftwareInventory": [{
    "@odata.id": "/redfish/v1/UpdateService/SoftwareInventory/PID-Catalog"
  } ],
  "ServiceEnabled": "true"
}
```

Retrieving Firmware Inventory

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/UpdateService/FirmwareInventory/CIMC
```

Response:

```
{
  "@odata.context": "/redfish/v1/$metadata#UpdateService/FirmwareInventory/Members/$entity",
  "@odata.type": "#Cisco_FirmwareInventory",
  "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/CIMC",
  "Updateable": "true",
  "Name": "CIMC",
  "Version": "3.1(2.129)"
}
```

Retrieving Software Inventory

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/UpdateService/SoftwareInventory/PID-Catalog
```

Response:

```
{
  "@odata.type": "#Cisco_SoftwareInventory",
  "@odata.id": "/redfish/v1/UpdateService/SoftwareInventory/PID-Catalog",
  "Updateable": "true",
  "Name": "PID-Catalog",
  "@odata.context": "/redfish/v1/$metadata#UpdateService/SoftwareInventory/Members/$entity"
}
```

```
}
```

Retrieving Network Interface in System

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/NetworkInterfaces
```

Response:

```
{
  "Members": [{
    "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/NetworkInterfaces/MLOM"
  }],
  "Description": "Collection of NetworkInterface resource instances for this system",
  "@odata.type": "#Cisco_NetworkInterfaceCollection",
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/NetworkInterfaces",
  "Members@odata.count": 1,
  "Name": "NetworkInterface Collection",
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/NetworkInterfaces"
}
```

Retrieving Individual Network Interface

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/NetworkInterfaces/MLOM
```

Response:

```
{
  "Id": "UCSC-MLOM-CSC-02",
  "Status": {
    "State": "Enabled",
    "Health": "Ok"
  },
  "Links": {
    "NetworkAdapter": ["/redfish/v1/Chassis/1/NetworkAdapter/MLOM"]
  },
  "Name": "Adapter Card MLOM",
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/NetworkInterfaces/Members/$entity",
  "@odata.type": "#Cisco_NetworkInterface",
  "NetworkPorts": {
    "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/NetworkInterfaces/MLOM/NetworkPorts"
  },
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/NetworkInterfaces/MLOM",
  "NetworkDeviceFunctions": {
    "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/NetworkInterfaces/MLOM/NetworkDeviceFunctions"
  },
  "Description": "It represents the properties for Adapter Card MLOM"
}
```

Retrieving Secure Boot

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/SecureBoot
```

Response:

```
{
  "SecureBootCurrentBoot": "Enabled",
  "Id": "SecureBoot",
  "Name": "SecureBoot",
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/SecureBoot",
  "@odata.type": "#Cisco_SecureBoot",
  "SecureBootEnable": false,
  "@odata.id": "/redfish/v1/Systems/FCH2005V1EN/SecureBoot",
  "Description": "UEFI SecureBoot configuration of this system"
}
```

Configuring Secure Boot

Request:

```
curl -XPATCH -k -u admin:password
https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/SecureBoot -d '
{"SecureBootEnable": "true"}
```

Response:

```
{
  "SecureBootCurrentBoot": "Enabled",
  "Id": "SecureBoot",
  "SecureBootEnable": true,
  "Name": "SecureBoot",
  "Description": "UEFI SecureBoot configuration of this system"
}
```

Configuring Port and Protocol Enabled in Manager Network Protocol

Request:

```
curl -k -u admin:password -XPATCH
https://10.10.10.10/redfish/v1/Managers/CIMC/ManagerNetworkProtocol -d
'{"SSH": {"Port": "300", "ProtocolEnabled": "Disabled"},
"SNMP": {"Port": "100", "ProtocolEnabled": "Disabled"}}'
```

Response:

```
{
  "FQDN": "C240-FCH2005V1ENN",
  "SNMP": {
    "ProtocolEnabled": false,
    "Port": 100
  },
  "Id": "ManagerNetworkProtocol",
  "NTP": {
    "ProtocolEnabled": true,

```

```

    "Port":123,
    "NTPServers":["10.225.101.100","cisco.com"]
  },
  "Name":"Manager Network Protocol",
  "DHCP":{
    "ProtocolEnabled":false,
    "Port":68
  },
  "HTTPS":{
    "ProtocolEnabled":true,
    "Port":443
  },
  "HostName":"C240-FCH2005V1ENN",
  "KVMIP":{
    "ProtocolEnabled":true,
    "Port":2068
  },
  "SSH":{
    "ProtocolEnabled":false,
    "Port":300
  },
  "IPMI":{
    "ProtocolEnabled":false,
    "Port":623
  },
  "HTTP":{
    "ProtocolEnabled":true,
    "Port":80
  },
  "VirtualMedia":{
    "ProtocolEnabled":true,
    "Port":2068
  },
  "Description":"Manager Network Service"
}

```

Retrieving PCIe Devices

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH2005V116/PCIeDevices/HBA
```

Response:

```

{
  "FirmwareVersion":"0x80000B16-1.808.2",
  "@odata.id":"/redfish/v1/Systems/FCH2005V116/PCIeDevices/L",
  "Status":{
    "State":"Enabled",
    "Health":"Ok"
  },
  "Links":{
    "Chassis":"/redfish/v1/Chassis/1",
    "PCIeFunction":[{
      "@odata.id":"/redfish/v1/Systems/FCH2005V116/PCIeFunctions/L"
    }],
    "PCIeFunction@odata.count":1
  },
  "Name":"Intel(R) I350 1 Gbps Network Controller",

```

```
"@odata.context":"/redfish/v1/$metadata#Systems/Members/$entity/PCIeDevices/Members/$entity",
  "@odata.type":"#Cisco_PCIeDevices",
  "Id":"L",
  "Description":"This gives information of PCIeDevices on the system"
}
```

Retrieving PCIe Functions

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/Systems/FCH2005V116/PCIeFunctions/L
```

Response:

```
{
  "VendorId":"0x8086",
  "FirmwareVersion":"0x80000B16-1.808.2",
  "Id":"L",
  "Status":{
    "State":"Enabled"
  },
  "Health":"Ok"
},
"Links":{
  "StorageControllers@odata.count":0,
  "Drives@odata.count":0,
  "EthernetInterfaces@odata.count":2,
  "PCIeDevice@odata.count":1,
  "PCIeDevice":[{
    "@odata.id":"/redfish/v1/Systems/FCH2005V116/PCIeDevices/L"
  }],
  "EthernetInterfaces":[{
    "@odata.id":"/redfish/v1/Systems/FCH2005V116/EthernetInterfaces/L.1"
  },{
    "@odata.id":"/redfish/v1/Systems/FCH2005V116/EthernetInterfaces/L.2"
  }]
},
  "Name":"Intel(R) I350 1 Gbps Network Controller",
  "SubsystemVendorId":"0x1137",
  "@odata.type":"#Cisco_PCIeFunctions",
  "SubsystemId":"0x00d6",
  "@odata.context":"/redfish/v1/$metadata#Systems/Members/$entity/PCIeFunctions/Members/$entity",
  "@odata.id":"/redfish/v1/Systems/FCH2005V116/PCIeFunctions/L",
  "DeviceId":"0x1521",
  "Description":"This gives information of PCIeFunctions on the system"
}
```

Retrieving Privilege Map

Request:

```
curl -k -u admin:password https://10.10.10.10/redfish/v1/AccountService/PrivilegeMap
```

Response:

```

{
  "PrivilegesUsed":["Login","ConfigureManager","ConfigureUsers","ConfigureSelf","ConfigureComponents"],
  "Id":"PrivilegeMap",
  "Name":"Privilege Registry",
  "@odata.context":"/redfish/v1/$metadata#AccountService/PrivilegeMap",
  "Mappings":[{"Entity":"Manager",
    "OperationMap":{"POST":{
      "Privilege":["ConfigureManager","ConfigureUsers","ConfigureSelf","ConfigureComponents"]
    }},
    "GET":{
      "Privilege":["Login","ConfigureManager","ConfigureUsers","ConfigureSelf",
"ConfigureComponents","OemClearLog","OemPowerControl","OemAccessVirtualMedia"]
    }
  }],{
    "Entity":"Chassis",
    "OperationMap":{"PATCH":{
      "Privilege":["ConfigureManager","ConfigureUsers","ConfigureSelf","ConfigureComponents"]
    }},
    "POST":{
      "Privilege":["ConfigureManager","ConfigureUsers","ConfigureSelf","ConfigureComponents"]
    },
    "GET":{
      "Privilege":["Login","ConfigureManager","ConfigureUsers","ConfigureSelf","ConfigureComponents",
"OemClearLog","OemPowerControl","OemAccessVirtualMedia"]
    }
  }],{
    "Entity":"Systems",
    "OperationMap":{"PATCH":{
      "Privilege":["ConfigureManager","ConfigureUsers","ConfigureSelf","ConfigureComponents"]
    }},
    "POST":{
      "Privilege":["ConfigureManager","ConfigureUsers","ConfigureSelf","ConfigureComponents"]
    },
    "GET":{
      "Privilege":["Login","ConfigureManager","ConfigureUsers","ConfigureSelf",
"ConfigureComponents","OemClearLog","OemPowerControl","OemAccessVirtualMedia"]
    }
  }],{
    "Entity":"JSONSchemas",
    "OperationMap":{"GET":{
      "Privilege":["Login","ConfigureManager","ConfigureUsers","ConfigureSelf",
"ConfigureComponents","OemClearLog","OemPowerControl","OemAccessVirtualMedia"]
    }
  }
  },{
    "Entity":"EventService",
    "OperationMap":{

```

```

    "PATCH": {
      "Privilege": ["ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"]
    },
    "POST": {
      "Privilege": ["ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"]
    },
    "GET": {
      "Privilege": ["Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf",
        "ConfigureComponents", "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"]
    }
  }, {
    "Entity": "UpdateService",
    "OperationMap": {
      "GET": {
        "Privilege": ["Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf",
          "ConfigureComponents", "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"]
      }
    }
  }, {
    "Entity": "SessionService",
    "OperationMap": {
      "DELETE": {
        "Privilege": ["ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"]
      },
      "POST": {
        "Privilege": ["ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"]
      },
      "GET": {
        "Privilege": ["Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf",
          "ConfigureComponents", "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"]
      }
    }
  }, {
    "Entity": "TaskService",
    "OperationMap": {
      "GET": {
        "Privilege": ["Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf",
          "ConfigureComponents", "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"]
      }
    }
  }, {
    "Entity": "AccountService",
    "OperationMap": {
      "GET": {
        "Privilege": ["Login", "ConfigureManager", "ConfigureUsers",
          "ConfigureSelf", "ConfigureComponents", "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"]
      }
    }
  }
],
"@odata.type": "#PrivilegeRegistry.v1_1_0.json",
"@odata.id": "/redfish/v1/AccountService/PrivilegeMap",
"OEMPrivilegesUsed": ["OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"],
>Description": "This resource represents the operation to privilege mappings"
}

```

Examples of Server Tasks for 4.0(4)

This chapter includes the following sections:

- [Examples of Updates from Previous Release, on page 80](#)
- [Examples of New Additions in 4.0\(4\) Release, on page 105](#)

Examples of Updates from Previous Release

This section includes the following updates to responses from previous releases:

- [Retrieving Service Root without Authentication, on page 81](#)
- [Roles, on page 82](#)
- [Retrieving Privilege Map, on page 82](#)
- [Viewing User Accounts, on page 84](#)
- [Retrieving Chassis Details, on page 85](#)
- [Retrieving Chassis Power Details, on page 86](#)
- [Retrieving Chassis SEL Details, on page 89](#)
- [Retrieving Chassis SEL Entries Details, on page 89](#)
- [Retrieving Chassis Thermal Details, on page 90](#)
- [Retrieving Network Adapter, on page 92](#)
- [Retrieving Network Device Function, on page 93](#)
- [Retrieving Network Ports, on page 93](#)
- [Retrieving Cisco IMC Information, on page 94](#)
- [Retrieving Ethernet Interfaces Details, on page 96](#)
- [Retrieving Network Protocol Details, on page 97](#)
- [Retrieving Update Service, on page 97](#)
- [Retrieving Firmware Inventory, on page 98](#)
- [Retrieving Software Inventory, on page 98](#)
- [Viewing Specific System Information, on page 98](#)
- [Retrieving Individual DIMM, on page 100](#)
- [Retrieving PCIe Functions, on page 101](#)
- [Retrieving Individual Storage Controller, on page 102](#)
- [Retrieving Individual Drives, on page 102](#)
- [Retrieving Individual Volumes, on page 103](#)

- [Viewing Processor Information, on page 104](#)
- [Retrieving PCIe Devices, on page 104](#)
- [Viewing Session Service, on page 105](#)
- [Powering On a Server, on page 105](#)
- [Powering Off a Server, on page 105](#)

