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Documentation Classifications
In order to assist in the use of this product, Giga Computing provides the following types of documentation:

- User Manual: detailed information & steps about the installation, configuration and use of this product (e.g. motherboard, server barebones), covering hardware and BIOS.
- User Guide: detailed information about the installation & use of an add-on hardware or software component (e.g. BMC firmware, rail-kit) compatible with this product.
- Quick Installation Guide: a short guide with visual diagrams that you can reference easily for installation purposes of this product (e.g. motherboard, server barebones).

Please see the support section of the online product page to check the current availability of these documents.

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For related product specifications, the latest firmware and software, and other information please visit our website at http://www.gigabyte.com/Enterprise

For GIGABYTE distributors and resellers, additional sales & marketing materials are available from our reseller portal: http://reseller.b2b.gigabyte.com

For further technical assistance, please contact your GIGABYTE representative or visit https://esupport.gigabyte.com/ to create a new support ticket

For any general sales or marketing enquiries, you may also message GIGABYTE server directly by email: server.grp@gigabyte.com
### Conventions

The following conventions are used in this user's guide:

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<th><strong>NOTE!</strong></th>
<th>Pieces of additional information related to the current topic.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAUTION!</strong></td>
<td>Precautionary measures to avoid possible hardware or software problems.</td>
</tr>
<tr>
<td><strong>WARNING!</strong></td>
<td>Alerts to any damage that might result from doing or not doing specific actions.</td>
</tr>
</tbody>
</table>
Server Warnings and Cautions
Before installing a server, be sure that you understand the following warnings and cautions.

**WARNING!**

To reduce the risk of electric shock or damage to the equipment:
- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.
- Unplug the power cord from the power supply to disconnect power to the equipment.
- Do not route the power cord where it can be walked on or pinched by items placed against it. Pay particular attention to the plug, electrical outlet, and the point where the cord extends from the server.

**WARNING!**
To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.

**WARNING!**
This server is equipped with high speed fans. Keep away from hazardous moving fan blades during servicing.

**CAUTION!**
- Do not operate the server for long periods with the access panel open or removed. Operating the server in this manner results in improper airflow and improper cooling that can lead to thermal damage.
- Danger of explosion if battery is incorrectly replaced.
- Replace battery with the same or equivalent type recommended by the manufacturer.
- Dispose of used batteries according to the manufacturer’s instructions.

**CAUTION!**
Risk of explosion if battery is replaced incorrectly or with an incorrect type. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer’s instructions.
Electrostatic Discharge (ESD)

**CAUTION!**
ESD CAN DAMAGE DRIVES, BOARDS, AND OTHER PARTS. WE RECOMMEND THAT YOU PERFORM ALL PROCEDURES AT AN ESD WORKSTATION. IF ONE IS NOT AVAILABLE, PROVIDE SOME ESD PROTECTION BY WEARING AN ANTI-STATIC WRIST STRAP ATTACHED TO CHASSIS GROUND -- ANY UNPAINTED METAL SURFACE -- ON YOUR SERVER WHEN HANDLING PARTS.

Always handle boards carefully, they can be extremely sensitive to ESD. Hold boards only by their edges without touching any components or connectors. After removing a board from its protective ESD bag or from the system, place the board component side up on a grounded, static free surface. Use a conductive foam pad if available but not the ESD bag. Do not slide the board over any surface.

**System power on/off:** To service components within the server, please ensure the power has been disconnected.
E.g. Remove the node from the server chassis (to disconnect power) or disconnect the power from the server chassis.
Make sure the system is removed from the rack before opening the chassis, adding, or removing any non hot-plug components.

**Hazardous conditions, devices and cables:** Hazardous electrical conditions may be present on power, telephone, and communication cables. Turn off the system chassis and disconnect the cables attached to the system before servicing the chassis. Otherwise, personal injury or equipment damage can result.

**Electrostatic discharge (ESD) and ESD protection:** ESD can damage drives, boards, and other parts. We recommend that you perform all procedures in this chapter only at an ESD workstation. If one is not available, provide some ESD protection by wearing an antistatic wrist strap attached to chassis ground (any unpainted metal surface on the server) when handling parts.

**ESD and handling boards:** Always handle boards carefully. They can be extremely sensitive to electrostatic discharge (ESD). Hold boards only by their edges. After removing a board from its protective wrapper or from the system, place the board component side up on a grounded, static free surface. Use a conductive foam pad if available but not the board wrapper. Do not slide board over any surface.
**Installing or removing jumpers:** A jumper is a small plastic encased conductor that slips over two jumper pins. Some jumpers have a small tab on top that can be gripped with fin-gertips or with a pair of fine needle nosed pliers. If the jumpers do not have such a tab, take care when using needle nosed pliers to remove or install a jumper; grip the narrow sides of the jumper with the pliers, never the wide sides. Gripping the wide sides can dam-age the contacts inside the jumper, causing intermittent problems with the function con-trolled by that jumper. Take care to grip with, but not squeeze, the pliers or other tool used to remove a jumper, or the pins on the board may bend or break.
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1. Introduction

The Redfish Scalable Platform Management API ("Redfish") is a management standard using a data model representation inside of a hypermedia RESTful interface. Because it is based on REST, Redfish is easier to use and implement than many other solutions. Since it is model oriented, it is capable of expressing the relationships between components in modern systems as well as the semantics of the services and components within them. It is also easily extensible. By using a hypermedia approach to REST, Redfish can express a large variety of systems from multiple vendors. By requiring JSON representation, a wide variety of resources can be created in a denormalized fashion not only to improve scalability, but the payload can be easily interpreted by most programming environments as well as being relatively intuitive for a human examining the data. The model is exposed in terms of an interoperable Redfish Schema, expressed in an OData Schema representation with translations to a JSON Schema representation, with the payload of the messages being expressed in a JSON following OData JSON conventions. The ability to externally host the Redfish Schema definition of the resources in a machine-readable format allows the meta data to be associated with the data without encumbering Redfish services with the meta data, thus enabling more advanced client scenarios as found in many data center and cloud environments.
2. Redfish Request Methods

The following HTTP methods are provided on our Redfish APIs.

2-1 HTTP GET (Read)

Use GET requests to retrieve resource representation/information only. For any given HTTP GET API, if resource is found on server then it must return HTTP response code 200 (OK) – along with response body which is JSON content. In case resource is NOT found on server then it must return HTTP response code 404 (NOT FOUND). Similarly, if it is determined that GET request itself is not correctly formed then server will return HTTP response code 400 (BAD REQUEST).

2-2 HTTP POST (Create)

Use POST APIs to create new subordinate resources, POST methods are used to create a new resource into the collection of resources. In this case, either HTTP response code 200 (OK) or 204 (No Content) is the appropriate.

2-3 HTTP PATCH (Partial Update)

HTTP PATCH requests are to make partial update on a resource.

2-4 HTTP DELETE (Delete)

DELETE APIs are used to delete resources. A successful response of DELETE requests SHOULD be HTTP response code 200 (OK) if the response includes an entity describing the status, 202 (Accepted) if the action has been queued, or 204 (No Content) if the action has been performed but the response does not include an entity.
### 3. Redfish API

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<td><code>/redfish/v1/Systems/{instance}/Processors/{instance}</code></td>
<td></td>
</tr>
<tr>
<td><code>/redfish/v1/Systems/{instance}/SimpleStorage</code></td>
<td></td>
</tr>
<tr>
<td><code>/redfish/v1/Systems/{instance}/SimpleStorage/{instance}</code></td>
<td></td>
</tr>
<tr>
<td><code>/redfish/v1/Systems/{instance}/Storage</code></td>
<td></td>
</tr>
<tr>
<td><code>/redfish/v1/Systems/{instance}/Storage /{instance}</code></td>
<td></td>
</tr>
<tr>
<td><code>/redfish/v1/TaskService</code></td>
<td></td>
</tr>
<tr>
<td><code>/redfish/v1/TaskService/Tasks</code></td>
<td></td>
</tr>
<tr>
<td><code>/redfish/v1/TaskService/Tasks/{instance}</code></td>
<td></td>
</tr>
<tr>
<td><code>/redfish/v1/TelemetryService</code></td>
<td></td>
</tr>
<tr>
<td><code>/redfish/v1/TelemetryService/Actions/ TelemetryService.SubmitTestMetricReport</code></td>
<td></td>
</tr>
<tr>
<td><code>/redfish/v1/TelemetryService/LogServices</code></td>
<td></td>
</tr>
<tr>
<td><code>/redfish/v1/TelemetryService/LogService/Actions/LogService.ClearLog</code></td>
<td></td>
</tr>
<tr>
<td>Resource API</td>
<td>Note</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/LogServices</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/LogServices/Actions/LogService.ClearLog</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/LogServices/Entries</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/LogServices/Entries/{instance}</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/MetricDefinitions</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/MetricDefinitions/{instance}</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/MetricReportDefinitions</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/MetricReportDefinitions/{instance}</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/MetricReports</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/MetricReports/{instance}</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/Triggers</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/TelemetryService/Triggers/{instance}</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/UpdateService</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/UpdateService/Actions/SimpleUpdate</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/UpdateService/FirmwareInventory</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/UpdateService/FirmwareInventory/{instance}</td>
<td></td>
</tr>
<tr>
<td>/redfish/v1/UpdateService/SimpleUpdateActionInfo</td>
<td></td>
</tr>
</tbody>
</table>
4. Common Field to all Schemas

