Intel® Server System Integrated Baseboard Management Controller Firmware

OpenBMC Redfish API Specification*

For Intel® Server Systems supporting the Intel® Xeon® Processor Scalable Family

Rev 1.3

April 2024

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Document Revision History

Date	Revision	Changes
March 2021	0.1	Initial release.
September 2022	1.0	Added new features and changed some properties and URIs.
November 2023	1.1	Added example in section 2.2.6 Added note in 2.93.6
March 2024	1.2	Declassify from “Intel Confidential” for public release
April 2024	1.2.1	Minor corrections of formatting and typography
April 2024	1.3	Delete section 2.50.7 Update section 2.49.4 Minor corrections of typography

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Contents

1. Introduction

This *Open BMC Redfish* Application Programming Interface (API) Specification* describes the Redfish schemas supported by the Integrated *Baseboard Management Controller* (BMC) used on Intel® Server Systems supporting the Intel® Xeon® processor Scalable family. Each identified schema includes a description, Uniform Resource Identifiers (URI), methods supported, properties, links, and actions.

1.1 Order of Precedence

In the event of a conflict between the text of this document and the references cited therein, the text of this document takes precedence.

1.2 Audience

This document is intended for the following audiences:

- Server Management Firmware Engineers
- System BIOS Engineers
- Server Management Software and Utilities Engineers
- Validation Engineers
- Platform Architects
- Technical Marketing Engineers
- OEM Design Engineers

1.3 References

Doc ID	Title	Location
782332	Intel® Server System Integrated Baseboard Management Controller (BMC) Firmware External Product Specification (EPS)	https://cdrdv2.intel.com/v1/dl/getContent/782332 (requires NDA login)
560243	Intel® Rack Scale Design PSME Representational State Transfer API Specification	https://www.dmtf.org/standards/redfish
DSP0266	Scalable Platforms Management API Specification v1.15.0	https://www.dmtf.org/standards/redfish
DSP8010	Redfish Schema v2021.4	https://www.dmtf.org/standards/redfish

1.4 Document Conventions

1.4.1 Device Specific and Numeric Identifiers

Throughout this document, the {ID} designation is used to specify text that is specific to the server, a server subsystem, or will apply to a list of items. The BMC Redfish API will return links and actions with the actual device sPECIfic text.

Examples

The URI for the Account service as described in the document is: /redfish/v1/AccountService/Accounts/{ID}. In this case, {ID} represents a valid account name, which applies to a specific name like /redfish/v1/AccountService/Accounts/root.

The URI for a Redfish Log Entry, as described in the document, is /redfish/v1/Managers/bmc/LogServices/Journal/Entries/{ID}. In this case, {ID} represents a numeric value that applies to a specific entry like /redfish/v1/Managers/bmc/LogServices/Journal/Entries/442.

1.5 Hierarchy in Property Names

Where a hierarchy exists in the property names for the schema, the properties contained within another property are prefixed with the text “> “. If multiple levels of hierarchy exist, multiple prefixes are added.

Examples:

In this example, Status is a top-level property including State, HealthRollup, and Health. MemorySummary is a top-level property, including Status that includes State, HealthRollup, and Health.

Property	Access	Description
Status	RO	This type describes the status and health of a resource and its children.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
MemorySummary	RO	This object describes the central memory of the system in general detail.
> Status	RO	This type describes the status and health of a resource and its children.
> > State	RO	This indicates the known state of the resource, such as if it is enabled.
> > HealthRollup	RO	This represents the overall health state from the view of this resource.
> > Health	RO	This represents the health state of this resource in the absence of its dependent resources.

2. Schemas

2.1 Root Service

This resource represents the root of the Redfish service that is located at the /redfish/v1 URI. As a hypermedia API, all other resources accessible through the Redfish interface on this device are linked directly or indirectly from the Service Root.

2.1.1 URI

- /redfish/v1

2.1.2 Schema

#ServiceRoot.v1_5_0.ServiceRoot

2.1.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.1.4 Properties

Property	Access	Description
RedfishVersion	RO	The version of the Redfish service.
UUID	RO	Unique identifier for a service instance. When SSDP is used, this value should be an exact match of the UUID value returned in a 200OK from an SSDP M-SEARCH request during discovery.
Systems	RO	This is a link to a collection of Systems.
Registries	RO	This is a link to a collection of Registries.
Managers	RO	This is a link to a collection of Managers.
AccountService	RO	This is a link to the Account Service.
SessionService	RO	This is a link to the Sessions Service.
UpdateService	RO	This is a link to the UpdateService.
Chassis	RO	This is a link to a collection of Chassis.
EventService	RO	This is a link to the EventService.
CertificateService	RO	This is a link to the CertificateService.
TelemetryService	RO	This is a link to the TelemetryService.
Tasks	RO	This is a link to the TaskService.
JsonSchemas	RO	This is a link to the JsonSchemas.

2.1.5 Links

UpdateService

- /redfish/v1/UpdateService

Systems

- /redfish/v1/Systems

Registries

- /redfish/v1/Registries

Managers

- /redfish/v1/Managers

AccountService

- /redfish/v1/AccountService

EventService

- /redfish/v1/EventService

SessionService

- /redfish/v1/SessionService

Chassis

- /redfish/v1/Chassis

CertificateService

- /redfish/v1/CertificateService

TelemetryService

- /redfish/v1/TelemetryService

Links->Sessions

- /redfish/v1/SessionService/Sessions

Tasks

- /redfish/v1/TaskService

JsonSchemas

- /redfish/v1/JsonSchemas

2.2 Account Service

The Account Service schema contains properties for managing user accounts. The properties are common to all user accounts, such as password requirements, and control features such as account lockout. The schema also contains links to the collections of Manager Accounts and Roles.

2.2.1 URI

- /redfish/v1/AccountService

2.2.2 Schema

#AccountService.v1_5_0.AccountService

2.2.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓	✓		

2.2.4 Properties

Property	Access	Description
ServiceEnabled	RO	Indicates whether this service is enabled.
MaxPasswordLength	RO	The maximum password length for this service.
Accounts	RO	A link to a collection of Manager Accounts.
MinPasswordLength	RO	The minimum password length for this service.
Roles	RO	A link to a collection of Roles.
AccountLockoutDuration	RW	The time, in seconds, that an account is locked after the number of failed login attempts reaches the account lockout threshold, within the period between the last failed login attempt and the reset of the lockout threshold counter. If this value is `0`, no lockout will occur. If the AccountLockoutCounterResetEnabled value is `false`, this property is ignored.
AccountLockoutThreshold	RW	The number of allowed failed login attempts before a user account is locked for a specified duration. If `0`, the account is never locked.
LDAP	RO	The first LDAP external account provider that this account service supports.
> Authentication	RO	The information required to authenticate to the external service.
>> AuthenticationType	RW	The type of authentication used to connect to the external account provider.
>> Username	RW	The username for the service.
>> Password	RW	The password for this service. A PATCH or PUT request writes the password. This property is `null` in responses.
>Certificates	RO	The link to a collection of certificates.
> LDAPService	RO	The settings required to parse a generic LDAP service.
>> SearchSettings	RO	The required settings to search an external LDAP service.
>>> BaseDistinguishedNames	RW	The base distinguished names to use to search an external LDAP service.
>>> GroupsAttribute	RW	The attribute name that contains the groups for a user on the LDAP user entry.
>>> UsernameAttribute	RW	The attribute name that contains the LDAP username entry.
> RemoteRoleMapping	RO	The mapping rules to convert the external account providers account information to the local Redfish role.
>> LocalRole	RW	The name of the local Redfish role to which to map the remote user or group.
>> RemoteGroup	RW	The name of the remote group, or the remote role in the case of a Redfish service that maps to the local Redfish role to which this entity links.

Property	Access	Description
> ServiceAddresses	RW	The addresses of the user account providers to which this external account provider links. The format of this field depends on the type of external account provider.
> ServiceEnabled	RW	An indication of whether this service is enabled.
Oem	RO	The OEM extension property.
>OpenBMC	RO	The OEM extension property of OpenBMC.
>>AuthMethods	RO	Auth Methods of OpenBMC
>>> BasicAuth	RW	BasicAuth method of Auth Methods
>>> Cookie	RW	Cookie method of Auth Methods
>>> SessionToken	RW	SessionToken method of Auth Methods
>>> TLS	RW	TLS method of Auth Methods
>>> XToken	RW	XToken method of Auth Methods
>> PasswordPolicyComplexity	RW	Indicates the complexity of PasswordPolicy.
>>RememberOldPasswordTimes	RW	Indicates the times of old password to be remembered.
ActiveDirectory	RO	The first Active Directory external account provider that this account service supports.
> Authentication	RO	The information required to authenticate to the external service.
>> AuthenticationType	RW	The type of authentication used to connect to the external account provider.
>> Username	RW	The username for the service.
>> Password	RW	The password for this service. A PATCH or PUT request writes the password. This property is `null` in responses.
> LDAPService	RO	The settings required to parse a generic LDAP service.
>> Oem	RO	The OEM extension property.
>>> OpenBMC	RO	OEM Extension for AccountService.
>>>> LDAPBindTime	RW	Indicates the LDAP Bind Time limit.
>>>> LDAPServerPort	RW	Indicates the LDAP Server Port.
>> SearchSettings	RO	The required settings to search an external LDAP service.
>>> BaseDistinguishedNames	RW	The base distinguished names to use to search an external LDAP service.
>>> GroupsAttribute	RW	The attribute name that contains the groups for a user on the LDAP user entry.
>>> UsernameAttribute	RW	The attribute name that contains the LDAP username entry.
> RemoteRoleMapping	RO	The mapping rules to convert the external account providers account information to the local Redfish role.
>> LocalRole	RW	The name of the local Redfish role to which to map the remote user or group.
>> RemoteGroup	RW	The name of the remote group, or the remote role in the case of a Redfish service that maps to the local Redfish role to which this entity links.
> ServiceAddresses	RW	The addresses of the user account providers to which this external account provider links. The format of this field depends on the type of external account provider.
> ServiceEnabled	RW	An indication of whether this service is enabled.
Status	RO	This type describes the status and health of a resource and its children.

Property	Access	Description
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> State	RO	This indicates the known state of the resource, such as if it is enabled.

2.2.5 Links

Accounts

- /redfish/v1/AccountService/Accounts

Roles

- /redfish/v1/AccountService/Roles

2.2.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values	Remark
AccountLockoutDuration	The time, in seconds, that an account is locked after the number of failed login attempts reaches the account lockout threshold, within the period between the last failed login attempt and the rest of the lockout threshold counter. If this value is `0`, no lockout will occur. If the AccountLockoutCounterResetEnabled value is `false`, this property is ignored.	NUMBER	This value can't be 0.
AccountLockoutThreshold	The number of allowed failed login attempts before a user account is locked in a specified duration. If `0`, the account is never locked.	NUMBER	N/A
Oem	The OEM extension property.	JSON	N/A
> OpenBMC	OEM Extension for AccountService.	JSON	N/A
>> BasicAuth	BasicAuth method of Auth Methods	BOOL	N/A
>> Cookie	Cookie method of Auth Methods	BOOL	N/A
>> SessionToken	SessionToken method of Auth Methods	BOOL	N/A
>> XToken	XToken method of Auth Methods	BOOL	N/A
>> TLS	TLS method of Auth Methods	BOOL	N/A
LDAP	The first LDAP external account provider that this account service supports.	JSON	N/A
> Authentication	The authentication information for the external account provider.	JSON	N/A
>> AuthenticationType	The type of authentication used to connect to the external account provider.	"UsernameAndPassword"	N/A
>> Username	The user name for the service.	STRING	N/A
>> Password	The password for this service. A PATCH or PUT request writes the password. This property is `null` in responses.	STRING	N/A
> LDAPService	The additional mapping information needed to parse a generic LDAP service.	JSON	N/A

Property	Description	Allowable Values	Remark
>>SearchSettings	The required settings to search an external LDAP service.	JSON	N/A
>>>BaseDistinguishedNames	The base distinguished names to use to search an external LDAP service.	STRING LIST	N/A
>>>UsernameAttribute	The attribute name that contains the LDAP user name entry.	STRING	N/A
>>>GroupsAttribute	The attribute name that contains the groups for a user on the LDAP user entry.	STRING	N/A
> ServiceAddresses	The addresses of the user account providers to which this external account provider links. The format of this field depends on the type of external account provider.	STRING LIST	N/A
> ServiceEnabled	An indication of whether this service is enabled.	BOOL	N/A
> RemoteRoleMapping	The mapping rules to convert the external account providers account information to the local Redfish role.	JSON LIST	N/A
>>RemoteGroup	The name of the remote group, or the remote role in the case of a Redfish service that maps to the local Redfish role to which this entity links.	STRING	N/A
>>LocalRole	The name of the local Redfish role to which to map the remote user or group.	STRING	N/A
ActiveDirectory	The first Active Directory external account provider that this account service supports.	JSON	N/A
> Authentication	The authentication information for the external account provider.	JSON	N/A
>>AuthenticationType	The type of authentication used to connect to the external account provider.	”UsernameAndPassword”	N/A
>>username	The user name for the service.	STRING	N/A
>>password	The password for this service. A PATCH or PUT request writes the password. This property is `null` in responses.	STRING	N/A
> LDAPService	The additional mapping information needed to parse a generic LDAP service.	JSON	N/A
>> SearchSettings	The required settings to search an external LDAP service.	JSON	N/A
>>>BaseDistinguishedNames	The base distinguished names to use to search an external LDAP service.	STRING LIST	N/A
>>> UsernameAttribute	The attribute name that contains the LDAP user name entry.	STRING	N/A
>>> GroupsAttribute	The attribute name that contains the groups for a user on the LDAP user entry.	STRING	N/A
> ServiceAddresses	The addresses of the user account providers to which this external account provider links. The format of this field depends on the type of external account provider.	STRING LIST	N/A
> ServiceEnabled	An indication of whether this service is enabled.	BOOL	N/A
> RemoteRoleMapping	The mapping rules to convert the external account providers account information to the local Redfish role.	JSON LIST	N/A

Property	Description	Allowable Values	Remark
>> RemoteGroup	The name of the remote group, or the remote role in the case of a Redfish service that maps to the local Redfish role to which this entity links.	STRING	N/A
>> LocalRole	The name of the local Redfish role to which to map the remote user or group.	STRING	N/A

Example1 JSON

{“AccountLockoutDuration”: 0, "AccountLockoutThreshold": 0, "Oem": {"OpenBMC": {"AuthMethods":
{ "BasicAuth": true, "Cookie": true, "SessionToken": true, "TLS": true, "XToken": true }}}}

Example2 JSON

{"ActiveDirectory":{"LDAPService": {"SearchSettings":
{"BaseDistinguishedNames":["dc=osp,dc=mrac"]}},"RemoteRoleMapping":[{"RemoteGroup":"osp","LocalRole":
"Administrator", "Oem": {"OpenBMC":{"RemoteDomain": "osp.mrac"
}}}]}}

2.2.7 Actions

#AccountService.GetCurrentUserRole

/redfish/v1/AccountService/Actions/Oem/AccountService.GetCurrentUserRole

The action is used to get current user role.

Parameter	Description	Allowable Values
N/A	N/A	N/A

2.3 Manager Accounts Collection

A Collection of Manager Account resource instances.

2.3.1 URI

- /redfish/v1/AccountService/Accounts

2.3.2 Schema

#ManagerAccountCollection.ManagerAccountCollection

2.3.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.3.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.3.5 Links

Members

- /redfish/v1/AccountService/Accounts/{ID}

2.3.6 Establish an Account by POST

The properties of this table are used to create an account instance.

Property	Description	Allowable Values	Required
UserName	The user name for the account.	STRING	Yes
Password	The password for the account.	STRING	Yes
RoleId	The Role for this account.	Administrator Operator ReadOnly NoAccess	Yes
Enabled	When set to true, the user can log in. If set to false, the account cannot log in	BOOLEAN	No

Example JSON

{"UserName" : "Schubert", "Password" : "0penBmc123", "RoleId" : "Administrator", "Enabled" : true**}**

2.4 Manager Account

The user accounts, owned by a manager, are defined in this resource. Changes to a manager account may affect the current Redfish service connection if this manager is responsible for the Redfish service.

2.4.1 URI

- /redfish/v1/AccountService/Accounts/{ID}

2.4.2 Schema

#ManagerAccount.v1_4_0.ManagerAccount

2.4.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		✓

2.4.4 Properties

Property	Access	Description
RoleId	RW	This property contains the Role for this account.
Password	RW	This property is used with a PATCH or PUT to write the password for the account. This property is null on a GET.
Enabled	RW	This property is used by a User Administrator to disable an account w/o having to delete the user information. When set to true, the user can log in. If set to false, the account is administratively disabled and the user cannot log in.
UserName	RW	This property contains the user name for the account.
AccountTypes	RW	The account types.
Locked	RW	An indication of whether the Account Service automatically locked the account because the lockout threshold was exceeded. To manually unlock the account before the lockout duration period, an administrator can change the property to `false` to clear the lockout condition.
PasswordChangeRequired	RW	An indication of whether the service requires that the password for this account is to be changed before further access to the account is allowed.
Locked@Redfish.AllowableValues	RW	Allowable values of Locked

2.4.5 Links

Links->Role

- /redfish/v1/AccountService/Roles/{ID}

2.4.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
UserName	The user name for the account.	STRING
Password	The password for the account.	STRING
RoleId	The Role for this account.	"Administrator" "Operator" "ReadOnly" "NoAccess"
Enabled	When set to true, the user can log in. If set to false, the account cannot log in	BOOLEAN
Locked	An indication of whether the account service automatically locked the account because the lockout threshold was exceeded. To manually unlock the account before the lockout duration period, an administrator can change the property to `false` to clear the lockout condition.	BOOLEAN "false"

Example JSON

{"UserName" : "root30", "Password": "0penBmc123", "RoleId" : "Administrator", "Enabled" : false, "Locked": false}

2.5 Role Collection

A Collection of Role resource instances.

2.5.1 URI

- /redfish/v1/AccountService/Roles

2.5.2 Schema

#RoleCollection.RoleCollection

2.5.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.5.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.5.5 Links

Members

- /redfish/v1/AccountService/Roles/Administrator
- /redfish/v1/AccountService/Roles/Operator

- /redfish/v1/AccountService/Roles/ReadOnly
- /redfish/v1/AccountService/Roles/NoAccess

2.6 User Role

This schema defines a user role to be used with a manager account.

2.6.1 URI

- /redfish/v1/AccountService/Roles/{ID}

2.6.2 Schema

#Role.v1_2_2.Role

2.6.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.6.4 Properties

Property	Access	Description
IsPredefined	RO	This property is used to indicate if the Role is one of the Redfish Predefined Roles vs a Custom role.
AssignedPrivileges	RO	The Redfish privileges that this role includes.
OemPrivileges	RW	The OEM privileges for this role.
RoleId	RO	The name of the role.

2.7 Chassis Collection

A Collection of chassis resource instances. The Chassis Collection resource includes members for all FRU devices.

2.7.1 URI

- /redfish/v1/Chassis

2.7.2 Schema

#ChassisCollection.ChassisCollection

2.7.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.7.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.7.5 Links

Members

- /redfish/v1/Chassis/{ChassisType}

2.8 Chassis

The Chassis schema represents the physical components of a system, including baseboard cards, power supplies, etc. This resource represents the sheet-metal confined spaces and logical zones such as racks, enclosures, chassis, and all other containers. Subsystems (like sensors) that operate outside of a system's data plane (meaning the resources are not accessible to software running on the system) are linked either directly or indirectly through this resource.

Physical component of the system.

2.8.1 URI

- /redfish/v1/Chassis/{ChassisType}

2.8.2 Schema

#Chassis.v1_14_0.Chassis

2.8.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓	✓		

2.8.4 Properties

Property	Access	Description
IndicatorLED(Optional)	RW	The state of the indicator LED, used to identify the chassis. (This property is existed when chassisType ID is baseboard related, such as FCP_Baseboard)
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
PartNumber	RO	The part number of the chassis.
ChassisType	RO	The type of physical form factor of the chassis.
Manufacturer	RO	The manufacturer of this chassis.
SerialNumber	RO	The serial number of the chassis.
PowerState	RO	The current power state of the chassis.
Model	RO	The model number of the chassis.
LocationIndicatorActive(Optional)	RW	An indicator allowing an operator to physically locate this resource. (This property is existed when chassisType ID is baseboard related, such as FCP_Baseboard)
PCIeDevices	RO	This property has been deprecated in favor of the PCIeDevices resource collection in the root of this resource.
Power	RO	The link to the power properties, or power supplies, power policies, and sensors, for this chassis.
Sensors	RO	The link to the collection of sensors located in the equipment and sub-components.
Thermal	RO	The link to the thermal properties, such as fans, cooling, and sensors, for this chassis.
NetworkAdapters(Optional)	RO	The link to the collection of network adapters associated with this chassis.