Retrieving Service Root without Authentication

Response:

```
{
  "Chassis":{
    "@odata.id":"/redfish/v1/Chassis"
  },
  "@odata.id":"/redfish/v1/",
  "JsonSchemas":{
    "@odata.id":"/redfish/v1/JSONSchemas"
  },
  "RedfishVersion":"1.2.0",
  "EventService":{
    "@odata.id":"/redfish/v1/EventService"
  },
  "Systems":{
    "@odata.id":"/redfish/v1/Systems"
  },
  "UpdateService":{
    "@odata.id":"/redfish/v1/UpdateService"
  },
  "Product":"UCS C240 M5SX",
  "Links":{
    "Sessions":{
      "@odata.id":"/redfish/v1/SessionService/Sessions"
    }
  },
  "Name":"Cisco RESTful Root Service",
  "Description":"Root Service",
  "Tasks":{
    "@odata.id":"/redfish/v1/TaskService"
  },
  "Registries":{
    "@odata.id":"/redfish/v1/Registries"
  },
  "@odata.type":"#ServiceRoot.1.4.0.ServiceRoot",
  "SessionService":{
    "@odata.id":"/redfish/v1/SessionService"
  },
  "@odata.context":"/redfish/v1/$metadata#ServiceRoot",
  "Managers":{
    "@odata.id":"/redfish/v1/Managers"
  },
  "AccountService":{
    "@odata.id":"/redfish/v1/AccountService"
  },
  "Id":"RootService"
}
```

Roles

Request:

```
curl -k -u admin:Password https://10.10.10.10/redfish/v1/AccountService/Roles
```

Response:

```
{
  "Members": [{
    "@odata.id": "/redfish/v1/AccountService/Roles/admin"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Roles/user"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Roles/read-only"
  }],
  "Description": "Collection of Roles",
  "@odata.type": "#RoleCollection.RoleCollection",
  "@odata.id": "/redfish/v1/AccountService/Roles",
  "Members@odata.count": 3,
  "Name": "Roles Collection",
  "@odata.context": "/redfish/v1/$metadata#AccountService/Roles"
}
```

Request:

```
curl -k -u admin:Password https://10.10.10.10/redfish/v1/AccountService/Roles/admin
```

Response:

```
{
  "IsPredefined": true,
  "@odata.id": "/redfish/v1/AccountService/Roles/admin",
  "AssignedPrivileges": ["Login", "ConfigureManager", "ConfigureUsers",
    "ConfigureSelf", "ConfigureComponents"],
  "Name": "User Role",
  "@odata.context": "/redfish/v1/$metadata#AccountService/Roles/Members/$entity",
  "RoleId": "admin",
  "OemPrivileges": ["OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"],
  "@odata.type": "#Role.v1_2_2.Role",
  "Id": "admin",
  "Description": "Admin User Role"
}
```

Retrieving Privilege Map

Response:

```
{
  "PrivilegesUsed": ["Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"],
  "Id": "PrivilegeMap",
  "Name": "Privilege Registry",
  "@odata.context": "/redfish/v1/$metadata#AccountService/PrivilegeMap",
  "Mappings": [{
    "Entity": "Manager",
    "OperationMap": {
      "POST": [{
        "Privilege": ["ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"]
      }],
      "GET": [{
        "Privilege": ["Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf",
          "ConfigureComponents", "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"]
      }]
    }
  }]
```

```

    }
  }, {
    "Entity": "Chassis",
    "OperationMap": {
      "PATCH": [{
        "Privilege": ["ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"]
      }],
      "POST": [{
        "Privilege": ["ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"]
      }],
      "GET": [{
        "Privilege": ["Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf",
"ConfigureComponents", "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"]
      }]
    }
  }, {
    "Entity": "Systems",
    "OperationMap": {
      "PATCH": [{
        "Privilege": ["ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"]
      }],
      "POST": [{
        "Privilege": ["ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"]
      }],
      "GET": [{
        "Privilege": ["Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf",
"ConfigureComponents", "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"]
      }]
    }
  }, {
    "Entity": "JSONSchemas",
    "OperationMap": {
      "GET": [{
        "Privilege": ["Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf",
"ConfigureComponents", "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"]
      }]
    }
  }, {
    "Entity": "EventService",
    "OperationMap": {
      "PATCH": [{
        "Privilege": ["ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"]
      }],
      "POST": [{
        "Privilege": ["ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents"]
      }],
      "GET": [{
        "Privilege": ["Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf",
"ConfigureComponents", "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"]
      }]
    }
  }, {
    "Entity": "UpdateService",
    "OperationMap": {
      "GET": [{
        "Privilege": ["Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf",
"ConfigureComponents", "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia"]
      }]
    }
  }
}

```

```

    }
  }, {
    "Entity": "SessionService",
    "OperationMap": {
      "DELETE": [ {
        "Privilege": [ "ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents" ]
      } ],
      "POST": [ {
        "Privilege": [ "ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents" ]
      } ],
      "GET": [ {
        "Privilege": [ "Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents",
          "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia" ]
      } ]
    }
  }, {
    "Entity": "TaskService",
    "OperationMap": {
      "GET": [ {
        "Privilege": [ "Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents",
          "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia" ]
      } ]
    }
  }, {
    "Entity": "AccountService",
    "OperationMap": {
      "GET": [ {
        "Privilege": [ "Login", "ConfigureManager", "ConfigureUsers", "ConfigureSelf", "ConfigureComponents",
          "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia" ]
      } ]
    }
  } ],
  "@odata.type": "#PrivilegeRegistry.v1_1_2.PrivilegeRegistry",
  "@odata.id": "/redfish/v1/AccountService/PrivilegeMap",
  "OEMPrivilegesUsed": [ "OemClearLog", "OemPowerControl", "OemAccessVirtualMedia" ],
  "Description": "This resource represents the operation to privilege mappings"
}

```

Viewing User Accounts

Response:

```

{
  "Members": [ {
    "@odata.id": "/redfish/v1/AccountService/Accounts/1"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Accounts/2"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Accounts/3"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Accounts/4"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Accounts/5"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Accounts/6"
  }, {
    "@odata.id": "/redfish/v1/AccountService/Accounts/7"
  }, {

```

```

        "@odata.id":"/redfish/v1/AccountService/Accounts/8"
    }],
    "Description":"Collection of Accounts",
    "@odata.type":"#ManagerAccountCollection.ManagerAccountCollection",
    "@odata.id":"/redfish/v1/AccountService/Accounts",
    "Members@odata.count":8,
    "Name":"Account Collection",
    "@odata.context":"/redfish/v1/$metadata#AccountService/Accounts"
}

curl -k -u admin:Password https://10.10.10.10/redfish/v1/AccountService/Accounts/1
{
    "@odata.id":"/redfish/v1/AccountService/Accounts/1",
    "Links":{
        "Role":{
            "@odata.id":"/redfish/v1/AccountService/Roles/admin"
        }
    },
    "Name":"User Account",
    "@odata.context":"/redfish/v1/$metadata#AccountService/Accounts/Members/$entity",
    "@odata.type":"#ManagerAccount.v1_1_3.ManagerAccount",
    "RoleId":"admin",
    "Description":"User Account",
    "Id":"1",
    "Enabled":true,
    "Locked":false,
    "UserName":"admin"
}

```

Retrieving Chassis Details

Response:

```

{
    "SerialNumber":"WZP220607R1",
    "Id":"1",
    "WeightKg":26.1,
    "IndicatorLED":"Off",
    "PowerState":"On",
    "@odata.context":"/redfish/v1/$metadata#Chassis/Members/$entity",
    "ChassisType":"Rack",
    "DepthMm":766,
    "Description":"It represents the properties for physical components for any system.
This one object is intended to represent racks, rackmount servers, blades, standalone,
modular systems,
enclosures, and all other containers. The non-cpu/device centric parts of the schema are
all accessed
either directly or indirectly through this resource",
    "Thermal":{
        "@odata.id":"/redfish/v1/Chassis/1/Thermal"
    },
    "Links":{
        "Drives":[{
            "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/MRAID/Drives/PD-3"
        },{
            "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/MRAID/Drives/PD-4"
        },{
            "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/MRAID/Drives/PD-25"
        },{
            "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/MRAID/Drives/PD-26"
        },{
            "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Drives/microSD"
        }
    ],
    "CooledBy":[{

```

```

        "@odata.id":"/redfish/v1/Chassis/1/Thermal"
    }],
    "ComputerSystems":[{
        "@odata.id":"/redfish/v1/Systems/WZP220607R1"
    }],
    "PCIeDevices":[{
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/PCIeDevices/1"
    },{
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/PCIeDevices/2"
    },{
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/PCIeDevices/MLOM"
    },{
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/PCIeDevices/MRAID"
    },{
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/PCIeDevices/L"
    }],
    "Storage":[{
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/MRAID"
    },{
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil"
    }],
    "PoweredBy":[{
        "@odata.id":"/redfish/v1/Chassis/1/Power"
    }],
    "ManagedBy":[{
        "@odata.id":"/redfish/v1/Managers/CIMC"
    }]
},
"LogServices":{
    "@odata.id":"/redfish/v1/Chassis/1/LogServices"
},
"UUID":"20634E24-2D58-4462-93FF-9EB4C43B5BEC",
"Status":{
    "State":"Enabled",
    "Health":"Warning"
},
"NetworkAdapters":{
    "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapters"
},
"Name":"Computer System Chassis",
"HeightMm":87,
"Power":{
    "@odata.id":"/redfish/v1/Chassis/1/Power"
},
"WidthMm":482,
"@odata.type":"#Chassis.v1_8_0.Chassis",
"Actions":{
    "#Chassis.Reset":{
        "target":"/redfish/v1/Chassis/1/Actions/Chassis.Reset",
        "ResetType@Redfish.AllowableValues":["On","ForceOff"]
    }
},
"Manufacturer":"Cisco Systems Inc.",
"@odata.id":"/redfish/v1/Chassis/1",
"Model":"UCS C240 M5SX",
"AssetTag":"Test<>Test"
}

```

Retrieving Chassis Power Details

Response:

```

{
    "Id":"Power",

```

```

    "Name": "Power",
    "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/Power",
    "PowerControl": [{
      "PhysicalContext": "PowerSupply",
      "PowerMetrics": {
        "MinConsumedWatts": 212,
        "AverageConsumedWatts": 227,
        "MaxConsumedWatts": 328
      },
      "MemberId": "1",
      "PowerLimit": {
        "LimitException": "LogEventOnly",
        "CorrectionInMs": 3000
      },
      "PowerConsumedWatts": 232,
      "@odata.id": "/redfish/v1/Chassis/1/Power#/PowerControl/1"
    }],
    "Voltages": [{
      "PhysicalContext": "PowerSupply",
      "SensorNumber": 48,
      "MemberId": "1",
      "@odata.id": "/redfish/v1/Chassis/1/Power#/Voltages/PSU1_VOUT",
      "Status": {
        "State": "Enabled",
        "Health": "OK"
      },
      "UpperThresholdCritical": 14,
      "Name": "PSU1_VOUT",
      "ReadingVolts": 12
    }, {
      "PhysicalContext": "PowerSupply",
      "SensorNumber": 54,
      "MemberId": "2",
      "@odata.id": "/redfish/v1/Chassis/1/Power#/Voltages/PSU2_VOUT",
      "Status": {
        "State": "Enabled",
        "Health": "OK"
      },
      "UpperThresholdCritical": 14,
      "Name": "PSU2_VOUT",
      "ReadingVolts": 0
    }, {
      "@odata.id": "/redfish/v1/Chassis/1/Power#/Voltages/P12V",
      "Status": {
        "State": "Enabled",
        "Health": "OK"
      },
      "SensorNumber": 210,
      "Name": "P12V",
      "PhysicalContext": "PowerSupply",
      "MemberId": "3",
      "ReadingVolts": 11.774,
      "UpperThresholdCritical": 13.166,
      "LowerThresholdCritical": 10.788
    }, {
      "@odata.id": "/redfish/v1/Chassis/1/Power#/Voltages/P3V_BAT_SCALED",
      "Status": {
        "State": "Enabled",
        "Health": "OK"
      },
      "SensorNumber": 211,
      "Name": "P3V_BAT_SCALED",
      "PhysicalContext": "PowerSupply",
      "MemberId": "4",

```

```

        "ReadingVolts":3.011,
        "UpperThresholdCritical":3.588,
        "LowerThresholdCritical":2.543
    }],
    "@odata.type":"#Power.v1_5_1.Power",
    "Description":"Power",
    "@odata.id":"/redfish/v1/Chassis/1/Power",
    "PowerSupplies":[{
        "SerialNumber":"PST2206J1PQ",
        "InputRanges":[{
            "InputType":"AC",
            "OutputWattage":1600,
            "MaximumFrequencyHz":63,
            "MaximumVoltage":264,
            "MinimumVoltage":180,
            "MinimumFrequencyHz":47
        }],
        "FirmwareVersion":"10152429",
        "@odata.id":"/redfish/v1/Chassis/1/Power#/PowerSupplies/PSU1",
        "PowerOutputWatts":204,
        "LineInputVoltage":227,
        "Name":"PSU1",
        "Status":{
            "State":"Enabled"
        },
        "PowerInputWatts":236,
        "Manufacturer":"Cisco Systems Inc",
        "LastPowerOutputWatts":204,
        "MemberId":"1",
        "PartNumber":"341-0732-02",
        "PowerSupplyType":"AC",
        "Model":"CIS-S-1600ADE000-301",
        "SparePartNumber":"341-0732-02"
    }],{
        "SerialNumber":"PST2206J1M3",
        "InputRanges":[{
            "InputType":"AC",
            "OutputWattage":1600,
            "MaximumFrequencyHz":63,
            "MaximumVoltage":264,
            "MinimumVoltage":180,
            "MinimumFrequencyHz":47
        }],
        "FirmwareVersion":"10152429",
        "@odata.id":"/redfish/v1/Chassis/1/Power#/PowerSupplies/PSU2",
        "PowerOutputWatts":0,
        "LineInputVoltage":0,
        "Name":"PSU2",
        "Status":{
            "State":"Disabled"
        },
        "PowerInputWatts":0,
        "Manufacturer":"Cisco Systems Inc",
        "LastPowerOutputWatts":0,
        "MemberId":"2",
        "PartNumber":"341-0732-02",
        "PowerSupplyType":"AC",
        "Model":"CIS-S-1600ADE000-301",
        "SparePartNumber":"341-0732-02"
    }]
}