- @odata.context
- @odata.id
- @odata.type - @odata.etag
- Id
- Name

5. ServiceRoot

[GET] /redfish/v1

- Oem
  - Ami
    - Configurations
    - RtpVersion
- Id
- Name
- Description
- RedfishVersion
- Systems
- Chassis
  - Managers
  - Tasks
- AccountService
- EventService
- SessionService
- Registries
- JsonSchemas
- UpdateService
- CompositionService
- TelemetryService
- Links
- Sessions
- JobService
- Product
- ProtocolFeaturesSupported
  - ExcerptQuery
  - ExpandQuery
    - ExpandAll
    - Levels
    - Links
    - MaxLevels
    - NoLinks
- FilterQuery
- OnlyMemberQuery
- SelectQuery
- UUID
- Vendor
- CertificateService
- Oem

6. ODATA

[GET] /redfish/v1/odata

7. $metadata

[GET] /redfish/v1/$metadata
8. AccountService

[GET] /redfish/v1/AccountService
[PATCH] /redfish/v1/AccountService
  - AccountLockoutCounterResetAfter
  - AccountLockoutDuration
  - AccountLockoutThreshold
  - Accounts
  - AuthFailureLoggingThreshold
  - Description
  - Id
  - MaxPasswordLength
  - MinPasswordLength
  - Name
  - Oem
    - Ami
      - Configuration
  - Roles
  - ServiceEnabled
  - Status
    - Health
    - State
  - PrivilegeMap
  - ActiveDirectory
  - Authentication
    - AuthenticationType
    - Username
    - Password
  - RemoteRoleMapping
  - ServiceEnabled
  - AccountLockoutCounterResetEnabled
    - AdditionalExternalAccountProviders
  - LDAP
    - Authentication
      - AuthenticationType
      - Username
      - Password
    - LDAPService
      - SearchSettings
        - GroupNameAttribute
        - GroupsAttribute
        - UsernameAttribute
    - RemoteRoleMapping
    - ServiceEnabled
8-1 Account Collection

[GET] /redfish/v1/AccountService/Accounts
[POST] /redfish/v1/AccountService/Accounts

- Description
- Members@odata.count
- Members
- Name
- Oem

POST Request:

POST https://{{ip}}/redfish/v1/AccountService/Accounts
Content-Type: application/json

Example POST Request Body:

```json
{
    "Name": "TestUser Account",
    "Description": "Test User Account",
    "Enabled": true,
    "Password": "superuser",
    "UserName": "user_account",
    "RoleId": "Operator",
    "Locked": false,
    "PasswordChangeRequired": false
}
```

8-1-1 Accounts

[GET] /redfish/v1/AccountService/Accounts/{instance}
[PATCH] /redfish/v1/AccountService/Accounts/{instance}
[DELETE] /redfish/v1/AccountService/Accounts/{instance}

- Description
  - Enabled
  - Id
  - Links
  - Role
  - Locked
  - Name
  - RoleId
  - UserName
  - Password
  - PasswordChangeRequired
    - Oem
    - Actions
8-2 PAM Configuration

[GET] /redfish/v1/AccountService/Configurations
[PATCH] /redfish/v1/AccountService/Configurations
- Id
- Name
- PAMEnabled
- PAMOrder

8-3 Radius Authentication

[GET] /redfish/v1/AccountService/ExternalAccountProviders/RADIUS
[PATCH] /redfish/v1/AccountService/ExternalAccountProviders/RADIUS
- ServicePort
- ServiceEnabled
- ExtendedPrivilege
- ServiceAddress
- Secret
- ExtendedPrivilege
  - KVMAccess
  - VMediaAccess
- AdvancedRADIUSSetting
- Timeout
- AccountProviderTypes
- Oem

8-3-1 AdvancedRADIUSSetting

[GET] /redfish/v1/AccountService/ExternalAccountProviders/RADIUS/Oem/Ami/AdvancedRADIUSSetting
[PATCH] /redfish/v1/AccountService/ExternalAccountProviders/RADIUS/Oem/Ami/AdvancedRADIUSSetting
- RADIUSAuthorization
8-4 Role Collection

[GET] /redfish/v1/AccountService/Roles
[POST] /redfish/v1/AccountService/Roles

- Description
- Members@odata.count
- Members
- Name
- Oem

POST Request:

POST https://{{ip}}/redfish/v1/AccountService/Roles
Content-Type: application/json

Example POST Request Body:

```json
{
  "AssignedPrivileges": [
    "ConfigureUsers",
    "ConfigureManager",
    "ConfigureSelf",
    "Login",
    "ConfigureComponents"
  ],
  "Description": "TestRole User Role",
  "Id": "TestRole",
  "RoleId": "TestRole",
  "Enabled": true,
  "IsPredefined": true,
  "Name": "TestRole Role",
  "OemPrivileges": [
    "OemPowerControl",
    "OemClearLog"
  ]
}
```

8-4-1 Role

[GET] /redfish/v1/AccountService/Roles/{instance}
[PATCH] /redfish/v1/AccountService/Roles/{instance}
[DELETE] /redfish/v1/AccountService/Roles/{instance}

- AssignedPrivileges
- Description
- Id
- IsPredefined
- Name
- RoleId
- OemPrivileges
- Actions
- Oem
9. CertificateService

[GET] /redfish/v1/CertificateService

- Action
- Id
- Name
- Description
- CertificateLocations
- Oem

POST Request:

| POST https://{{ip}}/redfish/v1/CertificateService/Actions/CertificateService.GenerateCSR |
| Content-Type: application/json |

Example POST Request Body:

```
{
  "Country": "US",
  "State": "Oregon",
  "City": "Portland",
  "Organization": "Contoso",
  "OrganizationalUnit": "Service Processors",
  "CommonName": "manager.contoso.org",
  "AlternativeNames": [ "manager.contoso.com", "manager.contoso.us", "169.254.0.17" ],
  "Email": "admin@contoso.org",
  "KeyBitLength": 2048,
  "KeyUsage": [ "DigitalSignature" ],
  "ChallengePassword": "challengepassword",
  "GivenName": "userGivenName",
  "ContactPerson": "AMI Manager",
  "Initials": "userInitials",
  "Surname": "userSurname",
  "UnstructuredName": "userUnstructuredName",
  "CertificateCollection": {"@odata.id": "/redfish/v1/Managers/Self/NetworkProtocol/HTTPS/Certificates"}
}
```

Request:

| Content-Type: application/json |

Note: If use Certificate chain, CertificateType must be "PEMchain"
Example POST Request Body:

```json
{
    "CertificateString": "-----BEGIN CERTIFICATE-----
    ...
    "-----END CERTIFICATE-----"
}
```

9-1 CertificateLocations


- **Id**
- **Name**
- **Description**
- **Links**
  - **Certificates**
  - **Action**
  - **Oem**
9-1-1  Certificate

[GET] /redfish/v1/Managers/{instance}/NetworkProtocol/HTTPS/Certificates/{instance}
[GET] /redfish/v1/Managers/{instance}/RemoteAccountService/LDAP/Certificates/1
[GET] /redfish/v1/AccountService/LDAP/Certificates/Oem/Ami/ClientCertificates/1
[POST] /redfish/v1/AccountService/LDAP/Certificates
[POST] /redfish/v1/AccountService/LDAP/Certificates/Oem/Ami/ClientCertificates
[DELETE] /redfish/v1/AccountService/LDAP/Certificates/1
[DELETE] /redfish/v1/AccountService/LDAP/Certificates/Oem/Ami/ClientCertificates/1

POST Request:

POST https://{{ip}}/redfish/v1/AccountService/LDAP/Certificates
POST https://{{ip}}/redfish/v1/AccountService/LDAP/Certificates/Oem/Ami/ClientCertificates
Content-Type: application/json

Example POST Request Body:

```
{
  "CertificateString": "-----BEGIN CERTIFICATE-----
  ...
  "-----END CERTIFICATE-----"
}
```