Property	Access	Description
Oem	RO	The OEM extension property. (This property only exists when chassisType ID is baseboard related, such as FCP_Baseboard)
> FRUUpdatableProperties	RO	The OEM OpenBMC extension property.
>> Board	RO	Some of settable properties in Baseboard board area
>>> BoardManufacture	RW	Indicates the board manufacture info.
>>> BoardManufactureDate	RW	Indicates the current time of update this property.
>>> BoardPartNumber	RW	Indicates the board part number.
>>> BoardSerialNumber	RW	Indicates the board serial number.
>> Chassis	RO	Baseboard chassis area.
>>> ChassisAM1	RW	Indicates the chassis AM1.
>>> ChassisAM2	RW	Indicates the chassis AM2.
>>> ChassisPartNumber	RW	Indicates the chassis part number.
>>> ChassisSerialNumber	RW	Indicates the chassis serial number.
>> Product	RO	Some of settable properties in Baseboard product area.
>>> ProductAssetTag	RW	Indicates the product asset tag.
>>> ProductName	RW	Indicates the product name.
>>> ProductPartNumber	RW	Indicates the product part number.
>>> ProductSerialNumber	RW	Indicates the product serial number.
>>>ProductVersion	RW	Indicates the product version.
PhysicalSecurity	RO	The state of the physical security sensor.
> IntrusionSensor	RO	This indicates the known state of the physical security sensor, such as if it is hardware intrusion detected.
> IntrusionSensorNumber	RO	A numerical identifier to represent the physical security sensor.
AssetTag(Optional)	RO	The user-assigned asset tag of this chassis. (This property only exists when chassis Type ID is R2000_Chassis related)

2.8.5 Links

ComputerSystems

- /redfish/v1/Systems/system

ManagedBy

- /redfish/v1/Managers/bmc

Storage

- /redfish/v1/Systems/system/Storage/1

PCIeDevices

- /redfish/v1/Systems/system/PCIeDevices

Power

- /redfish/v1/Chassis/{ChassisType}/Power

Sensors

- /redfish/v1/Chassis/{ChassisType}/Sensors

Thermal

- /redfish/v1/Chassis/{ChassisType}/Thermal

NetworkAdapters

- /redfish/v1/Chassis/{ChassisType}/NetworkAdapters

2.8.6 Actions

The reset action resets/reboots the manager.

#EventService.SubmitTestEvent

- /redfish/v1/Chassis/{ChassisType}/Actions/Chassis.Reset

Parameter	Description	Allowable Values
ResetType	The type of reset.	PowerCycle

Example JSON

{"ResetType": "PowerCycle"}

2.8.7 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
LocationIndicatorActive	An indicator allowing an operator to physically locate this resource.	BOOL
IndicatorLED	The state of the indicator LED, used to identify the chassis.	"Blinking" "Lit" "Off"
Oem	The OEM extension property.	N/A
> FRUUpdatableProperties	The OEM OpenBMC extension property.	N/A
>> Board	Some of settable properties in Baseboard board area	N/A
>>> BoardManufacture	Indicates the board manufacture info.	STRING
>>> BoardManufactureDate	Indicates the current time of update this property.	STRING (It can be any string, such as “updated”, it will be updated to current date)
>>> BoardPartNumber	Indicates the board part number.	STRING
>>> BoardSerialNumber	Indicates the board serial number.	STRING
>> Chassis	Baseboard chassis area.	N/A
>>> ChassisAM1	Indicates the chassis AM1.	STRING
>>> ChassisAM2	Indicates the chassis AM2.	STRING
>>> ChassisPartNumber	Indicates the chassis part number.	STRING
>>> ChassisSerialNumber	Indicates the chassis serial number.	STRING
>> Product	Some of settable properties in Baseboard product area.	N/A

Property	Description	Allowable Values
>>> ProductAssetTag	Indicates the product asset tag.	STRING
>>> ProductName	Indicates the product name.	STRING
>>> ProductPartNumber	Indicates the product part number.	STRING
>>> ProductSerialNumber	Indicates the product serial number.	STRING
>>>ProductVersion	Indicates the product version.	STRING

Example JSON

{"LocationIndicatorActive": false, "IndicatorLED" : "Blinking"}

2.9 Power

This is the schema definition for the power metrics. It represents the properties for power consumption and power limiting.

2.9.1 URI

- /redfish/v1/Chassis/{ChassisType}/Power

2.9.2 Schema

#Power.v1_5_2.Power

2.9.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		

2.9.4 Properties

Property	Access	Description
PowerControl	RO	This is the definition for power control function (power reading/limiting).
> MemberId	RO	The MemberId of the power supply within the PowerSupplies array on which to perform the reset.
> PowerAllocatedWatts	RO	The total amount of power that has been allocated or budgeted to chassis.
> PowerCapacityWatts	RO	The maximum capacity of this power supply.
> PowerConsumedWatts	RO	The actual power that the chassis consumes, in watts.
> PowerLimit	RO	The power limit status and configuration information for the chassis.
>> CorrectionInMs	RO	The time required for the limiting process to reduce power consumption to below the limit.
>> LimitException	RW	The action that is taken if the power cannot be maintained below the LimitInWatts.
>> LimitInWatts	RW	The power limit, in watts. If `null`, power capping is disabled.
> PowerMetrics	RO	The power readings for this chassis.
>> AverageConsumedWatts	RO	The average power level over the measurement window over the last IntervalInMin minutes.
>> IntervalInMin	RO	The time interval, or window, over which the power metrics are measured.
>> MaxConsumedWatts	RO	The highest power consumption level that has occurred over the measurement (in watts) window within the last IntervalInMin minutes.

Property	Access	Description
>> MinConsumedWatts	RO	The lowest power consumption level, in watts, over the measurement window that occurred within the last IntervalInMin minutes.
Voltages	RO	This is the definition for voltage sensors.
> LowerThresholdCritical	RO	The value at which the reading is below normal range but not yet fatal.
> LowerThresholdNonCritical	RO	The value at which the reading is below normal range.
> MemberId	RO	The MemberId of the power supply within the PowerSupplies array on which to perform the reset.
> MaxReadingRange	RO	Maximum value for this sensor.
> MinReadingRange	RO	Minimum value for this sensor.
> Oem	RO	The OEM extension property.
>> OpenBMC	RO	The OEM OpenBMC extension property.
>>> DateTime	RO	The current date.
> PhysicalContext	RO	The area or device to which this voltage measurement applies.
> ReadingVolts	RW	The reading of the voltage sensor.
> RelatedItem	RO	An array of links to resources or objects associated with this power limit.
> Status	RO	This type describes the status and health of a resource and its children.
>> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
>> HealthRollup	RO	This represents the overall health state from the view of this resource.
>> State	RO	This indicates the known state of the resource, such as if it is enabled.
> UpperThresholdCritical	RO	The value at which the reading is above normal range but not yet fatal.
> UpperThresholdNonCritical	RO	The value at which the reading is above normal range.
PowerSupplies	RO	Details of the power supplies associated with this system or device.
>FirmwareVersion	RO	The firmware version for this power supply.
>Manufacturer	RO	The manufacturer of this power supply.
> MemberId	RO	The MemberId of the power supply within the PowerSupplies array on which to perform the reset.
>Model	RO	The model number for this power supply.
> Oem	RO	The OEM extension property.
>> OpenBMC	RO	The OEM OpenBMC extension property.
>>> DateTime	RO	The current date.
>PartNumber	RO	The part number for this power supply.
>PowerInputWatts	RO	The measured input power of this power supply.
>PowerOutputWatts	RO	The measured output power of this power supply.
>Redundancy	RO	The redundancy information for the set of power supplies in this chassis.
> RelatedItem	RO	An array of links to resources or objects associated with this power limit.
>SerialNumber	RO	The serial number for this power supply.
> Status	RO	This type describes the status and health of a resource and its children.

Property	Access	Description
>> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
>> HealthRollup	RO	This represents the overall health state from the view of this resource.
>> State	RO	This indicates the known state of the resource, such as if it is enabled.
Redundancy	RO	Redundancy information for the power subsystem of this system or device.
> MemberId	RO	The MemberId of the power supply within the PowerSupplies array on which to perform the reset.
>MaxNumSupported	RO	The maximum number of members allowable for this redundancy group.
>MinNumNeeded	RO	The minimum number of members needed for this group to be redundant.
>Mode	RO	The redundancy mode of the group.
>RedundancySet	RO	The links to components of this redundancy set.
> Status	RO	This type describes the status and health of a resource and its children.
>> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
>> HealthRollup	RO	This represents the overall health state from the view of this resource.
>> State	RO	This indicates the known state of the resource, such as if it is enabled.

2.9.5 Links

Voltages

- /redfish/v1/Chassis/{ChassisType}/Power#/Voltages/{ID}

PowerControl

- /redfish/v1/Chassis/{ChassisType}/Power#/PowerControl/{ID}

PowerSupplies

- /redfish/v1/Chassis/{ChassisType}/Power#/PowerSupplies/{ID}

SensorHistory

- /redfish/v1/Chassis/{ChassisType}/Power/{ID}/SensorHistory

Redundancy

- /redfish/v1/Chassis/{ChassisType}/Power#/Redundancy/{ID}

Power

- /redfish/v1/Chassis/{ChassisType}/Power

Chassis

- /redfish/v1/Chassis

System

- /redfish/v1/Systems/system

2.9.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values	Remark
PowerControl	This property shall specify a valid Odata or Redfish property.	N/A	Not support because PowerLimit feature is disabled by default.
> PowerLimit	The power limit status and configuration information for the chassis.	N/A	
>> LimitInWatts	The power limit, in watts. If `null`, power capping is disabled.	NUMBER	
>> LimitException	The action that is taken if the power cannot be maintained below the LimitInWatts	STRING	
Voltages	This property shall contain the set of voltage sensors for this chassis.	N/A	The action Overriding of Sensor Value is supported in MTM mode.
> MemberId	The member ID of voltage. The one you want to modify its value.	N/A	
> ReadingVolts	The reading of the voltage sensor.	NUMBER	

Example JSON

{"PowerControl":[{"PowerLimit"{"LimitInWatts":2001}}], "Voltages": [{"MemberId" : "p0_vcs_voltage", "ReadingVolts":8}]**}**

2.10 Power Supply

This object contains details of the power supplies associated with this system. This is the schema definition for the power metrics. It represents the properties for power consumption and power limiting.

2.10.1 URI

- /redfish/v1/Chassis/{ChassisType}/Power#/PowerSupplies/{ID}

2.10.2 Schema

#Power.v1_5_2.Power

2.10.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.10.4 Properties

Property	Access	Description
FirmwareVersion	RO	The firmware version for this power supply.
Manufacturer	RO	The manufacturer of this power supply.
MemberId	RO	The MemberId of the power supply within the PowerSupplies array on which to perform the reset.
Model	RO	The model number for this power supply.
Oem	RO	The OEM extension property.

Property	Access	Description
> OpenBMC	RO	The OEM OpenBMC extension property.
>> DateTime	RO	The current date.
PartNumber	RO	The part number for this power supply.
PowerInputWatts	RO	The measured input power of this power supply.
PowerOutputWatts	RO	The measured output power of this power supply.
Redundancy	RO	The redundancy information for the set of power supplies in this chassis.
RelatedItem	RO	An array of links to resources or objects associated with this power limit.
SerialNumber	RO	The serial number for this power supply.
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
Name	RO	The Power Control function name.

2.11 Power Control

This is the definition for power control function (power reading/limiting). The schema definition for the Power Metrics represents the properties for Power Consumption and Power Limiting

2.11.1 URI

- /redfish/v1/Chassis/{ChassisType}/Power#/PowerControl/{ID}

2.11.2 Schema

#Power.v1_0_0.PowerControl

2.11.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.11.4 Properties

Property	Access	Description
MemberId	RO	The MemberId of the power supply within the PowerSupplies array on which to perform the reset.
PowerAllocatedWatts	RO	The total amount of power that has been allocated or budgeted to chassis.
PowerCapacityWatts	RO	The maximum capacity of this power supply.
PowerConsumedWatts	RO	The actual power that the chassis consumes, in watts.
PowerLimit	RO	The power limit status and configuration information for the chassis.
> CorrectionInMs	RO	The time required for the limiting process to reduce power consumption to below the limit.
> LimitException	RW	The action that is taken if the power cannot be maintained below the LimitInWatts.
> LimitInWatts	RW	The power limit, in watts. If `null`, power capping is disabled.
PowerMetrics	RO	The power readings for this chassis.

Property	Access	Description
>AverageConsumedWatts	RO	The average power level over the measurement window over the last IntervalInMin minutes.
> IntervalInMin	RO	The time interval, or window, over which the power metrics are measured.
> MaxConsumedWatts	RO	The highest power consumption level that has occurred over the measurement window within the last IntervalInMin minutes.
> MinConsumedWatts	RO	The lowest power consumption level, in watts, over the measurement window that occurred within the last IntervalInMin minutes.

2.12 Voltage

This is the definition for Voltage sensors. The schema definition for the power metrics represents the properties for power consumption and power limiting.

2.12.1 URI

- /redfish/v1/Chassis/{ChassisType}/Power#/Voltages/{ID}

2.12.2 Schema

#Power.v1_0_0.Voltage

2.12.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.12.4 Properties

Property	Access	Description
LowerThresholdCritical	RO	The value at which the reading is below normal range but not yet fatal.
LowerThresholdNonCritical	RO	The value at which the reading is below normal range.
MemberId	RO	The MemberId of the power supply within the PowerSupplies array on which to perform the reset.
MaxReadingRange	RO	Maximum value for this sensor.
MinReadingRange	RO	Minimum value for this sensor.
Oem	RO	The OEM extension property.
> OpenBMC	RO	The OEM OpenBMC extension property.
>> DateTime	RO	The current date.
PhysicalContext	RO	The area or device to which this voltage measurement applies.
ReadingVolts	RW	The reading of the voltage sensor.
RelatedItem	RO	An array of links to resources or objects associated with this power limit.
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
UpperThresholdCritical	RO	The value at which the reading is above normal range but not yet fatal.
UpperThresholdNonCritical	RO	The value at which the reading is above normal range.

2.13 Redundancy

This is the definition for PSU redundancy. The common redundancy definition and structure used in other Redfish schemas

2.13.1 URI

- /redfish/v1/Chassis/{ChassisType}/Power#/Redundancy/{ID}

2.13.2 Schema

#Redundancy.v1_3_2.Redundancy

2.13.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.13.4 Properties

Property	Access	Description
MemberId	RO	The MemberId of the power supply within the PowerSupplies array on which to perform the reset.
MaxNumSupported	RO	The maximum number of members allowable for this redundancy group.
MinNumNeeded	RO	The minimum number of members needed for this group to be redundant.
Mode	RO	The redundancy mode of the group.
RedundancySet	RO	The links to components of this redundancy set.
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> State	RO	This indicates the known state of the resource, such as if it is enabled.

2.14 Sensor History

This is the definition for Sensor history. The schema describes the history of the sensor readings to different time frames

2.14.1 URI

- /redfish/v1/Chassis/{ChassisType}/Power/{ID}/SensorHistory

2.14.2 Schema

#SensorHistory.v1_0_0.SensorHistory

2.14.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		

2.14.4 Properties

Property	Access	Description
Interval	RW	The interval of the sensor gets the readings.
SensorName	RO	The name of the Sensor.
SensorReadings	RO	The set of the different sensor values w.r.to time.
> Time	RO	The time of the sensor reading.
> Value	RO	The reading of the sensor at that time.
SensorReadingsCount	RO	The total number of counts for the sensor history readings.
TimeFrame	RW	The time frame of the sensor gets the readings.

2.14.5 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
Interval	The interval of the sensor gets the readings.	NUMBER
TimeFrame	The time frame of the sensor gets the readings.	NUMBER

Example JSON

```
{ "TimeFrame": 12}
```

2.15 Thermal

This is the schema definition for the Thermal properties. It represents the properties for Temperature and Cooling.

2.15.1 URI

- /redfish/v1/Chassis/{ChassisType}/Thermal

2.15.2 Schema

#Thermal.v1_4_0.Thermal

2.15.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		

2.15.4 Properties

Property	Access	Description
Fans	RO	This is the definition for fans.
> MaxReadingRange	RO	Maximum value for this sensor.
> MemberId	RO	The MemberId of the Fans.
> MinReadingRange	RO	Minimum value for this sensor.
>Oem	RO	The OEM extension property.
>> OpenBMC	RO	The OEM OpenBMC extension property.

Property	Access	Description
>>> DateTime	RO	The current date.
>Reading	RW	The fan speed.
>ReadingUnits	RO	The units in which the fan reading and thresholds are measured.
>RelatedItem	RO	An array of links to resources or objects that represent areas or devices to which this temperature applies.
>Status	RO	This type describes the status and health of a resource and its children.
>> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
>> HealthRollup	RO	This represents the overall health state from the view of this resource.
>> State	RO	This indicates the known state of the resource, such as if it is enabled.
Temperatures	RO	This is the definition for temperature sensors.
>MaxReadingRangeTemp	RO	Maximum value for this sensor.
> MemberId	RO	The MemberId of Temperatures.
>MinReadingRangeTemp	RO	Minimum value for this sensor.
>Oem	RO	The OEM extension property.
>> OpenBMC	RO	The OEM OpenBMC extension property.
>>> DateTime	RO	The current date.
>PhysicalContext	RO	The area or device to which this temperature measurement applies.
>ReadingCelsius	RW	The temperature in degrees Celsius.
>RelatedItem	RO	An array of links to resources or objects that represent areas or devices to which this temperature applies.
>Status	RO	This type describes the status and health of a resource and its children.
>> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
>> HealthRollup	RO	This represents the overall health state from the view of this resource.
>> State	RO	This indicates the known state of the resource, such as if it is enabled.
>UpperThresholdNonCritical(Optional)	RO	Above normal range.
>UpperThresholdCritical(Optional)	RO	Above normal range but not yet fatal.
>LowerThresholdNonCritical(Optional)	RO	Below normal range.
>LowerThresholdCritical(Optional)	RO	Below normal range but not yet fatal.

2.15.5 Links

Fans

- /redfish/v1/Chassis/{ChassisType}/Thermal#/Fans/{ID}

Temperatures

- /redfish/v1/Chassis/{ChassisType}/Thermal#/Temperatures/{ID}

Sensor History

- /redfish/v1/Chassis/{ChassisType}/Thermal/{ID}/SensorHistory

2.15.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values	Remark
Temperatures	The set of temperature sensors for this chassis.	N/A	Override of sensor value is only supported in MTM mode.
> MemberId	The member ID of Temperatures. The one you want to modify its reading.	NUMBER	
> Reading	The fan speed.	NUMBER	
Fans	The set of fans for this chassis.	JSON	Override of sensor value is only supported in MTM mode.
> MemberId	The member ID of Temperatures. The one you want to modify its reading.	NUMBER	
> ReadingCelsius	The temperature in degrees Celsius.	NUMBER	

Example JSON

{ "Temperatures": [{ "MemberId" : "...", "ReadingCelsius" : "..."}], "Fans": [{ "MemberId": "...", "Reading": "..." }] }

2.16 Temperatures

This is the definition for temperature sensors. The schema definition for the Thermal properties represents the properties for Temperature and Cooling.

2.16.1 URI

- /redfish/v1/Chassis/{ChassisType}/Thermal#/Temperatures/{ID}

2.16.2 Schema

#Thermal.v1_3_0.Temperature

2.16.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.16.4 Properties

Property	Access	Description
ReadingCelsius	RO	The current value of the temperature sensor's reading.
UpperThresholdNonCritical	RO	Above normal range.
UpperThresholdCritical	RO	Above normal range but not yet fatal.
LowerThresholdNonCritical	RO	Below normal range.
LowerThresholdCritical	RO	Below normal range but not yet fatal.
MaxReadingRangeTemp	RO	Maximum value for this sensor.
MinReadingRangeTemp	RO	Minimum value for this sensor.

Property	Access	Description
MemberId	RO	The MemberId of Temperatures.
Oem	RO	The OEM extension property.
> OpenBMC	RO	The OEM OpenBMC extension property.
>> DateTime	RO	The current date.
PhysicalContext	RO	The area or device to which this temperature measurement applies.
RelatedItem	RO	An array of links to resources or objects that represent areas or devices to which this temperature applies.
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> State	RO	This indicates the known state of the resource, such as if it is enabled.

2.17 Fans

This is the definition for fans. The schema definition for the Thermal properties represents the properties for Temperature and Cooling.

2.17.1 URI

- /redfish/v1/Chassis/{ChassisType}/Thermal#/Fans/{ID}

2.17.2 Schema

#Thermal.v1_3_0.Fan

2.17.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.17.4 Properties

Property	Access	Description
MaxReadingRange	RO	Maximum value for this sensor.
MemberId	RO	The MemberId of the Fans.
MinReadingRange	RO	Minimum value for this sensor.
Oem	RO	The OEM extension property.
>OpenBMC	RO	The OEM OpenBMC extension property.
>> DateTime	RO	The current date.
Reading	RW	The fan speed.
ReadingUnits	RO	The units in which the fan reading and thresholds are measured.
RelatedItem	RO	An array of links to resources or objects that represent areas or devices to which this temperature applies.
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.

Property	Access	Description
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> State	RO	This indicates the known state of the resource, such as if it is enabled.

2.18 Sensor Collection

The link to the collection of sensors located in the equipment and sub-components for this chassis.

2.18.1 URI

- /redfish/v1/Chassis/{ChassisType}/Sensors

2.18.2 Schema

#SensorCollection.SensorCollection

2.18.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.18.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.18.5 Links

Members

- /redfish/v1/Chassis/{ChassisType}/Sensors/{ID}

2.19 Sensor

The Sensor schema describes a sensor and its properties.

2.19.1 URI

- /redfish/v1/Chassis/{ChassisType}/Sensors/{ID}

2.19.2 Schema

#Sensor.v1_0_0.Sensor

2.19.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.19.4 Properties

Property	Access	Description
Reading	RO	The sensor value.
ReadingRangeMax	RO	The maximum value for this sensor.
ReadingRangeMin	RO	The minimum possible value for this sensor.
ReadingType	RO	The type of sensor.
ReadingUnits	RO	The units of the reading and thresholds.