```


Retrieving Chassis SEL Details

Response:

```
{
  "DateTimeLocalOffset":"+05:30",
  "LogEntryType":"SEL",
  "Id":"SEL",
  "Entries":{
    "@odata.id":"/redfish/v1/Chassis/1/LogServices/SEL/Entries"
  },
  "Name":"SEL Log Service",
  "ServiceEnabled":true,
  "MaxNumberOfRecords":3008,
  "DateTime":"Mon Apr 8 06:07:11 2019",
  "@odata.type":"#LogService.v1_1_1.LogService",
  "OverWritePolicy":"WrapsWhenFull",

"@odata.context":"/redfish/v1/$metadata#Chassis/Members/$entity/LogServices/Members/$entity",

  "@odata.id":"/redfish/v1/Chassis/1/LogServices/SEL",
  "Actions":{
    "#LogService.ClearLog":{
      "target":"/redfish/v1/Chassis/1/LogServices/SEL/Actions/LogService.ClearLog"
    }
  },
  "Description":"SEL Log Service"
}
```

Retrieving Chassis SEL Entries Details

Response:

```
{
  "Members":[{
    "EventTimestamp":"2019-04-05 15:16:37 IST",
    "@odata.id":"/redfish/v1/Chassis/1/LogServices/SEL/Entries/3225",
    "EntryType":"SEL",
    "Name":"Log Entry 3225",
    "EventType":"Alert",
    "EventId":"3225",
    "Message":"BMC_OOM_RESET: Watchdog sensor, Hard reset",
    "Description":"Log Entry 3225",
    "Id":"3225",
    "Created":"2019-04-05 15:16:37 IST"
  },{
    "EntryCode":"State Asserted",
    "EventTimestamp":"2019-04-05 16:18:49 IST",
    "@odata.id":"/redfish/v1/Chassis/1/LogServices/SEL/Entries/3224",
    "EntryType":"SEL",
    "Name":"Log Entry 3224",
    "EventType":"StatusChange",
    "EventId":"3224",
    "Message":"LED_HLTH_STATUS: Platform sensor, AMBER was asserted",
    "Description":"Log Entry 3224",
    "Id":"3224",
    "Created":"2019-04-05 16:18:49 IST"
  }],
  <SNIP>

, {
  "EntryCode":"Device Inserted / Device Present",
  "EventTimestamp":"2019-04-05 15:43:39 IST",
  "@odata.id":"/redfish/v1/Chassis/1/LogServices/SEL/Entries/3176",
```

```

        "EntryType": "SEL",
        "Name": "Log Entry 3176",
        "EventType": "ResourceAdded",
        "EventId": "3176",
        "Message": "FRU_VIC_SLOT2 VIC_SLOT2_PRS: Presence sensor for FRU_VIC_SLOT2, Device
Inserted / Device Present was asserted",
        "Description": "Log Entry 3176",
        "Id": "3176",
        "Created": "2019-04-05 15:43:39 IST"
    }],
    "@odata.type": "#LogEntryCollection.LogEntryCollection",
    "@odata.id": "/redfish/v1/Chassis/1/LogServices/SEL/Entries",
    "Members@odata.count": 50,
    "Name": "Log Service Collection",

"@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/LogServices/Members/$entity/Entries"
}

```

Retrieving Chassis Thermal Details

Response:

```

{
  "Fans": [{
    "RelatedItem": [{
      "@odata.id": "/redfish/v1/Chassis/1"
    }],
    "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Fans/MOD1_FAN1",
    "Status": {
      "State": "Enabled",
      "Health": "OK"
    },
    "ReadingUnits": "RPM",
    "Reading": 7272,
    "PhysicalContext": "Fan",
    "MemberId": "1",
    "Name": "MOD1_FAN1_SPEED"
  }, {
    "RelatedItem": [{
      "@odata.id": "/redfish/v1/Chassis/1"
    }],
    "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Fans/MOD1_FAN1",
    "Status": {
      "State": "Enabled",
      "Health": "OK"
    },
    "ReadingUnits": "RPM",
    "Reading": 7272,
    "PhysicalContext": "Fan",
    "MemberId": "2",
    "Name": "MOD1_FAN1_SPEED"
  }, {
    "RelatedItem": [{
      "@odata.id": "/redfish/v1/Chassis/1"
    }],
    "@odata.id": "/redfish/v1/Chassis/1/Thermal#/Fans/MOD6_FAN2",
    "Status": {
      "State": "Enabled",
      "Health": "OK"
    },
    "ReadingUnits": "RPM",

```

```

        "Reading":7546,
        "PhysicalContext":"Fan",
        "MemberId":"12",
        "Name":"MOD6_FAN2_SPEED"
    }],
    "Id":"Thermal",
    "Status":{
        "State":"Enabled",
        "Health":"OK"
    },
    "Name":"Thermal",
    "@odata.context":"/redfish/v1/$metadata#Chassis/Members/$entity/Thermal",
    "@odata.type":"#Thermal.v1_5_0.Thermal",
    "Temperatures":[{
        "RelatedItem":[{
            "@odata.id":"/redfish/v1/Chassis/1"
        }],
        "@odata.id":"/redfish/v1/Chassis/1/Thermal#/Temperatures/MLOM_TEMP",
        "Status":{
            "State":"Enabled",
            "Health":"OK"
        },
        "SensorNumber":60,
        "Name":"MLOM_TEMP",
        "PhysicalContext":"NetworkingDevice",
        "MemberId":"1",
        "UpperThresholdCritical":90,
        "ReadingCelsius":40
    },{
        "RelatedItem":[{
            "@odata.id":"/redfish/v1/Chassis/1"
        }],
        "@odata.id":"/redfish/v1/Chassis/1/Thermal#/Temperatures/VIC_SLOT2_TEMP",
        "Status":{
            "State":"Enabled",
            "Health":"OK"
        },
        "SensorNumber":77,
        "Name":"VIC_SLOT2_TEMP",
        "PhysicalContext":"NetworkingDevice",
        "MemberId":"2",
        "UpperThresholdCritical":90,
        "ReadingCelsius":41
    },{
        "RelatedItem":[{
            "@odata.id":"/redfish/v1/Chassis/1"
        }],
        "@odata.id":"/redfish/v1/Chassis/1/Thermal#/Temperatures/RISER1_INLET_TMP",
        "Status":{
            "State":"Enabled",
            "Health":"OK"
        },
        "SensorNumber":250,
        "Name":"RISER1_INLET_TMP",
        "PhysicalContext":"SystemBoard",
        "MemberId":"16",
        "UpperThresholdCritical":70,
        "ReadingCelsius":30
    }],
    "@odata.id":"/redfish/v1/Chassis/1/Thermal",
    "Temperatures@odata.count":16,

```

```

    "Fans@odata.count":10,
    "Description":"Represents the properties for Temperature and Cooling"
  }

```

Retrieving Network Adapter

Response:

```

{
  "SerialNumber":"FCH2205J2N9",
  "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapters/MLOM",
  "NetworkPorts":{
    "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkPorts"
  },
  "Name":"Adapter Card MLOM",

  "@odata.context":"/redfish/v1/$metadata#Chassis/Members/$entity/NetworkAdapters/Members/$entity",

  "NetworkDeviceFunctions":{
    "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkDeviceFunctions"
  },
  "Controllers":[{
    "ControllerCapabilities":{
      "NetworkDeviceFunctionCount":4,
      "NetworkPortCount":2
    },
    "FirmwarePackageVersion":"4.3(1.9)",
    "Links":{
      "NetworkPorts":[{
        "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkPorts/Port-0"
      },{
        "@odata.id":"/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkPorts/Port-1"
      }],
      "NetworkDeviceFunctions@odata.count":4,
      "NetworkDeviceFunctions":[{

"@odata.id":"/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkDeviceFunctions/eth0"
      },{

"@odata.id":"/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkDeviceFunctions/eth1"
      },{

"@odata.id":"/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkDeviceFunctions/fc0"
      },{

"@odata.id":"/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkDeviceFunctions/fc1"
      }],
      "NetworkPorts@odata.count":2
    }
  ]},
  "@odata.type":"#NetworkAdapter.v1_2_0.NetworkAdapter",
  "Actions":{
    "#NetworkAdapter.ResetSettingsToDefault":{

"target":"/redfish/v1/Chassis/1/NetworkAdapters/MLOM/Actions/NetworkAdapter.ResetSettingsToDefault"

    }
  },
  "Manufacturer":"Cisco Systems Inc",
  "PartNumber":"73-17793-05",
  "Model":"UCS VIC 1387",
  "Id":"UCSC-MLOM-C40Q-03"
}

```

Retrieving Network Device Function

Response:

```
{
  "Ethernet": {
    "MACAddress": "28:AC:9E:7C:EA:C9"
  },
  "@odata.type": "#NetworkDeviceFunction.v1_3_0.NetworkDeviceFunction",
  "FibreChannel": {
    "WWNSource": "ConfiguredLocally",
    "WWPN": "20:00:28:AC:9E:7C:EA:C9",
    "BootTargets": [],
    "WWNN": "10:00:28:AC:9E:7C:EA:C9"
  },
  "Id": "fc0",
  "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkDeviceFunctions/fc0",
  "Links": {
    "PhysicalPortAssignment": {
      "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkPorts/Port-0"
    }
  },
  "Name": "fc0",
  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/NetworkAdapters/Members/$entity/NetworkDeviceFunctions/Members/$entity"
}
```

Retrieving Network Device Function

Response:

```
{
  "Ethernet": {
    "MACAddress": "28:AC:9E:7C:EA:C7",
    "VLAN": {
      "VLANEnable": true
    },
    "MTUSize": 1500
  },
  "@odata.type": "#NetworkDeviceFunction.v1_3_0.NetworkDeviceFunction",
  "Id": "eth0",
  "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkDeviceFunctions/eth0",
  "Links": {
    "PhysicalPortAssignment": {
      "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkPorts/Port-0"
    }
  },
  "Name": "eth0",
  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/NetworkAdapters/Members/$entity/NetworkDeviceFunctions/Members/$entity"
}
```

Retrieving Network Ports

Response:

```
{
  "AssociatedNetworkAddresses": ["28:AC:9E:7C:EA:BC"],
  "@odata.id": "/redfish/v1/Chassis/1/NetworkAdapters/MLOM/NetworkPorts/Port-1",
  "Name": "Port-1",
  "@odata.context": "/redfish/v1/$metadata#Chassis/Members/$entity/NetworkAdapters/Members/$entity/NetworkPorts/Members/$entity",
}
```

```

"@odata.type":"#NetworkPort.v1_2_0.NetworkPort",
"LinkStatus":"Down",
"Id":"1",
"SupportedLinkCapabilities":[{"LinkNetworkTechnology":"Ethernet"}],
"PhysicalPortNumber":"1"
}

```

Retrieving Cisco IMC Information

Response:

```

{
  "DateTimeLocalOffset":"+05:30",
  "Id":"CIMC",
  "AutoDSTEnabled":false,
  "ManagerType":"BMC",
  "@odata.context":"/redfish/v1/$metadata#Managers/Members/$entity",
  "Links":{
    "ManagerForChassis":[{"@odata.id":"/redfish/v1/Chassis/1"}],
    "ManagerForServers":[{"@odata.id":"/redfish/v1/Systems/WZP220607R1"}],
    "ManagerInChassis":{"@odata.id":"/redfish/v1/Chassis/1"}
  },
  "CommandShell":{
    "MaxConcurrentSessions":4,
    "ConnectTypesSupported":["SSH","IPMI","Oem"],
    "ServiceEnabled":true
  },
  "RemoteRedfishServiceUri":"/redfish/v1",
  "NetworkProtocol":{
    "@odata.id":"/redfish/v1/Managers/CIMC/NetworkProtocol"
  },
  "VirtualMedia":{
    "@odata.id":"/redfish/v1/Managers/CIMC/VirtualMedia"
  },
  "Description":"Test&quot;123~`!@#$\\",
  "SerialInterfaces":{
    "@odata.id":"/redfish/v1/Managers/CIMC/SerialInterfaces"
  },
  "LogServices":{
    "@odata.id":"/redfish/v1/Managers/CIMC/LogServices"
  },
  "FirmwareVersion":"66.77 (67.1554096047) ",
  "UUID":"20634E24-2D58-4462-93FF-9EB4C43B5BEC",
  "Status":{
    "State":"Enabled",
    "Health":"OK"
  },
  "RemoteAccountService":{
    "@odata.id":"/redfish/v1/AccountService"
  },
  "Name":"Cisco Integrated Management Controller",
  "Actions":{
    "#Manager.Reset":{
      "target":"/redfish/v1/Managers/CIMC/Actions/Manager.Reset",
      "ResetType@Redfish.AllowableValues":["ForceRestart"]
    }
  }
}