9-1-1-1  Rekey

[POST] /redfish/v1/AccountService/Accounts/{instance}/Certificates/{instance}/Actions/Certificate.Rekey

POST Request:

POST https://{{ip}}/redfish/v1/AccountService/Accounts/{instance}/Certificates/{instance}/Actions/Certificate.Rekey
Content-Type: application/json
Example POST Request Body:

```json
{
    "KeyBitLength": 512,
    "ChallengePassword": "challengepassword"
}
```

9-1-1-2 Renew

[POST] redfish/v1/AaccountService/Accounts/{instance}/Certificates/{instance}/Actions/Certificate.Renew

- Oem
- Actions
- Id
- Name
- Description
- Issuer
- KeyUsage
- Subject
- ValidNotAfter
- ValidNotBefore
- CertificateString
- CertificateType

POST Request:

```bash
POST https://{{ip}}/redfish/v1/AaccountService/Accounts/{instance}/Certificates/{instance}/Actions/Certificate.Renew
Content-Type: application/json
```

Example POST Request Body:

```json
{
    "ChallengePassword": "challengepassword"
}
```
10. Chassis Collection

[GET] /redfish/v1/Chassis
- Description
- Name
- Members@odata.count
- Members
- Oem

10-1 Chassis

[GET] /redfish/v1/Chassis/{instance}
[PATCH] /redfish/v1/Chassis/{instance}
[POST] /redfish/v1/Chassis/{instance}/Actions/Chassis.Reset
- Id
- Name
- Description
- ChassisType
- Manufacturer
- Model
- SKU
- Sensors
- SerialNumber
- PartNumber
- PCIeDevices
- AssetTag
- IndicatorLED
- Links
  - ComputerSystems
  - ComputerSystems@odata.count
  - ManagedBy
  - ManagedBy@odata.count
  - Drives
  - Drives@odata.count
  - Storage
  - Storage@odata.count
  - ResourceBlocks
  - ResourceBlocks@odata.count
  - ContainedBy
  - Contains
  - Contains@odata.count
  - PowerBy
  - PowerBy@odata.count
  - CooledBy
  - CooledBy@odata.count
  - ManagersInChassis
  - ManagersInChassis@odata.count
- Processors
- Processors `@odata.count`

- Actions
- Status
- LogServices
- Thermal
- Power
- PowerState
- NetworkAdapters
- Assembly
- Oem
- UUID
- Location
- HeightMm
- WidthMm
- DepthMm
- WeightKg
- MediaControllers
- EnvironmentalClass

**POST**

Request:

```plaintext
POST https://{{ip}}/redfish/v1/Chassis/Self/Actions/Chassis.Reset
Content-Type: application/json
```

**Request Body:**

*The ResetType can be one of the following values: "On", "ForceOff", "GracefulShutdown", "ForceRestart".*

**Example POST Request Body:**

```json
{
    "ResetType": "On"
}
```

### 10-1-1 Power

**[GET]** `/redfish/v1/Chassis/{instance}/Power`

**[PATCH]** `/redfish/v1/Chassis/{instance}/Power`

- **Description**
- **Id**
- **Name**
- **PowerControl**
  - **Name**
  - **MemberId**
  - **PowerMetrics**
    - **IntervalInMin**
    - **MinConsumedWatts**
- MaxConsumedWatts
- AverageConsumedWatts
- RelatedItem@odata.count
- PhysicalContext
- PowerConsumedWatts
- PowerRequestedWatts
- PowerAvailableWatts
- PowerCapacityWatts
- PowerAllocatedWatts
- PowerLimit
- LimitInWatts
- LimitException
- CorrectionInMs
- PowerControl@odata.count
- Voltage
  - MemberId
  - Name
  - SensorNumber
  - Status
  - ReadingVolts
  - UpperThresholdNonCritical
  - UpperThresholdCritical
  - LowerThresholdNonCritical
  - LowerThresholdCritical
  - MinReadingRange
  - MaxReadingRange
  - RelatedItem
  - OwnerLUN
  - UpperThresholdFatal
  - LowerThresholdFatal
  - PhysicalContext
  - RelatedItem (RelatedItem@odata.count)

- Voltages@odata.count
- PowerSupply
  - MemberId
  - Name
  - LineInputVoltage
  - PowerCapacityWatts
  - LastPowerOutputWatts
  - Model
  - FirmwareVersion
  - SerialNumber
  - PowerInputWatt
  - PowerOutputWatts
  - PowerSupplyType
- LineInputVoltageType
- PartNumber
- SparePartNumber
- Status
- Location
- EfficiencyPercent
- HotPluggable
- RelatedItem
- Redundancy
- Oem

10-1-2 LogServices (Support services after version 12.41.07)

[GET] /redfish/v1/Chassis/{instance}/LogServices
- Description
- Members
- Members@odata.count
- Name
- Oem

10-1-2-1 Log Service

[GET] /redfish/v1/Chassis/{instance}/LogServices/Logs
[PATCH] /redfish/v1/Chassis/{instance}/LogServices/Logs
[POST] /redfish/v1/Chassis/{instance}/LogServices/Log/Actions/LogServices.ClearLog
- Id
- Name
- Description
- ServiceEnabled
- MaxNumberOfRecords
- OverWritePolicy
- DateTime
- DateTimeLocalOffset
- Actions
- Status
- Entries
- LogEntry Type
- Oem

POST

Request:

POST https://{{ip}}/redfish/v1/Chassis/Self/LogServices/SEL/Actions/LogServices.ClearLog
Content-Type: application/json
Request Body:

```
{
}
```

10-1-2-1-1  Entry Collection

[GET] /redfish/v1/Chassis/{instance}/LogServices/Log/Entries
- Description
- Members
- Members@odata.count
- Name
- Oem

10-1-2-1-1-1  Entry

[GET] /redfish/v1/Chassis/{instance}/LogServices/Log/Entries/{instance}
- Id
- Name
- Description
- Severity
- Created
- EventTimestamp
- EventType
- EventCode
- SensorType
- SensorNumber
- Message
- MessageId
- Links
  - OriginOfConfition
- Oem
- EventId
- MessageArgs
- OemLogEntryCode
- OemSensorType

10-1-3  Sensor Collection

[GET] /redfish/v1/Chassis/{instance}/Sensors
- Description
- Members
- Members@odata.count
- Name
- Oem
10-1-3-1 Sensor
[GET] /redfish/v1/Chassis/{instance}/Sensors/{instance}
- PeakReading
- PeakReadingTime
- Reading
- ReadingType
- Oem
- Accuracy
- AdjustedMaxAllowableOperatingValue
- AdjustedMinAllowableOperatingValue
- ApparentVA
- ElectricalContext
- LoadPercent
- Location
- MaxAllowableOperatingValue
- MinAllowableOperatingValue
- PhysicalContext
- PhysicalSubContext
- PowerFactor
- Precision
- ReactiveVAR
- ReadingRangeMax
- ReadingRangeMin
- ReadingUnits
- SensingFrequency
- SensorResetTime
- Status
- Thresholds
- VoltageType

10-1-3-2 Sensor Energy
- Id
- Name
- Oem
- Reading
- ReadingType
- PeakReading
- PeakReadingTime
10-1-3-3 Sensor Power

[GET] /redfish/v1/Chassis/{instance}/Sensors/Power
- Id
- Name
- PeakReading
- PeakReadingTime
- Reading
- ReadingType

10-1-4 Thermal

[GET] /redfish/v1/Chassis/{instance}/Thermal
- Description
- Id
- Name
- Temperatures
  - Name
  - MemberId
  - SensorNumber
  - Status
  - ReadingCelsius
  - UpperThresholdNonCritical
  - UpperThresholdCritical
  - LowerThresholdNonCritical
  - LowerThresholdCritical
  - PhysicalContext
  - OwnerLUN
  - UpperThresholdFatal
  - LowerThresholdFatal
  - MinReadingRangeTemp
  - MaxReadingRangeTemp
  - RelatedItem
  - DeltaReadingCelsius
  - DeltaPhysicalContext
  - MaxAllowableOperatingValue
  - MinAllowableOperatingValue
  - AdjustedMaxAllowableOperatingValue
  - AdjustedMinAllowableOperatingValue
  - Fan
    - MemberId
    - Name
    - PhysicalContext
    - Status
    - Reading
    - LowerThresholdNonCritical
    - LowerThresholdCritical
    - MinReadingRange
- MaxReadingRange
- RelatedItem (RelatedItem@odata.count)
- OwnerLUN
- UpperThresholdNonCritical
- UpperThresholdCritical
- UpperThresholdFatal
- LowerThresholdFatal
- Redundancy
- HotPluggable
- Location
- SensorNumber
- Oem
- Redundancy
- Actions