Status	RO	The status and health of the resource and its subordinate or dependent resources.
>Health	RO	This represents the health state of this resource in the absence of its dependent resources.
>State	RO	This indicates the known state of the resource, such as if it is enabled.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> Oem	RO	The OEM extension property.
>> OpenBMC	RO	The OEM OpenBMC extension property.
>>> DateTime	RO	The current date.
RelatedItem	RO	An array of links to resources or objects that this sensor services.
Thresholds (Optional)	RO	The value at which the reading is above normal range.
> UpperCaution	RO	The value at which the reading is above normal range.
>>Reading	RO	The threshold value.
> UpperCritical	RO	The value at which the reading is above normal range but not yet fatal.
>>Reading	RO	The threshold value.

2.19.5 Links

SensorHistory

- /redfish/v1/Chassis/FCP_Baseboard/Sensors/Total_Power/SensorHistory

2.20 NetworkAdapter Collection

This resource shall represent a resource collection of Network Adapter instances for a Redfish implementation.

2.20.1 URI

- /redfish/v1/Chassis/{ChassisType}/NetworkAdapters

2.20.2 Schema

#NetworkAdapterCollection.NetworkAdapterCollection

2.20.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.20.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.20.5 Links

Members

- /redfish/v1/Chassis/{ChassisType}/NetworkAdapters/Nic{ID}
- /redfish/v1/Chassis/{ChassisType}/NetworkAdapters/{ID}

2.21 NetworkAdapter

This resource shall represent a physical network adapter capable of connecting to a computer network in a Redfish implementation.

2.21.1 URI

- /redfish/v1/Chassis/{ChassisType}/NetworkAdapters/{ID}

2.21.2 Schema

#NetworkAdapter.v1_4_0.NetworkAdapter

2.21.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.21.4 Properties

Property	Access	Description
Controllers	RO	The set of network controllers ASICs that make up this NetworkAdapter.
> FirmwarePackageVersion	RO	The version of the user-facing firmware package.
> NetworkPorts	RO	An array of links to the network ports associated with this network controller.
NetworkPorts	RO	The link to the collection of network ports associated with this network adapter.
Status	RO	The status and health of the resource and its subordinate or dependent resources.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources
>HealthRollup	RO	This represents the overall health state from the view of this resource.

2.21.5 Links

NetworkPorts

- /redfish/v1/Chassis/{ID}/NetworkAdapters/{ID}/NetworkPorts/{ID}

2.22 NetworkPort Collection

This resource shall represent a resource collection of NetworkPort instances for a Redfish implementation.

2.22.1 URI

- /redfish/v1/Chassis/{ChassisType}/NetworkAdapters/{ID}/NetworkPorts

2.22.2 Schema

#NetworkPortCollection.NetworkPortCollection

2.22.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.22.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.22.5 Links

- Members
- /redfish/v1/Chassis/{ChassisType}/NetworkAdapters/{ID}

2.23 NetworkPort

This resource shall represent a discrete physical port that can connect to a network in a Redfish implementation.

2.23.1 URI

- /redfish/v1/Chassis/{ChassisType}/NetworkAdapters/{ID}/NetworkPorts/{ID}

2.23.2 Schema

#NetworkPort.v1_2_5.NetworkPort

2.23.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.23.4 Properties

Property	Access	Description
AssociatedNetworkAddresses	RO	An array of configured MAC or WWN network addresses that are associated with this network port, including the programmed address of the lowest numbered network device function, the configured but not active address, if applicable, the address for hardware port teaming, or other network addresses.
CurrentLinkSpeedMbps	RO	Current PCIe link speed.
FlowControlConfiguration	RO	The locally configured 802.3x flow control setting for this network port.
PhysicalPortNumber	RO	The physical port number label for this port.
VendorId	RO	The vendor Identification for this port.
Status	RO	The status and health of the resource and its subordinate or dependent resources.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
Oem	RO	The OEM extension property.
> OpenBMC	RO	The OEM OpenBMC extension property.
>> DeviceId	RO	The device ID of the network port.
>> MediaState	RO	The media state of the network port.
>> PCIClassCode	RO	The PCI Class Code of the network port.
>> PortIndex	RO	The port index of the network port.
>> SlotNumber	RO	The slot number of the network port.

2.24 Event Service

The Event Service resource contains properties for managing event subscriptions and generates the events sent to subscribers. The resource has links to the actual collection of subscriptions (called Event Destinations).

2.24.1 URI

- /redfish/v1/EventService

2.24.2 Schema

#EventService.v1_5_0.EventService

2.24.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓	✓		

2.24.4 Properties

Property	Access	Description
Subscriptions	RO	This is a reference to a collection of Event Destination resources.
DeliveryRetryAttempts	RW	This is the number of attempts an event posting is retried before the subscription is terminated. This retry is at the service level, meaning the HTTP POST to the Event Destination was returned by the HTTP operation as unsuccessful (4xx or 5xx return code) or an HTTP timeout occurred this many times before the Event Destination subscription is terminated.
ServiceEnabled	RW	This indicates whether this service is enabled.
DeliveryRetryIntervalSeconds	RW	The interval, in seconds, between retry attempts for sending any event.
EventFormatTypes	RO	The content types of the message that this service can send to the event destination.
RegistryPrefixes	RO	The list of the prefixes of the message registries that can be used for the RegistryPrefix property on a subscription. If this property is absent or contains an empty array, the service does not support RegistryPrefix-based subscriptions.
ResourceTypes	RO	The list of @odata.type values, or schema names that can be specified in the ResourceTypes array in a subscription. If this property is absent or contains an empty array, the service does not support resource type-based subscriptions.
SSEFilterPropertiesSupported	RO	The set of properties that are supported in the `$filter` query parameter for the ServerSentEventUri.
>EventFormatType	RO	An indication of whether the service supports filtering by the EventFormatType property.
> MessageId	RO	An indication of whether the service supports filtering by the MessageId property.
> MetricReportDefinition	RO	An indication of whether the service supports filtering by the MetricReportDefinition property.
> OriginResource	RO	An indication of whether the service supports filtering by the OriginResource property.
> RegistryPrefix	RO	An indication of whether the service supports filtering by the RegistryPrefix property.
> ResourceType	RO	An indication of whether the service supports filtering by the ResourceType property.
Status	RO	The status and health of the resource and its subordinate or dependent resources.
> State	RO	The status and health of the resource and its subordinate or dependent resources.

Property	Access	Description
SMTP	RO	Settings for SMTP event delivery.
>Authentication	RW	The authentication method for the SMTP server.
>ConnectionProtocol	RW	The connection type to the outgoing SMTP server.
>FromAddress	RW	The 'from' email address of the outgoing email.
>Port	RW	The destination SMTP port.
>ServerAddress	RW	The address of the SMTP server.
>ServiceEnabled	RW	An indication if SMTP for event delivery is enabled.
ServerSentEventUri	RO	The link to a URI for receiving Server-Sent Event representations for the events that this service generates.

2.24.5 Links

Subscriptions

- /redfish/v1/EventService/Subscriptions

2.24.6 Actions

- #EventService.SubmitTestEvent
- /redfish/v1/EventService/Actions/EventService.SubmitTestEvent

Parameter	Description	Allowable Values	Required
N/A	N/A	N/A	N/A

Example JSON:

N/A

2.24.7 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
ServiceEnabled	An indication of whether this service is enabled.	BOOLEAN
DeliveryRetryAttempts	The number of times that the POST of an event is retried before the subscription terminates. This retry occurs at the service level, which means that the HTTP POST to the event destination fails with an HTTP `4XX` or `5XX` status code or an HTTP timeout occurs this many times before the event destination subscription terminates.	range [1-3]
DeliveryRetryIntervalSeconds	The interval, in seconds, between retry attempts for sending any event.	range [30-180]
SMTP	Settings for SMTP event delivery.	N/A
>FromAddress	The 'from' email address of the outgoing email.	STRING
>Port	The destination SMTP port.	INTEGER
>ServerAddress	The address of the SMTP server.	STRING
>ServiceEnabled	An indication if SMTP for event delivery is enabled.	BOOLEAN

Example JSON:

{"ServiceEnabled": true, "DeliveryRetryAttempts": 3, "DeliveryRetryIntervalSeconds": 30}

2.25 Event Destination Collection

A Collection of EventDestination resource instances.

2.25.1 URI

- /redfish/v1/EventService/Subscriptions

2.25.2 Schema

#EventDestinationCollection.EventDestinationCollection

2.25.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.25.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.25.5 Links

Members

- /redfish/v1/EventService/Subscriptions/{ID}

2.25.6 Establish a Destination by POST:

The properties of this table are used to create a destination instance.

Property	Description	Allowable Values	Required
Destination	The URI of the destination where the events will be sent.	“<protocol>://<host>:<port>/<uri>” protocol: https host: Exclude ' ', ':', '#', '?' port: Empty or numeric value with ':' separator URI Start with '/' and exclude '#', ' '	Yes
Context	A client-supplied string	STRING	No
Protocol	The protocol type of the event connection.	"Redfish"	Yes
SubscriptionType	Indicates the subscription type for events	"RedfishEvent"	No
EventFormatType	The content types of the message that are sent to the EventDestination.	“Event” "MetricReport"	No
HttpHeaders	An array of settings for HTTP headers, such as authorization information. This array is null or an empty array in responses. An	JSON array	No

Property	Description	Allowable Values	Required
	empty array is the preferred return value on read operations.		
RegistryPrefixes	The list of the prefixes for the Message Registries that contain the MessageIds that are sent to this event destination.	STRING	No
MessageIds	The list of MessageIds that the service sends. If this property is absent or the array is empty, events with any MessageId are sent to the subscriber.	Array (This can be MessageId from event log entries. Such as, the following is a MessageId in Eventlog entries, we use BIOSBoot as MessageIds here. "MessageId": "OpenBMC.0.1.BIOSBoot")	No
DeliveryRetryPolicy	This property shall contain the subscription delivery retry policy for events, where the subscription type is RedfishEvent.	"TerminateAfterRetries" "SuspendRetries" "RetryForever"	No
MetricReportDefinitions	A list of metric report definitions for which the service only sends related metric reports. If this property is absent or the array is empty, metric reports that originate from any metric report definition are sent to the subscriber.	Array	No
ResourceTypes	The list of Resource Type values (Schema names) that correspond to the OriginOfCondition. The version and full namespace should not be sPECIfied.	“Task”	Yes

Example JSON:

{"Destination": "https://10.239.139.15/", "Context": "Public", "Protocol":"Redfish", "SubscriptionType": "RedfishEvent", "EventFormatType":"Event", "HttpHeaders": [{"Content-Type": "application/json"}], "MessageIds": ["BIOSBoot"], "DeliveryRetryPolicy": "TerminateAfterRetries", "ResourceTypes": ["Task"]}

2.26 Event Destination

An Event Destination describes the target of an event subscription, including the types of events subscribed and context to provide to the target in the Event payload.

2.26.1 URI

- /redfish/v1/EventService/Subscriptions/{ID}

2.26.2 Schema

#EventDestination.v1_7_0.EventDestination

2.26.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		✓

2.26.4 Properties

Property	Access	Description
Protocol	RO	The protocol type of the event connection.
SubscriptionType	RO	Indicates the subscription type for event.
Context	RW	A client-supplied string that is stored with the event destination subscription
Destination	RO	The URI of the destination Event Service.
DeliveryRetryPolicy	RW	This property shall contain the subscription delivery retry policy for events, where the subscription type is RedfishEvent.
EventFormatType	RO	The content types of the message that are sent to the EventDestination.
HttpHeaders	RW	An array of settings for HTTP headers, such as authorization information. This array is null or an empty array in responses. An empty array is the preferred return value on read operations.
MessageIds	RO	The list of MessageIds that the service sends. If this property is absent or the array is empty, events with any MessageId are sent to the subscriber.
MetricReportDefinitions	RO	A list of metric report definitions for which the service only sends related metric reports. If this property is absent or the array is empty, metric reports that originate from any metric report definition are sent to the subscriber.
RegistryPrefixes	RO	The list of the prefixes for the Message Registries that contain the MessageIds that are sent to this event destination.
ResourceTypes	RO	The list of Resource Type values (Schema names) that correspond to the OriginOfCondition. The version and full namespace should not be specified.

2.26.5 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
Context	A client-supplied string that is stored with the event destination subscription	STRING
DeliveryRetryPolicy	This property shall contain the subscription delivery retry policy for events, where the subscription type is RedfishEvent.	"TerminateAfterRetries" "SuspendRetries" "RetryForever"
HttpHeaders	An array of settings for HTTP headers, such as authorization information. This array is null or an empty array in responses. An empty array is the preferred return value on read operations.	JSON Array

Example JSON:

{"Context": "Hello111", "DeliveryRetryPolicy": "SuspendRetries", "HttpHeaders": [{"Content-Type": "application/json"}]}

2.26.6 Actions:

#Delete a destination

/redfish/v1/EventService/Subscriptions/{ID}

Parameter	Description	Allowable Values
N/A	N/A	N/A

Example JSON:

N/A

2.27 Manager Collection

A Collection of Manager resource instances.

2.27.1 URI

- /redfish/v1/Managers

2.27.2 Schema

#ManagerCollection.ManagerCollection

2.27.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.27.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.27.5 Links

Members

- /redfish/v1/Managers/bmc

2.28 Manager

In Redfish, a manager is a systems management entity that implements or provides access to a Redfish service. Examples of managers are BMCs, Enclosure Managers, Management Controllers, and other subsystems assigned manageability functions. There may be multiple Managers in an implementation, and they may or may not be directly accessible via a Redfish-defined interface.

2.28.1 URI

- /redfish/v1/Managers/bmc

2.28.2 Schema

#Manager.v1_9_0.Manager

2.28.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓	✓		

2.28.4 Properties

Property	Access	Description
Status	RO	This type describes the status and health of a resource and its children.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
> HealthRollup	RO	This represents the overall health state from the view of this resource.

Property	Access	Description
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
NetworkProtocol	RO	This is a reference to the network services and their settings that the manager controls. Here clients will find network configuration options as well as network services.
ManagerType	RO	This property represents the type of manager that this resource represents.
UUID	RO	The Universal Unique Identifier (UUID) for this Manager.
EthernetInterfaces	RO	This is a reference to a collection of NICs that this manager uses for network communication. Here clients will find NIC configuration options and settings.
PowerState	RO	This is the current power state of the Manager.
ServiceEntryPointUUID	RO	The UUID of the Redfish Service provided by this manager.
DateTime	RW	The current DateTime (with offset) for the manager, used to set or read time. (The BMC time and date are synchronized with the System Clock and will override any value set through this interface).
DateTimeLocalOffset	RW	The time offset from UTC that the DateTime property is in `+HH:MM` format.
Model	RO	The model information of this Manager as defined by the manufacturer.
FirmwareVersion	RO	The firmware version of this Manager.
GraphicalConsole	RO	The value of this property shall contain the information about the Graphical Console (KVM-IP) service of this manager.
> ServiceEnabled	RW	Indicates if the service is enabled for this manager.
> MaxConcurrentSessions	RO	Indicates the maximum number of service sessions, regardless of protocol, this manager can support.
> ConnectTypesSupported	RO	This object is used to count the Serial Console connection types allowed by the implementation.
LogServices	RO	This is a reference to a collection of Logs used by the manager.
Oem	RO	The OEM extension property.
> Customization	RO	OEMManager OEM properties.
> Manufacturing	RO	OEM property for Manufacture setting.
>> InActivityTime (Optional)	RW	Current InActivity timer in MTM mode. Only when the system is in MTM mode, this property will be existed.
> HostInterface	RO	OEM properties for host Redfish interface.
>> Enabled	RW	Enable status of Host Redfish interface.
>OpenBMC	RO	OEM properties for OpenBMC.
>>Certificates	RO	Link to a collection of certificates used for this account.
>>Fan	RO	OpenBMC OEM fan properties.
>>>FanControllers	RW	OpenBMC FanControllers.
>>>FanZones	RW	OpenBMC FanZones.
>>>PidControllers	RW	OpenBMC PidControllers.
>>>Profile	RW	Current thermal profile.
>>>Profile@Redfish.AllowableValues	RO	Reset type allowed by ResetTodefaults

Property	Access	Description
>>>StepwiseControllers	RW	OpenBMC StepwiseControllers.
>> FirmwareBuildTime	RO	The build time of the system.
LastResetTime	RO	Date and time when the manager was last reset or rebooted.
CommandShell	RO	The command shell service that this manager provides.
>ConnectTypesSupported	RO	This property counts the command shell connection types that the implementation allows.
>MaxConcurrentSessions	RO	The maximum number of service sessions, regardless of protocol, that this manager can support.

2.28.5 Links

NetworkProtocol

- /redfish/v1/Managers/bmc/NetworkProtocol

EthernetInterfaces

- /redfish/v1/Managers/bmc/EthernetInterfaces

LogServices

- /redfish/v1/Managers/bmc/LogServices

ManagerForChassis/ManageInChassis

- /redfish/v1/Chassis/{ChassisType}

ManagerForServers

- /redfish/v1/Systems/system

ActiveSoftwareImage

- /redfish/v1/UpdateService/FirmwareInventory/bmc_active

SoftwareImages

- /redfish/v1/UpdateService/FirmwareInventory/bmc_active
- /redfish/v1/UpdateService/FirmwareInventory/bmc_recovery

2.28.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
Oem	The OEM extension property.	JSON
> OpenBMC	OEM properties for OpenBMC.	JSON
>>Fan	OpenBMC OEM fan properties.	JSON
>>> PidControllers	OpenBMC PidControllers.	JSON
>>>> Inputs	Input sensors to the PID controller	STRING ARRAY
>>>> outputs	Output sensors to the PID controller.	STRING ARRAY
>>>> Zones	Contains the Zones that this PID contributes to.	JSON
>>>>> @odata.id	The path of zones.	STRING

Property	Description	Allowable Values
>>>> FFGainCoefficient	Feed forward gain coefficient for the PID.	NUMBER
>>>> FFOffCoefficient	Feed forward offset coefficient for the PID.	NUMBER
>>>> ICoefficient	Integral Coefficient for the PID.	NUMBER
>>>> ILimitMax	Integral limit maximum for the PID.	NUMBER
>>>> ILimitMin	Integral limit minimum for the PID.	NUMBER
>>>> OutLimitMax	Output limit maximum for the PWM.	NUMBER
>>>> OutLimitMin	Output limit minimum for the PWM.	NUMBER
>>>> PCoefficient	Polynomial coefficient for the PID.	NUMBER
>>>> SetPoint	Setpoint for the PID.	NUMBER
>>>> SetPointOffset	Threshold to take value from and apply to setpoint.	NUMBER
>>>> SlewNeg	Negative slew rate for the PID.	NUMBER
>>>> SlewPos	Positive slew rate for the PID.	NUMBER
>>>> PositiveHysteresis	Positive hysteresis for the controller.	NUMBER
>>>> NegativeHysteresis	Negative hysteresis for the controller.	NUMBER
>>> FanControllers	OpenBMC FanControllers.	JSON The subitem is the same with PidControllers
>>> FanZones	OpenBMC FanZones.	JSON
>>>> Chassis	The Chassis that enables this Zone.	JSON
>>>>> @odata.id	The path of Chassis that enables this Zone.	STRING
>>>> FailSafePercent	If the sensors are in fail-safe mode, this is the percentage to use.	NUMBER
>>>> QuietPercent	If the sensors are in quiet mode, this is the percentage to use.	NUMBER
>>>> MinThermalOutput	Minimum thermal RPM that can be set in this Zone.	NUMBER
>>> StepwiseControllers	OpenBMC StepwiseControllers.	JSON
>>>> Zones	Contains the Zones that this PID contributes to.	JSON ARRAY
>>>>> @odata.id	The path of zones.	STRING
>>>> Steps	Temperature vs RPM steps for the stepwise controller.	JSON
>>>>> Target	Input sensor reading for step.	NUMBER
>>>>> Output	Fan speed setting for step.	NUMBER
>>>> Inputs	Input sensors to the Stepwise controller.	STRING ARRAY
>>>> PositiveHysteresis	Positive Hysteresis for the stepwise controller.	NUMBER
>>>> NegativeHysteresis	Negative Hysteresis for the stepwise controller.	NUMBER
>>>>Direction	Direction that the stepwise controller applies.	STRING
>>> Profile	Current thermal profile.	STRING "Acoustic" "Performance"
> Manufacturing	OEM properties for Manufacturing.	JSON
>> InActivityTime	Current InActivity timer in MTM mode.	INTEGER (15, 255)

Property	Description	Allowable Values
>HostInterface	OEM properties for host Redfish interface.	JSON
>>Enabled	Enable status of Host Redfish interface.	BOOLEAN
DateTime	The current date and time with UTC offset of the manager.	STRING
DateTimeLocalOffset	The time offset from UTC that the DateTime property is in `+HH:MM` format.	STRING
Links	The links to other resources that are related to this resource.	JSON
> ActiveSoftwareImage	The link to the software inventory resource that represents the active firmware image for this manager.	JSON
>> @odata.id	The link to the software inventory resource that represents the active firmware image for this manager.	STRING

Example JSON:

{ "Oem": { "OpenBMC": { "Fan": { "PidControllers": { "CPU1_DIMM_ABC": { "SetPointOffset": "UpperThresholdCritical" } } } } } }

2.28.7 Actions

The reset action is used to reboot the manager.