```

```

    },
    "Oem": {
      "#CiscoUCSEExtensions.BmcFwUpdate": {
        "Protocol@Redfish.AllowableValues": ["TFTP", "SCP", "SFTP", "FTP", "HTTP"],
        "target": "/redfish/v1/Managers/CIMC/Actions/Oem/CiscoUCSEExtensions.BmcFwUpdate",
        "@odata.type": "CiscoUCSEExtensions.v1_0_0.CiscoUCSEExtensions",
        "RemoteUsername@Redfish.AllowableValues": ["Remote Server Username"],
        "RemotePath@Redfish.AllowableValues": ["Valid Remote Share Path"],
        "RemoteHostname@Redfish.AllowableValues": ["Valid Hostname/IP Address"],
        "RemotePassword@Redfish.AllowableValues": ["Remote Server Password"]
      },
      "#CiscoUCSEExtensions.SigningRequest": {
        "HashToSign@Redfish.AllowableValues": ["SHA-256 hash encoded in base64"],
        "target": "/redfish/v1/Managers/CIMC/Actions/Oem/CiscoUCSEExtensions.SigningRequest",

        "@odata.type": "CiscoUCSEExtensions.v1_0_0.CiscoUCSEExtensions",
        "RequestedSignatureAlgorithm@Redfish.AllowableValues": ["Signing algorithm to be
used,
currently supported algorithm is ECCsecp256r1"],
        "RequestID@Redfish.AllowableValues": ["A unique string generated by the requester
to match response,
min is 1 and max is 128"]
      },
      "#CiscoUCSEExtensions.BiosFwActivate": {
        "@odata.type": "CiscoUCSEExtensions.v1_0_0.CiscoUCSEExtensions",
        "target": "/redfish/v1/Managers/CIMC/Actions/Oem/CiscoUCSEExtensions.BiosFwActivate"
      },
      "#CiscoUCSEExtensions.BiosFwUpdate": {
        "Protocol@Redfish.AllowableValues": ["TFTP", "SCP", "SFTP", "FTP", "HTTP"],
        "target": "/redfish/v1/Managers/CIMC/Actions/Oem/CiscoUCSEExtensions.BiosFwUpdate",
        "@odata.type": "CiscoUCSEExtensions.v1_0_0.CiscoUCSEExtensions",
        "RemoteUsername@Redfish.AllowableValues": ["Remote Server Username"],
        "RemotePath@Redfish.AllowableValues": ["Valid Remote Share Path"],
        "RemoteHostname@Redfish.AllowableValues": ["Valid Hostname/IP Address"],
        "RemotePassword@Redfish.AllowableValues": ["Remote Server Password"]
      },
      "#CiscoUCSEExtensions.BmcFwActivate": {
        "@odata.type": "CiscoUCSEExtensions.v1_0_0.CiscoUCSEExtensions",
        "target": "/redfish/v1/Managers/CIMC/Actions/Oem/CiscoUCSEExtensions.BmcFwActivate"
      },
      "#CiscoUCSEExtensions.ImportBmcConfig": {
        "Protocol@Redfish.AllowableValues": ["TFTP", "SCP", "SFTP", "FTP", "HTTP"],
        "Passphrase@Redfish.AllowableValues": ["Passphrase"],
        "@odata.type": "CiscoUCSEExtensions.v1_0_0.CiscoUCSEExtensions",
        "RemoteUsername@Redfish.AllowableValues": ["Remote Server Username"],
        "RemotePath@Redfish.AllowableValues": ["Valid Remote Share Path"],
        "RemoteHostname@Redfish.AllowableValues": ["Valid Hostname/IP Address"],
        "target": "/redfish/v1/Managers/CIMC/Actions/Oem/CiscoUCSEExtensions.ImportBmcConfig",

        "RemotePassword@Redfish.AllowableValues": ["Remote Server Password"]
      },
      "#CiscoUCSEExtensions.BmcTechSupportExport": {
        "Protocol@Redfish.AllowableValues": ["TFTP", "SCP", "SFTP", "FTP", "HTTP"],

        "target": "/redfish/v1/Managers/CIMC/Actions/Oem/CiscoUCSEExtensions.BmcTechSupportExport",
        "@odata.type": "CiscoUCSEExtensions.v1_0_0.CiscoUCSEExtensions",
        "RemoteUsername@Redfish.AllowableValues": ["Remote Server Username"],
        "RemotePath@Redfish.AllowableValues": ["Valid Remote Share Path"],
        "RemoteHostname@Redfish.AllowableValues": ["Valid Hostname/IP Address"],
        "RemotePassword@Redfish.AllowableValues": ["Remote Server Password"]
      },
      "#CiscoUCSEExtensions.ExportBmcConfig": {
        "Protocol@Redfish.AllowableValues": ["TFTP", "SCP", "SFTP", "FTP", "HTTP"],
        "Passphrase@Redfish.AllowableValues": ["Passphrase"],

```

```

        "@odata.type": "CiscoUCSEExtensions.v1_0_0.CiscoUCSEExtensions",
        "RemoteUsername@Redfish.AllowableValues": ["Remote Server Username"],
        "RemotePath@Redfish.AllowableValues": ["Valid Remote Share Path"],
        "RemoteHostname@Redfish.AllowableValues": ["Valid Hostname/IP Address"],
        "target": "/redfish/v1/Managers/CIMC/Actions/Oem/CiscoUCSEExtensions.ExportBmcConfig",

        "RemotePassword@Redfish.AllowableValues": ["Remote Server Password"]
    }
}
},
"ServiceEntryPointUUID": "20634E24-2D58-4462-93FF-9EB4C43B5BEC",
"DateTime": "Mon Apr 8 06:29:48 2019",
"@odata.type": "#Manager.v1_5_0.Manager",
"GraphicalConsole": {
    "MaxConcurrentSessions": 4,
    "ConnectTypesSupported": ["KVMIP", "Oem"],
    "ServiceEnabled": true
},
"@odata.id": "/redfish/v1/Managers/CIMC",
"Oem": {
    "Cisco": {
        "HardwareX509Identity": {
            "Certificate": "-----BEGIN CERTIFICATE-----
\nMIICIjCCaigAwIBAgIDbLY5MAoGCCqGSM49BAMCMCsxDjAMBgNVBAoTBUNpc2Nv\nMRkwFwYDVQQDExBBQ1QyI
EVDQyBTvURJIENBMCAXDTE4MDIwNjA2NTQ0M1oYDzIw\nNTMwNDA0MDgxNTQyWjB1MSowKAYDVQQFEyFQSUQ6VUNTQy1DM
jQwLU01U1ggU046\nv1pQMjIwNjA3UjExDjAMBgNVBAoTBUNpc2NvMRgwFgYDVQQLEw9BQ1QtMiBMaXR1\nIFNVREkxHTAbBg
NVBAMTFFVDUyBNLVNlcmllcyBTZXJ2ZXJzMFkwEwYHKoZIzj0C\nAQYIKoZIzj0DAQcDQgAEtehqcvspBPCsagirhh6EVy
/P1R5Ballw5oZUftstzGU\nWwzejzP8W2BMhVGI8GndS9uqLgk1kEm2D7QZsfdUcqNvMG0wDgYDVR0PAQH/BAQD\nnAgXgMAwGA1UdEwEB/
wQCMAAwTQYDVR0RBEEYwRKBCBgkrBgEEAQkVAgoGnRMzQ2hp\nncElEPu1FSnpNZ2tDdWtFMk1FUUVBQWdBQ
UFBQUFBQUFBQUFBQUFBQUE9\nnMAoGCCqGSM49BAMCA2gAMGUCMCqpHWCoodLrmo+dMIrM59ySgyo8+bVq9YSc10JR\
n67qt3zjvp4Yv7UwJLT+9NHqoAQIxAMfEl6Mg9nqiigcz6B9O7kFwa+4PtowwDfd+\nRgcSgTIIuZSqr0848aLMRODi0tdEQ==
\n-----END CERTIFICATE-----\n",
            "CertificateFormat": "PEM"
        },
        "@odata.type": "#CiscoUCSEExtensions.v1_0_0.CiscoUCSEExtensions"
    }
},
"Model": "UCSC-C240-M5SX",
"EthernetInterfaces": {
    "@odata.id": "/redfish/v1/Managers/CIMC/EthernetInterfaces"
}
}

```

Retrieving Ethernet Interfaces Details

Response:

```

{
  "Members": [{
    "@odata.id": "/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs"
  }],
  "Description": "Collection of EthernetInterfaces for this Manager",
  "@odata.type": "#EthernetInterfaceCollection.EthernetInterfaceCollection",
  "@odata.id": "/redfish/v1/Managers/CIMC/EthernetInterfaces",
  "Members@odata.count": 1,
  "Name": "Ethernet Interfaces Collection",
  "@odata.context": "/redfish/v1/$metadata#Managers/Members/$entity/EthernetInterfaces"
}

```


Retrieving Network Protocol Details

Response:

```
{
  "SNMP":{
    "ProtocolEnabled":true,
    "Port":100
  },
  "Id":"ManagerNetworkProtocol",
  "@odata.context":"/redfish/v1/$metadata#Managers/Members/$entity/NetworkProtocol",
  "HostName":"C240-WZP220607R",
  "VirtualMedia":{
    "ProtocolEnabled":true,
    "Port":2068
  },
  "Description":"Manager Network Service",
  "KVMIP":{
    "ProtocolEnabled":true,
    "Port":2068
  },
  "HTTP":{
    "ProtocolEnabled":true,
    "Port":80
  },
  "Name":"Manager Network Protocol",
  "HTTPS":{
    "ProtocolEnabled":true,
    "Port":443
  },
  "DHCPv6":{
    "ProtocolEnabled":false,
    "Port":null
  },
  "@odata.type":"#ManagerNetworkProtocol.v1_3_0.ManagerNetworkProtocol",
  "SSH":{
    "ProtocolEnabled":true,
    "Port":22
  },
  "IPMI":{
    "ProtocolEnabled":true,
    "Port":623
  },
  "DHCP":{
    "ProtocolEnabled":false,
    "Port":null
  },
  "@odata.id":"/redfish/v1/Managers/CIMC/NetworkProtocol",
  "NTP":{
    "ProtocolEnabled":true,
    "Port":123,
    "NTPServers":["ntp.esl.cisco.com","ntp.esli.cisco.com"]
  }
}
```

Retrieving Update Service

Response:

```
{
  "FirmwareInventory":{
    "@odata.id":"/redfish/v1/UpdateService/FirmwareInventory"
  },
  "@odata.id":"/redfish/v1/UpdateService",
}
```

```

    "SoftwareInventory":{
      "@odata.id":"/redfish/v1/UpdateService/SoftwareInventory"
    },
    "@odata.context":"/redfish/v1/$metadata#UpdateService",
    "@odata.type":"#UpdateService.v1_3_0.UpdateService",
    "ServiceEnabled":true,
    "Name":"Update Service",
    "Id":"UpdateService"
  }
}

```

Retrieving Firmware Inventory

Response:

```

{
  "@odata.id":"/redfish/v1/UpdateService/FirmwareInventory/slot-MLOM",
  "@odata.context":"/redfish/v1/$metadata#UpdateService/FirmwareInventory/Members/$entity",

  "@odata.type":"#SoftwareInventory.v1_2_1.SoftwareInventory",
  "Id":"slot-MLOM",
  "Updateable":true,
  "Name":"slot-MLOM",
  "Version":"N/A"
}

```

Retrieving Software Inventory

Response:

```

{
  "@odata.id":"/redfish/v1/UpdateService/SoftwareInventory/DeviceConnector",
  "Name":"DeviceConnector",
  "@odata.context":"/redfish/v1/$metadata#UpdateService/SoftwareInventory/Members/$entity",

  "@odata.type":"#SoftwareInventory.v1_2_1.SoftwareInventory",
  "Manufacturer":"Cisco Systems Inc.",
  "Version":"0.0.1-3929",
  "Updateable":true,
  "Id":"DeviceConnector"
}

```

Viewing Specific System Information

Response:

```

PowerState:"On",
  "ProcessorSummary":{
    "Model":"Intel(R) Xeon(R) Silver 4110 CPU @ 2.10GHz",
    "Count":2
  },
  "MemoryDomains":{
    "@odata.id":"/redfish/v1/Systems/WZP220607R1/MemoryDomains"
  },
  "Storage":{
    "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage"
  },
  "Bios":{
    "@odata.id":"/redfish/v1/Systems/WZP220607R1/Bios"
  },
  "UUID":"20634E24-2D58-4462-93FF-9EB4C43B5BEC",
  "Name":"UCS C240 M5SX",
  "HostWatchdogTimer":{
    "Status":{

