



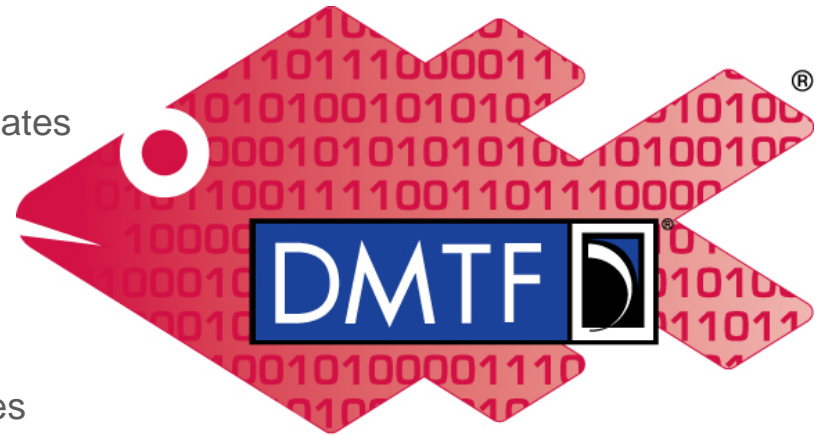
Redfish Release 2019.2 and Forum Update

DMTF Redfish Forum
August 2019



Redfish Release 2019.2

- Redfish Specification v1.8.0
 - **NEW**: Standard multipart HTTP for software updates
 - *SubordinateResource* parameter for SSE
 - Defined URI for OpenAPI document
- Redfish Specification v1.7.1
 - Errata version of v1.7.0
 - Numerous clarifications for HTTP response codes
- Redfish Schema Bundle 2019.2
 - Bundle contains all released Redfish schemas
- Redfish Message Registry Bundle 2019.2
 - Bundle contains all released Redfish message registries
 - **NEW**: Composition Message Registry
- 17 Updated Schemas (highlights)
 - *MultipartPushUpdateUri* property in *UpdateService* to provide push-style software updates
 - Deprecated *PCleDevices* in *Links* in favor of new *PCleDevice* and *PCleFunction* Collections
- Download all published material at: <http://www.dmtf.org/standards/redfish>



Redfish



Redfish Specification v1.8.0

- **NEW:** Added support for standardized push-style software updates
 - Multipart HTTP format POST to URI specified by *MultipartHttpPushUri*
 - Form parts contain:
 - Redfish-defined JSON document for update parameters
 - Binary update file (software image)
 - OEM-defined additional data
- **NEW:** Added fixed URI location for OpenAPI document
 - /redfish/v1/openapi.yaml
- Clarified that properties that contain “Uri” in their names are accessible using the Redfish protocol semantics
- Added *SubordinateResources* \$filter parameter for SSE

Redfish Schema Minor Revisions (1 of 3)

- AccountService v1.6.0
 - Added *LocalFirst* to the *LocalAccountAuth* property
- Bios v1.1.0
 - Added *SoftwareImages* and *ActiveSoftwareImage* properties to *Links*
- Chassis v1.10.0
 - Deprecated *PCleDevices* array inside *Links* in favor of new *PCleDevices* Resource Collection
- CollectionCapabilities v1.2.0
 - Added *MaxMembers* property
- ComputerSystem v1.8.0
 - Added *Metrics* link property to *MemorySummary*
- Drive v1.7.0
 - Added *WriteCacheEnabled* property
 - Added *Reset* action



Redfish Schema Minor Revisions (2 of 3)

- **EventDestination v1.6.0**
 - Added *DeliveryRetryPolicy*, *Status*, and *MetricReportDefinitions* properties
 - Added *ResumeSubscription* action
- **EventService v1.4.0**
 - Added *SubordinateResources* property to *SSEFilterPropertiesSupported*
- **Manager v1.6.0**
 - Added *SoftwareImages* and *ActiveSoftwareImages* properties to *Links*
- **Memory v1.8.0**
 - Added *Reset* action
- **MemoryMetrics v1.2.0**
 - Added *BandwidthPercent* property
- **MetricReport v1.2.0**
 - Added *Oem* property to *MetricValues*



Redfish Schema Minor Revisions (3 of 3)