10-1-4-1 FanprofileService (GBT)
[GET] /redfish/v1/Chassis/{instance}/Thermal/FanprofileService
  - Fanprofile
  - Id
  - Name
  - SupportPCIEDevice

10-1-4-1-1 Fanprofile
[GET] /redfish/v1/Chassis/{instance}/Thermal/FanprofileService/Fanprofile
[PUT] /redfish/v1/Chassis/{instance}/Thermal/FanprofileService/Fanprofile
  - Id
  - Name
  - arrProfile
    - arrPolicy
      - arrDuty
      - arrFanSensor
      - arrHexDeviceID
      - arrHexVendorID
      - arrRef
      - arrSensor
      - iAmbientSensor
      - iAmbientSensorTemp
      - iCpuTdp
      - iInSDR
      - iInitDuty
      - iPCIEDeviceEnable
      - iPolicyType
      - iSensorCodee
  - strName
  - strVersion
  - strMode
- strVersion

10-1-4-1-2  SupportPClEDevice
[GET] /redfish/v1/Chassis/{instance}/Thermal/FanprofileService/SupportPClEDevice
[PUT] /redfish/v1/Chassis/{instance}/Thermal/FanprofileService/SupportPClEDevice
- Id
- Name
- arrPClEDevices
  - hexDeviceID
  - hexVendorID
  - strName
- strVersion

10-1-5  NetworkAdapterCollection
[GET] /redfish/v1/Chassis/{instance}/NetworkAdapters
- Description
- Members
  - Members@odata.count
- Name
- Oem

10-1-5-1  NetworkAdapter
[GET] /redfish/v1/Chassis/{instance}/NetworkAdapters/{instance}
- Members
  - Members@odata.count
- Name
- Description
- Oem

10-1-6  PClEDevice Collection
[GET] /redfish/v1/Chassis/{instance}/PCIeDevices/{instance}
- Description
- Members
  - Members@odata.count
- Name
- Description
- Oem

10-1-6-1  PClEDevice
[GET] /redfish/v1/Chassis/{instance}/PCIeDevices/{instance}
- Id
- Name
- Description
- Status
- Manufacturer
- Model
- SKU
- SerialNumber
- PartNumber
- AssetTag
- FirmwareVersion
- Links
- PCIeFunctions
- PCIeInterface
- Oem
- DeviceType
- Assembly

10-1-6-1-1 PCIeFunction

[GET] /redfish/v1/Chassis/{instance}/PCleDevices/{instance}/PCleFunctions/{instance}

- Id
- Name
- Description
- Status
- DeviceClass
- VendorId
- ClassCode
- Link
- FunctionId
- FunctionType
- DeviceId
- RevisionId
- SubsystemId
- SubsystemVendorId
- Actions
11. CompositionService

[Get] /redfish/v1/CompositionService

[Patch] /redfish/v1/CompositionService

- Description
- Id
- Name
- ResourceBlocks
- ResourceZones
- ServiceEnabled
- Status
- Oem

11-1 ResourceBlocks Collection

[Get] /redfish/v1/CompositionService/ResourceBlocks

- Description
- Members
- Members@odata.count
- Name
- Oem

11-1-1 ResourceBlocks

[Get] /redfish/v1/CompositionService/ResourceBlocks/{instance}

[Patch] /redfish/v1/CompositionService/ResourceBlocks/{instance}

- Id
- Name
- Description
- Status
- CompositionStatus
  - Reserved
  - MaxCompositions
  - CompositionState
- ResourceBlockType
- Processors
- Memory
- Oem
- Link
  - Chassis
- Storage
- SimpleStorage
- Drivers
- EthernetInterfaces

---

Redfish API
- 39 -
11-2 ResourceZones Collection

[Get] /redfish/v1/CompositionService/ResourceBlocks
   - Description
   - Members
   - Members@odata.count
   - Name

11-2-1 ResourceZones

[Get] /redfish/v1/CompositionService/ResourceBlocks/{instance}
   - Id
   - Name
   - Description
   - Links
      - Oem
      - ResourceBlocks
   - Status
12. AMI OEM Entities - Configuration

[Get] /redfish/v1/Oem/AMI/Configuration
- Id
- Name
- CertificateAuthorityUrl
- Oem
13. EventService

[GET] /redfish/v1/EventService

[PATCH] /redfish/v1/EventService

[POST] /redfish/v1/EventService/Actions/EventService.SubmitTestEvent

- Actions
- DeliveryRetryAttempts
- DeliveryRetryIntervalSeconds
- Description
- EventFormatTypes
- Id
- Name
- ServiceEnabled
- Status
- Subscriptions
- ServerSentEventUri
- SSEFilterPropertiesSupported
- Oem
- RegistryPrefixes
- ResourceType
- SubordinateResourcesSupported
- SMTP
  - Authentication
  - ConnectionProtocol
  - Password
  - Port
  - ServiceEnabled

POST Request:

POST https://{{ip}}/redfish/v1/EventService/Actions/EventService.SubmitTestEvent
Content-Type: application/json

EventService.SubmitTestEvent can test using below RegistryPrefixes MessageId

- Base1.5.0
- EventLog.1.0.0
- HttpStatus.1.0.0
- IPMI.1.0.0
- Security.1.0.0
- SyncAgent.1.0.0

https://{{ip}}/redfish/v1/Registries/{{Registry_instance.json}}
Eg: https://{{ip}}/redfish/v1/Registries/Base.1.5.0.json
Example: Base.1.5.0 [ PropertyValueNotInList as MessageId ]
Example POST Request Body:

```json
{
    "EventTimestamp":"2019-09-20T23:04:09+02:00",
    "EventId":"1531584914",
    "OriginOfCondition": "/redfish/v1/Chassis/Self",
    "MessageId": "PropertyValueNotInList",
    "MessageArgs": ["Lit","IndicatorLED"],
    "Severity": "Warning"
}
```

### 13-1 Subscription Collection

[GET] /redfish/v1/EventService/Subscriptions  
[POST] /redfish/v1/EventService/Subscriptions

- **Description**
- **Members**
- **Members@odata.count**
- **Name**
- **Oem**

POST Request:

POST https://{{ip}}/redfish/v1/EventService/Subscriptions
Content-Type: application/json

Example POST Request Body:

```json
{
    "Context": "Rocket All",
    "Destination": "http://10.1.112.223:7628/",
    "EventFormatType": "Event",
    "Protocol": "Redfish",
    "RegistryPrefixes": ["SyncAgent.1.0.0","Base.1.5.0","EventLog.1.0.0"],
    "ResourceTypes": ["Chassis","Systems","EventService"]
}
```

**Empty or Absent RegistryPrefixes, ResourceTypes and Absent EventFormatType:**
RegistryPrefixes, ResourceTypes values are absent or empty are accepted in POST call. In this case service shall sent events with any ResourceTypes or any RegistryPrefixes. If EventFormatType property was absent on POST call then default value will be Event.
Example POST Request Body:

```json
{
  "Context": "Rocket All",
  "Destination": "http://10.1.112.223:7628/",
  "Protocol": "Redfish",
  "RegistryPrefixes": [],
  "ResourceTypes": []
}
```

13-1-1 Subscription

[GET] /redfish/v1/EventService/Subscriptions/{instance}
[PATCH] /redfish/v1/EventService/Subscriptions/{instance}
[DELETE] /redfish/v1/EventService/Subscriptions/{instance}

- Id
- Name
- Description
- EventType
- Context
- SubscriptionType
- Protocol
- MessageIds
- OriginResources
- OriginResources@odata.count
- Status
- DeliveryRetryPolicy
- Oem
- Destination
- Actions
- SubordinateResources
- EventFormatterType
- RegistryPrefixes
- ResourceTypes
- MetricReportDefinitions
- DeliveryRetryPolicy

13-1-2 Subscription Test Event

[GET] /redfish/v1/EventService/Subscriptions/SubmitTestEventActionInfo

- Description
- Id
- Name
- Parameters
- Oem
14. JsonSchemas Collection

[Get] /redfish/v1/JsonSchemas
  - Description
  - Members
  - Members@odata.count
  - Name
  - Oem

14-1 JsonSchemas

[Get] /redfish/v1/JsonSchemas/{instance}
  - Oem
  - Id
  - Name
  - Description
  - Languages
  - Schema
  - Location
  - Actions
15. Manager Collection

[GET] /redfish/v1/Managers
- Description
- Members
- Members@odata.count
- Name

15-1 Manager

[GET] /redfish/v1/Managers/{instance}
[PATCH] /redfish/v1/Managers/{instance}
[POST] /redfish/v1/Managers/{instance}/Actions/Manager.Reset
[POST] /redfish/v1/Managers/{instance}/Actions/Oem/AMIManager.RedfishDBReset
- Id
- Name
- Description
- ManagerType
- Links
  - ManagerForServers
  - ManagerForServers@odata.count
  - ManagerForChassis
  - ManagerForChassis@odata.count
- ManagerInChassis- ServiceEntryPointUUID
- UUID
- Model
- DateTime
- DateTimeLocalOffset
- FirmwareVersion
- SerialConsole
- CommandShell
- GraphicalConsole
- Actions
- Status
- EthernetInterfaces
- SerialInterfaces
- NetworkProtocol
- LogServices
- HostInterfaces
- PowerState
- Redundancy@odata.count
- Oem
  - VirtualMedia
  - ManagerServiceInfo
    - CommandShellServiceInfo
    - Links
POST
Request:

POST https://{{ip}}/redfish/v1/Managers/Self/Actions/Manager.Reset
Content-Type: application/json

Request Body:
The ResetType can be one of the following values: "On", "ForceOff", "GracefulShutdown", "ForceRestart".