```

```

        "State": "Disabled"
    },
    "WarningAction": "None",
    "FunctionEnabled": false,
    "TimeoutAction": "PowerDown"
},
"@odata.type": "#ComputerSystem.v1_5_1.ComputerSystem",
"Manufacturer": "Cisco Systems",
"Actions": {
    "#ComputerSystem.Reset": {
        "target": "/redfish/v1/Systems/WZP220607R1/Actions/ComputerSystem.Reset",
        "ResetType@Redfish.AllowableValues": ["On", "ForceOff", "GracefulShutdown",
"ForceRestart", "Nmi", "PowerCycle"]
    }
},
"EthernetInterfaces": {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/EthernetInterfaces"
},
"Boot": {
    "BootSourceOverrideTarget": "None",
    "BootSourceOverrideTarget@Redfish.AllowableValues": ["None", "Pxe", "Floppy", "Cd", "Hdd",
"BiosSetup", "Diags"],
    "BootSourceOverrideEnabled@Redfish.AllowableValues": ["Once", "Continuous", "Disabled"],
    "BootSourceOverrideEnabled": "Disabled"
},
"@odata.id": "/redfish/v1/Systems/WZP220607R1",
"AssetTag": "Test<>Test",
"PCIeFunctions": [{
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/PCIeFunctions/1"
}, {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/PCIeFunctions/2"
}, {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/PCIeFunctions/MLOM"
}, {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/PCIeFunctions/MRAID"
}, {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/PCIeFunctions/L"
}],
"SystemType": "Physical",
"BiosVersion": "C240M5.4.0.2.203.1211182056",
"HostName": "C240-WZP220607R",
"MemorySummary": {
    "TotalSystemMemoryGiB": 64,
    "Status": {
        "HealthRollup": "OK",
        "Health": "OK"
    }
},
"Processors": {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/Processors"
},
"PCIeFunctions@odata.count": 5,
"Description": "Test\\\"123~`!@#\$\\\"",
"SimpleStorage": {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/SimpleStorage"
},
"PCIeDevices": [{
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/PCIeDevices/1"
}, {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/PCIeDevices/2"
}, {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/PCIeDevices/MLOM"
}, {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/PCIeDevices/MRAID"
}

```

```

    }, {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/PCIEDevices/L"
    }],
    "Status": {
      "State": "Enabled",
      "Health": "Warning"
    },
    "Links": {
      "CooledBy": [{
        "@odata.id": "/redfish/v1/Chassis/1/Thermal"
      }],
      "Chassis": [{
        "@odata.id": "/redfish/v1/Chassis/1"
      }],
      "PoweredBy": [{
        "@odata.id": "/redfish/v1/Chassis/1/Power"
      }],
      "ManagedBy": [{
        "@odata.id": "/redfish/v1/Managers/CIMC"
      }]
    },
    "SecureBoot": {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/SecureBoot"
    },
    "LogServices": {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/LogServices"
    },
    "NetworkInterfaces": {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/NetworkInterfaces"
    },
    "Model": "UCS C240 M5SX",
    "TrustedModules": [{
      "InterfaceType": "TPM2_0",
      "InterfaceTypeSelection": "BiosSetting",
      "FirmwareVersion": "2.0",
      "Status": {
        "Health": "OK"
      }
    }],
    "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity",
    "Memory": {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory"
    },
    "PCIEDevices@odata.count": 5
  }

```

Retrieving Individual DIMM

Response:

```

{
  "SerialNumber": "374D54EC",
  "MemoryDeviceType": "DDR4",
  "Id": "1",
  "Links": {
    "Chassis": {
      "@odata.id": "/redfish/v1/Chassis/1"
    }
  },
  "MemoryMedia": ["DRAM"],
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Memory/Members/$entity",
  "PartNumber": "M393A2G40EB2-CTD",
  "CapacityMiB": 16384,
  "MemoryLocation": {

```

```

        "Channel":0,
        "Slot":0,
        "Socket":0
    },
    "MemoryType":"DRAM",
    "OperatingMemoryModes":["Volatile"],
    "DeviceLocator":"DIMM_A1",
    "Name":"DIMM_A1",
    "@odata.id":"/redfish/v1/Systems/WZP220607R1/Memory/DIMM_A1",
    "@odata.type":"#Memory.v1_6_0.Memory",
    "DataWidthBits":64,
    "Manufacturer":"0xCE00",
    "OperatingSpeedMhz":2666,
    "Status":{
        "State":"Enabled"
    },
    "SecurityCapabilities":{
        "PassphraseCapable":false
    }
}

```

Retrieving PCIe Functions

Response:

```

{
    "VendorId":"0x1137",
    "FirmwareVersion":"4.3(1.9)",
    "Id":"2",
    "Links":{
        "NetworkDeviceFunctions":[{
"@odata.id":"/redfish/v1/Systems/WZP220607R1/NetworkInterfaces/2/NetworkDeviceFunctions/eth0"
        },{
"@odata.id":"/redfish/v1/Systems/WZP220607R1/NetworkInterfaces/2/NetworkDeviceFunctions/eth1"
        },{
"@odata.id":"/redfish/v1/Systems/WZP220607R1/NetworkInterfaces/2/NetworkDeviceFunctions/fc0"
        },{
"@odata.id":"/redfish/v1/Systems/WZP220607R1/NetworkInterfaces/2/NetworkDeviceFunctions/fc1"
        }
    ],
    "NetworkDeviceFunctions@odata.count":4,
    "StorageControllers@odata.count":0,
    "Drives@odata.count":0,
    "EthernetInterfaces@odata.count":2,
    "PCIeDevice@odata.count":1,
    "PCIeDevice":[{
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/PCIeDevices/2"
    }],
    "EthernetInterfaces":[{
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/EthernetInterfaces/2.0"
    },{
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/EthernetInterfaces/2.1"
    }]
    },
    "Name":"UCS VIC1385 40Gbps 2 port CNA QSFP+",
    "SubsystemVendorId":"0x1137",
    "@odata.type":"#Cisco_PCIeFunctions",
}

```

```

    "SubsystemId": "0x014d",

"@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/PCIeFunctions/Members/$entity",

    "@odata.id": "/redfish/v1/Systems/WZP220607R1/PCIeFunctions/2",
    "DeviceId": "0x0042",
    "Description": "This gives information of PCIeFunctions on the system"
}

```

Retrieving Individual Storage Controller

Response:

```

{
  "Drives": [{
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Drives/microSD"
  }],
  "Id": "Flexutil",
  "Volumes": {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Volumes"
  },
  "StorageControllers": [{
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/Storage/Flexutil#StorageControllers",
    "SupportedControllerProtocols": ["USB"],
    "MemberId": "SDHC",
    "Status": {
      "State": "Enabled",
      "Health": "OK",
      "HealthRollup": "OK"
    },
    "Name": "Cisco Flexutil",
    "Model": "Cisco Flexutil",
    "Manufacturer": "Cisco"
  }],
  "Name": "Flexutil",
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Storage/Members/$entity",

  "@odata.type": "#Storage.v1_5_0.Storage",
  "Links": {
    "Enclosures": [{
      "@odata.id": "/redfish/v1/Chassis/1"
    }]
  },
  "Actions": {
    "#Storage.SetEncryptionKey": {
      "SecurityKey@Redfish.AllowableValues": ["Security Key"],

"target": "/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Actions/Storage.SetEncryptionKey",

      "SecurityKeyId@Redfish.AllowableValues": ["Security Key Identifier"]
    }
  },
  "@odata.id": "/redfish/v1/Systems/WZP220607R1/Storage/Flexutil"
}

```

Retrieving Individual Drives

Response:

```

{
  "SerialNumber": "0x1d406aa",
  "Id": "1",
  "Links": {
    "Volumes": [{

```

```

        "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Volumes/SCU"
      }, {
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Volumes/Diagnostics"
      }, {
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Volumes/HUU"
      }, {
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Volumes/Drivers"
      }, {
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Volumes/UserPartition"
      }
    ],
    "Volumes@odata.count":5,
    "Chassis":{
      "@odata.id":"/redfish/v1/Chassis/1"
    }
  },
  "@odata.context":"/redfish/v1/$metadata#Systems/Members/$entity/Storage/Members/$entity/Drives/Members/$entity",
  "Location":[{
    "Info":"microSD"
  }],
  "StatusIndicator":"OK",
  "Actions":{
    "#Drive.SecureErase":{
      "target":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Drives/microSD/Actions/Drive.SecureErase"
    }
  },
  "@odata.type":"#Drive.v1_5_0.Drive",
  "Status":{
    "Health":"OK"
  },
  "BlockSizeBytes":512,
  "Name":"microSD",
  "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Drives/microSD",
  "Revision":"3.0",
  "EncryptionAbility":"None",
  "CapacityBytes":32111591424,
  "HotspareType":"None",
  "Manufacturer":"PH",
  "EncryptionStatus":"Unencrypted",
  "Model":"SD32G",
  "FailurePredicted":false
}

```

Retrieving Individual Volumes

Response:

```

{
  "Encrypted":false,
  "Status":{
    "State":"Enabled",
    "Health":"OK"
  },
  "Links":{
    "Drives":[{
      "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Drives/microSD"
    }],
    "Drives@odata.count":1
  },
  "Name":"UserPartition",

```

```

    "@odata.context":"/redfish/v1/$metadata#Systems/Members/$entity/Storage/Members/$entity/
    Volumes/Members/$entity",
    "Actions":{
        "#Volume.Initialize":{

"target":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Volumes/UserPartition/Actions/
Volume.Initialize"
        }
    },
    "CapacityBytes":10358882304,
    "@odata.type":"#Volume.v1_0_3.Volume",
    "@odata.id":"/redfish/v1/Systems/WZP220607R1/Storage/Flexutil/Volumes/UserPartition",
    "Id":"5",
    "VolumeType":"NonRedundant",
    "Operations":[{
        "OperationName":"No operation in progress"
    }]
}

```

Viewing Processor Information

Response:

```

{
    "@odata.id":"/redfish/v1/Systems/WZP220607R1/Processors/CPU1",
    "@odata.context":"/redfish/v1/$metadata#Systems/Members/$entity/Processors/Members/$entity",

    "InstructionSet":"x86-64",
    "Description":"Intel(R) Xeon(R) Silver 4110 2.10 GHz 85W 8C 11.00MB Cache DDR4 2400MHz
768GB",
    "ProcessorArchitecture":"x86",
    "Status":{
        "State":"Enabled",
        "Health":"OK"
    },
    "ProcessorType":"CPU",
    "Name":"CPU1",
    "ProcessorId":{
        "VendorId":"Intel(R) Corporation"
    },
    "TotalThreads":8,
    "Model":"Intel(R) Xeon(R) Silver 4110 CPU @ 2.10GHz",
    "@odata.type":"#Processor.v1_3_1.Processor",
    "Id":"1",
    "Manufacturer":"Intel(R) Corporation",
    "MaxSpeedMHz":4000,
    "TotalCores":8,
    "Socket":"CPU1"
}

```

Retrieving PCIe Devices

Response:

```

{
    "@odata.type":"#PCIeDevice.v1_3_0.PCIeDevice",

"@odata.context":"/redfish/v1/$metadata#Systems/Members/$entity/PCIeDevices/Members/$entity",

    "FirmwareVersion":"0x80002B50-1.812.1",
    "Id":"1",
    "@odata.id":"/redfish/v1/Systems/WZP220607R1/PCIeDevices/1",
    "Links":{
        "Chassis":[{

```



```

        "@odata.id":"/redfish/v1/Chassis/1"
      }},
      "PCIEFunctions@odata.count":1,
      "PCIEFunctions":[{"
        "@odata.id":"/redfish/v1/Systems/WZP220607R1/PCIEFunctions/1"
      }]
    },
    "Name":"Cisco(R) Ethernet Converged NIC X710-DA4",
    "Description":"This gives information of PCIEDevices on the system"
  }
}

```

Viewing Session Service

Response:

```

{
  "@odata.id":"/redfish/v1/SessionService",
  "Status":{
    "State":"Enabled",
    "Health":"OK",
    "HealthRollup":"OK"
  },
  "Name":"Session Service",
  "@odata.context":"/redfish/v1/$metadata#SessionService",
  "@odata.type":"#SessionService.v1_1_4.SessionService",
  "SessionTimeout":1800,
  "ServiceEnabled":true,
  "Sessions":{
    "@odata.id":"/redfish/v1/SessionService/Sessions"
  },
  "Id":"SessionService",
  "Description":"Session Service"
}

```

Powering On a Server

Request:

```

curl -vv https://10.10.10.10/redfish/v1/Systems
/FCH2005V1EN/Actions/ComputerSystem.Reset -d
'{"ResetType":"On"}' --insecure -u admin:Admin123

```

Powering Off a Server

Request:

```

curl -vv https://10.10.10.10/redfish/v1/Systems/FCH2005V1EN/Actions/ComputerSystem.Reset
-d
'{"ResetType":"ForceOff"}' --insecure -u admin:Admin123

```

Examples of New Additions in 4.0(4) Release

This section includes the following examples on how to use the REST API to perform common server tasks for 4.0(4) release:

- [Retrieving Event Service, on page 107](#)
- [Retrieving Individual Event Service, on page 107](#)
- [Retrieving Individual Tasks Details, on page 108](#)
- [Retrieving NIC Details, on page 108](#)