- #Manager.Reset
- /redfish/v1/Managers/bmc/Actions/Manager.Reset

Parameter	Description	Allowable Values
ResetType	This is the type of reset to be performed.	“ForceRestart” "GracefulRestart"

Example JSON:

{"ResetType": "ForceRestart"}

- #Manager.ResetToDefaults
- /redfish/v1/Managers/bmc/Actions/Manager.ResetToDefaults

The reset action resets/reboots the manager.

Parameter	Description	Allowable Values
ResetToDefaultsType	Reset all settings to factory defaults.	"ResetAll" "ResetToDefaultButKeepReservedSettings"

Example JSON:

{"ResetToDefaultsType": "ResetAll"}

2.29 BMC Ethernet Network Interface Collection

A Collection of Ethernet Interface resource instances.

2.29.1 URI

- /redfish/v1/Managers/bmc/EthernetInterfaces

2.29.2 Schema

#EthernetInterfaceCollection.EthernetInterfaceCollection

2.29.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.29.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.29.5 Links

Members

- /redfish/v1/Managers/bmc/EthernetInterfaces/{ID}

2.30 BMC Ethernet Interface

The Ethernet Interface schema represents a single, logical Ethernet interface or network interface controller (NIC).

2.30.1 URI

- /redfish/v1/Managers/bmc/EthernetInterfaces/{ID}

2.30.2 Schema

#EthernetInterface.v1_4_1.EthernetInterface

2.30.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		

2.30.4 Properties

Property	Access	Description
InterfaceEnabled	RW	This indicates whether this interface is enabled.
IPv4StaticAddresses	RO	The IPv4 static addresses assigned to this interface.
> Address	RW	The IPv4 address. If DHCPv4 is enabled on the interface, this property becomes read-only.
> SubnetMask	RW	The IPv4 Subnet Mask. If DHCPv4 is enabled on the interface, this property becomes read-only.
> Gateway	RW	The IPv4 default gateway address for this interface. If DHCPv4 is enabled on the interface and is configured to set the IPv4 default gateway address, this property becomes read-only."
> AddressOrigin	RO	This indicates how the address was determined.
IPv4Addresses	RO	The IPv4 addresses currently assigned to this interface.
>Address	RO	The Ipv4 address
>SubnetMask	RO	The IPv4 Subnet Mask. If DHCPv4 is enabled on the interface, this property becomes read-only.
>Gateway	RO	The IPv4 default gateway address for this interface. If DHCPv4 is enabled on the interface and is configured to set the IPv4 default gateway address, this property becomes read-only."
>AddressOrigin	RO	This indicates how the address was determined (Static, DHCP)

Property	Access	Description
NameServers	RO	This represents DNS name servers that are currently in use on this interface.
IPv6Addresses	RO	Counts in an array all the currently assigned IPv6 addresses on this interface.
> Address	RO	The IPv6 address.
> PrefixLength	RO	The IPV6 Prefix Length
> AddressOrigin	RO	This indicates how the address was determined (Static, DHCPv6, SLAAC)
> AddressState	RO	The current RFC4862-defined state of this address.
IPv6StaticAddresses	RO	Represents in an array all of the IPv6 static addresses to be assigned on this interface.
>Address	RW	The IPv6 Address.
>PrefixLength	RW	The prefix length of this Ipv6 address.
SpeedMbps	RO	This is the current speed in Mbps of this interface.
IPv6DefaultGateway	RW	This is the IPv6 default gateway address that is in use on this interface.
LinkStatus	RO	The link status of this interface (port).
DHCPv6	RO	DHCPv6 configuration for this interface.
> OperatingMode	RW	Determines the DHCPv6 operating mode for this interface (Stateful, Disabled)
> UseDNSServers	RW	An indication of whether this interface uses DHCP v6-supplied DNS servers.
> UseDomainName	RW	An indication of whether the interface uses a domain name supplied through DHCP v6 stateless mode.
> UseNTPServers	RW	An indication of whether the interface uses DHCP v6-supplied NTP servers.
HostName	RW	The DNS Host Name, without any domain information.
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
DHCPv4	RO	DHCPv4 configuration for this interface.
> DHCPEnabled	RW	Determines whether DHCPv4 is enabled on this interface.
> UseDNSServers	RW	An indication of whether this interface uses DHCP v4-supplied DNS servers.
> UseDomainName	RW	An indication of whether this interface uses a DHCP v4-supplied domain name.
> UseNTPServers	RW	An indication of whether the interface uses DHCP v4-supplied NTP servers.
MACAddress	RW	This is the currently configured MAC address of the (logical port) interface.
FQDN	RW	This is the complete, fully qualified domain name obtained by DNS for this interface.
IPv6AddressPolicyTable	RO	An array that represents the RFC6724-defined address selection policy table.
StaticNameServers	RW	The statically defined set of DNS server IPv4 and IPv6 addresses.
VLANs	RO	The link to a collection of VLANs, which applies only if the interface supports more than one VLAN. If this property applies, the VLAN Enabled and VLAN ID properties do not apply.
EthernetInterfaceType	RO	The type of interface.
Oem	RO	The OEM extension property.
> Intel	RO	Intel OEM properties.
>>ChannelNumber	RO	Channel number of the Ethernet interface.

Property	Access	Description
>>NicDescription	RO	Description of the Ethernet interface.

2.30.5 Links

VLANs

- /redfish/v1/Managers/bmc/EthernetInterfaces/{ID}/VLANs

2.30.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
HostName	The DNS Host Name, without any domain information.	STRING
IPv4StaticAddresses	The IPv4 static addresses assigned to this interface.	JSON
>Address	The IPv4 address.	STRING
>SubnetMask	The IPv4 Subnet Mask. If DHCPv4 is enabled on the interface, this property becomes	STRING
>Gateway	The IPv4 Subnet Mask. If DHCPv4 is enabled on the interface, this property becomes read-only.	STRING
IPv6StaticAddresses	Represents in an array of all the IPv6 static addresses to be assigned on this interface.	JSON
>Address	The IPv6 address.	STRING
>PrefixLength	The prefix length of this IPv6 address.	NUMBER
DHCPv4	DHCPv4 configuration for this interface.	
>DHCPEnabled	Determines whether DHCPv4 is enabled on this interface.	BOOLEAN
> UseDNSServers	An indication of whether this interface uses DHCP v4-supplied DNS servers.	BOOLEAN
> UseNTPServers	An indication of whether the interface uses DHCP v4-supplied NTP servers.	BOOLEAN
>UseDomainName	An indication of whether this interface uses a DHCP v4-supplied domain name.	BOOLEAN
DHCPv6	DHCPv6 configuration for this interface.	
>OperatingMode	Determines the DHCPv6 operating mode for this interface (Stateful, Disabled)	"Disabled" "Stateful"
>UseDNSServers	An indication of whether this interface uses DHCP v6-supplied DNS servers.	BOOLEAN
>UseNTPServers	An indication of whether the interface uses DHCP v6-supplied NTP servers.	BOOLEAN
>UseDomainName	An indication of whether the interface uses a domain name supplied through DHCP v6 stateless mode.	BOOLEAN
StaticNameServers	The statically defined set of DNS server IPv4 and IPv6 addresses.	STRING
FQDN	This is the complete, fully qualified domain name obtained by DNS for this interface.	STRING
MACAddress	This is the currently configured MAC address of the (logical port) interface.	STRING

Property	Description	Allowable Values
IPv6DefaultGateway	This is the IPv6 default gateway address that is in use on this interface.	STRING
InterfaceEnabled	This indicates whether this interface is enabled.	BOOLEAN

Example JSON:

- {"HostName" : "TestHostname"}
- {"DHCPv4":{"DHCPEnabled":false}, "IPv4StaticAddresses" : [{"Address":"192.168.89.249", "SubnetMask":"255.255.255.0", "Gateway":"192.168.89.254"}]}
- {"DHCPv6":{"OperatingMode":"Disabled"}, "IPv6StaticAddresses":[{"Address":"fc00::a6bf:1ff:fe2b:bdd", "PrefixLength":64}]}
- {"InterfaceEnable": true}
- {"FQDN": "hostname.domainname"}
- {"StaticNameServers": ["3.3.3.3","6.6.6.6"]}

2.31 BMC Ethernet Interface VLANs

This property shall contain a link to a resource collection of type VLanNetworkInterfaceCollection, which applies only if the interface supports more than one VLAN. If this property is present, the VLANEnabled and VLAN ID properties shall not be present.

2.31.1 URI

- /redfish/v1/Managers/bmc/EthernetInterfaces/{ID}/VLANS

2.31.2 Schema

#VLanNetworkInterfaceCollection.VLanNetworkInterfaceCollection

2.31.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.31.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.31.5 Links

Members

- /redfish/v1/Managers/bmc/EthernetInterfaces/{ID}/VLANs/{ID}

2.31.6 Actions

- **#Create a VLAN**
- **/redfish/v1/Managers/bmc/EthernetInterfaces/{ID}/VLANS**

Property	Description	Allowable Values
VLAN ID	This indicates the VLAN identifier for this VLAN.	NUMBER
VLANEnable	This indicates if this VLAN is enabled.	BOOLEAN

Example JSON:

{ "VLAN ID":1, "VLANEnable":true }

2.32 BMC Ethernet Interface VLANs

This type shall contain any attributes of a VLAN.

2.32.1 URI

- /redfish/v1/Managers/bmc/EthernetInterfaces/{ID}/VLANS/{ID}

2.32.2 Schema

#VLanNetworkInterface.v1_1_0.VLanNetworkInterface

2.32.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		✓

2.32.4 Properties

Property	Access	Description
VLAN ID	RW	This indicates the VLAN identifier for this VLAN.
VLANEnable	RW	This indicates if this VLAN is enabled.

2.32.5 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
VLAN ID	This indicates the VLAN identifier for this VLAN.	NUMBER
VLANEnable	This indicates if this VLAN is enabled.	BOOLEAN

Example JSON:

- { "VLAN ID":1, "VLANEnable":true }

2.32.6 Actions

- **#Delete a destination**
- **/redfish/v1/Managers/bmc/EthernetInterfaces/{ID}/VLANs/{ID}/**

Parameter	Description	Allowable Values
N/A	N/A	N/A

2.33 Redfish Log Service Collection

A Collection of log service resource instances.

2.33.1 URI

- /redfish/v1/Managers/bmc/LogServices

2.33.2 Schema

#LogServiceCollection.LogServiceCollection

2.33.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.33.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.33.5 Links

Members

- /redfish/v1/Managers/bmc/LogServices/Journal

2.34 Redfish Log Service

This resource contains properties for monitoring and configuring an event log service for the resource or service to which it is associated.

2.34.1 URI

- /redfish/v1/Managers/bmc/LogServices/Journal

2.34.2 Schema

#LogService.v1_1_0.LogService

2.34.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.34.4 Properties

Property	Access	Description
Entries	RO	References to the log entry collection.
OverWritePolicy	RO	The overwrite policy for this service that takes place when the log is full.
DateTime	RO	The current date and time with UTC offset of the log service.
DateTimeLocalOffset	RO	The time offset from UTC that the DateTime property is in `+HH:MM` format.
LogEntryType	RO	The format of the log entries.
OverWritePolicy	RO	The overwrite policy for this service that takes place when the log is full.
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> State	RO	This indicates the known state of the resource, such as if it is enabled.

2.34.5 Links

Entries

- /redfish/v1/Managers/bmc/LogServices/Journal/Entries

2.35 Redfish Log Entry Collection

A Collection of LogEntry resource instances.

2.35.1 URI

- /redfish/v1/Managers/bmc/LogServices/Journal/Entries

2.35.2 Schema

#LogEntryCollection.LogEntryCollection

2.35.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.35.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.35.5 Links

Members

- /redfish/v1/Managers/bmc/LogServices/Journal/Entries/{ID}

2.36 Redfish Log Entry

This LogEntry schema defines the record format for a log. It is designed for Redfish event logs, OEM-specific log formats, and the IPMI System Event Log (SEL). The EntryType field indicates the type of log and the resource includes several additional properties dependent on the EntryType.

2.36.1 URI

- /redfish/v1/Managers/bmc/LogServices/Journal/Entries/{ID}

2.36.2 Schema

#LogEntry.v1_8_0.LogEntry

2.36.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.36.4 Properties

Property	Access	Description
Created	RO	The time the log entry was created.
EntryType	RO	This is the type of log entry.
Message	RO	This property decodes from EntryType: If it is Event, an then it is a message string. Otherwise, it is SEL or OEM specific. In most cases, this will be the actual Log Entry.
OemRecordFormat	RO	The OEM-specific format of the entry. If the entry type is `OEM`, this property contains more information about the record format from the OEM.
Severity	RO	The severity of the log entry.

2.37 Manager Network Protocol

Manager Network Service. This resource is used to obtain or modify the network services managed by a given manager.

2.37.1 URI

- /redfish/v1/Managers/bmc/NetworkProtocol

2.37.2 Schema

#ManagerNetworkProtocol.v1_5_0.ManagerNetworkProtocol

2.37.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		

2.37.4 Properties

Property	Access	Description
HostName	RW	The DNS Host Name of this manager, without any domain information.
HTTPS	RO	Settings for this Manager's HTTPS protocol support.
> Port	RW	Indicates the protocol port.
> ProtocolEnabled	RO	Indicates if the protocol is enabled or disabled.
>Certificates	RO	This is a link to a collection of type Certificate Collection.
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
IPMI	RO	Settings for this Manager’s IPMI-over-LAN protocol support.
>Port	RW	Indicates the protocol port.
>ProtocolEnabled	RW	Indicates if the protocol is enabled or disabled.
FQDN	RO	The fully qualified domain name for the manager obtained by DNS including the host name and top-level domain name.
HTTP	RO	The settings for this manager's HTTP protocol support.
> Port	RO	The protocol port.
> ProtocolEnabled	RO	An indication of whether the protocol is enabled.
NTP	RO	The settings for this manager's NTP protocol support.
> NTPServers	RW	Indicates to which NTP servers that this manager is subscribed.
> ProtocolEnabled	RW	An indication of whether the protocol is enabled.
FQDN	RO	The fully qualified domain name for the manager obtained by DNS including the host name and top-level domain name.

2.37.5 Links

Certificates

- /redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates

2.37.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
HTTPS	Settings for this Manager's HTTPS protocol support.	JSON
> Port	Indicates the protocol port.	NUMBER
IPMI	Settings for this Manager's IPMI-over-LAN protocol support.	JSON
> ProtocolEnabled	Indicates if the protocol is enabled or disabled.	BOOLEAN
> Port	Indicates the protocol port.	INTEGER
HostName	The DNS Host Name of this manager, without any domain information.	STRING
NTP	The settings for this manager's NTP protocol support.	JSON
> NTPServers	Indicates to which NTP servers that this manager is subscribed.	STRING
> ProtocolEnabled	An indication of whether the protocol is enabled.	BOOLEAN

Example JSON:

{"IPMI":{"ProtocolEnabled": false}}

{"HostName": "bmcbmc"}

{"NTP":{"NTPServers": [], "ProtocolEnabled":True}}

2.38 Virtual Media Services

Redfish-BMC Virtual Media Service Settings. A Collection of VirtualMedia resource instances.

2.38.1 URI

- /redfish/v1/Managers/bmc/VirtualMedia

2.38.2 Schema

#VirtualMediaCollection.VirtualMediaCollection

2.38.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.38.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.38.5 Links

Members

- /redfish/v1/Managers/bmc/VirtualMedia/LocalImage2
- /redfish/v1/Managers/bmc/VirtualMedia/LocalImage1
- /redfish/v1/Managers/bmc/VirtualMedia/WebISO2
- /redfish/v1/Managers/bmc/VirtualMedia/WebISO1
- /redfish/v1/Managers/bmc/VirtualMedia/Internal

2.39 Virtual Removable Media (LocalImage)

The VirtualMedia schema contains properties related to monitoring and control of an instance of virtual media such as a remote CD, DVD, or USB device. Virtual media functionality is provided by a manager for a system or device. The Actions only support WebISO to insert a media or eject a media.

2.39.1 URI

- /redfish/v1/Managers/bmc/VirtualMedia/LocalImage{ID}

2.39.2 Schema

#VirtualMedia.v1_3_0.VirtualMedia

2.39.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.39.4 Properties

Property	Access	Description
MediaTypes	RO	This is the media types supported as virtual media.
Inserted	RO	Indicates if virtual media is inserted in the virtual device.
ConnectedVia	RO	Current virtual media connection methods.
Oem	RO	OEM extension object.
> OpenBMC	RO	OpenBMC OEM property.
>> State	RO	Local image or WEBISO mount status information.
>> WebSocketEndpoint	RO	Indicates endpoint socket name and location.
TransferMethod	RO	The transfer method to use with the Image.
WriteProtected	RO	An indication of whether the media is write-protected.
TransferProtocolType	RO	The network protocol to use with the image.

2.39.5 Actions

This action is used to detach remote media from Virtual media.

- #VirtualMedia.EjectMedia
  /redfish/v1/Managers/bmc/VirtualMedia/{ID}/Actions/VirtualMedia.EjectMedia

Parameter	Description	Allowable Values
N/A	N/A	N/A

2.40 Virtual Removable Media (WebISO)

The VirtualMedia schema contains properties related to monitoring and control of an instance of virtual media such as a remote CD, DVD, or USB device. Virtual media functionality is provided by a manager for a system or device. The Actions only support WebISO to insert a media or eject a media.

2.40.1 URI

- /redfish/v1/Managers/bmc/VirtualMedia/WebISO{ID}

2.40.2 Schema

#VirtualMedia.v1_3_0.VirtualMedia

2.40.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.40.4 Properties

Property	Access	Description
MediaTypes	RO	This is the media types supported as virtual media.
Inserted	RO	Indicates if virtual media is inserted in the virtual device.
ConnectedVia	RO	Current virtual media connection methods.
Oem	RO	OEM extension object.
> OpenBMC	RO	OpenBMC OEM property.
>> State	RO	Local image or WEBISO mount status information.
TransferMethod	RW	The transfer method to use with the Image.
WriteProtected	RW	An indication of whether the media is write-protected.

2.40.5 Actions

This action is used to detach remote media from Virtual media.

- #VirtualMedia.EjectMedia
  /redfish/v1/Managers/bmc/VirtualMedia/{ID}/Actions/VirtualMedia.EjectMedia

Parameter	Description	Allowable Values
N/A	N/A	N/A

- #VirtualMedia.InsertMedia
  /redfish/v1/Managers/bmc/VirtualMedia/{ID}/Actions/VirtualMedia.InsertMedia

This action is used to attach remote media to virtual media. Media insertion currently supports SMB protocol only. Username and password are required fields in the URL.

Property	Description	Allowable Values
Image	A URI location of the media to be mounted.	STRING
TransferMethod	The transfer method to use with the Image.	"Stream"
WriteProtected	An indication of whether the media is write-protected.	BOOLEAN
TransferProtocolType	The network protocol to use with the image.	"CIFS" "HTTPS" “NFS”
Inserted	An indication of whether the image is treated as inserted upon completion of the action. The default is `true`.	BOOLEAN
UserName	The user name of file server.	STRING
Password	The password of file server.	STRING

Example JSON:

{ "Image":
"smb://10.239.138.66:/xxx/20348.169.2108062348.fe_release_svc_refresh_SERVER_EVAL_x64FRE_en-us.iso", "WriteProtected": true,"UserName": "xxx", "Password": "xxx", "Inserted": true, "TransferMethod": "Stream","TransferProtocolType":"CIFS"}

{"Image": "https://{{https_server}}:/ubuntu-21.10-desktop-amd64.iso", "WriteProtected": true, "UserName": "Administrator", "Password": "1qaz!QAZ", "Inserted": true, "TransferMethod": "Stream",

"TransferProtocolType":"HTTPS"}

{"Image": "nfs://10.239.56.191:/mnt/sharefolder/1.img", "WriteProtected": true,"UserName": "xxx",

"Password": "xxx", "Inserted": true, "TransferMethod": "Stream","TransferProtocolType":"NFS"}

{"Image": "nfs://10.239.56.191:/mnt/sharefolder/1.ima", "WriteProtected": true,"UserName": "xxx",

"Password": "xxx", "Inserted": true, "TransferMethod": "Stream","TransferProtocolType":"NFS"}

2.41 Virtual Removable Media (Internal)

The VirtualMedia schema contains properties related to monitoring and control of an instance of virtual media such as a remote CD, DVD, or USB device. Virtual media functionality is provided by a manager for a system or device. The Actions only support WebISO to insert a media or eject a media.

2.41.1 URI

- /redfish/v1/Managers/bmc/VirtualMedia/Internal

2.41.2 Schema

#VirtualMedia.v1_3_0.VirtualMedia

2.41.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.41.4 Properties

Property	Access	Description
Inserted	RO	Indicates if virtual media is inserted in the virtual device.
ConnectedVia	RO	Current virtual media connection methods.
Oem	RO	OEM extension object.
> OpenBMC	RO	OpenBMC OEM property.
>> ImageSize	RW	Indicates the size of internal media.
>> MaxImageSize	RO	Indicates the max size of internal media.
>> State	RO	Local image or WEBISO mount status information.
WriteProtected	RW	An indication of whether the media is write-protected.

2.41.5 Actions

This action is used to create an image for mount.