Example POST Request Body:

```
{
  "ResetType" : "On"
}
{
  "ResetType" : "On"
}
```

Request:

POST https://{{ip}}/redfish/v1/Managers/Self/Actions/RedfishDBReset
Content-Type: application/json

Example POST Request Body:

```
{
  "RedfishDBResetType": "ResetAll"
}
```
15-1-1 EthernetInterfaces Collection

[Get] /redfish/v1/Managers/{instance}/EthernetInterfaces
- Description
- Members
- Members@odata.count
- Name
- Oem

15-1-1-1 EthernetInterfaces

[Get] /redfish/v1/Managers/{instance}/EthernetInterfaces/bond0
[PATCH] /redfish/v1/Managers/{instance}/EthernetInterfaces/{{manager_ethifc_instance}}
- Id
- Name
- Description
- Status
- InterfaceEnabled
- PermanentMACAddress
- MACAddress
- SpeedMbps
- AutoNeg
- FullDuplex
- MTUSize
- HostName
- FQDN
- MaxIPv6StaticAddresses
- VLAN
- Ipv4Addresses
- Ipv6Addresses
- IPv6DefaultGateway
- NameServers
- LinkStatus
- DHCPv4
- Oem
- UefiDevicePath
- StatelessAddressAutoConfig
- Ipv6StaticAddresses
- VLANs
- Actions
- DHCPv6
- IPv6StaticDefaultGateways
- IPv4StaticAddresses
[GET] /redfish/v1/Managers/Self/EthernetInterfaces/eth0

- Id
- Name
- Description
- InterfaceEnabled
- PermanentMACAddress
- MACAddress
- LinkStatus
- Oem
- UefiDevicePath
- Status
- SpeedMbps
- StatelessAddressAutoConfig
- AutoNeg
- FullDuplex
- MTUSize
- HostName
- FQDN
- MaxIPv6StaticAddresses
- VLAN
- Ipv4Addresses
- Ipv6Addresses
- Ipv6DefaultGateway
- NameServers
- StaticNameServers
- VLANs
- Actions
- DHCPv4
- DHCPv6
- IPv6StaticDefaultGateways
- IPv4StaticAddresses
- IPv6AddressPolicyTable

[GET] /redfish/v1/Managers/Self/EthernetInterfaces/eth1

- Id
- Name
- Description
- InterfaceEnabled
- PermanentMACAddress
- MACAddress
- LinkStatus
- Oem
- UefiDevicePath
- Status
- SpeedMbps
- StatelessAddressAutoConfig
- AutoNeg
- FullDuplex
- MTUSize
- HostName
- FQDN
- MaxIPv6StaticAddresses
- VLAN
- Ipv4Addresses
- Ipv6Addresses
- Ipv6StaticAddresses
- Ipv6DefaultGateway
- NameServers
- VLANs
- Actions
- DHCPv4
- DHCPv6
- IPv6StaticDefaultGateways
- IPv4StaticAddresses

[GET] /redfish/v1/Managers/Self/EthernetInterfaces/usb0
- Id
- Name
- Description
- Status
- InterfaceEnabled
- PermanentMACAddress
- MACAddress
- Ipv4Addresses
- Ipv6Addresses
- LinkStatus
- Oem
- UefiDevicePath
- SpeedMbps
- StatelessAddressAutoConfig
- AutoNeg
- FullDuplex
- MTUSize
- HostName
- FQDN
- MaxIPv6StaticAddresses
- VLAN
- Ipv6StaticAddresses
- Ipv6DefaultGateway
- NameServers
- VLANs
- Actions
- DHCPv4
- DHCPv6
- IPv6StaticDefaultGateways
- IPv4StaticAddresses

15-1-2 CertificateCollection


- Description
- Members
- Members@odata.count
- Name
- Oem

15-1-3 Factory Reset ActionInfo

[GET] /redfish/v1/Managers/{instance}/RedfishDBResetActionInfo

- Description
- Id
- Name
- Parameters

15-1-4 HostInterfaces Collection

[Get] /redfish/v1/Managers/{instance}/HostInterfaces

- Description
- Members
- Members@odata.count
- Name
- Oem

15-1-4-1 HostInterfaces

[Get] /redfish/v1/Managers/{instance}/HostInterfaces/{instance}

[PATCH] /redfish/v1/Managers/{instance}/HostInterfaces/{instance}

Id
- Name
- Description
- HostInterfaceType
- Status
- InterfaceEnabled
- ExternallyAccessible
- AuthenticationModes
- KernelAuthRoleId
- KernelAuthEnabled
- FirmwareAuthRoleId
- FirmwareAuthEnabled
- Links
  - ComputerSystems@odata.count
- ComputerSystems
- CredentialBootstrappingRole
- KernelAuthRole
- FirmwareAuthRole
- HostEthernetInterfaces
- ManagerEthernetInterface
- NetworkProtocol
- Oem
- AuthNoneRoleId
- CredentialBootstrapping
  - Enabled
  - EnableAfterReset
- RoleId

15-1-4-2 HostEthernetInterface Collection
[GET] /redfish/v1/Managers/Self/HostInterfaces/Self/HostEthernetInterfaces
  - Description
  - Members
  - Members@odata.count
  - Name
  - Oem

15-1-5 LogServices Collection
[GET] /redfish/v1/Managers/{instance}/LogServices
[POST] /redfish/v1/Managers/{instance}/LogServices/AuditLog/Actions/LogService.ClearLog
[POST] /redfish/v1/Managers/{instance}/LogServices/EventLog/Actions/LogService.ClearLog
[POST] /redfish/v1/Managers/{instance}/LogServices/SEL/Actions/LogService.ClearLog
  - Description
  - Members
  - Members@odata.count
  - Name
  - Oem

POST
Request:

POST https://{{ip}}/redfish/v1/Managers/Self/LogServices/AuditLog/Actions/LogService.ClearLog
https://{{ip}}/redfish/v1/Managers/Self/LogServices/EventLog/Actions/LogService.ClearLog
https://{{ip}}/redfish/v1/Managers/Self/LogServices/SEL/Actions/LogService.ClearLog
Content-Type: application/json

Example POST Request Body:

{ }
}
15-1-5-1  LogServices

[GET] /redfish/v1/Managers/{instance}/LogServices/{instance}
[PATCH] /redfish/v1/Managers/{instance}/LogServices/{instance}

- Id
- Name
- Description
- ServiceEnabled
- MaxNumberOfRecords
- OverWritePolicy
- DateTime
- DateTimeLocalOffset
- Actions
- Status
- Entries
- LogEntry Type
- Oem

15-1-5-1-1  Log Entry Collection

[GET] /redfish/v1/Managers/{instance}/LogServices/{instance}/Entries

- Description
- Members
- Members@odata.count
- Name
- Oem

15-1-5-1-1-1  Log Entry

[GET] /redfish/v1/Managers/Self/LogServices/AuditLog/Entries/{instance}

- Id
- Name
- Description
- Severity
- Created
- EventTimestamp
- EntryType
- Message
- MessageId
- MessageArgs
- Oem
- EventId
- ErrorCode
- SensorType
- SensorNumber
- Links
  - OriginOfCondition
- OemLogEntryCode
- OemSensorType
[GET] /redfish/v1/Managers/Self/LogServices/EventLog/Entries/{instance}
  - Id
  - Name
  - Description
  - Severity
  - Created
  - EventTimestamp
  - EntryType
  - EventCode
  - Message
  - MessageId
  - MessageArgs
  - Links
    - OriginOfCondition
  - Oem
  - EventId
  - SensorType
  - OemLogEntryCode
  - OemSensorType