- [Retrieving Individual Ethernet Interfaces Details, on page 109](#)
- [Retrieving Virtual Media Details, on page 110](#)
- [Retrieving Registries, on page 110](#)
- [Retrieving Base Registries, on page 111](#)
- [Retrieving Cisco UCS Faults Registries, on page 111](#)
- [Retrieving Cisco UCS Fault Codes Registries, on page 111](#)
- [Retrieving Cisco UCS Message Registries, on page 112](#)
- [Retrieving Cisco Bios Attribute Registries, on page 116](#)
- [Retrieving Memory Details, on page 118](#)
- [Retrieving Memory Domains, on page 119](#)
- [Retrieving Memory Chunks, on page 120](#)
- [Setting MAC-Address \(to a particular value\) and MTU Size, on page 121](#)
- [Setting MAC-Address \(to AUTO\), on page 122](#)
- [Configuring iSCSI Boot when PXE Boot is Enabled, on page 122](#)
- [Editing iSCSI Boot Values, on page 122](#)
- [Editing iSCSI Boot Values – Authentication Mode, on page 123](#)
- [Setting WWPN and WWNN to Auto, on page 123](#)
- [Adding Boot Target Entries, on page 123](#)
- [Deleting Boot Targets, on page 123](#)
- [Setting Power Limits Attributes, on page 124](#)
- [Setting DHCPv4 Attributes, on page 124](#)
- [Setting DHCPv6 Attributes, on page 125](#)
- [Setting IPv6 Attributes, on page 125](#)
- [Setting Auto Negotiation, Speed, and Duplex, on page 125](#)
- [Setting Hostname, on page 126](#)
- [Setting DNS, on page 126](#)
- [Setting IPv4, on page 126](#)
- [Setting VLAN, on page 127](#)
- [Setting LDAP Attributes, on page 127](#)
- [Setting Systems Attributes, on page 127](#)
- [Eject VMedia, on page 128](#)

Retrieving Event Service

Request:

```
curl -k -u admin:Password https://10.10.10.10/redfish/v1/EventService
```

Response:

```
{
  "Subscriptions":{
    "@odata.id":"/redfish/v1/EventService/Subscriptions"
  },
  "Id":"EventService",
  "Status":{
    "State":"Disabled",
    "Health":"OK"
  },
  "Name":"Event Service",
  "ServiceEnabled":false,
  "Description":"Event Service represents the properties for the service",
  "@odata.type":"#EventService.v1_2_0.EventService",
  "DeliveryRetryIntervalSeconds":30,
  "@odata.context":"/redfish/v1/$metadata#EventService",
  "DeliveryRetryAttempts":3,
  "@odata.id":"/redfish/v1/EventService",
  "Actions":{
    "#EventService.SubmitTestEvent":{
      "Protocol@Redfish.AllowableValues":["Redfish"],
      "target":"/redfish/v1/EventService/Actions/EventService.SubmitTestEvent",
      "Context@Redfish.AllowableValues":["Context string"],
      "Destination@Redfish.AllowableValues":["Valid Remote HTTP server path"],
      "EventType@Redfish.AllowableValues":["Alert"]
    }
  },
  "EventTypesForSubscription":["Alert"]
}
```

Retrieving Individual Event Service

Request:

```
curl -XGET -k -u admin:Password https://10.10.10.10/redfish/v1/EventService/
Subscriptions/66c6596b56aa18a60b5aabb509656800
```

Response:

```
{
  "Id":"66c6596b56aa18a60b5aabb509656800",
  "Protocol":"Redfish",
  "Name":"EventSubscription 66c6596b56aa18a60b5aabb509656800",
  "Context":"abcsd",
  "MessageIds":["F0729","F0730","F0731","F0410","F0409","F0411",
"F0186","F0187","F0188","F0176","F0177","F0381","F0383","F0385","F0869","F0921",
"F0919","F0920","F0918","F0424","F0425","F0179","F0180","F0882","F0395","F0396","F0397",
"F0392","F0393","F0394","F1040","F0174","F0185","F0460","F0461","F0462","F0868","F0434","F0389","F0391"],

  "Description":"Event Subscription Details",
  "@odata.type":"#EventDestination.1.0.0.EventDestination",
  "SubscriptionType":"RedfishEvent",
  "Destination":"10.10.10.10",
  "@odata.context":"/redfish/v1/$metadata#EventService/Subscriptions/Members/$entity",
  "@odata.id":"/redfish/v1/EventService/Subscriptions/66c6596b56aa18a60b5aabb509656800",
}
```

```
    "EventTypes":["Alert"]
}
```

Retrieving Individual Tasks Details

Request:

```
curl -k -u admin:Password https://10.10.10.10/redfish/v1/TaskService/Tasks/ExportBmcConfig
```

Response:

```
{
  "@odata.id":"/redfish/v1/TaskService/Tasks/ExportBmcConfig",
  "Name":"Task ExportBmcConfig",
  "@odata.context":"/redfish/v1/$metadata#TaskService/Tasks/Members/$entity",
  "TaskStatus":"OK",
  "@odata.type":"#Task.v1_3_0.Task",
  "Id":"ExportBmcConfig",
  "TaskState":"Completed",
  "Oem":{
    "Cisco":{
      "ExportStatus":"None"
    }
  },
  "Description":"Export BMC Configuration"
}
```

Retrieving NIC Details

Request:

```
curl -k -u admin:Password https://10.10.10.10/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs
```

Response:

```
{
  "IPv6DefaultGateway":"2001:420:5446:2014::330:1",
  "Id":"NICs",
  "NameServers":["10.126.164.234","72.163.128.140","2001:420:5446:2014:2aac:9eff:fe22:8"],
  "AutoNeg":true,

  "@odata.context":"/redfish/v1/$metadata#Managers/Members/$entity/EthernetInterfaces/Members/$entity",

  "SpeedMbps":1024,
  "HostName":"C240-WZP220607R",
  "IPv6Addresses":[{
    "Address":"2001:420:5446:2014::330:16",
    "PrefixLength":119,
    "AddressOrigin":"Static"
  }],
  "FullDuplex":true,

  "StaticNameServers":["10.126.164.234","72.163.128.140","2001:420:5446:2014:2aac:9eff:fe22:8"],

  "DHCPv4":{
    "UseDNSServers":false,
    "UseGateway":false,
    "UseNTPServers":false,
    "UseDomainName":false,
    "DHCPEnabled":false,
    "UseStaticRoutes":false
  },
}
```

```

    "IPv4Addresses": [{
      "Gateway": "10.10.10.1",
      "Address": "10.10.10.10",
      "SubnetMask": "255.255.255.0",
      "AddressOrigin": "Static"
    }],
    "VLAN": {
      "VLANId": 1,
      "VLANEnable": false
    },
    "IPv6StaticDefaultGateways": [{
      "Address": "2001:420:5446:2014::330:1"
    }],
    "InterfaceEnabled": true,
    "MACAddress": "28:AC:9E:22:59:40",
    "Name": "Manager Ethernet Interface",
    "Links": {
      "Chassis": {
        "@odata.id": "/redfish/v1/Chassis/1"
      }
    },
    "@odata.id": "/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs",
    "DHCIPv6": {
      "OperatingMode": "Disabled",
      "UseDNSServers": false,
      "UseDomainName": false,
      "UseNTPServers": false
    },
    "@odata.type": "#EthernetInterface.v1_4_1.EthernetInterface",
    "MaxIPv6StaticAddresses": 1,
    "StatelessAddressAutoConfig": {
      "IPv4AutoConfigEnabled": false,
      "IPv6AutoConfigEnabled": true
    },
    "MTUSize": 1500,
    "PermanentMACAddress": "28:AC:9E:22:59:40",
    "Description": "Manager Network Interface"
  }
}

```

Retrieving Individual Ethernet Interfaces Details

Request:

```

curl -k -u admin:Password
https://10.10.10.10/redfish/v1/Systems/WZP220607R1/EthernetInterfaces/1.1

```

Response:

```

{
  "@odata.id": "/redfish/v1/Systems/WZP220607R1/EthernetInterfaces/1.1",
  "MACAddress": "3c:fd:fe:b9:ef:fb",
  "Name": "Ethernet Interface",

  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/EthernetInterfaces/Members/$entity",

  "@odata.type": "#EthernetInterface.v1_4_1.EthernetInterface",
  "Links": {
    "Chassis": {
      "@odata.id": "/redfish/v1/Chassis/1"
    }
  },
  "Id": "1.1",
  "PermanentMACAddress": "3c:fd:fe:b9:ef:fb",

```

```
    "Description": "Network Interface"
  }
```

Retrieving Virtual Media Details

Request:

```
curl -XGET -k -u admin:Password https://10.10.10.10/redfish/v1/Managers/CIMC/VirtualMedia/TEST
```

Response:

```
{
  "ConnectedVia": "URI",
  "Id": "TEST",
  "Actions": {
    "#VirtualMedia.EjectMedia": {
      "target": "/redfish/v1/Managers/CIMC/VirtualMedia/TEST/Actions/VirtualMedia.EjectMedia",
    }
  },
  "Image": "chassis.img",

  "@odata.context": "/redfish/v1/$metadata#Managers/Members/$entity/VirtualMedia/Members/$entity",

  "@odata.id": "/redfish/v1/Managers/CIMC/VirtualMedia/TEST",
  "ImageName": "https://10.10.10.10//chassis.img",
  "@odata.type": "#VirtualMedia.1.0.0",
  "WriteProtected": true,
  "Name": "Virtual Removable Disk",
  "Inserted": false,
  "MediaType": ["Floppy", "USBStick"],
  "Description": "Virtual Media Settings"
}
```

Retrieving Registries

Request:

```
curl -XGET -k -u admin:Password https://10.10.10.10/redfish/v1/Registries
```

Response:

```
{
  "Members": [{
    "@odata.id": "/redfish/v1/Registries/Base"
  }, {
    "@odata.id": "/redfish/v1/Registries/CiscoUcsFaults"
  }, {
    "@odata.id": "/redfish/v1/Registries/CiscoUcsMessageRegistry"
  }, {
    "@odata.id": "/redfish/v1/Registries/CiscoBiosAttributeRegistry.v1_0_0"
  }],
  "Description": "Registry Repository",
  "@odata.type": "#MessageRegistryFileCollection.MessageRegistryFileCollection",
  "@odata.id": "/redfish/v1/Registries",
  "Members@odata.count": 4,
  "Name": "Registry File Collection",
  "@odata.context": "/redfish/v1/$metadata#Registries"
}
```

Retrieving Base Registries

Request:

```
curl -XGET -k -u admin:Password https://10.10.10.10/redfish/v1/Registries/Base
```

Response:

```
{
  "Id": "Base",
  "Name": "Base Message Registry file",
  "@odata.context": "/redfish/v1/$metadata#Registries/Members/$entity",
  "Languages": ["en"],
  "@odata.type": "#MessageRegistryFile.v1_0_2.MessageRegistryFile",
  "Location": [{
    "Uri": "/redfish/v1/Registries/Base/Base.1.4.0.json",
    "Language": "en"
  }],
  "@odata.id": "/redfish/v1/Registries/Base",
  "Description": "Base Message Registry File locations"
}
```

Retrieving Cisco UCS Faults Registries

Request:

```
curl -XGET -k -u admin:Password https://10.10.10.10/redfish/v1/Registries/CiscoUcsFaults
```

Response:

```
{
  "Id": "CiscoUcsFaults",
  "Name": "Faults Registry",
  "@odata.context": "/redfish/v1/$metadata#Registries/Members/$entity",
  "Languages": ["en"],
  "@odata.type": "#MessageRegistryFile.v1_0_2.MessageRegistryFile",
  "Location": [{
    "Uri": "/redfish/v1/Registries/CiscoUcsFaults/CiscoUcsFaultCodes.v1_0_0.json",
    "Language": "en"
  }],
  "@odata.id": "/redfish/v1/Registries/CiscoUcsFaults",
  "Description": "Faults RegistryFile for this system"
}
```

Retrieving Cisco UCS Fault Codes Registries

Request:

```
curl -XGET -k -u admin:Password https://10.10.10.10/redfish/v1/Registries/CiscoUcsFaults/
CiscoUcsFaultCodes.v1_0_0.json
```

Response:

```
{
```

```

"@Redfish.Copyright":"Copyright 2018-2021 Cisco Systems Inc. All rights reserved.",
"RegistryVersion":"1.0.0",
"OwningEntity":"Cisco Systems Inc.",
"Name":"Cisco UCS Fault Message Registry",

"@odata.context":"/redfish/v1/$metadata#Registries/Members/$entity/CiscoUcsFaultCodes.v1_0_0.json",

"@odata.id":"/redfish/v1/Registries/CiscoUcsFaults/CiscoUcsFaultCodes.v1_0_0.json",
"@odata.type":"#MessageRegistry.v1_2_0.MessageRegistry",
"Id":"CiscoUcsFaults.1.0.0",
"Language":"en",
"Messages":{
  "F0381":{
    "Oem":{
      "cisco":{
        "MessageId":12
      }
    },
    "Resolution":"Check power supply status",
    "NumberOfArgs":0,
    "Severity":"minor",
    "Message":"",
    "Description":"Power Supply temperature is upper non critical"
  },
  "F0395":{
    "Oem":{
      "cisco":{
        "MessageId":25
      }
    },
    "Resolution":"Check the air intake to the server",
    "NumberOfArgs":0,
    "Severity":"minor",
    "Message":"",
    "Description":"Fan speed for fan-x is lower non critical"
  },
  .
<SNIP>
  .
  .
  "F0424":{
    "Oem":{
      "cisco":{
        "MessageId":20
      }
    },
    "Resolution":"Replace Battery",
    "NumberOfArgs":0,
    "Severity":"major",
    "Message":"",
    "Description":"Battery voltage level is lower critical"
  },
  "RegistryPrefix":"CiscoUCSFaults",
  "Description":"This registry defines the Fault messages for Cisco UCS Redfish
implementations."
}