- #VirtualMedia.CreateImage
  /redfish/v1/Managers/bmc/VirtualMedia/Internal/Actions/Oem/VirtualMedia.CreateImage

Parameter	Description	Allowable Values
ImageSize	Indicates the size of internal media.	INTEGER

Example JSON:

{“ImageSize”: 128}

- #VirtualMedia.PutFileToImage
  /redfish/v1/Managers/bmc/VirtualMedia/Internal/Actions/Oem/VirtualMedia.PutFileToImage

This action is used to upload the file and put it to mount point.

Parameter	Description	Allowable Values
N/A	N/A	N/A

Upload file to image using multi-part. Supported decompress file to image if uploaded type is zip, gzip, or bz2.

- **#VirtualMedia.GetFileFromImage**
- **/redfish/v1/Managers/bmc/VirtualMedia/Internal/Actions/Oem/VirtualMedia.GetFileFromImage**
- This action is used to get files from mount point.

Parameter	Description	Allowable Values
ImagePath	The path in virtual media.	STRING

Example JSON:

{“ImagePath”: “./”}

- **#VirtualMedia.MountImage**
- **/redfish/v1/Managers/bmc/VirtualMedia/Internal/Actions/Oem/VirtualMedia.MountImage**

This action is used to mount the image.

Parameter	Description	Allowable Values
N/A	N/A	N/A

- **#VirtualMedia.UmountImage**
- **/redfish/v1/Managers/bmc/VirtualMedia/Internal/Actions/Oem/VirtualMedia.UmountImage**

This action is used to umount the image.

Parameter	Description	Allowable Values
N/A	N/A	N/A

- **#VirtualMedia.DeleteImage**
- **/redfish/v1/Managers/bmc/VirtualMedia/Internal/Actions/Oem/VirtualMedia.DeleteImage**

This action is used to delete the image we created for mount before.

Parameter	Description	Allowable Values
N/A	N/A	N/A

- **#VirtualMedia.List**
- **/redfish/v1/Managers/bmc/VirtualMedia/Internal/Actions/Oem/VirtualMedia.List**

This action is used to show the files in mount point.

Parameter	Description	Allowable Values
ImagePath	The path in virtual media.	STRING

Example JSON:

{“ImagePath”: “./”}

2.42 Registry Repository

Registry Repository. A Collection of MessageRegistryFile resource instances.

2.42.1 URI

- /redfish/v1/Registries

2.42.2 Schema

#MessageRegistryFileCollection.MessageRegistryFileCollection

2.42.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.42.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.42.5 Links

Members

- /redfish/v1/Registries/Base
- /redfish/v1/Registries/TaskEvent
- /redfish/v1/Registries/ResourceEvent
- /redfish/v1/Registries/BiosAttributeRegistry
- /redfish/v1/Registries/OpenBMC
- /redfish/v1/Registries/NodeManager

2.43 Message Registry File

Base Message Registry File locations. This is the schema definition for the Schema File locator resource.

2.43.1 URI

- /redfish/v1/Registries/{ID}

2.43.2 Schema

#MessageRegistryFile.v1_1_0.MessageRegistryFile

2.43.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.43.4 Properties

Property	Access	Description
Registry	RO	The Registry Name, Major, and Minor version used in MessageID construction.
Location	RO	Location information for this schema file.
>Language	RO	The language code for the file the schema is in.
>URI	RO	Link to locally available URI for schema.
>PublicationUri	RO	Link to publicly available (canonical) URI for schema.
Languages	RO	Language codes for the schemas available.

2.44 Message Registry

This resource shall represent a message registry for a Redfish implementation. The MessageRegistry schema describes all message registries. It represents the properties for the message registries themselves.

2.44.1 URI

- /redfish/v1/Registries/{ID}/{ID}

2.44.2 Schema

#MessageRegistry.v1_4_0.MessageRegistry

2.44.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.44.4 Properties

Property	Access	Description
OwningEntity	RO	The organization or company that publishes this message registry.
RegistryPrefix	RO	The single-word prefix that is used in forming and decoding MessageIds.
RegistryVersion	RO	The message registry version in the middle portion of a MessageId.
Languages	RO	Language codes for the schemas available.
Messages	RO	The message keys contained in the message registry.

2.45 SessionService

The SessionService schema describes the session service and its properties, with links to the actual list of sessions.

2.45.1 URI

- /redfish/v1/SessionService

2.45.2 Schema

#SessionService.v1_0_2.SessionService

2.45.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		

2.45.4 Properties

Property	Access	Description
SessionTimeout	RW	This is the number of seconds of inactivity that a session may have before the session service closes the session due to inactivity.
ServiceEnabled	RW	This indicates whether this service is enabled.
Sessions	RO	Link to a collection of Sessions.

2.45.5 Links

Sessions

- /redfish/v1/SessionService/Sessions

2.45.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
SessionTimeout	This is the number of seconds of inactivity that a session may have before the session service closes the session due to inactivity.	NUMBER
ServiceEnabled	This indicates whether this service is enabled.	BOOLEAN

Example JSON:

```
{"SessionTimeout" : 1800}
```

2.46 Session Collection

The SessionCollection schema describes a collection of session instances.

2.46.1 URI

- /redfish/v1/SessionService/Sessions

2.46.2 Schema

#SessionCollection.SessionCollection

2.46.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.46.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.46.5 Links

Members

- /redfish/v1/SessionService/Sessions/{ID}

2.46.6 Establish a Session by POST:

The properties of this table are used to create a session.

Property	Description	Allowable Values	Required
UserName	The user name for this session.	STRING	Yes
Password	The password for this session.	STRING	Yes

Example JSON:
{"UserName" : "Schubert", "Password": "Schubert"}

2.47 User Session

Manager User Session. The Session resource describes a single connection (session) between a client and a Redfish service instance.

2.47.1 URI

- /redfish/v1/SessionService/Sessions/{ID}

2.47.2 Schema

#Session.v1_3_0.Session

2.47.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				✓

2.47.4 Properties

Property	Access	Description
UserName	RO	The UserName for the account for this session.
ClientOriginIPAddress	RO	IP address of the client that created the session.
SessionType	RO	The active session type.
Oem	RO	The extended OEM property.
>Intel_WebSession	RO	OEM Intel_WebSession property.
>>KvmActive	RO	Keyboard-Video-Mouse active status.
>>VmActive	RO	Virtual Media active status.

2.48 Computer System Collection

This resource shall represent a resource collection of ComputerSystem instances for a Redfish implementation.

2.48.1 URI

- /redfish/v1/Systems

2.48.2 Schema

#ComputerSystemCollection.ComputerSystemCollection

2.48.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.48.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.48.5 Links

Members

- /redfish/v1/Systems/system

2.49 Computer System

The ComputerSystem schema represents a general-purpose machine or system (as opposed to an appliance) instance and the software-visible resources (items within the data plane) such as memory, CPU, and other devices that can be accessed from that machine. Details of those resources or subsystems are also linked through this resource.

2.49.1 URI

- /redfish/v1/Systems/system

2.49.2 Schema

#ComputerSystem.v1_16_0.ComputerSystem

2.49.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓	✓		

2.49.4 Properties

Property	Access	Description
IndicatorLED	RW	The state of the indicator LED, used to identify the system. (State may be Unknown, Lit, Blinking, or Off)
SystemType	RO	The type of computer system represented by this resource.
Status	RO	This type describes the status and health of a resource and its children.
> State	RO	This indicates the known state of the resource, such as if it is enabled.

Property	Access	Description
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
MemorySummary	RO	This object describes the central memory of the system in general detail.
> TotalSystemMemoryGiB	RO	The total configured operating system-accessible memory (RAM), measured in GiB.
> Status	RO	This type describes the status and health of a resource and its children.
> > State	RO	This indicates the known state of the resource, such as if it is enabled.
> > HealthRollup	RO	This represents the overall health state from the view of this resource.
> > Health	RO	This represents the health state of this resource in the absence of its dependent resources.
UUID	RO	The universal unique identifier (UUID) for this system.
ProcessorSummary	RO	This object describes the central processors of the system in general detail.
> Count	RO	The number of physical processors in the system.
> Status	RO	This type describes the status and health of a resource and its children.
> > State	RO	This indicates the known state of the resource, such as if it is enabled.
> > HealthRollup	RO	This represents the overall health state from the view of this resource.
> > Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> Model	RO	The product name for this system, without the manufacturer name.
> CoreCount	RO	The number of processor cores in the system.
Processors	RO	A reference to the collection of Processors associated with this system.
Bios	RO	A reference to the collection of Bios associated with this system.
Manufacturer	RO	The manufacturer or OEM of this system.
BiosVersion	RO	The version of the system BIOS or primary system firmware.
AssetTag	RW	The user definable tag that can be used to track this computer system for inventory or other client purposes.
Storage	RO	A reference to the collection of storage devices associated with this system.
SerialNumber	RO	The serial number for this system.
LogServices	RO	A reference to the collection of Log Services associated with this system.
PartNumber	RO	The part number for this system.
Model	RO	The product name for this system, without the manufacturer name.
Boot	RO	Information about the boot settings for this system.
> BootSourceOverrideTarget	RW	The current boot source to be used at next boot instead of the normal boot device, if BootSourceOverrideEnabled is true.
> BootSourceOverrideMode	RW	The BIOS Boot Mode (either Legacy or UEFI) to be used when BootSourceOverrideTarget boot source is booted from.
> BootSourceOverrideEnabled	RW	Describes the state of the Boot Source Override feature.
> BootOrder	RW	An array of BootOptionReference strings that represent the persistent boot order for with this computer system.
> AutomaticRetryAttempts	RO	The number of attempts the system will automatically retry booting.

Property	Access	Description
> AutomaticRetryConfig	RW	The configuration of how the system retries booting automatically.
> BootOrder	RO	This property shall contain an array of BootOptionReference strings that represent the persistent boot order for this computer system. For UEFI systems, this is the UEFI Specification-defined UEFI BootOrder.
> TrustedModuleRequiredToBoot	RW	This property shall contain the Trusted Module boot requirement.
Memory	RO	A reference to the collection of Memory associated with this system.
PowerState	RO	This is the current power state of the system.
HostWatchdogTimer	RO	Host watchdog timer functionality for this system.
> FunctionEnabled	RW	An indication of whether a user has enabled the host watchdog timer functionality.
> Status	RO	The status and health of the resource and its subordinate or dependent resources.
>> State	RO	The known state of the resource, such as, enabled.
>TimeoutAction	RW	The action to perform when the watchdog timer reaches its timeout value.
LastResetTime	RO	Date and time when the system was last reset or rebooted.
LocationIndicatorActive	RW	An indicator allowing an operator to physically locate this resource.
PowerRestorePolicy	RW	Desired power state of the system when power is restored after a power loss.
NetworkInterfaces	RO	The link to the collection of Network Interfaces associated with this system.
GraphicalConsole	RO	The value of this property shall contain the information about the Graphical Console (KVM-IP) service of this manager.
> ServiceEnabled	RW	Indicates if the service is enabled for this manager.
> MaxConcurrentSessions	RO	Indicates the maximum number of service sessions, regardless of protocol, this manager can support.
> ConnectTypesSupported	RO	This object is used to count the Serial Console connection types allowed by the implementation.
PCIeDevices	RO	The link to a collection of PCIe devices that this computer system uses.
SerialConsole	RO	The serial console services that this system provides.
> IPMI	RO	The connection details for an IPMI serial-over-LAN service.
>> ServiceEnabled	RO	An indication of whether the service is enabled for this system.
>MaxConcurrentSessions	RO	The maximum number of service sessions, regardless of protocol, that this system can support.
> SSH	RO	The connection details for an SSH serial console service.
>> HotKeySequenceDisplay	RO	The hotkey sequence available for the user to exit the serial console session.
>> Port	RO	The protocol port.
>> ServiceEnabled	RO	An indication of whether the service is enabled for this system.
VirtualMediaConfig	RO	The information about virtual media service for this system.
> ServiceEnabled	RW	An indication of whether the service is enabled for this system.
Oem	RO	The extended OEM property.
>OpenBMC	RO	OEM OpenBMC property.
>> FirmwareProvisioning	RO	Configuration data for platform firmware provisioning.
>>> ProvisioningStatus	RO	This indicates the platform firmware provisioning state.

Property	Access	Description
>> KcsPolicyControlMode	RW	Configuration data for KCS policy control mode.
>>> Value	RO	This indicates platform KCS policy control mode.
>> PhysicalLED	RO	The Physical LED state.
>>> AmberLED	RO	The AmberLED state.
>>> GreenLED	RO	The GreenLED state
>>> SusackLED	RO	The SusackLED state.
> VoltageRegulators	RO	OEM properties for VoltageRegulators.
VirtualMedia	RO	The link to the virtual media services for this system.

2.49.5 Links

Storage

- /redfish/v1/Systems/system/Storage

LogServices

- /redfish/v1/Systems/system/LogServices

Bios

- /redfish/v1/Systems/system/Bios

Processors

- /redfish/v1/Systems/system/Processors

Memory

- /redfish/v1/Systems/system/Memory

ManagedBy

- /redfish/v1/Managers/bmc

Chassis

- /redfish/v1/Chassis/ WFP_Baseboard

NetworkInterfaces

- /redfish/v1/Systems/system/NetworkInterfaces

PCIeDevices

- /redfish/v1/Systems/system/PCIeDevices/{ID}

2.49.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
IndicatorLED	The state of the indicator LED, used to identify the system. (State may be Unknown, Lit, Blinking, or Off)	"Blinking" "Off" "Lit"

Property	Description	Allowable Values
Boot	Information about the boot settings for this system.	
> BootSourceOverrideTarget	The current boot source to be used at next boot instead of the normal boot device, if BootSourceOverrideEnabled is true.	"None" "Pxe" "Hdd" "Cd" "BiosSetup" "Diags" "Usb"
>BootSourceOverrideEnabled	Describes the state of the Boot Source Override feature.	"Disabled" "Once" "Continuous"
>BootSourceOverrideMode	The BIOS Boot Mode (either Legacy or UEFI) to be used when BootSourceOverrideTarget boot source is booted from.	"Legacy" "UEFI"
>BootOrder	An array of BootOptionReference strings that represent the persistent boot order for with this computer system.	STRING
> AutomaticRetryConfig	The configuration of how the system retries booting automatically.	STRING “Disabled” “RetryAttempts”
> TrustedModuleRequiredToBoot	This property shall contain the Trusted Module boot requirement.	BOOLEAN
LocationIndicatorActive	An indicator allowing an operator to physically locate this resource.	BOOLEAN
PowerRestorePolicy	Desired power state of the system when power is restored after a power loss.	STRING "AlwaysOn", "AlwaysOff", "LastState"
WatchdogTimer	Host watchdog timer functionality for this system.	JSON
> FunctionEnabled	An indication of whether a user has enabled the host watchdog timer functionality.	BOOLEAN
> TimeoutAction	The action to perform when the watchdog timer reaches its timeout value.	STRING “None” “PowerCycle” “PowerDown” “ResetSystem”
AssetTag	The user definable tag that can be used to track this computer system for inventory or other client purposes.	STRING
Oem	The extended OEM property.	JSON
>OpenBMC	OEM OpenBMC property.	JSON
>> KcsPolicyControlMode	Configuration data for KCS policy control mode.	STRING “Provisioning” “ProvisionedHostAllowlist” “ProvisionedHostDisabled”
VirtualMediaConfig	The information about virtual media service for this system.	JSON
> ServiceEnabled	An indication of whether the service is enabled for this system.	BOOLEAN

Example JSON:

{"IndicatorLED" : "Lit"}
{"Boot" : {"BootSourceOverrideEnabled": "Continuous"}}

{"Boot" : {"BootSourceOverrideTarget": "BiosSetUp"}}

{"Boot" : {"BootSourceOverrideMode": "UEFI"}}

{"Boot" : {"BootOrder": ["1", "2", "3", "4"] }

{"LocationIndicatorActive" : false}

{"PowerRestorePolicy" : "LastState" }

2.49.7 Actions

This action is used to reset the system.

#ComputerSystem.Reset /redfish/v1/Systems/system/Actions/ComputerSystem.Reset

Parameter	Description	Allowable Values
ResetType	The type of reset to be performed.	"PushPowerButton" "On" "GracefulShutdown" "GracefulRestart" "ForceRestart" "PowerCycle" "Nmi" "ForceOn" "ForceOff"

Example JSON:

{ "ResetType": "ForceOff" }

2.50 Computer System BIOS Interface Collection

System BIOS Interface Collection. A collection of BIOS resource instances.

2.50.1 URI

/redfish/v1/Systems/system/Bios

2.50.2 Schema

#Bios.v1_1_0.Bios

2.50.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓	✓		

2.50.4 Properties

Property	Access	Description
Attributes	RO	The manufacturer/provider-specific list of BIOS attributes and their current values.
AttributeRegistry	RO	Resource ID of the attribute registry that has the system-specific information about a BIOS resource.
Description	RO	The description of this resource.

Property	Access	Description
@Redfish.Settings	RO	Redfish Settings.
> SettingsObject	RO	A link to Bios attributes settings.
Oem	RO	The extended OEM property.
>OpenBMC	RO	The OpenBMC OEM property.
>> BypassBiosPassword	RO	Bypass Bios Password Flag.
>>> CurrentValue	RW	The current value of the bypass bios password flag.
>> PostCode	RO	BIOS PostCode details.
>>> CurrentBootCycleCount	RO	The current boot cycle count post code value.
>>> CurrentCycleCount	RO	The current cycle count post code value.
>>> MaxBootCycleNum	RO	The maximum boot cycle post code value.
>>> PreviousCycleCount	RO	The previous cycle count post code value.

2.50.5 Links

SettingsObject

- /redfish/v1/Systems/system/Bios/Settings

ActiveSoftwareImage

- /redfish/v1/UpdateService/FirmwareInventory/bios_active

SoftwareImages

- /redfish/v1/UpdateService/FirmwareInventory/bios_active
- /redfish/v1/UpdateService/FirmwareInventory/bios_recovery

2.50.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
Oem	The extended OEM property.	JSON
>OpenBMC	The OpenBMC OEM property.	JSON
>>> CurrentValue	The current value of bypass bios password flag.	BOOLEAN

2.51 Computer System BIOS Setting Interface

System BIOS Setting Interface. A collection of BIOS settings resources instances.

2.51.1 URI

- /redfish/v1/Systems/system/Bios/Settings

2.51.2 Schema

Bios.v1_1_0. Bios

2.51.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		

2.51.4 Properties

Property	Access	Description
Attributes (Optional)	RO	System BIOS attributes we just modified and will be applied in next host reboot. Note: This property is existed only when we do patch operation to modify the attributes and before reset host.
AttributeRegistry	RO	Resource ID of the attribute registry that has the system-specific information about a BIOS resource.

2.51.5 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
Attributes	The manufacturer/provider-specific list of BIOS attributes and the value we want to modify.	STRING

Example JSON:

{"Attributes": {"ADDDCEn": "Enable"}}

2.52 Log Service Collection

A Collection of LogService resource instances.

2.52.1 URI

- /redfish/v1/Systems/system/LogServices

2.52.2 Schema

#LogServiceCollection.LogServiceCollection

2.52.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.52.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.52.5 Links

Members

- /redfish/v1/Systems/system/LogServices/HostLogger
- /redfish/v1/Systems/system/LogServices/EventLog
- /redfish/v1/Systems/system/LogServices/Crashdump
- /redfish/v1/Systems/system/LogServices/PostCodes
- /redfish/v1/Systems/system/LogServices/LogCollector
- /redfish/v1/Systems/system/LogServices/Rsyslog

2.53 Event Log Service

This resource contains properties for monitoring and configuring an event log service for the resource or service to which it is associated.

2.53.1 URI

- /redfish/v1/Systems/system/LogServices/EventLog

2.53.2 Schema

#LogService.v1_1_0.LogService

2.53.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.53.4 Properties

Property	Access	Description
OverWritePolicy	RO	The overwrite policy for this service that takes place when the log is full.
Entries	RO	References to the log entry collection.
DateTime	RO	The current date and time with UTC offset of the log service.
DateTimeLocalOffset	RO	The time offset from UTC that the DateTime property is in `+HH:MM` format.
LogEntryType	RO	The format of the log entries.
Status	RO	This type describes the status and health of a resource and its children.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> State	RO	This indicates the known state of the resource, such as if it is enabled.

2.53.5 Links

Entries

- /redfish/v1/Systems/system/LogServices/EventLog/Entries

2.53.6 Actions

This action is used to clear the log for this Log Service.

#LogService.ClearLog /redfish/v1/Systems/system/LogServices/EventLog/Actions/LogService.ClearLog

Parameter	Description	Allowable Values
N/A	N/A	N/A

2.54 Event Log Entry Collection

A Collection of LogEntry resource instances.

2.54.1 URI

- /redfish/v1/Systems/system/LogServices/EventLog/Entries

2.54.2 Schema

#LogEntryCollection.LogEntryCollection

2.54.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.54.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.54.5 Links

Members

- /redfish/v1/Systems/system/LogServices/EventLog/Entries/{ID}

2.55 Event Log Entry

This resource defines the record format for a log. It is designed to be used for SEL logs (from IPMI) as well as event logs and OEM-specific log formats. The EntryType field indicates the type of log and the resource includes several additional properties dependent on the EntryType.