[GET] /redfish/v1/Managers/Self/LogServices/SEL/Entries/{instance}
  - Id
  - Name
  - Description
  - Severity
  - Created
  - EventTimestamp
  - EntryType
  - EntryCode
  - SensorType
  - SensorNumber
  - MessageId
  - Oem
  - EventId
  - Message
  - MessageArgs
  - Links
    - OriginOfCondition
  - OemLogEntryCode
  - OemSensorType
15-1-6 NetworkProtocol

[GET] /redfish/v1/Managers/{instance}/NetworkProtocol

[PATCH] /redfish/v1/Managers/{instance}/NetworkProtocol

- Id
- Name
- Description
- HostName
- FQDN
- HTTPS
- SNMP
  - ProtocolEnabled
  - Port
  - AuthenticationProtocol
  - EncryptionProtocol
  - EngineId
  - EnableSNMPv1
  - EnableSNMPv2c
  - EnableSNMPv3
- VirtualMedia
- SSDP
- IPMI
- SSH
- KVMIP
- Status
- Oem
- Telnet
- Actions
- NTP
  - ProtocolEnabled
  - Port
  - NTPServers

15-1-7 Reset ActionInfo

[GET] /redfish/v1/Managers/{instance}/ResetActionInfo

- Description
- Id
- Name
- Parameters
15-1-8 SerialInterfaces Collection

[GET] /redfish/v1/Managers/{instance}/SerialInterfaces
- Description
- Members
- Members@odata.count
- Name
- Oem

15-1-8-1 SerialInterfaces

[GET] /redfish/v1/Managers/{instance}/SerialInterfaces/{instance}
[PATCH] /redfish/v1/Managers/{instance}/SerialInterfaces/{instance}
- Id
- Name
- Description
- Interface Enabled
- BitRate
- Parity
- DataBits
- StopBits
- FlowControl
- Oem
- SignalType
- ConnectorType
- PinOut
- Actions

15-1-9 VirtualMedia Collection

[GET] /redfish/v1/Managers/{instance}/VirtualMedia
- Description
- Members
- Members@odata.count
- Name
- Oem

15-1-9-1 VirtualMedia Collection

[GET] /redfish/v1/Managers/{instance}/VirtualMedia/{instance}
[POST] /redfish/v1/Managers/{instance}/VirtualMedia/{instance}/Actions/VirtualMedia.InsertMedia
[POST] /redfish/v1/Managers/{instance}/VirtualMedia/{instance}/Actions/VirtualMedia.EjectMedia
[POST] /redfish/v1/Managers/{instance}/Actions/Oem/AMIVirtualMedia.ConfigureCDInstance
[POST] /redfish/v1/Managers/{instance}/Actions/Oem/AMIVirtualMedia.EnableRMedia
- Actions
- ConnectedVia
- Description
- Id
- Image
POST
Request:

POST https://{{ip}}/redfish/v1/Managers/Self/VirtualMedia/CD1/Actions/VirtualMedia.InsertMedia
Content-Type: application/json

Example POST Request Body:

```
{
  "TransferProtocolType": "NFS"
}
```

Request:

POST https://{{ip}}/redfish/v1/Managers/Self/VirtualMedia/CD1/Actions/VirtualMedia.EjectMedia
Content-Type: application/json

Example POST Request Body:

```
{}
```

Request:

POST https://{{ip}}/redfish/v1/Managers/Self/Actions/Oem/AMIVirtualMedia.ConfigureCDInstance
Content-Type: application/json

Example POST Request Body:

```
{
  "CDInstance": 4
}
```

Request:

POST https://{{ip}}/redfish/v1/Managers/Self/Actions/Oem/AMIVirtualMedia.EnableRMedia
Content-Type: application/json
Example POST Request Body:

```json
{
   "RMediaState": "Enable"
}
```
16. InventoryData Status URI

[GET] /redfish/v1/Oem/Ami/InventoryData/Status
- Id
- Name
- Description
- InventoryData

17. InventoryData Status URI

[GET] /redfish/v1/Registries
- Description
- Members
- Members@odata.count
- Name
- Oem

17-1 Message Registries

[GET] /redfish/v1/Registries/{instance}
- Description
- Id
- Languages
- Name
- Oem
- RegistryPrefix
- RegistryVersion
- OwningEntity
- Messages

17-2 Message Registries File

[GET] /redfish/v1/Registries/{instance}.json
- Description
- Id
- Languages
- Messages
- Name
- OwningEntity
- RegistryPrefix
- RegistryVersion
- Oem
18. Session Service

[GET] /redfish/v1/SessionService
[PATCH] /redfish/v1/SessionService

- Description
- Id
- Name
- ServiceEnabled
- SessionTimeout
- Sessions
- Status
- Oem
- Actions

18-1 Session Collection

[GET] /redfish/v1/SessionService/Sessions
[POST] /redfish/v1/SessionService/Sessions

- Description
- Members
- Members@odata.count
- Name
- Oem

POST Request:

POST https://{{ip}}/redfish/v1/SessionService/Sessions
Content-Type: application/json

Example POST Request Body:

{
    "UserName": "admin",
    "Password": "password"
}
18-1-1 Session

[GET] /redfish/v1/SessionService/Sessions/{instance}
[DELETE] /redfish/v1/SessionService/Sessions/{instance}
  - Id
  - Name
  - Description
  - UserName
  - Oem
  - Password
  - Actions
19. System Collection

[GET] /redfish/v1/Systems
[POST] /redfish/v1/Systems

@Redfish.CollectionCapabilities
  - Capabilities
  - Members
  - Members@odata.count
  - Name
  - Description
  - Oem

POST Request:

POST https://{{ip}}/redfish/v1/Systems
Content-Type: application/json

Example POST Request Body:

```
{
  "Name": "NewSystem",
  "Links": {
    "ResourceBlocks": [{
      "@odata.id": "/redfish/v1/CompositionService/ResourceBlocks/ComputeBlock"
    }]
  },
  "HostName": "gigabyte"
}
```

19-1 Capabilities

[GET] /redfish/v1/Systems/Capabilities
  - Id
  - Name
  - Description
  - Links
    - ResourceBlocks
  - Boot
  - HostName
19-2 System

[GET] /redfish/v1/Systems/{instance}
[PATCH] /redfish/v1/Systems/{instance}
[POST]/redfish/v1/Systems/{instance}/Actions/ComputerSystem.Reset
- Id
- Name
- Description
- SystemType
  - Physical
- Links
  - Oem
  - Chassis
  - Chassis@odata.count
  - ManagedBy
  - ManagedBy@odata.count
- AssetTag
- Manufacturer
- Model
- SKU
- SerialNumber
- PartNumber
- UUID
- IndicatorLED
- PowerState
- Boot
- BiosVersion
- ProcessorSummary
  - Count
  - Model
  - Status
- MemorySummary
  - TotalSystemMemoryGiB- Status
  - MemoryMirroring
  - TotalSystemPersistentMemoryGiB
- Actions
- Processors
- EthernetInterfaces
- SimpleStorage
- LogServices
- Status
- SecureBoot
- Bios
- Memory
- Storage
- NetworkInterfaces
POST

Request:

POST https://{ip}/redfish/v1/Systems/Self/Actions/ComputerSystem.Reset
Content-Type: application/json

Request Body:
The ResetType can be one of the following values: "On", "ForceOff", "GracefulShutdown", "ForceRestart".