```

Retrieving Cisco UCS Message Registries

Request:


```
curl -XGET -k -u admin:Password https://10.10.10.10/redfish/v1/Registries/
CiscoUcsMessageRegistry
```

Response:

```
{
  "Id": "CiscoUcsMessageRegistry",
  "Name": "Cisco UCS Message Registry file",
  "@odata.context": "/redfish/v1/$metadata#Registries/Members/$entity",
  "Languages": ["en"],
  "@odata.type": "#MessageRegistryFile.v1_0_2.MessageRegistryFile",
  "Location": [{
    "Uri": "/redfish/v1/Registries/CiscoUcsMessageRegistry/CiscoUCS.v1_0_0.json",
    "Language": "en"
  }],
  "@odata.id": "/redfish/v1/Registries/CiscoUcsMessageRegistry",
  "Description": "Cisco UCS Message Registry File locations"
}
```

Request:

```
curl -XGET -k -u admin:Password https://10.10.10.10/redfish/v1/Registries/
CiscoUcsMessageRegistry/CiscoUCS.v1_0_0.json
```

Response:

```
{
  "@Redfish.Copyright": "Copyright 2018-2021 Cisco Systems Inc. All rights reserved.",
  "RegistryVersion": "1.0.0",
  "OwningEntity": "Cisco Systems Inc.",
  "Name": "Cisco UCS Common Message Registry",
  "@odata.context": "/redfish/v1/$metadata#Registries/Members/$entity/CiscoUCS.v1_0_0.json",

  "@odata.id": "/redfish/v1/Registries/CiscoUcsMessageRegistry/CiscoUCS.v1_0_0.json",
  "@odata.type": "#MessageRegistry.v1_2_0.MessageRegistry",
  "Id": "CiscoUCS.1.0.0",
  "Language": "en",
  "Messages": {
    "InvalidConfigurationSpecified": {
      "Resolution": "Correct the combination and retry the operation.",
      "ParamTypes": ["string"],
      "NumberOfArgs": 1,
      "Severity": "Warning",
      "Message": "The combination %1 specified in the request is not valid.",
      "Description": "Indicates that the combination of parameters passed in the request
is invalid or not supported. "
    },
    "ResourceCannotBeCreated": {
      "Resolution": "Do not attempt to create this resource.",
      "NumberOfArgs": 0,
      "Severity": "Critical",
      "Message": "The create request failed because the resource requested does not support
create.",
      "Description": "Indicates that a create operation was attempted on a resource that
cannot be created."
    },
    "IncompatibleSystemState": {
      "Resolution": "Adjust the system state accordingly and retry the combination.",
      "ParamTypes": ["string"],
      "NumberOfArgs": 1,
      "Severity": "Warning",

```

```

        "Message": "Incompatible System State : %1",
        "Description": "Indicates that the system is in a state which is incompatible to run
the
given operation."
    },
    "UnauthorisedPlatform": {
        "Resolution": "Call Cisco TAC.",
        "NumberOfArgs": 0,
        "Severity": "Critical",
        "Message": "This platform is unauthorized. Please Call Cisco TAC. ( Error : 0x18008080
) .",
        "Description": "Indicates that the underlying platform is not authorised."
    },
    "HttpNotSupported": {
        "Resolution": "Use HTTPS Protocol.",
        "NumberOfArgs": 0,
        "Severity": "Critical",
        "Message": "HTTP Protocol not Supported.",
        "Description": "Indicates that the Redfish service does not support HTTP protocol."
    },
    "PropertyValueNotInRange": {
        "Resolution": "Choose a value within the range that the implementation can support
and resubmit the request if the operation failed.",
        "ParamTypes": ["number", "string", "number", "number"],
        "NumberOfArgs": 4,
        "Severity": "Warning",
        "Message": "The value %1 for the property %2 is not within the range %3 - %4 of
acceptable values.",
        "Description": "Indicates that a property was given the correct value type but the
value
of that property was not supported. These values are not within the range"
    },
    "ServiceUnavailable": {
        "Resolution": "Use CIMC WebUI/CLI/XMLAPI to enable Redfish Service.",
        "NumberOfArgs": 0,
        "Severity": "Critical",
        "Message": "Redfish Service is disabled.",
        "Description": "Indicates that the Redfish Service is currently disabled for this
platform."
    },
    "ResourceCannotBeUpdated": {
        "Resolution": "Do not attempt to update this resource.",
        "NumberOfArgs": 0,
        "Severity": "Critical",
        "Message": "The update request failed because the resource requested does not support
update.",
        "Description": "Indicates that a update (PATCH) operation was attempted on a resource
that
cannot be updated."
    },
    "PropertyValueNotValid": {
        "Resolution": "Provide a valid value and resubmit the request if the operation failed.",

        "ParamTypes": ["string", "string", "string"],
        "NumberOfArgs": 3,
        "Severity": "Warning",
        "Message": "The value %1 for the property %2 is not valid. Valid values could be %3.",

        "Description": "Indicates that a property was given the correct value type but the
value
of that property was not valid. These values are not within the valid set of values."
    },
    "PropertyValueContainsInvalidCharacters": {
        "Resolution": "Provide a value that does not contain mentioned characters and resubmit

```

```

    the request
  if the operation failed.",
    "ParamTypes":["string","string"],
    "NumberOfArgs":2,
    "Severity":"Warning",
    "Message":"The value for %1 contains one of the following invalid character %2",
    "Description":"Indicates that the property value contains some invalid/unsupported
characters."
  },
  "PropertyValueLengthExceeded":{
    "Resolution":"Provide a value that is within the specified limits and resubmit the
request if the operation failed.",
    "ParamTypes":["string","number"],
    "NumberOfArgs":2,
    "Severity":"Warning",
    "Message":"The string length of value for %1 exceeds the maximum allowed value of
%2",
    "Description":"Indicates that the string length of property value exceeds permissible
limits."
  },
  "ArrayLengthExceeded":{
    "Resolution":"Provide a value that is within the specified limits and resubmit the
request
if the operation failed.",
    "ParamTypes":["string","number"],
    "NumberOfArgs":2,
    "Severity":"Warning",
    "Message":"The array length for %1 exceeds the maximum allowed value of %2.",
    "Description":"Indicates that the array size of property value exceeds permissible
limits."
  },
  "PropertyUpdateForPlatformNotSupported":{
    "Resolution":"Remove the unsupported properties for the platform and resubmit the
request
if the operation failed",
    "NumberOfArgs":0,
    "Severity":"Warning",
    "Message":"Some of the properties in the request body cannot be updated because they
are either read only, unknown or unsupported for the platform.",
    "Description":"Indicates that some of the properties in the request body cannot be
updated
for the particular platform. This could be because the property is either read-only, unknown
or
unsupported by the implementation. "
  },
  "PropertyUpdateNotSupported":{
    "Resolution":"Remove the unsupported properties and resubmit the request if the
operation failed",
    "NumberOfArgs":0,
    "Severity":"Warning",
    "Message":"Some of the properties in the request body cannot be updated because they
are
either read only, unknown or unsupported.",
    "Description":"Indicates that some of the properties in the request body cannot be
updated.
This could be because the property is either read-only, unknown or unsupported by the
implementation. "
  },
  "MethodNotAllowed":{
    "Resolution":"Do not attempt an unsupported method on the resource. Please resubmit
the
request proper method.",
    "ParamTypes":["string","string"],

```

```

        "NumberOfArgs":2,
        "Severity":"Warning",
        "Message":"The resource %1 does not allow %2 method.",
        "Description":"Indicates that the method type mentioned in the request body is not
allowed on this resource."
    }
},
"RegistryPrefix":"CiscoUCS",
"Description":"This registry defines the common messages for Cisco UCS Redfish
implementations."
}

```

Retrieving Cisco Bios Attribute Registries

Request:

```
curl -XGET -k -u admin:Password https://10.10.10.10/redfish/v1/Registries/
CiscoBiosAttributeRegistry.v1_0_0
```

Response:

```

{
  "Id":"CiscoBiosAttributeRegistry.v1_0_0",
  "Name":"BIOS Attribute Registry",
  "@odata.context":"/redfish/v1/$metadata#Registries/Members/$entity",
  "Languages":["en"],
  "@odata.type":"#MessageRegistryFile.v1_0_2.MessageRegistryFile",
  "Location":[{"
    "Uri":"/redfish/v1/Registries/CiscoBiosAttributeRegistry.v1_0_0/BiosAttributeRegistry",

    "Language":"en"
  }],
  "@odata.id":"/redfish/v1/Registries/CiscoBiosAttributeRegistry.v1_0_0",
  "Description":"BIOS Attribute Registry File locations"
}

```

Request:

```
curl -XGET -k -u admin:Password
https://10.10.10.10/redfish/v1/Registries/CiscoBiosAttributeRegistry.v1_0_0/
BiosAttributeRegistry
```

Response:

```

{
  "SupportedSystems":[{"
    "FirmwareVersion":"66.77(67.1540958078)",
    "ProductName":"UCS C240 M5SX",
    "SystemId":"WZP220607R1"
  }],

  "@odata.id":"/redfish/v1/Registries/CiscoBiosAttributeRegistry.v1_0_0/BiosAttributeRegistry",

  "OwningEntity":"Cisco Systems Inc.",
  "Name":"BIOS Attribute Registry",
  "@odata.context":"/redfish/v1/$metadata#Registries/Members/$entity/BiosAttributeRegistry",

  "RegistryEntries":{

```

```

"Attributes":[{
  "DefaultValue":"Enabled",
  "WriteOnly":false,
  "ResetRequired":true,
  "Hidden":false,
  "DisplayName":"Processor CMCI",
  "IsSystemUniqueProperty":true,
  "AttributeName":"ProcessorCMCI",
  "Immutable":false,
  "Value":[{
    "ValueName":"Enabled",
    "ValueDisplayName":"Enabled"
  },{
    "ValueName":"Disabled",
    "ValueDisplayName":"Disabled"
  }],
  "ReadOnly":false,
  "MinLength":1,
  "MaxLength":64,
  "Type":"String"
},{
  "DefaultValue":"Auto",
  "WriteOnly":false,
  "ResetRequired":true,
  "Hidden":false,
  "DisplayName":"IMC Interleaving",
  "IsSystemUniqueProperty":true,
  "AttributeName":"IMCInterleave",
  "Immutable":false,
  "Value":[{
    "ValueName":"Auto",
    "ValueDisplayName":"Auto"
  },{
    "ValueName":"1-way Interleave",
    "ValueDisplayName":"1-way Interleave"
  },{
    "ValueName":"2-way Interleave",
    "ValueDisplayName":"2-way Interleave"
  }],
  "ReadOnly":false,
  "MinLength":1,
  "MaxLength":64,
  "Type":"String"
}],

.
<SNIP>
.
{
  "DefaultValue":"10 minutes",
  "WriteOnly":false,
  "ResetRequired":true,
  "Hidden":false,
  "DisplayName":"OS Watchdog Timer Timeout",
  "IsSystemUniqueProperty":true,
  "AttributeName":"OSBootWatchdogTimerTimeout",
  "Immutable":false,
  "Value":[{
    "ValueName":"5 minutes",
    "ValueDisplayName":"5 minutes"
  },{
    "ValueName":"10 minutes",
    "ValueDisplayName":"10 minutes"
  },{

```

```

        "ValueName": "15 minutes",
        "ValueDisplayName": "15 minutes"
      }, {
        "ValueName": "20 minutes",
        "ValueDisplayName": "20 minutes"
      }
    ],
    "ReadOnly": false,
    "MinLength": 1,
    "MaxLength": 64,
    "Type": "String"
  }
},
"@odata.type": "#AttributeRegistry.v1_2_1.AttributeRegistry",
"Id": "BiosAttributeRegistry",
"RegistryVersion": "1.0.0",
"Language": "en"
}

```

Retrieving Memory Details

Request:

```

curl -k -u admin:Password -XGET
https://10.10.10.10/redfish/v1/Systems/WZP220607R1/Memory/DIMM_G1