2.55.1 URI

- /redfish/v1/Systems/system/LogServices/EventLog/Entries/{ID}

2.55.2 Schema

#LogEntry.v1_8_0.LogEntry

2.55.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.55.4 Properties

Property	Access	Description
EntryType	RO	This is the type of log entry.
Severity	RO	This is the severity of the log entry.
MessageId	RO	This property decodes from EntryType. If it is an Event, then it is a message ID. Otherwise, it is SEL or OEM specific. This value is only used for registries. For more information, see the specification.
Message	RO	This property decodes from EntryType. If it is an Event, then it is a message string. Otherwise, it is SEL or OEM specific. In most cases, this will be the actual Log Entry.
MessageArgs	RO	The values of this property shall be any arguments for the message.
Created	RO	The time the log entry was created.
EventId	RO	The unique instance identifier for an event.

2.56 Crash Dump Log Service

This resource contains properties for monitoring and configuring a crash dump service for the resource or service to which it is associated.

2.56.1 URI

- /redfish/v1/Systems/system/LogServices/Crashdump

2.56.2 Schema

#LogService.v1_1_0.LogService

2.56.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.56.4 Properties

Property	Access	Description
OverWritePolicy	RO	The overwrite policy for this service that takes place when the log is full.
Entries	RO	References to the log entry collection.
MaxNumberOfRecords	RO	This property shall indicate the policy of the Log Service when the MaxNumberOfRecords has been reached.
DateTime	RO	The current date and time with UTC offset of the log service.
DateTimeLocalOffset	RO	The time offset from UTC that the DateTime property is in `+HH:MM` format.

2.56.5 Links

Entries

- /redfish/v1/Systems/system/LogServices/Crashdump/Entries

2.56.6 Actions

This action is used to clear the log for this Log Service.

- #LogService.ClearLog
  /redfish/v1/Systems/system/LogServices/ Crashdump /Actions/LogService.ClearLog

Parameter	Description	Allowable Values
N/A	N/A	N/A

- #LogService.CollectDiagnosticData
  /redfish/v1/Systems/system/LogServices/Crashdump/Actions/LogSeravice.CollectDiagnosticData

This action is used to generate demand logs, telemetry logs, and System Diagnostics logs.

Parameter	Description	Allowable Values
DiagnosticDataType	It only has one kind of value now.	“OEM”
OEMDiagnosticDataType	The data type.	“OnDemand” “Telemetry” “SystemDiagnostics”

Example JSON:

{"DiagnosticDataType": "OEM", "OEMDiagnosticDataType": "SystemDiagnostics"}

- #Crashdump.OnDemand
  /redfish/v1/Systems/system/LogServices/Crashdump/Actions/Oem/Crashdump.OnDemand

This OEM interface is deprecated. Please use the CollectDiagnosticData Action.

- #Crashdump.SendRawPECI
  /redfish/v1/Systems/system/LogServices/Crashdump/Actions/Oem/Crashdump.SendRawPECI

This action is used to send raw PECI commands.

Parameter	Description	Allowable Values
PECIDevice	The PECI device.	STRING
PECICommands	The PECI commands.	ARRAY BYTE
RetryTimingUs	The time of timeout. (Retry interval min us, retry interval max us, total retry timeout us)	ARRAY BYTE

Example JSON:

{

"PECIDevice": "/dev/PECI-default",

"PECICommands": [[48, 5, 9, 161, 0, 0, 4, 0]],

"RetryTimingUs": [-1, -1, -1]

}

- #Crashdump.Telemetry
  /redfish/v1/Systems/system/LogServices/Crashdump/Actions/Oem/Crashdump.Telemetry

This OEM interface is deprecated. Please use the CollectDiagnosticData Action.

2.57 Crash Dump Entry Collection

A Collection of LogEntry resource instances.

2.57.1 URI

- /redfish/v1/Systems/system/LogServices/Crashdump/Entries

2.57.2 Schema

#LogEntryCollection.LogEntryCollection

2.57.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.57.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.57.5 Links

Members

- /redfish/v1/Systems/system/LogServices/Crashdump/Entries/{ID}

2.58 Crash Dump Entry

This resource defines the record format for a log. It is designed to be used for SEL logs (from IPMI) as well as event logs and OEM-specific log formats. The EntryType field indicates the type of log and the resource includes several additional properties dependent on the EntryType.

2.58.1 URI

- /redfish/v1/Systems/system/LogServices/Crashdump/Entries/{ID}

2.58.2 Schema

#LogEntry.v1_4_0.LogEntry

2.58.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.58.4 Properties

Property	Access	Description
EntryType	RO	This is the type of log entry.
Created	RO	The time the log entry was created.
AdditionalDataURI	RO	The URI at which to access the additional data for the log entry, such as diagnostic data, image captures, or other files.
AdditionalDataSizeBytes	RO	The size of the additional data for the log entry.
DiagnosticDataType	RO	The type of diagnostic data.
OEMDiagnosticDataType	RO	The OEM-defined type of diagnostic data.

2.59 Post Codes Log Service

This resource contains properties for monitoring and configuring a post codes service for the resource or service to which it is associated.

2.59.1 URI

- /redfish/v1/Systems/system/LogServices/PostCodes

2.59.2 Schema

#LogService.v1_1_0.LogService

2.59.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.59.4 Properties

Property	Access	Description
OverWritePolicy	RO	The overwrite policy for this service that takes place when the log is full.
Entries	RO	References to the log entry collection.
DateTime	RO	The current date and time with UTC offset of the log service.
DateTimeLocalOffset	RO	The time offset from UTC that the DateTime property is in `+HH:MM` format.

2.59.5 Links

Entries

- /redfish/v1/Systems/system/LogServices/PostCodes/Entries

2.59.6 Actions

This action is used to clear the log for this Log Service.

#LogService.ClearLog /redfish/v1/Systems/system/LogServices/PostCodes/Actions/LogService.ClearLog

Parameter	Description	Allowable Values
N/A	N/A	N/A

2.60 Post Codes Entry Collection

A Collection of LogEntry resource instances.

2.60.1 URI

- /redfish/v1/Systems/system/LogServices/PostCodes/Entries

2.60.2 Schema

#LogEntryCollection.LogEntryCollection

2.60.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.60.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.60.5 Links

Members

- /redfish/v1/Systems/system/LogServices/PostCodes/Entries/{ID}

2.61 Post Codes Entry

This resource defines the record format for a log. It is designed to be used for SEL logs (from IPMI) as well as Post codes Logs and OEM-specific log formats. The EntryType field indicates the type of log and the resource includes several additional properties dependent on the EntryType.

2.61.1 URI

- /redfish/v1/Systems/system/LogServices/PostCodes/Entries/{ID}

2.61.2 Schema

#LogEntry.v1_4_0.LogEntry

2.61.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.61.4 Properties

Property	Access	Description
EntryType	RO	This is the type of log entry.
Severity	RO	This is the severity of the log entry.
MessageId	RO	This property decodes from EntryType: If it is Event, then it is a message ID. Otherwise, it is SEL or OEM specific. This value is only used for registries. For more information, see the specification.
Message	RO	This property decodes from EntryType: If it is Event, then it is a message string. Otherwise, it is SEL or OEM specific. In most cases, this will be the actual Log Entry.
MessageArgs	RO	The values of this property shall be any arguments for the message.
Created	RO	The time the log entry was created.

2.62 Host Logger Service

This resource contains properties for monitoring and configuring a Host Logger service for the resource or service to which it is associated.

2.62.1 URI

- /redfish/v1/Systems/system/LogServices/HostLogger

2.62.2 Schema

#LogService.v1_1_0.LogService

2.62.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.62.4 Properties

Property	Access	Description
Entries	RO	References to the log entry collection.

2.62.5 Links

Entries

- /redfish/v1/Systems/system/LogServices/HostLogger/Entries

2.63 Host Logger Entry Collection

A Collection of LogEntry resource instances.

2.63.1 URI

- /redfish/v1/Systems/system/LogServices/HostLogger/Entries

2.63.2 Schema

#LogEntryCollection.LogEntryCollection

2.63.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.63.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.63.5 Links

Members

- /redfish/v1/Systems/system/LogServices/HostLogger/Entries/{ID}

2.64 Host Logger Entry

This resource defines the record format for a log. It is designed to be used for SEL logs (from IPMI) as well as Post codes Logs and OEM-specific log formats. The EntryType field indicates the type of log and the resource includes several additional properties dependent on the EntryType.

2.64.1 URI

- /redfish/v1/Systems/system/LogServices/HostLogger/Entries/{ID}

2.64.2 Schema

#LogEntry.v1_4_0.LogEntry

2.64.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.64.4 Properties

Property	Access	Description
EntryType	RO	This is the type of log entry.
Severity	RO	This is the severity of the log entry.
Message	RO	This property decodes from EntryType: If it is Event, then it is a message string. Otherwise, it is SEL or OEM specific. In most cases, this will be the actual Log Entry.
OEMRecordFormat	RO	The OEM-specific format of the entry. If the entry type is `OEM`, this property contains more information about the record format from the OEM.

2.65 Log Collector Service

This resource contains properties for monitoring and configuring a log collector service for the resource or service to which it is associated.

2.65.1 URI

- /redfish/v1/Systems/system/LogServices/LogCollector

2.65.2 Schema

#LogService.v1_1_0.LogService

2.65.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.65.4 Properties

Property	Access	Description
OverWritePolicy	RO	The overwrite policy for this service that takes place when the log is full.
DateTime	RO	The current date and time with UTC offset of the log service.
DateTimeLocalOffset	RO	The time offset from UTC that the DateTime property is in `+HH:MM` format.

2.65.5 Actions

This action is used to download the logs.

- #LogCollector.Download
  /redfish/v1/Systems/system/LogServices/LogCollector/Actions/Oem/LogCollector.Download

Parameter	Description	Allowable Values
N/A	N/A	N/A

- #LogCollector.OnDemand
  /redfish/v1/Systems/system/LogServices/LogCollector/Actions/Oem/LogCollector.OnDemand

This action is used to send the command to create the logs.

Parameter	Description	Allowable Values
N/A	N/A	N/A

2.66 Rsyslog Service

This resource contains properties for monitoring and configuring a Rsyslog service for the resource or service to which it is associated.

2.66.1 URI

- /redfish/v1/Systems/system/LogServices/Rsyslog

2.66.2 Schema

#LogService.v1_1_0.LogService

2.66.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		

2.66.4 Properties

Property	Access	Description
OverWritePolicy	RO	The overwrite policy for this service that takes place when the log is full.
ServiceEnabled	RO	An indication of whether this service is enabled.
Oem	RO	The extended OEM property.
>Intel	RO	The Intel OEM property.
>>ServerIP	RW	Rsyslog remote server IP address.

2.66.5 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
Oem	The extended OEM property.	JSON
>Intel	The Intel OEM property.	JSON
>>ServerIP	Rsyslog remote server IP address.	STRING

Example JSON:

- {"Oem": {"Intel": {"ServerIP": "local2"}}}

2.67 MemoryCollection

A Collection of Memory resource instances.

2.67.1 URI

- /redfish/v1/Systems/system/Memory

2.67.2 Schema

#MemoryCollection.MemoryCollection

2.67.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.67.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.67.5 Links

Members

- /redfish/v1/Systems/system/Memory/dimm{ID}

2.68 Memory

This is the schema definition of the Memory and its configuration.

2.68.1 URI

- /redfish/v1/Systems/system/Memory/dimm{ID}

2.68.2 Schema

#Memory.v1_7_0.Memory

2.68.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.68.4 Properties

Property	Access	Description
Manufacturer	RO	The Memory manufacturer.
OperatingSpeedMhz	RO	Operating speed of Memory in MHz or MT/s as appropriate.
Status	RO	This type describes the status and health of a resource and its children.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
BusWidthBits	RO	Bus Width in bits.
DataWidthBits	RO	Data Width in bits.
CapacityMiB	RO	Memory Capacity in MiB.
RankCount	RO	Number of ranks available in the Memory.
ErrorCorrection	RO	Error correction scheme supported for this memory.

Property	Access	Description
SerialNumber	RO	The product serial number of this device.
BaseModuleType	RO	The base module type of Memory.
AllowedSpeedsMHz	RO	Speed bins supported by this Memory.
PartNumber	RO	The product part number of this device.
FirmwareRevision	RO	Revision of firmware on the Memory controller.
Location	RO	The location of the memory device.
> PartLocation	RO	The part location for a resource within an enclosure.
>> ServiceLabel	RO	The label of the part location, such as a silk-screened name or a printed label.
MemoryDeviceType	RO	Type details of the memory device.
MemoryMedia	RO	Media of this memory device.
MemoryType	RO	The type of memory device.
Metrics	RO	The link to the metrics associated with this memory device.
Oem	RO	The extended OEM property.
> AssetTag	RO	The AssetTag OEM property.
>> Value	RO	The value of AssetTag.

2.68.5 Links

Metrics

- /redfish/v1/Systems/system/Memory/dimm14/MemoryMetrics

2.69 Memory Metrics

The Memory Metrics schema shall contain the memory metrics for a memory device or system memory summary in a Redfish implementation.

2.69.1 URI

- /redfish/v1/Systems/system/Memory/dimm{ID}/MemoryMetrics

2.69.2 Schema

#MemoryMetrics.v1_4_1.MemoryMetrics

2.69.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.69.4 Properties

Property	Access	Description
HealthData	RO	The health information of the memory
> AlarmTrips	RO	Alarm trip information about the memory.
>> Temperature	RO	An indication of whether a temperature threshold alarm trip was detected.
OperatingSpeedMHz	RO	Operating speed of memory in MHz or MT/s as appropriate.

2.70 Processor Collection

A Collection of Processor resource instances.

2.70.1 URI

- /redfish/v1/Systems/system/Processors

2.70.2 Schema

#ProcessorCollection.ProcessorCollection

2.70.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.70.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.70.5 Links

Members

- /redfish/v1/Systems/system/Processors/cpu{ID}

2.71 Processor

The Processor resource reports information about a single processor contained within a system. This includes both performance characteristics (clock speed, architecture, core count, etc.) and compatibility (e.g. CPU ID instruction results).

2.71.1 URI

- /redfish/v1/Systems/system/Processors/cpu{ID}

2.71.2 Schema

#Processor.v1_9_0.Processor

2.71.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓		✓		

2.71.4 Properties

Property	Access	Description
ProcessorType	RO	The type of processor
ProcessorArchitecture	RO	The architecture of the processor.
InstructionSet	RO	The instruction set of the processor.
Location	RO	The location of the processor.
> PartLocation	RO	The part location for a resource within an enclosure.
>> ServiceLabel	RO	The label of the part location, such as a silk-screened name or a printed label.
Manufacturer	RO	The processor manufacturer.

Property	Access	Description
ProcessorId	RO	The identification information for a processor.
> IdentificationRegisters	RO	The contents of the identification registers for this processor.
> EffectiveFamily(Optional)	RO	The effective family for this processor.
> EffectiveModel	RO	The effective model for this processor.
> MicrocodeInfo	RO	The microcode information for this processor.
>Step	RO	The step value for this processor.
MaxSpeedMHz	RO	The maximum clock speed of the processor.
TotalCores	RO	The total number of cores contained in this processor.
TotalThreads	RO	The total number of execution threads supported by this processor.
Socket	RO	The socket or location of the processor.
Status	RO	This type describes the status and health of a resource and its children.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
Version	RO	The hardware version of the processor.
ProtectedIdentificationNumber (Optional)	RO	This property shall contain the Protected Processor Identification Number (PPIN) for this processor.
AppliedOperatingConfig	RO	The link to the operating configuration that is applied to this processor.
BaseSpeedPriorityState	RO	The state of the base frequency settings of the operation configuration applied to this processor.
HighSpeedCoreIDs	RO	The list of core identifiers corresponding to the cores that have been configured with the higher clock speed from the operating configuration applied to this processor.
Metrics	RO	The link to the memory metrics associated with all memory of this processor.
Oem	RO	The extended OEM property.
> AssetTag	RO	The AssetTag OEM property.
>> Value	RO	The value of AssetTag.
>ProcessorUpgrade	RO	The Processor Upgrade.
>>Value	RO	The value of Processor Upgrade.
>SelectedOperatingConfig	RO	OEM properties for SelectedOperatingConfig.
>Voltage	RO	The CPU voltage.
>>Value	RO	The value of CPU voltage.
OperatingConfigs	RO	The link to the collection operating configurations that can be applied to this processor.
OperatingSpeedMHz	RO	Operating speed of the processor in MHz.

2.71.5 Links

AppliedOperatingConfig

- /redfish/v1/Systems/system/Processors/cpu0/OperatingConfigs/config{ID}

OperatingConfigs

- /redfish/v1/Systems/system/Processors/cpu0/OperatingConfigs

SelectedOperatingConfig

- /redfish/v1/Systems/system/Processors/cpu0/OperatingConfigs/config{ID}

2.71.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
AppliedOperatingConfig	The link to the operating configuration that is applied to this processor.	JSON
> @odata.id	The link to the operating configuration that is applied to this processor.	STRING
Oem	The extended OEM property.	JSON
>SelectedOperatingConfig	OEM properties for SelectedOperatingConfig.	STRING

Example JSON:

```
{
  "AppliedOperatingConfig": {
    "@odata.id": "/redfish/v1/Systems/system/Processors/cpu0/OperatingConfigs/config0"
  }
}
```

2.72 Operating Config Collection

This resource shall represent a resource collection of OperatingConfig instances for a Redfish implementation.

2.72.1 URI

- /redfish/v1/Systems/system/Processors/cpu{ID}/OperatingConfigs

2.72.2 Schema

#OperatingConfigCollection.OperatingConfigCollection

2.72.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.72.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.72.5 Links

Members

- /redfish/v1/Systems/system/Processors/cpu{ID}/OperatingConfigs/{ID}

2.73 Operating Config

The OperatingConfig schema specifies a configuration that can be used when the processor is operational.

2.73.1 URI

- /redfish/v1/Systems/system/Processors/cpu{ID}/OperatingConfigs/{ID}

2.73.2 Schema

OperatingConfig.v1_0_0.OperatingConfig

2.73.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.73.4 Properties

Property	Access	Description
BaseSpeedMHz	RO	The base (nominal) clock speed of the processor in MHz.
BaseSpeedPrioritySettings	RO	The clock speed for sets of cores when the configuration is operational.
> BaseSpeedMHz	RO	The clock speed to configure the set of cores in MHz.
> CoreCount	RO	The number of cores to configure with a specified speed."
> CoreIDs	RO	The identifier of the cores to configure with the specified speed.
MaxJunctionTemperatureCelsius	RO	The maximum temperature of the junction in degrees Celsius.
MaxSpeedMHz	RO	The maximum turbo clock speed that corresponds to the number of active cores in MHz.
TDPWatts	RO	The thermal design point of the processor in watts.
TotalAvailableCoreCount	RO	The number of cores in the processor that can be configured.
TurboProfile	RO	The turbo profiles for the processor. A turbo profile is the maximum turbo clock speed as a function of the number of active cores.
> ActiveCoreCount	RO	The number of active cores to be configured with the specified maximum clock speed.
> MaxSpeedMHz	RO	The maximum turbo clock speed that corresponds to the number of active cores in MHz.

2.74 Storage Collection

A Collection of Storage resource instances.

2.74.1 URI

- /redfish/v1/Systems/system/Storage

2.74.2 Schema

#StorageCollection.StorageCollection

2.74.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.74.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.74.5 Links

Members

- /redfish/v1/Systems/system/Storage/{ID}
- /redfish/v1/Systems/system/Storage/1
- /redfish/v1/Systems/system/Storage/Smbios

2.75 Local Storage Controller (HSBP)

Storage defines a storage subsystem and its respective properties. A storage subsystem represents a set of storage controllers (physical or virtual) and the resources such as volumes that can be accessed from that subsystem.

2.75.1 URI

- /redfish/v1/Systems/system/Storage/1

2.75.2 Schema

#Storage.v1_7_1.Storage

2.75.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.75.4 Properties

Property	Access	Description
Drives	RO	The set of drives attached to the storage controllers represented by this resource.
Status	RO	This type describes the status and health of a resource and its children.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
StorageControllers	RO	The set of storage controllers that this resource represents.
> Manufacturer	RO	The manufacturer of this storage controller.
> Model	RO	The model number for the storage controller.
> PartNumber	RO	The part number for this storage controller.
> SerialNumber	RO	The serial number for this storage controller.
>MemberId	RO	The member ID of this drive.
> Status	RO	The status and health of the resource and its subordinate or dependent resources.

Property	Access	Description
>> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
>> HealthRollup	RO	This represents the overall health state from the view of this resource.
>> State	RO	This indicates the known state of the resource, such as if it is enabled.

2.75.5 Links

Drives

- /redfish/v1/Systems/system/Storage/1/Drives/{ID}

2.76 Hard Drive

The Drive schema represents a single physical disk drive for a system, including links to associated Volumes.

2.76.1 URI

- /redfish/v1/Systems/system/Storage/1/Drives/{ID}

2.76.2 Schema

#Drive.v1_7_0.Drive

2.76.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.76.4 Properties

Property	Access	Description
Status	RO	This type describes the status and health of a resource and its children.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
Manufacturer (Optional)	RO	The manufacturer of this storage controller. Only when this Drive is existed (state is enabled), this property is existed.
Model (Optional)	RO	The model number for the storage controller. Only when this Drive is existed (state is enabled), this property is existed.
PartNumber (Optional)	RO	The part number for this storage controller. Only when this Drive is existed (state is enabled), this property is existed.
SerialNumber (Optional)	RO	The serial number for this storage controller. Only when this Drive is existed (state is enabled), this property is existed.

2.76.5 Links

Chassis

- /redfish/v1/Chassis/{ID}

2.77 Local Storage Controller (Smbios)

Storage defines a storage subsystem and its respective properties. A storage subsystem represents a set of storage controllers (physical or virtual) and the resources such as volumes that can be accessed from that subsystem.