Example POST Request Body:

```
{
  "ResetType" : "On"
}
```

19-2-1 BIOS

[GET] /redfish/v1/Systems/{instance}/Bios
[POST] /redfish/v1/Systems/{instance}/Bios/Actions/Bios.ResetBios
[POST] /redfish/v1/Systems/{instance}/Bios/Actions/Bios.ChangePassword

- Oem
- Id
- Name
- Description
- AttributeRegistry
- Actions
- Attributes
POST
Request:

POST https://{{ip}}/redfish/v1/Systems/Self/Bios/Actions/Bios.ResetBios
Content-Type: application/json

Example POST Request Body:

```json
{
    "ResetType": "Reset"
}
```

Request:

POST https://{{ip}}/redfish/v1/Systems/Self/Bios/Actions/Bios.ChangePassword
Content-Type: application/json

Example POST Request Body:

```json
{
    "PasswordName": "SETUP001",
    "OldPassword": "old",
    "NewPassword": "new"
}
```

19-2-1-1 BIOS SD

[POST] /redfish/v1/Systems/{instance}/Bios/SD
[PATCH] /redfish/v1/Systems/{instance}/Bios/SD
[PUT] /redfish/v1/Systems/{instance}/Bios/SD

- Id
- Name
- Description
- AttributeRegistry
- Attributes
- Actions

POST
Request:

POST https://{{ip}}/redfish/v1/Systems/Self/Bios/SD
Content-Type: application/json
Example POST Request Body:

```json
{
    "Attributes": {
        "PCIS003": "Disabled"
    }
}
```

19-2-2 BootOption Collection

[GET] /redfish/v1/Systems/{instance}/BootOptions
- Description
- Members
- Members@odata.count
- Name
- Oem

19-2-2-1 BootOption Collection

[GET] /redfish/v1/Systems/{instance}/BootOptions/{instance}
- Id
- Name
- Description
- BootOptionEnabled
- BootOptionReference
- DisplayName
- UefiDevicePath
- Alias
- Oem
- RelatedItem
- RelatedItem@odata.count

19-2-3 EthernetInterfaces Collection

[GET] /redfish/v1/Systems/{instance}/EthernetInterfaces
- Description
- Members
- Members@odata.count
- Name
- Oem

19-2-3-1 EthernetInterfaces

[GET] /redfish/v1/Systems/{instance}/EthernetInterfaces/{instance}
- Id
- Status
- MACAddress
- LinkStatus
- Links
- Name
- Oem
- UefiDevicePath
- InterfaceEnabled
- PermanentMACAddress
- Ipv4Addresses
- Ipv6Addresses
- Ipv6DefaultGateway
- VLANS
- Actions
- DHCPv4
- DHCPv6

19-2-3-1-1  VLAN Network Interface Collection

[GET] /redfish/v1/Systems/{instance}/EthernetInterfaces/{instance}/VLANS
[POST] /redfish/v1/Systems/{instance}/EthernetInterfaces/{instance}/VLANS
  - Members
  - Members@odata.count
  - Name
  - Description
  - Oem

POST Request:

https://{{ip}}/redfish/v1/Systems/{{system_instance}}/EthernetInterfaces/{{system_ethifc_instance}}/VLANS
Content-Type: application/json

Example POST Request Body:

```json
{
  "VLANId": 100,
  "VLANEnable": true,
  "VLANPriority": 2
}
```

19-2-3-1-1-1  VLANNetworkInterface

[GET] /redfish/v1/Systems/{instance}/EthernetInterfaces/{instance}/VLANS/{instance}
[PATCH] redfish/v1/Systems/{instance}/EthernetInterfaces/{instance}/VLANS/{instance}
[DELETE] redfish/v1/Systems/{instance}/EthernetInterfaces/{instance}/VLANS/{instance}
- Id
- Name
- Description
- VLANEnable
- VLANId
- Oem
- Actions

19-2-4 LogServices Collection

[GET] /redfish/v1/Systems/{instance}/LogServices
- Description
- Members
- Members@odata.count
- Name
- Oem

19-2-4-1 LogServices

[GET] /redfish/v1/Systems/{instance}/LogServices/{instance}
[PATCH] /redfish/v1/Systems/{instance}/LogServices/{instance}
[POST] /redfish/v1/Systems/{instance}/LogServices/{instance}/Actions/LogService.ClearLog
- Oem
- Id
- Name
- Description
- ServiceEnabled
- MaxNumberOfRecords
- OverWritePolicy
  - WrapsWhenFull
- DateTime
- DateTimeLocalOffset
- Actions
- Status
- Entries
- LogEntry Type

POST
Request:

POST https://{{ip}}/redfish/v1/Systems/Self/LogServices/BIOS/Actions/LogService.ClearLog
Content-Type: application/json

Example POST Request Body:

```json
{
}
```
19-2-4-1-1 Log Entry Collection

[GET] /redfish/v1/Systems/{instance}/LogServices/{instance}/Entries

- Description
- Members
- Members@odata.count
- Name
- Oem

19-2-4-1-1-1 Log Entry

[GET] /redfish/v1/Systems/{instance}/LogServices/{instance}/Entries/{instance}

- Id
- Name
- Description
- Severity
- Created
- EventId
- EventTimestamp
- EntryType
- EntryCode
- SensorType
- SensorNumber
- Message
- MessageId
- MessageArgs
- Oem
- Links
  - OriginOfCondition
- OemLogEntryCode
- OemSensorType

19-2-5 Memory Collection

[GET] /redfish/v1/Systems/{instance}/Memory

- Description
- Members
- Members@odata.count
- Name
- Oem

19-2-5-1 Memory

[GET] /redfish/v1/Systems/{instance}/Memory/{instance}

- Id
- Name
- Description
- MemoryType
- MemoryDeviceType
- CapacityMiB
- DataWidthBits
- BusWidthBits
- Manufacturer
- SerialNumber
- PartNumber
- AllowedSpeedsMHz
- DeviceLocator
- ErrorCorrection
- OperatingSpeedMHz
- Links
  - Chassis
- Status
- Oem
- BaseModuleType
- MemoryMedia
- Assembly
- FirmwareRevision
- FirmwareApiVersion
- FunctionClasses
- MaxTDPMilliWatts
- SecurityCapabilities
- SpareDeviceCount
- ConfigurationLocked
- RankCount
- MemoryLocation
- VolatileRegionSizeLimitMiB
- PersistentRegionSizeLimitMiB
- Regions
- OperatingMemoryModes
- PowerManagementPolicy
- IsSpareDeviceEnabled
- IsRankSpareEnabled
- VolatileRegionNumberLimit
- PersistentRegionNumberLimit
- VolatileRegionSizeMaxMiB
- PersistentRegionSizeMaxMiB
- AllocationIncrementMiB
- AllocationAlignmentMiB
- ModuleManufacturerID
- ModuleProductID
- MemorySubsystemControllerManufacturerID
- MemorySubsystemControllerProductID
- VolatileSizeMiB
- NonVolatileSizeMiB
- CacheSizeMiB
- LogicalSizeMiB
- Location
- Metrics

19-2-6 MemoryDomains Collection
[GET] /redfish/v1/Systems/{instance}/MemoryDomains
- Description
  - Members
    - Members@odata.count
  - Name
  - Oem

19-2-7 NetworkInterface Collection
[GET] /redfish/v1/Systems/{instance}/NetworkInterfaces
- Description
  - Members
    - Members@odata.count
  - Name
  - Oem

19-2-7-1 NetworkInterface
[GET] /redfish/v1/Systems/{instance}/NetworkInterfaces/{instance}
- Id
- Name
- Description
- Status
- Links
- NetworkDeviceFunctions
- Actions

19-2-8 Processor Collection
[GET] /redfish/v1/Systems/{instance}/Processors
- Members
  - Members@odata.count
  - Name
  - Description
  - Oem

19-2-8-1 Processor
[GET] /redfish/v1/Systems/{instance}/Processors/{instance}
- Id
- Name
- Description
- Socket
- Status
  - State
- Health
- ProcessorType
- ProcessorArchitecture
- InstructionSet
- ProcessorId
  - IdentificationRegisters
  - EffectiveFamily
  - EffectiveModel
- Step
- Manufacturer
- Model
- MaxSpeedMHz
- TotalCores
- TotalThreads
- Links
  - Chassis
- Oem
- Actions
- SubProcessors
- Location
- Assembly
- MaxTDPWatts
- Metrics
- TDPWatts
- TotalEnabledCores
- UUID
- FPGA
- ProcessorMemory
  - CapacityMiB
  - IntegratedMemory
  - MemoryType
  - SpeedMHz

19-2-9 SimpleStorage Collection
[GET] /redfish/v1/Systems/{instance}/SimpleStorage
  - Members
  - Members@odata.count
  - Name
  - Description
  - Oem

19-2-9-1 SimpleStorage
[GET] /redfish/v1/Systems/{instance}/SimpleStorage/{instance}
- Id
- Name
- Description
- Links
- Oem
- UefiDevicePath
- Status
- Actions

19-2-10  Storage Collection

[Get] /redfish/v1/Systems/{instance}/Storage

- Members
- Members@odata.count
- Name
- Description
- Oem

19-2-10-1  Storage

[GET] /redfish/v1/Systems/{instance}/Storage/{instance}

- Id
- Name
- Description
- Oem
- Status
- Links
- StorageControllers@odata.count
- StorageControllers
- Drives@odata.count
- Drives
- Volumes
- Redundancy@odata.count
- Redundancy
20. TaskService

[GET] /redfish/v1/TaskService
- CompletedTaskOverWritePolicy
- DateTime
- Description
- Id
- LifeCycleEventOnTaskStateChange
- Name
- ServiceEnabled
- Status
- Tasks
- Oem
- Actions

20-1 Task Collection

[GET] /redfish/v1/TaskService/Tasks
- Description
- Members
- Members@odata.count
- Name
- Oem