```

Response:

```

{
  "SerialNumber": "374EC378",
  "MemoryDeviceType": "DDR4",
  "Id": "13",
  "Links": {
    "Chassis": {
      "@odata.id": "/redfish/v1/Chassis/1"
    }
  },
  "MemoryMedia": ["NAND"],
  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/Memory/Members/$entity",
  "PartNumber": "M393A2G40EB2-CTD",
  "PersistentRegionNumberLimit": 1,
  "CapacityMiB": 16384,
  "MemoryLocation": {
    "Channel": 0,
    "Slot": 0,
    "Socket": 1
  },
  "MemoryType": "IntelOptane",
  "OperatingMemoryModes": ["Volatile", "PMEM"],
  "DeviceLocator": "DIMM_G1",
  "Name": "DIMM_G1",
  "PersistentRegionSizeMaxMiB": 65536,
  "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/DIMM_G1",
  "Regions": [
    {
      "SizeMiB": 262144,
      "MemoryClassification": "ByteAccessiblePersistent",
      "RegionId": "2"
    }
  ],
  "@odata.type": "#Memory.v1_6_0.Memory",
  "DataWidthBits": 64,
  "Manufacturer": "0xCE00",
  "OperatingSpeedMhz": 2666,

```

```

    "Status":{
      "State":"Enabled"
    },
    "SecurityCapabilities":{
      "MaxPassphraseCount":1,
      "SecurityStates":["Enabled","Disabled","Unlocked","Locked"],
      "PassphraseCapable":true
    }
  }
}

```

Request:

```
curl -k -u admin:Password -XGET https://10.10.10.10/redfish/v1/Systems/WZP220607R1
```

Response:

```

{
  "SerialNumber":"WZP220607R1",
  "Id":"WZP220607R1",

  "MemoryDomains":{
    "@odata.id":"/redfish/v1/Systems/WZP220607R1/MemoryDomains"
  },

  "Processors":{
    "@odata.id":"/redfish/v1/Systems/WZP220607R1/Processors"
  },

  "@odata.context":"/redfish/v1/$metadata#Systems/Members/$entity",
  "Memory":{
    "@odata.id":"/redfish/v1/Systems/WZP220607R1/Memory"
  },
  "PCIeDevices@odata.count":5
}

```

Retrieving Memory Domains

Request:

```
curl -k -u admin:Password -XGET https://10.10.10.10/redfish/v1/Systems/WZP220607R1/MemoryDomains
```

Response:

```

{
  "Members":[{
    "@odata.id":"/redfish/v1/Systems/WZP220607R1/MemoryDomains/1"
  }],
  "Description":"Collection of Memory Domain resource instances for this system",
  "@odata.type":"#MemoryDomainCollection.MemoryDomainCollection",
  "@odata.id":"/redfish/v1/Systems/WZP220607R1/MemoryDomains",
  "Members@odata.count":1,
  "Name":"Memory Domain Collection",
  "@odata.context":"/redfish/v1/$metadata#Systems/Members/$entity/MemoryDomains"
}

```

Request:

```
curl -k -u admin:Password -XGET
https://10.10.10.10/redfish/v1/Systems/WZP220607R1/MemoryDomains/1
```

Response:

```
{
  "@odata.id": "/redfish/v1/Systems/WZP220607R1/MemoryDomains/1",
  "AllowsBlockProvisioning": false,
  "Name": "Memory Domain",
  "InterleavableMemorySets": [{
    "MemorySet": [{
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/CPU_MOD1_DIMM_A2"
    }, {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/CPU_MOD1_DIMM_B2"
    }, {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/CPU_MOD1_DIMM_D2"
    }, {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/CPU_MOD1_DIMM_E2"
    }
  ]
}, {
  "MemorySet": [{
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/DIMM_G1"
  }, {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/CPU_MOD1_DIMM_H2"
  }, {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/CPU_MOD1_DIMM_K2"
  }, {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/CPU_MOD1_DIMM_L2"
  }
  ]
}, {
  "AllowsMirroring": false,
  "@odata.type": "#MemoryDomain.v1_2_1.MemoryDomain",
  "AllowsSparing": false,
  "AllowsMemoryChunkCreation": true,

  "@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/MemoryDomains/Members/$entity",

  "Id": "1",
  "MemoryChunks": {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/MemoryDomains/1/MemoryChunks"
  }
}
```

Retrieving Memory Chunks

Request:

```
curl -k -u admin:Password -XGET
https://10.10.10.10/redfish/v1/Systems/WZP220607R1/MemoryDomains/1/MemoryChunks
```

Response:

```
{
  "Members": [{
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/MemoryDomains/1/MemoryChunks/1"
  }, {
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/MemoryDomains/1/MemoryChunks/2"
  }
],
```



```

    "Description": "Collection of Memory Chunks resource instances for this system",
    "@odata.type": "#MemoryChunksCollection.MemoryChunksCollection",
    "@odata.id": "/redfish/v1/Systems/WZP220607R1/MemoryDomains/1/MemoryChunks",
    "Members@odata.count": 2,
    "Name": "Memory Chunks Collection",

"@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/MemoryDomains/1/MemoryChunks"
}

```

Request:

```

curl -k -u admin:Password -XGET
https://10.10.10.10/redfish/v1/Systems/WZP220607R1/MemoryDomains/1/
MemoryChunks/1

```

Response:

```

{
  "InterleaveSets": [{
    "Memory": {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/CPU_MOD1_DIMM_A2"
    }
  }, {
    "Memory": {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/CPU_MOD1_DIMM_B2"
    }
  }, {
    "Memory": {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/CPU_MOD1_DIMM_D2"
    }
  }, {
    "Memory": {
      "@odata.id": "/redfish/v1/Systems/WZP220607R1/Memory/CPU_MOD1_DIMM_E2"
    }
  }
  ],
  "@odata.id": "/redfish/v1/Systems/WZP220607R1/MemoryDomains/1/MemoryChunks/1",
  "IsSpare": false,
  "MemoryChunkSizeMiB": 262144,
  "IsMirrorEnabled": false,
  "AddressRangeType": "PMEM",
  "@odata.type": "#MemoryChunks.v1_2_2.MemoryChunks",

"@odata.context": "/redfish/v1/$metadata#Systems/Members/$entity/MemoryDomains/1/MemoryChunks/1/MemoryChunks/1",

  "Name": "Memory Chunk 1",
  "Id": "1"
}

```

Setting MAC-Address (to a particular value) and MTU Size

Request:

```

curl -XPATCH -k -u admin:Password https://10.10.10.10/redfish/v1/Systems/WZP21330G5B/
NetworkInterfaces/1/NetworkDeviceFunctions/eth0 -d'
{
  "Ethernet": {
    "MACAddress": "6C:B2:AE:3A:B2:DE",
    "MTUSize": 2222
  }
}'

```

Setting MAC-Address (to AUTO)

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Systems/WZP21330G5B/NetworkInterfaces/1/NetworkDeviceFunctions/eth0 -d'
{
  "Ethernet":{
    "MACAddress":"auto"
  }
}'
```

Configuring iSCSI Boot when PXE Boot is Enabled

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Systems/WZP21330G5B/NetworkInterfaces/1/NetworkDeviceFunctions/eth0 -d'
{
  "iSCSIBoot":{
    "InitiatorName":"test-init-change",
    "InitiatorIPAddress":"10.10.10.1",
    "InitiatorNetmask":"255.255.2.5",
    "PrimaryTargetIPAddress":"10.10.2.2",
    "PrimaryTargetName":"test-primary-1-change"
  }
}'
```

Editing iSCSI Boot Values

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Systems/WZP21330G5B/NetworkInterfaces/1/NetworkDeviceFunctions/eth0 -d'{
  "iSCSIBoot":{
    "InitiatorName":"test-init-change",
    "InitiatorIPAddress":"10.10.10.1",
    "InitiatorNetmask":"255.255.2.5",
    "PrimaryTargetIPAddress":"10.10.2.2",
    "PrimaryTargetName":"test-primary-1-change",
    "PrimaryLUN":20,
    "InitiatorDefaultGateway":"10.10.10.12",
    "PrimaryDNS":"192.168.1.1",
    "SecondaryDNS":"192.168.1.2",
    "SecondaryTargetName":"test-sec-change",
    "SecondaryTargetIPAddress":"10.1.1.1",
    "SecondaryLUN":30
  }
}'
```

Editing iSCSI Boot Values – Authentication Mode

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Systems/WZP21330G5B/NetworkInterfaces/1/NetworkDeviceFunctions/eth0 -d'{"iSCSIBoot":{"AuthenticationMethod":"CHAP","CHAPUsername":"test-CHAP","CHAPSecret":"testSecret"}}'
```

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Systems/WZP21330G5B/NetworkInterfaces/1/NetworkDeviceFunctions/eth0 -d'{"iSCSIBoot":{"AuthenticationMethod":"None"}}'
```

Setting WWPN and WWNN to Auto

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Systems/WZP21330G5B/NetworkInterfaces/1/NetworkDeviceFunctions/fc0 -d'{"FibreChannel":{"WWPN":"AUTO","WWNN":"Auto"}}'
```

Adding Boot Target Entries

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Systems/WZP21330G5B/NetworkInterfaces/1/NetworkDeviceFunctions/fc0 -d'{"FibreChannel":{"BootTargets":[{"BootPriority":2,"LUNID":"45","WWPN":"20:5F:6C:B2:AE:3A:B3:5F"}]}}'
```

Deleting Boot Targets

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Systems/WZP21330G5B/NetworkInterfaces/1/NetworkDeviceFunctions/fc0 -d'
{
  "FibreChannel": {
    "BootTargets": [ {
      "BootPriority": 0
    } ],
    {
      "BootPriority": 1,
      "WWPN": null,
      "LUNID": null
    } ]
  }
}'
```

Setting Power Limits Attributes

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Chassis/1/Power -d'
{
  "PowerControl": [
    {
      "PowerLimit": {
        "CorrectionInMs": 2000,
        "LimitInWatts": 350,
        "LimitException": "LogEventOnly"
      }
    }
  ]
}'
```

Setting DHCPv4 Attributes



Note This is not applicable for S3260 M5 servers.

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs -d'
{
  "DHCPv4": {
    "UseDNSServers": false,
    "UseGateway": false,
    "DHCPEnabled": false,
    "UseStaticRoutes": false
  }
}'
```

Setting DHCPv6 Attributes



Note This is not applicable for S3260 M5 servers.

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs
-d'
{"DHCPv6": {
  "OperatingMode": "Stateful",
  "UseDNSServers": true
}}
```

Setting IPv6 Attributes



Note This is not applicable for S3260 M5 servers.

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs
-d'
{
  "DHCPv6": {
    "OperatingMode": "Disabled",
    "UseDNSServers": false
  },
  "IPv6Addresses": [
    {
      "Address": "2001:0db8:85a3:0000:0000:8a2e:0370:7334"
    }
  ],
  "IPv6StaticDefaultGateways": [
    {
      "Address": "2001:0db8:85a3:0000:0000:8a2e:0370:2"
    }
  ]
}
```

Setting Auto Negotiation, Speed, and Duplex



Note This is not applicable for S3260 M5 servers.

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs
-d'
```

```
{
  "AutoNeg": false,
  "SpeedMbps": 10,
  "FullDuplex": true
}
```

Setting Hostname



Note This is not applicable for S3260 M5 servers.

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs
-d'
{"HostName": "C220-WZP210606A6z"}
```

Setting DNS



Note This is not applicable for S3260 M5 servers.

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs
-d'
{"StaticNameServers": [
  "171.70.168.182",
  "171.70.168.184"
]}
```

Setting IPv4



Note This is not applicable for S3260 M5 servers.

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs
-d'
{"IPv4Addresses": [
  {
    "Gateway": "10.104.255.2",
    "Address": "10.104.255.39",
    "SubnetMask": "255.255.255.0"
  }
]}
```

Setting VLAN



Note This is not applicable for S3260 M5 servers.

Request:

```
curl -XPATCH -k -u admin https://10.10.10.10/redfish/v1/Managers/CIMC/EthernetInterfaces/NICs
-d '{
  "VLAN": {
    "VLANId": 2,
    "VLANEnable": true
  }
}
```

Setting LDAP Attributes

Request:

```
curl -XPATCH -k -u admin:Password https://10.10.10.10/redfish/v1/AccountService -d '{
  "LDAP": {
    "ServiceAddresses": [
      "ldap://WIN-AD.automation.com:389",
      "ldaps://10.10.10.1:6000",
      "ldaps://[2001:420:5446:2014::330:11]:389",
      ""
    ],
    "ServiceEnabled": true,
    "LDAPService": {
      "SearchSettings": {
        "GroupsAttribute": "test",
        "UsernameAttribute": "test",
        "BaseDistinguishedNames": ["DC=automation,DC=com"]
      }
    }
  },
  "LocalAccountAuth": "Enabled"
}'
```

Setting Systems Attributes

Request:

```
curl -XPATCH -k -u admin:Password https://10.10.10.10/redfish/v1/Systems/WZP220607R1 -d '{
  "HostWatchdogTimer": {
    "FunctionEnabled": false,
    "TimeoutAction": "PowerDown"
  },
  "IndicatorLED": "Off",
  "AssetTag": "TestRedfish",
  "Boot": {
    "BootSourceOverrideTarget": "None",
    "BootSourceOverrideEnabled": "Disabled"
  }
}'
```

Eject VMedia



Note This is not applicable for S3260 M5 servers.

Request:

```
curl -XPOST -k -u admin:Password https://10.10.10.10/redfish/v1/Managers/  
CIMC/VirtualMedia/TEST/Actions/VirtualMedia.EjectMedia -d '{}'
```