2.77.1 URI

- /redfish/v1/Systems/system/Storage/Smbios

2.77.2 Schema

#Storage.v1_7_1.Storage

2.77.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.77.4 Properties

Property	Access	Description
Drives	RO	The set of drives attached to the storage controllers represented by this resource.
Status	RO	This type describes the status and health of a resource and its children.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> State	RO	This indicates the known state of the resource, such as if it is enabled.

2.77.5 Links

Drives

- /redfish/v1/Systems/system/Storage/Smbios/Drives/{ID}

2.78 Hard Drive (Smbios)

The Drive schema represents a single physical disk drive for a system, including links to associated Volumes.

2.78.1 URI

- /redfish/v1/Systems/system/Storage/Smbios/Drives/{ID}

2.78.2 Schema

#Drive.v1_7_0.Drive

2.78.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.78.4 Properties

Property	Access	Description
CapacityBytes	RO	The capacity of media contained in this drive.
MediaType	RO	The type of media contained in this drive.

Property	Access	Description
Model	RO	The model number for the drive.
Protocol	RO	The protocol that this drive currently uses to communicate to the storage controller.
Revision	RO	The revision of this drive. This is typically the firmware or hardware version of the drive.
RotationSpeedRPM	RO	The rotation speed of this drive, in revolutions per minute (RPM).
SerialNumber	RO	The serial number for this drive.
Oem	RO	The OEM object property.
>OpenBMC	RO	The extended OEM property.
>> ConnectorType	RO	ConnectorType of the drive.
>> DeviceId	RO	DeviceId of the drive.
>> Index	RO	Index of the drive.
>> PciClass	RO	PciClass of the drive.
>> SubDeviceId	RO	SubDeviceId of the drive.
>> SubVendorId	RO	SubVendorId of the drive.
>> VendorId	RO	VendorId of the drive.

2.79 Local Storage Controller (NVMe)

Storage defines a storage subsystem and its respective properties. A storage subsystem represents a set of storage controllers (physical or virtual) and the resources such as volumes that can be accessed from that subsystem.

2.79.1 URI

- /redfish/v1/Systems/system/Storage/Nvme

2.79.2 Schema

#Storage.v1_7_1.Storage

2.79.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.79.4 Properties

Property	Access	Description
Drives	RO	The set of drives attached to the storage controllers represented by this resource.

2.79.5 Links

Drives

- /redfish/v1/Systems/system/Storage/Nvme/Drives/{ID}

2.80 Hard Drive (NVMe)

The Drive schema represents a single physical disk drive for a system, including links to associated Volumes.

2.80.1 URI

- /redfish/v1/Systems/system/Storage/Nvme/Drives/{ID}

2.80.2 Schema

#Drive.v1_7_0.Drive

2.80.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.80.4 Properties

Property	Access	Description
Manufacturer	RO	The manufacturer of this storage controller.
Model	RO	The model number for the storage controller.
PartNumber	RO	The part number for this storage controller.
SerialNumber	RO	The serial number for this storage controller.
Oem	RO	The OEM object property.
>OpenBMC	RO	The extended OEM property.
>> DeviceLocation	RO	The Device Location of drive.
>> Device_Class	RO	The Device Class.
>> Device_Programming_Intf	RO	The Device Programming Interface
>> Device_Sub_Class	RO	The Device Sub Class.
>> Drive_Life_Consumed	RO	The Drive Life Consumed.
>> Firmware_Version	RO	The Firmware Version of device.
>> NVMe_Functional	RO	The NVMe Functional
>>NVMe_Powered	RO	The NVMe Powered status.
>>NVMe_Reset_Required	RO	The NVMe Reset Required Info.
>>PCIe_0_Link_Speed	RO	The PCIe 0 link speed.
>>PCIe_0_Link_Width	RO	The PCIe 0 link width.
>>PCIe_1_Link_Speed	RO	The PCIe 1 link speed.
>>PCIe_1_Link_Width	RO	The PCIe 1 link width.
>>Port_0_PCIe_Link_Active	RO	The Port 0 PCIe Link Active.
>>Port_1_PCIe_Link_Active	RO	The Port 1 PCIe Link Active.

2.80.5 Links

Chassis

- /redfish/v1/Chassis/{ID}

2.81 Local Storage Controller (Raid)

Storage defines a storage subsystem and its respective properties. A storage subsystem represents a set of storage controllers (physical or virtual) and the resources such as volumes that can be accessed from that subsystem.

2.81.1 URI

- /redfish/v1/Systems/system/Storage/Raid_{ID}

2.81.2 Schema

#Storage.v1_10_1.Storage

2.81.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.81.4 Properties

Property	Access	Description
Drives	RO	The set of drives attached to the storage controllers represented by this resource.
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
StorageControllers	RO	The set of storage controllers that this resource represents.
> SerialNumber	RO	The serial number for this storage controller.
>MemberId	RO	The member ID of this drive.
> FirmwareVersion	RO	The firmware version of raid.
> SupportedRAIDTypes	RO	An array to show the supported RAID types.
Oem	RO	The OEM object property.
>OpenBMC	RO	The extended OEM property.
>>configComplete	RO	The config complete status.
>>ManageRAIDConfigStatus	RO	The status of manage RAID config.
>> setRAIDDeleteLDStatus	RO	The status of delete RAID.
> SupportedStripSize	RO	The controller supported strip size types.
Volumes	RO	A link to Raid volumes collection.

2.81.5 Links

Drives

- /redfish/v1/Systems/system/Storage/Raid_{ID}/Drives/{ID}

Volumes

- /redfish/v1/Systems/system/Storage/Raid_0/Volumes

2.81.6 Actions

- #StorageCollection.CreateDrive

@Redfish.ActionInfo:/redfish/v1/Systems/system/Storage/Raid_0/CreateVolumeBasicDataActionInfo

/redfish/v1/Systems/system/Storage/Raid_0/Actions/StorageLDrive.Create

The action is used to create storage logical drive. Before taking this action, please use Get method to access the ActionInfo URI to get and know the valid parameter.

Parameter	Description	Allowable Values
CmdParm	The command parameter indicates the actions.	00h = CLEAR CFG 01h = ADD CFG
Rrl	The Primary RAID levels.	00h = RAID0 01h = RAID1 02h = RAID5 03h = RAID6 04h = RAID IE (RLQ = 1) 05h = RAID 1E (RLQ = 0) 06h = RAID IE0 (RLQ = 0) 07h = RAID 00 08h = RAID 10 09h = RAID 50 0Ah = RAID 60 Note: RLQ – RAID Level Qualifier.
StripSize	The Stripe Size for the virtual device.	BYTE
InitState	Initialization State	BYTE
DiskCachePolicy	Disk Cache Policy	00h = Unchanged 01h = Enabled 02h = Disabled
SizeLow	Low double word (4 bytes) of Volume Size The Size of the Virtual Drive Volume	INTEGER
SizeHigh	High double word (4 bytes) of Volume Size The Size of the Virtual Drive Volume	INTEGER
Readpolicy	Read Policy	00h = No Read Ahead 01h = Always Read Ahead
Writepolicy	Write Policy	00h = Write Through 01h = Always Write Back 02h = Write back with BBU
Iopolicy	IO Policy	00h = DirectIO 01h = CachedIO
Accesspolicy	Access Policy	00h = Read-Write 01h = Read Only 02h = Blocked
SpanDepth	Number of spans required for RAID Level. The default SpanDepth is 1. The RAID Levels RAID 00, RAID 10, RAID 50, RAID 60 and RAID 1E0_RLQ0 are required more than one span count.	BYTE
NumDrives	The number of physical devices per span. Each span will contain NumDrives of physical devices.	BYTE

Parameter	Description	Allowable Values
Accelerator	Reserved for BRCM.	
ParityGroupCount	Reserved for BRCM.	
ArrayNumber	Reserved for BRCM.	
VDName	Virtual Device Name (Only the first 16 bytes are valid).	BYTE ARRAY Example:. 5 0x41 0x4d 0x49 0x56 0x44 Means: 'AMIVD'
SpanID	The SpanID denotes the association of physical device with span. The span ID starts from 0. Each physical device should have proper span ID. List(vector) of span IDs	BYTE ARRAY Example: 4 0 0 0 0
DeviceID	It is PhysicalDrive IDs.	INTEGER ARRAY Example: 4 8 9 10 11

Example JSON:

{“CmdParm”:1, “Rrl”:2, “StripeSize”:9, “InitState”:0, “DiskCachePolicy”:0, “SizeLow”:0, “SizeHigh”:0, “Readpolicy”:1,

“Writepolicy”:1, “Iopolicy”:0, “Accesspolicy”:0, “SpanDepth”:1, “NumDrives”:3, “Accelerator”:0, “ParityGroupCount”:0,

“ArrayNumber”: 0, “VDName”:[65,77,73,82,97,105,100,53], “SpanID”:[0,0,0], “DeviceID”:[5,6,7]}

#StorageCollection.DeleteDrive

/redfish/v1/Systems/system/Storage/Raid_0/Actions/StorageLDrive.Delete

The action is used to create storage logical drive.

Parameter	Description	Allowable Values
LDriveId	The Logical Drive ID.	STRING

Example JSON:

- {“LDriveId”:”0”}

2.82 Hard Drive (RAID)

The Drive schema represents a single physical disk drive for a system, including links to associated Volumes.

2.82.1 URI

- /redfish/v1/Systems/system/Storage/Raid_{ID}/Drives/{ID}

2.82.2 Schema

#Drive.v1_13_0.Drive

2.82.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.82.4 Properties

Property	Access	Description
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
Manufacturer	RO	The manufacturer of this storage controller.
SerialNumber	RO	The serial number for this storage controller.
BlockSizeBytes	RO	The size, in bytes, of the smallest addressable unit, or block.
FailurePredicted	RO	An indication of whether this drive currently predicts a failure.
NegotiatedSpeedGbs	RO	The speed, in gigabit per second (Gbit/s), at which this drive currently communicates to the storage controller.
Oem	RO	The OEM object property.
>OpenBMC	RO	The extended OEM property.
>>ProductID	RO	The ProductID of the drive.
>>SlotNumber	RO	The slot number of the drive.
Protocol	RO	The protocol that this drive currently uses to communicate to the storage controller.
Revision	RO	The revision of this drive. This is typically the firmware or hardware version of the drive.

2.82.5 Links

Volumes

- /redfish/v1/Systems/system/Storage/Raid_{ID}/Volumes

2.83 Volume Collection

This collection shall contain references to all Volume resource instances that share the same parent resource.

2.83.1 URI

- /redfish/v1/Systems/system/Storage/Raid_{ID}/Volumes

2.83.2 Schema

#VolumeCollection. VolumeCollection

2.83.3 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.83.4 Links

Members

- /redfish/v1/Systems/system/Storage/Raid_{ID}/Volumes/{ID}

2.84 Volume

This resource shall be used to represent a volume, virtual disk, logical disk, LUN, or other logical storage for a Redfish implementation.

2.84.1 URI

- /redfish/v1/Systems/system/Storage/Raid_{ID}/Volumes/{ID}

2.84.2 Schema

#Volume.v1_6_2.Volume

2.84.3 Properties

Property	Access	Description
CapacityBytes	RO	The size in bytes of this Volume.
RAIDType	RO	The requested RAID type for the volume.
ReadCachePolicy	RO	Indicates the read cache policy setting for the Volume.
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
StripSizeBytes	RO	The number of blocks (bytes) in a strip in a disk array that uses striped data mapping.
WriteCachePolicy	RO	Indicates the write cache policy setting for the Volume.
Oem	RO	The extended OEM property.
>OpenBMC	RO	The OpenBMC OEM property.
>> DriveList	RO	The controller supported strip size types.

2.84.4 Links

Drivers

- /redfish/v1/Systems/system/Storage/Raid_{ID}/Drivers/{ID}

2.85 Local Storage Controller (HBA)

Storage defines a storage subsystem and its respective properties. A storage subsystem represents a set of storage controllers (physical or virtual) and the resources such as volumes that can be accessed from that subsystem.

2.85.1 URI

- /redfish/v1/Systems/system/Storage/HBA_{ID}

2.85.2 Schema

#Storage.v1_10_1.Storage

2.85.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.85.4 Properties

Property	Access	Description
Drives	RO	The set of drives attached to the storage controllers represented by this resource.
Status	RO	This type describes the status and health of a resource and its children.

Property	Access	Description
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
StorageControllers	RO	The set of storage controllers that this resource represents.
> SerialNumber	RO	The serial number for this storage controller.
>MemberId	RO	The member ID of this drive.
> FirmwareVersion	RO	The firmware version of raid.
Oem	RO	The OEM object property.
>OpenBMC	RO	The extended OEM property.
>>configComplete	RO	The config complete status.
>> manageRAIDConfigStatus	RO	The status of manage RAID config.
>> setRAIDDeleteLDStatus	RO	The status of delete RAID.

2.85.5 Links

Drives

- /redfish/v1/Systems/system/Storage/HBA_{ID}/Drives/{ID}

2.86 Hard Drive (HBA)

The Drive schema represents a single physical disk drive for a system, including links to associated Volumes.

2.86.1 URI

- /redfish/v1/Systems/system/Storage/HBA_{ID}/Drives/{ID}

2.86.2 Schema

#Drive.v1_13_0.Drive

2.86.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.86.4 Properties

Property	Access	Description
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
Manufacturer	RO	The manufacturer of this storage controller.
SerialNumber	RO	The serial number for this storage controller.
BlockSizeBytes	RO	The size, in bytes, of the smallest addressable unit, or block.
NegotiatedSpeedGbs	RO	The speed, in gigabit per second (Gbit/s), at which this drive currently communicates to the storage controller.
Oem	RO	The OEM object property.
>OpenBMC	RO	The extended OEM property.
>>ProductID	RO	The ProductID of the drive.

Property	Access	Description
>>SlotNumber	RO	The slot number of the drive.
Protocol	RO	The protocol that this drive currently uses to communicate to the storage controller.
Revision	RO	The revision of this drive. This is typically the firmware or hardware version of the drive.

2.87 PCIeDeviceCollection

The PCIeDevice schema describes the properties of a PCIe device that is attached to a system.

2.87.1 URI

- /redfish/v1/Systems/system/PCIeDevices

2.87.2 Schema

#PCIeDeviceCollection.PCIeDeviceCollection

2.87.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.87.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.87.5 Links

Members

- /redfish/v1/Systems/system/PCIeDevices/{ID}

2.88 PCIe Device

This property shall contain the universal unique identifier number for this PCIe device.

2.88.1 URI

- /redfish/v1/Systems/system/PCIeDevices/{ID}

2.88.2 Schema

#PCIeDevice.v1_4_0.PCIeDevice

2.88.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.88.4 Properties

Property	Access	Description
Manufacturer	RO	The manufacturer of this PCIe device.
DeviceType	RO	The device type for this PCIe device.

Property	Access	Description
PCIeFunctions(optional)	RO	An array of links to PCIeFunctions exposed by this device.
PCIeInterface	RO	This type describes a PCIe Interface.
>PCIeType	RO	The version of the PCIe sPECIfication in use by this device.

2.88.5 Links

PCIeFunctions

- /redfish/v1/Systems/system/PCIeDevices/{ID}/PCIeFunctions

2.89 PCIe Function Collection

This Resource shall represent a Resource Collection of PCIeFunction instances for a Redfish implementation.

2.89.1 URI

- /redfish/v1/Systems/system/PCIeDevices/{ID}/PCIeFunctions/

2.89.2 Schema

#PCIeFunctionCollection.PCIeFunctionCollection

2.89.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.89.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.89.5 Links

Members

- /redfish/v1/Systems/system/PCIeDevices/{ID}/PCIeFunctions/{FunctionID}

2.90 PCIe Function

This Resource shall represent a PCIeFunction attached to a System.

2.90.1 URI

- /redfish/v1/Systems/system/PCIeDevices/{ID}/PCIeFunctions/{FunctionID}

2.90.2 Schema

#PCIeFunction.v1_2_0.PCIeFunction

2.90.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.90.4 Properties

Property	Access	Description
FunctionId	RO	The PCIe Function Number.

Property	Access	Description
DeviceId	RO	The Device ID of this PCIe function.
VendorId	RO	The Vendor ID of this PCIe function.
FunctionType	RO	The type of the PCIe function.
DeviceClass	RO	The class for this PCIe function.
ClassCode	RO	The Class Code of this PCIe function.
RevisionId	RO	The Revision ID of this PCIe function.
SubsystemId	RO	The Subsystem ID of this PCIe function.
SubsystemVendorId	RO	The Subsystem Vendor ID of this PCIe function.

2.90.5 Links

PCIeDevice

- /redfish/v1/Systems/system/PCIeDevices/{ID}

2.91 NetworkInterface Collection

The collection of NetworkInterfaces resource instances.

2.91.1 URI

- /redfish/v1/Systems/system/NetworkInterfaces

2.91.2 Schema

#NetworkInterfaceCollection.NetworkInterfaceCollection

2.91.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.91.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.91.5 Links

Members

- /redfish/v1/Systems/system/NetworkInterfaces/{ID}

2.92 NetworkInterface

This resource contains links to the network adapters, network ports, and network device functions, and represents the functionality available to the containing system.

2.92.1 URI

- /redfish/v1/Systems/system/NetworkInterfaces/{ID}/

2.92.2 Schema

#NetworkInterface.v1_2_1.NetworkInterface

2.92.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.92.4 Properties

Property	Access	Description
NetworkPorts	RO	The link to the network ports associated with this network interface.
Status	RO	The status and health of the resource and its subordinate or dependent resources.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> HealthRollup	RO	This represents the overall health state from the view of this resource.

2.92.5 Links

NetworkAdpaters

- /redfish/v1/Chassis/FCP_Baseboard/NetworkAdapters/{ID}

NetworkPorts

- /redfish/v1/Chassis/FCP_Baseboard/NetworkAdapters/{ID}/NetworkPorts

2.93 Update Service

This is the schema definition for the Update Service. It represents the properties for the service itself and has links to collections of firmware and software inventory.

2.93.1 URI

- /redfish/v1/UpdateService

2.93.2 Schema

#UpdateService.v1_4_0.UpdateService

2.93.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓	✓		

2.93.4 Properties

Property	Access	Description
SoftwareInventory	RO	An inventory of software.
HttpPushUri	RO	The URI used to perform an HTTP or HTTPS push update to the update service. The format of the message is vendor specific.
HttpPushUriOptions	RO	The options for HttpPushUri-provided software updates
> HttpPushUriApplyTime	RO	The settings for when to apply HttpPushUri-provided software.
>> ApplyTime	RW	The time when to apply the HttpPushUri-provided software update.

Property	Access	Description
HttpPushUriTargets	RW	An array of URIs that indicate where to apply the update image.
HttpPushUriTargetsBusy	RW	An indication of whether a client has reserved the HttpPushUriOptions properties for software updates
ServiceEnabled	RO	An indication of whether this service is enabled.
FirmwareInventory	RO	An inventory of firmware.
MaxImageSizeBytes	RO	The maximum size in bytes of the software update image that this service supports.

2.93.5 Links

SoftwareInventory

- /redfish/v1/UpdateService/SoftwareInventory

FirmwareInventory

- /redfish/v1/UpdateService/FirmwareInventory

2.93.6 Updatable Properties

This table describes what values are allowable for updatable properties.

Property	Description	Allowable Values
HttpPushUriOptions	The settings for when to apply HttpPushUri provided software.	JSON
-> HttpPushUriApplyTime	The settings for when to apply HttpPushUri provided software.	JSON
->> ApplyTime	The time when to apply the HttpPushUri provided software update.	"Immediate" Or "OnReset"
HttpPushUriTargets	An array of URIs that indicate where to apply the update image.	STRING “bmc_recovery” “bios_recovery” “cpld_recovery”
HttpPushUriTargetsBusy	An indication of whether a client has reserved the HttpPushUriOptions properties for software updates	“false” Or “true”

Example JSON:

```
{"HttpPushUriOptions": {"HttpPushUriApplyTime": {"ApplyTime": "Immediate"}}}
```

< Note >

1. Set “HttpPushUriTargetsBusy” property to “**true**”.
2. Set “**HttpPushUriTargets**” to “**bmc_recovery**” if you want to update BMC with recovery option.
3. Set “**HttpPushUriTargets**” to “**bios_recovery**” if you want to update BIOS with recovery option.
4. Set “**HttpPushUriTargets**” to “**cpld_recovery**” if you want to update CPLD with recovery option.

2.93.7 Actions

#FirmwareUpdate

- /redfish/v1/UpdateService

Property	Description	Allowable Values
N/A	N/A	N/A

Upload the FW image as binary.

2.94 FirmwareInventory Collection

Collection of entities with updatable firmware on this system. This property shall contain an array of links to the members of this collection.

2.94.1 URI

- /redfish/v1/UpdateService/FirmwareInventory

2.94.2 Schema

#SoftwareInventoryCollection.SoftwareInventoryCollection

2.94.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.94.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.94.5 Links

Members

- /redfish/v1/UpdateService/FirmwareInventory/bios_active
- /redfish/v1/UpdateService/FirmwareInventory/bios_recovery
- /redfish/v1/UpdateService/FirmwareInventory/bmc_active
- /redfish/v1/UpdateService/FirmwareInventory/bmc_recovery
- /redfish/v1/UpdateService/FirmwareInventory/cpld_active
- /redfish/v1/UpdateService/FirmwareInventory/cpld_recovery
- /redfish/v1/UpdateService/FirmwareInventory/me
- /redfish/v1/UpdateService/FirmwareInventory/afm_active
- /redfish/v1/UpdateService/FirmwareInventory/afm_recovery
- /redfish/v1/UpdateService/FirmwareInventory/HSBP_{ID}
- /redfish/v1/UpdateService/FirmwareInventory/{ID}

2.95 FirmwareInventory

This Resource contains a single software component that this Redfish Service manages. The SoftwareInventory schema contains an inventory of software components. This can include software components such as BIOS, BMC firmware, firmware for other devices, system drivers, or provider software.