20-1-1 Task

[GET] /redfish/v1/TaskService/Tasks/{instance}
[DELETE] /redfish/v1/TaskService/Tasks/{instance}
- Oem
- Id
- Name
- Description
- TaskState
- StartTime
- EndTime
- TaskStatus
- Messages
- Actions
- HidePayload
- PercentComplete
- Payload
21. TelemetryService

[Get] /redfish/v1/TelemetryService


[PATCH] /redfish/v1/TelemetryService

- Oem
- Id
- MetricDefinitions
- MetricReportDefinitions
- MetricReports
- Triggers
- Status
- Name
- MaxReports
- MinCollectionInterval
- SupportedCollectionFunctions
- Actions
- LogService
- Description
- ServiceEnabled
- SupportedCollectionFunctions@Redfish.AllowableValues

POST Request:

```
POST https://{{ip}}/redfish/v1/TelemetryService/Actions/TelemetryService.SubmitTestMetricReport
Content-Type: application/json
```

Example POST Request Body:

```
{
  "MetricReportName": "Average2",
  "GeneratedMetricReportValues": [
    {
      "MetricId": "Temp_average_reading_Average",
      "MetricProperty": "/redfish/v1/Chassis/Self/Thermal#/Temperatures/0/ReadingCelsius",
      "MetricValue": "23",
      "Timestamp": "2019-07-01T06:05:52Z"
    }
  ]
}
```

21-1  MetricReportLog Collection

[Get] /redfish/v1/TelemetryService/LogServices

[POST] /redfish/v1/TelemetryService/LogService/Actions/LogService.ClearLog

- Description
- Members
- Members@odata.count
- Name
- Oem

POST
  Request:

```
POST https://{{ip}}/redfish/v1/TelemetryService/LogService/Actions/LogService.ClearLog
Content-Type: application/json

Example POST Request Body:

{
}
```

21-1-1 MetricReportLog

[Get] /redfish/v1/TelemetryService/LogServices
[Post] redfish/v1/TelemetryService/LogServices/Actions/LogService.ClearLog
  - Id
  - Name
  - Description
  - ServiceEnabled
  - MaxNumberOfRecords
  - OverWritePolicy
  - Actions
  - Status
  - Entries
  - DateTime
  - DateTimeLocalOffset
  - Oem
  - LogEntryType

POST
  Request:

```
POST https://{{ip}}/TelemetryService/LogServices/Actions/LogService.ClearLog
Content-Type: application/json

Example POST Request Body:

{
}
```
21-1-1-1-1  Entries Collection
[Get] /redfish/v1/TelemetryService/LogServices/Entries
  - Description
  - Members
  - Members@odata.count
  - Name
  - Oem

21-1-1-1-1-1  Entries
[Get] /redfish/v1/TelemetryService/LogServices/Entries/{instance}
  - Id
  - Name
  - Description
  - Severity
  - Created
  - EntryType
  - EntryCode
  - Message
  - MessageId
  - MessageArgs
  - Links
    - OriginOfCondition
  - Oem
  - EventId
  - EventTimestamp
  - SensorType
  - SensorNumber
  - OemLogEntryCode
  - OemSensorType

21-2  MetricDefinitions Collection
[Get] /redfish/v1/TelemetryService/MetricDefinitions
  - Members
  - Members@odata.count
  - Name

21-2-1  MetricDefinitions
[Get] /redfish/v1/TelemetryService/MetricDefinitions/{instance}
  - Id
  - Name
  - MetricType
  - MetricDataType
  - Implementation
  - Units
  - IsLinear
MetricProperties
- Precision
- Accuracy

21-3  MetricReportDefinition Collection

[Get] /redfish/v1/TelemetryService/MetricReportDefinitions
[POST] /redfish/v1/TelemetryService/MetricReportDefinitions

- Members
  - Members@odata.count
- Name

POST Request:

| POST https://{{ip}}/redfish/v1/TelemetryService/MetricReportDefinitions |
|-----------------|------------------|
| Content-Type: application/json |

Example POST Request Body:

```
{
  "Id":"Voltage_Report",
  "Name":"Voltage_Report",
  "Schedule":{
    "RecurrenceInterval":"PT20S"
  },
  "MetricReportDefinitionType":"Periodic",
  "MetricReport":{
    "@odata.id":/redfish/v1/TelemetryService/MetricReports/Voltage_Report"
  },
  "MetricProperties":/[redfish/v1/Chassis/Self/Power#/Volages/0/ReadingVolts"
}
```

21-3-1 MetricReportDefinitions

[Get] /redfish/v1/TelemetryService/MetricReportDefinitions/{instance}

- Id
- Name
- Schedule
- MetricReportDefinitionType
- Status
- MetricReport
- Metrics/MetricProperties
- MetricReportDefinitionEnable
- ReportTimespan
- ReportActions
- ReportUpdates
- Metrics
  - MetricProperties

21-4 MetricReports Collection

[Get] /redfish/v1/TelemetryService/MetricReports
- Members
  - Members@odata.count
- Name

21-4-1 MetricReports

[Get] /redfish/v1/TelemetryService/MetricReports/{instance}
  - Id
  - Name
  - MetricReportDefinition
  - Timestamp
  - ReportSequence
  - MetricValues

21-5 Triggers Collection

[Get] /redfish/v1/TelemetryService/Triggers
[Post] /redfish/v1/TelemetryService/Triggers
- Members
  - Members@odata.count
- Name

POST Request:

POST https://{{ip}}/redfish/v1/TelemetryService/Triggers
Content-Type: application/json

The following properties are mandatory to create a trigger:
• Id
• Name
• MetricType
• TriggerActions
• NumericTriggers or (DiscreteTriggerCondition & DiscreteTriggers)
• MetricProperties

Note:
• Status->State and Status-Health are read-only attributes and cannot be passed in the POST Request Body.
• Only a maximum of 25 triggers can be created.
Example POST Request to create Numeric Triggers Body:

```json
{
    "Id":"Temperature_Trigger",
    "Name":"Temperature_Trigger",
    "MetricType":"Numeric",
    "TriggerActions":["LogToLogService"],
    "NumericTriggers": [ {
        "Name":"UpperThresholdCritical",
        "Value": 50.0,
        "DirectionOfCrossing":"Increasing"
    },{ 
        "Name":"UpperThresholdNonCritical",
        "Value": 48.1, "DirectionOfCrossing":"Increasing"
    }],
    "MetricProperties":["/redfish/v1/Chassis/Self/Thermal#/Temperatures/0/ReadingCelsius"]
}
```

Example POST Request to create Discrete Triggers Body:

```json
{
    "Id":"Chassis_LED",
    "Name":"Chassis_LED",
    "MetricType":"Discrete",
    "TriggerActions":["LogToLogService", "RedfishEvent"],
    "DiscreteTriggerCondition":"Specified",
    "DiscreteTriggers": [{
        "Name":"LED_On",
        "Value":"On", "Severity": "Warning",
        "Warning"
    }],
    "MetricProperties":["/redfish/v1/Chassis/Self#/IndicatorLED"]
}
```

**21-5-1 Triggers**

[Get] /redfish/v1/TelemetryService/Triggers/{instance}
[Delete] /redfish/v1/TelemetryService/Triggers/{instance}

- **Id**
- **Name**
- **MetricType**
- **DiscreteTriggerCondition**
- **Status**
- **DiscreteTriggers**
- **Description**
22. UpdateService

[GET] /redfish/v1/UpdateService
[PATCH] /redfish/v1/UpdateService
[POST] /redfish/v1/UpdateService/Actions/SimpleUpdate

- Actions
- Description
- Id
- Name
- Oem
- ServiceEnabled
- Status
- MaxImageSizeBytes
- MultipartHttpPushUri
- FirmwareInventory

POST Request:

POST https://{ip}/redfish/v1/UpdateService/Actions/SimpleUpdate
Content-Type: application/json

Example POST Request Body:

Anonymous:
{"TransferProtocol": "FTP", "ImageURI": "ftp://{FTP_server_IP}/{image_name}.ima"}
{"TransferProtocol": "HTTP", "ImageURI": "http://{HTTP_server_IP}/{image_name}.ima"}

user account:

22-1 SimpleUpdateActionInfo

[GET] /redfish/v1/UpdateService/SimpleUpdateActionInfo

- Id
- Name
- Parameters
22-2  FirmwareInventory Collection

[GET] /redfish/v1/UpdateService/FirmwareInventory
  - Description
  - Members
  - Members@odata.count
  - Name
  - Oem

22-2-1 FirmwareInventory

[GET] /redfish/v1/UpdateService/FirmwareInventory /{instance}
  - Id
  - Name
  - Updateable
  - Oem
  - Description