2.95.1 URI

- /redfish/v1/UpdateService/FirmwareInventory/{ID}

2.95.2 Schema

#SoftwareInventory.v1_1_0.SoftwareInventory

2.95.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.95.4 Properties

Property	Access	Description
Version	RO	A string representing the version of this software.
RelatedItem (optional)	RO	The IDs of the Resources associated with this software inventory item. This property is existed when {ID} is bmc_active/bmc_recovery/bios_active/bios_recovery.
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
> HealthRollup	RO	This represents the overall health state from the view of this resource.
Updateable	RO	An indication of whether the Update Service can update this software.

2.96 SoftwareInventory Collection

Collection of entities with updatable software on this system. This property shall contain an array of links to the members of this collection.

2.96.1 URI

- /redfish/v1/UpdateService/SoftwareInventory

2.96.2 Schema

#SoftwareInventoryCollection.SoftwareInventoryCollection

2.96.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.96.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.96.5 Links

Members

- /redfish/v1/UpdateService/SoftwareInventory/AdvancedSystemManagementKey

2.97 Software Inventory

The SoftwareInventory schema contains an inventory of software components. This can include software components such as BIOS, BMC firmware, firmware for other devices, system drivers, or provider software.

2.97.1 URI

- /redfish/v1/UpdateService/SoftwareInventory/{ID}

2.97.2 Schema

#SoftwareInventory.v1_1_0.SoftwareInventory

2.97.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.97.4 Properties

Property	Access	Description
Oem	RO	The extended OEM property.
>SoftwareInventory	RO	The SoftwareInventory OEM property.
>> LastUpdateTime	RO	This indicates the time of last update.
>> LicenseStatus	RO	This indicates whether the license under the software list is valid.
>> UpdateState	RO	This indicates the software update state

2.97.5 Actions:

- #Intel.Oem.AdvancedSystemManagementKey /redfish/v1/UpdateService/SoftwareInventory/AdvancedSystemManagementKey/Actions/Oem/Intel.Oem.AdvancedSystemManagementKey

Property	Description	Allowable Values
N/A	N/A	N/A

Upload the Key file as form-data.

- #Intel.Oem.Remove
- /redfish/v1/UpdateService/SoftwareInventory/AdvancedSystemManagementKey/Actions/Oem/Intel.Oem.Remove

Property	Description	Allowable Values
N/A	N/A	N/A

This action is only supported in MTM mode.

2.98 Certificate Service

Defines a Certificate Service that represents the actions available to manage certificates and links to where certificates are installed.

2.98.1 URI

- /redfish/v1/CertificateService/

2.98.2 Schema

#CertificateService.v1_0_0.CertificateService

2.98.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.98.4 Properties

Property	Access	Description
CertificateLocations	RO	This is a reference to a collection of CertificateLocations

2.98.5 Links

CertificateLocations

- /redfish/v1/CertificateService/CertificateLocations

2.98.6 Actions

This action is used to replace an existing certificate.

- #CertificateService.ReplaceCertificate
  /redfish/v1/CertificateService/Actions/CertificateService.ReplaceCertificate

Parameter	Description	Allowable Values
CertificateUri	A link to the certificate that is being replaced.	N/A
>@odata.id	The unique identifier for a resource.	"/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/1" "/redfish/v1/Managers/bmc/Truststore/Certificates/"
CertificateString	The string for the certificate.	STRING
CertificateType	The format of the certificate.	"PEM"

Example JSON:
{"CertificateUri":{"@odata.id":"/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/1"},
"CertificateString":"-----BEGIN CERTIFICATE -----END CERTIFICATE-----\n", "CertificateType":"PEM" }

Note:

{"CertificateUri":{"@odata.id":"/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/1"},
"CertificateString":" -----BEGIN PRIVATE KEY----- -----END PRIVATE KEY-----\n

-----BEGIN CERTIFICATE -----END CERTIFICATE-----\n", "CertificateType":"PEM" };

(Only Https Certificates need upload private key, otherwise fail.)

{"CertificateUri":{"@odata.id":"/redfish/v1/Managers/bmc/Truststore/Certificates/1"}, "CertificateString":"-----BEGIN CERTIFICATE -----END CERTIFICATE-----\n", "CertificateType":"PEM" }

The certificateString must be replaced with '\n' for newlines.

- **#CertificateService.GenerateCSR**

- **/redfish/v1/CertificateService/Actions/CertificateService.GenerateCSR**

This action is used to generate CSR.

Parameter	Description	Allowable Values
CertificateCollection	A link to the certificate that is being created	N/A
>@odata.id	The unique identifier for a resource.	“/redfish/v1/Managers/bmc/Truststore/Certificates/” “/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/"
City	The city or locality of the organization of the entity	STRING
CommonName	The fully qualified domain name of the entity.	STRING
ContactPerson	The name of contact person	STRING
AlternativeNames	Alternative names	STRING Array
ChallengePassword	Password	STRING
Email	The email address of the contact within the organization of the entity.	STRING
GivenName	Given name	STRING
Initials	Initials	STRING
Country	The country of the organization of the entity	STRING
KeyCurveId	Key curve ID	STRING
KeyUsage	The usage of the key contained in the certificate. current we only support 1 key usage.	STRING array. If CertificateCollection is /redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/", the KeyUsage is ["ClientAuthentication"].
KeyBitLength	The key length	If Algorithm is RSA, we only support 2408 key length.
KeyPairAlgorithm	The Key algorithm	“RSA” “EC”
Organization	The name of the organization of the entity.	STRING
OrganizationalUnit	The name of the unit or division of the organization of the entity.	STRING
State	The state, province, or region of the organization of the entity.	STRING
Surname	Surname	STRING
UnstructuredName	UnstructuredName	STRING

Example JSON:


```
{
    "City": "Austin",
    "CertificateCollection": {
     "@odata.id":
    "/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/"},
    "CommonName": "www.ibm.com",
    "ContactPerson":"myname",
    "AlternativeNames":["www.ibm.com"],
    "ChallengePassword":"",
    "Email":"OpenBMC@in.ibm.com",
    "GivenName":"",
    "Initials":"",
    "Country": "US",
    "KeyCurveId":"",
    "KeyUsage":["ServerAuthentication"],
    "KeyBitLength": 2048,
    "KeyPairAlgorithm": "RSA",
    "Organization": "IBM",
    "OrganizationalUnit": "ISL",
    "State": "AU",
    "Surname": "",
    "UnstructuredName": ""
  }
```


2.99 Certificate Locations

Defines a resource that an administrator can use to locate all certificates installed on a given service.

2.99.1 URI

- /redfish/v1/CertificateService/CertificateLocations

2.99.2 Schema

#CertificateLocations.v1_0_0.CertificateLocations

2.99.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.99.4 Properties

Property	Access	Description
N/A	N/A	N/A

2.99.5 Links

Certificates

- /redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/1
- /redfish/v1/Managers/bmc/Truststore/Certificates/{ID}

2.100 Certificate Collection

This resource shall be used to represent a resource collection of certificate instances for a Redfish implementation.

2.100.1 URI

- /redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/
- /redfish/v1/Managers/bmc/Truststore/Certificates

2.100.2 Schema

#CertificateCollection.CertificateCollection

2.100.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.100.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.100.5 Links

Members

- / redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/{ID}
- /redfish/v1/Managers/bmc/Truststore/Certificates/{ID}

2.100.6 Create a Certificate by POST:

- **#CreateCertificate**
  /redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/
  /redfish/v1/Managers/bmc/Truststore/Certificates

This action is used to create a certificate.

Parameter	Description	Allowable Values
CertificateString	The string for the certificate.	STRING
CertificateType	The format of the certificate.	"PEM"

Example JSON:

{"CertificateString":"-----BEGIN CERTIFICATE -----END CERTIFICATE-----\n", "CertificateType":"PEM" }

2.101 Certificate

The Certificate schema describes a certificate that proves the identity of a component, account, or service.

2.101.1 URI

- /redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/{ID}
- /redfish/v1/Managers/bmc/Truststore/Certificates/{ID}

2.101.2 Schema

#Certificate.v1_0_0.Certificate

2.101.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				✓

2.101.4 Properties

Property	Access	Description
Issuer	RO	The value of this is an object containing information about the issuer of the certificate. Note: It might have other properties according to real situation.
> CommonName	RO	The fully qualified domain name of the entity.
> Organization	RO	The name of the organization of the entity.
> Country	RO	The country of the organization of the entity.
Subject	RO	The value of this is an object containing information about the subject of the certificate. Note: It might have other properties according to real situation.
> Organization	RO	The name of the organization of the entity.
> Country	RO	The country of the organization of the entity
> CommonName	RO	The fully qualified domain name of the entity.
ValidNotBefore	RO	The date when the certificate becomes valid.
ValidNotAfter	RO	The date when the certificate is no longer valid.
KeyUsage	RO	The usage of the key contained in the certificate
CertificateString	RO	The string of certificate.
CertificateType	RO	The format of the certificate.

- Note: Only Truststore certificate can be deleted.

2.102 Telemetry Service

This is the schema definition for the Metrics Service. It represents the properties for the service itself and has links to collections of metric definitions and metric report definitions.

2.102.1 URI

- /redfish/v1/TelemetryService

2.102.2 Schema

#TelemetryService.v1_2_1.TelemetryService

2.102.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.102.4 Properties

Property	Access	Description
MetricReportDefinitions	RO	A link to the collection of Metric Report Definitions.
MetricReports	RO	A link to the collection of Metric Reports.
LogService	RO	A link to the collection of log service.
MaxReports	RO	It indicates the max report.
MinCollectionInterval	RO	It indicates the minimum interval for collection.
Status	RO	It shows the status.
>state	RO	It shows the current state.
Triggers	RO	The link to the collection of triggers that apply to metrics.

2.102.5 Links

MetricReportDefinitions

- /redfish/v1/TelemetryService/MetricReportDefinitions

MetricReports

- /redfish/v1/TelemetryService/MetricReports

LogService

- /redfish/v1/Managers/bmc/LogServices/Journal

Triggers

- /redfish/v1/TelemetryService/Triggers

2.103 MetricReportDefinitionCollection

This resource shall be used to represent a Resource Collection of MetricReportDefinition instances for a Redfish implementation.

2.103.1 URI

- /redfish/v1/TelemetryService/MetricReportDefinitions

2.103.2 Schema

#MetricReportDefinitionCollection.MetricReportDefinitionCollection

2.103.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓	✓			

2.103.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.
>@odata.id	RO	A link to a resource instance that is a member of this collection.

2.103.5 Links

Members

- /redfish/v1/TelemetryService/MetricReportDefinitions/{ID}

2.103.6 Establish a Metric Report Definition by POST

The properties of this table are used to create a metric report definition instance.

Property	Description	Allowable Values	Required
MetricReportDefinitionType	Specifies when the metric report is generated.	"Periodic" "OnChange" "OnRequest"	Yes
ReportActions	Specifies the actions to perform when a metric report is generated.	"LogToMetricReportsCollection"	Yes
Schedule	Specifies the schedule for generating the metric report.		N/A
>RecurrenceInterval	If the schedule is present, the metric report is generated at an interval specified by ScheduleRecurrenceInterval property.	STRING(ISO 8601 duration)	Yes
Metrics	Specifies a metric to include in the metric report. The metrics are derived by applying a calculation on each of the listed metric properties	ARRAY JSON	Yes
> MetricId	The label for the metric definition that is derived by applying the collection Function to the metric property. It matches the ID property of the corresponding metric definition.	STRING	Yes
> MetricProperties	The set of URIs for the properties on which this metric is collected.	ARRAY type, all supported URI are shown below. “/redfish/v1/Chassis/<chassis>/Power#/...” "/redfish/v1/Chassis/<chassis>/Sensors/..." "/redfish/v1/Chassis/<chassis>/Thermal#/...”	Yes
>CollectionDuration	Duration for collection.	STRING “PT12S” -> milliseconds(12000) "PT0.204S" -> milliseconds(204) "PT0.2S" -> milliseconds(200) "PT50M" -> milliseconds(3000000) "PT23H"-> milliseconds(82800000)	Yes

Property	Description	Allowable Values	Required
		"P51D"->milliseconds(4406400000) "PT2H40M10.1S"->milliseconds(9610100) "P20DT2H40M10.1S"->milliseconds(1737610100)	
> CollectionFunction	Specifies the function to perform on each of the metric properties listed in the MetricProperties property.	STRING	No
> CollectionTimeScope	The scope of time over which the function is applied.	STRING	No
ID	The identifier that uniquely identifies the Resource within the collection of similar Resources.	STRING	Yes
Name	The string used as a wildcard.	STRING	No
ReportUpdates	The behavior for how subsequent metric reports are handled in relationship to an existing metric report created from the metric report definition. Namely, whether to overwrite, append, or create a report resource.	STRING	No
AppendLimit	The maximum number of entries that can be appended to a metric report. When the metric report reaches its limit, its behavior is dictated by the ReportUpdates property.	STRING	No

Example JSON:

{"ID":"PSUSETTING","MetricReportDefinitionType":"Periodic","ReportActions":["RedfishEvent"], "Schedule": {"RecurrenceInterval": "PT50M"},

"Metrics":[{"MetricId": "PSUTEST", "MetricProperties": ["/redfish/v1/Chassis/FCP_Baseboard/Thermal#/Fans/0/Reading"], "CollectionDuration": "PT50M"}]

}

2.104 Metric Report Definition

This resource sPECIfies a set of metrics that shall be collected into a metric report.

2.104.1 URI

- /redfish/v1/TelemetryService/MetricReportDefinitions/{ID}

2.104.2 Schema

#MetricReportDefinition.v1_3_0.MetricReportDefinition

2.104.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				✓

2.104.4 Properties

Property	Access	Description
MetricReportDefinitionType	RO	Specifies when the metric report is generated.
ReportActions	RO	Specifies the actions to perform when a metric report is generated.
ReportUpdates	RO	When logging metric reports, specifies how subsequent metric reports are handled in relationship to an existing metric report created from the metric report definition.
Status	RO	This property describes the status and health of the resource and its children.
>State	RO	This indicates the known state of the resource, such as if it is enabled.
MetricReport	RO	Specifies the location where the resultant metric report is placed.
>@odata.id	RO	A link to a resource instance that is a member of this collection.
Schedule	RO	Specifies the schedule for generating the metric report.
>RecurrenceInterval	RO	If the schedule present, the metric report is generated at an interval specified by ScheduleRecurrenceInterval property.
Metrics	RO	The list of metrics to include in the metric report. The metrics might include metric properties or calculations applied to a metric property
> MetricId	RO	The label for the metric definition that is derived by applying the CollectionFunction to the metric property. It matches the ID property of the corresponding metric definition
> MetricProperties	RO	The set of URIs for the properties on which this metric is collected.
> CollectionDuration	RO	The duration over which the function is computed.
> CollectionFunction	RO	Specifies the function to perform on each of the metric properties listed in the MetricProperties property.
> CollectionTimeScope	RO	The scope of time over which the function is applied.
AppendLimit	RO	The maximum number of entries that can be appended to a metric report. When the metric report reaches its limit, its behavior is dictated by the ReportUpdates property.

2.104.5 Links

MetricReport

- /redfish/v1/TelemetryService/MetricReports/{ID}

2.104.6 Actions

#MetricReportDefinitions Delete

/redfish/v1/TelemetryService/MetricReportDefinitions/{ID}

This action is used to delete a metric report definition.

Parameter	Description	Allowable Values
N/A	N/A	N/A

2.105 Metric Report Collection

This resource shall be used to represent a Resource Collection of MetricReport instances for a Redfish implementation.

2.105.1 URI

- /redfish/v1/TelemetryService/MetricReports

2.105.2 Schema

#MetricReportCollection.MetricReportCollection

2.105.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.105.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.105.5 Links

Members

- /redfish/v1/TelemetryService/MetricReports/{ID}

2.106 MetricReport

The metric definitions used to create a metric report.

2.106.1 URI

- /redfish/v1/TelemetryService/MetricReports/{ID}

2.106.2 Schema

#MetricReport.v1_1_1.MetricReport

2.106.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.106.4 Properties

Property	Access	Description
MetricReportDefinition	RO	The metric definitions used to create a metric report.
> @odata.id	RO	A link to a resource instance that is a member of this collection.
MetricValues	RO	An array of metric values for the metered items of this Metric.
>MetricValue	RO	The value identifies this resource.
>Timestamp	RO	The time when the value of the metric is obtained.
>MetricProperty	RO	The URI for the property from which this metric is derived.
>MetricId	RO	The metric definitions identifier for this metric.

Property	Access	Description
>MetricDefinition	RO	The link to the metric definition for this metric. (Temporarily remove this property since MetricDefinition function was removed.)
Timestamp	RO	The time associated with the metric report in its entirety. The time of the metric report can be relevant when the times of individual metrics are minimally different.

2.106.5 Links

MetricReportDefinition

- /redfish/v1/TelemetryService/MetricReportDefinitions/{ID}

2.107 Task Service

The Task Service of a Redfish service allows for the management of long-duration operations. It represents the properties for the Task Service itself and has links to the actual collection of Task resources.

2.107.1 URI

- /redfish/v1/TaskService

2.107.2 Schema

#TaskService.v1_1_4.TaskService

2.107.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.107.4 Properties

Property	Access	Description
CompletedTaskOverWritePolicy	RO	Overwrite policy of completed tasks.
ServiceEnabled	RO	A link to a resource instance that is a member of this collection.
Tasks	RO	References to the Tasks collection.
DateTime	RO	The current date and time, with UTC offset, setting that the task service uses
LifeCycleEventOnTaskStateChange	RO	An indication of whether a task state change sends an event
Status	RO	This type describes the status and health of a resource and its children.
> Health	RO	This represents the health state of this resource in the absence of its dependent resources.
> State	RO	This indicates the known state of the resource, such as if it is enabled.
> HealthRollup	RO	This represents the overall health state from the view of this resource.

2.107.5 Links

Tasks

- /redfish/v1/TaskService/Tasks

2.108 Task Collection

A Collection of Task resource instances. This property shall contain an array of references to the members of this collection.

2.108.1 URI

- /redfish/v1/TaskService/Tasks

2.108.2 Schema

#TaskCollection.TaskCollection

2.108.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.108.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.108.5 Links

Members

- /redfish/v1/TaskService/Tasks/{ID}

2.109 Task

This resource contains information about a specific Task scheduled by or being executed by a Redfish service's Task Service. Tasks are used to represent operations that take more time than a client typically wants to wait.

2.109.1 URI

- /redfish/v1/TaskService/Tasks/{ID}

2.109.2 Schema

#Task.v1_4_1.Task

2.109.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.109.4 Properties

Property	Access	Description
TaskState	RO	The state of the task.
StartTime	RO	The date-time stamp that the task was last started.
TaskStatus	RO	This is the completion status of the task.
TaskMonitor	RO	The URI of the Task Monitor for this task.
PercentComplete	RO	The completion percentage of this Task.
Messages	RO	An array of messages associated with the task.

Property	Access	Description
Payload	RO	The HTTP and JSON payload details for this Task.
>TargetUri	RO	The URI of the target for this task.
>HttpOperation	RO	The HTTP operation to perform to execute this task.
>HttpHeaders	RO	An array of HTTP headers that this task includes.
>JsonBody	RO	The JSON payload to use in the execution of this task.

2.109.5 Links

Members

- /redfish/v1/TaskService/Tasks/{ID}Monitor

2.110 JSON Schemas Collection

The JsonSchemaFileCollection schema describes a collection of JSON Schema file instances.

2.110.1 URI

- /redfish/v1/JsonSchemas

2.110.2 Schema

#JsonSchemaFileCollection.JsonSchemaFileCollection

2.110.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.110.4 Properties

Property	Access	Description
Members	RO	Contains the members of this collection.

2.110.5 Links

Members

- /redfish/v1/JsonSchemas/{ID}

2.111 JsonSchemas

The JsonSchemaFile schema contains the properties that describe the locations, as URIs, of a Redfish Schema definition that a Redfish Service implements or references.

2.111.1 URI

- /redfish/v1/JsonSchemas/{ID}

2.111.2 Schema

#JsonSchemaFile.v1_0_2.JsonSchemaFile

2.111.3 Methods Supported

GET	POST	PATCH	PUT	DELETE
✓				

2.111.4 Properties

Property	Access	Description
Schema	RO	The @odata.type name this schema describes.
Languages	RO	The RFC5646-conformant language codes for the available schemas
Languages@odata.count	RO	The item number of languages.
Location	RO	Location information for this schema file.
> Language	RO	The language code for the schema file.
> URI	RO	The link to locally available URI for schema.
> PublicationUri	RO	The link to publicly available (canonical) URI for schema.
Location@odata.count	RO	The item number of Location.

2.111.5 Links

Location

- http://redfish.dmtf.org/schemas/v1/{ID}.json/redfish/v1/JsonSchemas/{ID}/{ID}.json