- MetricReportDefinition v1.3.0
 - Added *ReportTimespan* property
- NetworkAdapater v1.3.0
 - Added *Identifiers* property to *Controllers*
- PCIeDevice v1.4.0
 - Deprecated *PCleFunctions* array inside *Links* in favor of new *PCleFunctions* Resource Collection
- Switch v1.2.0
 - Added *FirmwareVersion* property
- UpdateService v1.6.0
 - Added *MultipartHttpPushUri* property for performing an update using HTTP multipart forms
 - Standardized push semantics specified in the Redfish Specification



Errata Schema Revisions (1 of 3)

- Complete errata details shown in the Change Log within DSP8010
- All schemas
 - Descriptions in all schemas were updated for consistency in language and terminology. Any functional changes made that are not listed in the change log are unintentional and will be treated as errata.
- Various schemas
 - Clarified that properties with “Uri” in name use Redfish protocol semantics
 - Fixed several password related properties to be "null" in all responses regardless of the operation
 - Corrected some property abilities to not return “null” value
 - Removed "@odata.id", "@odata.context", and "@odata.etag" properties from registry resources

Errata Schema Revisions (2 of 3)

- AccountService, ExternalAccountService v1.x.x
 - Clarified that the *LDAPService* property should only be used in the context of LDAP services.
- EthernetInterface v1.x.x
 - Fixed several properties to allow for "null" so that services can advertise the size of configurable arrays. Clarified the description of the *SpeedMbps* property to state that it's writable only when *AutoNeg* is false
- Event v1.x.x
 - Clarified the description of *EventId* to give guidance on its usage. Added semantics of when *EventGroupId* is 0.
- EventService v1.x.x
 - Fixed parameters in *SubmitTestEvent* so that only *MessageId* is required. Added language to *DeliveryRetryAttempts* to show how it ties to the *DeliveryRetryPolicy* property in EventDestination



Errata Schema Revisions (3 of 3)

- NetworkDeviceFunction v1.x.x
 - Added missing regex pattern for MAC address properties
- PCIeSlots v1.1.1
 - Corrected the location of the *HotPluggable* property
- ProcessorMetrics v1.0.2
 - Clarified descriptions of several properties to explain the usage when the Resource represents a summary of processors
- UpdateService v1.x.x
 - Clarified description of *ImageURI* parameter to reference RFC3986. Clarified descriptions of various properties to replace 'firmware' with 'software'.



Message Registry updates

- Redfish Message Registries v2019.2
 - **DSP8011_2019.2.ZIP** – contains all published message registries
- Base v1.6.0
 - Added *QueryNotSupportedOnOperation*, *ResetRequired*, *PropertyValueConflict*, *ChassisPowerStateOnRequired*, and *ChassisPowerStateOffRequired* messages
- Composition v1.0.0
 - Initial release. Defines messages to use for composition events
- ResourceEvent v1.0.2
 - Corrected *@odata.type* and *Id* property formats.
 - Corrected cases where *ParamTypes* was incorrectly using 'value'



Schema Guide and Property Guide

- **Redfish Resource and Schema Guide (DSP2046) v2019.2**
 - Presents schema definition contents in a more human-readable format
 - Description text taken directly from schema files
 - Includes example payloads for each schema
 - Updated for each DSP8010 release
- **Redfish Property Guide (DSP2053) v2019.2**
 - Provides an alphabetical list of all properties defined in Redfish schema
 - Useful for schema writers to locate existing definitions or properties
 - Helps avoid re-defining property names already in use
 - Description text taken directly from schema files
 - Updated for each DSP8010 release



Redfish Forum Update



Ongoing discussions in the Redfish Forum

- SNMP protocol configuration
 - Configure SNMP managed device settings using Redfish
 - Provide standard method to configure existing OEM features
 - Support for SNMP-based Event delivery using event subscriptions
 - Expect Redfish standard MIB to describe SNMP Trap
 - Allow delivery of Redfish Events to existing SNMP management clients
- SMTP protocol configuration
 - Configure SMTP event delivery settings using Redfish
 - Provide standard method to configure existing OEM features
 - Support for SMTP-based Event delivery using event subscriptions
 - Expect standard attachment format to contain Redfish Event payload
 - Allow delivery of Redfish Events to existing email clients
 - Ensure additional JSON payload does not disrupt existing OEM message styles



Ongoing discussions in the Redfish Forum, continued

- SecureBoot certificate and key management
- Host Serial Console discovery
 - Specify capabilities and interoperable means to locate functionality
 - Differentiate between “OS console” and “BMC command line interface”
 - Support multi-host Manager implementations



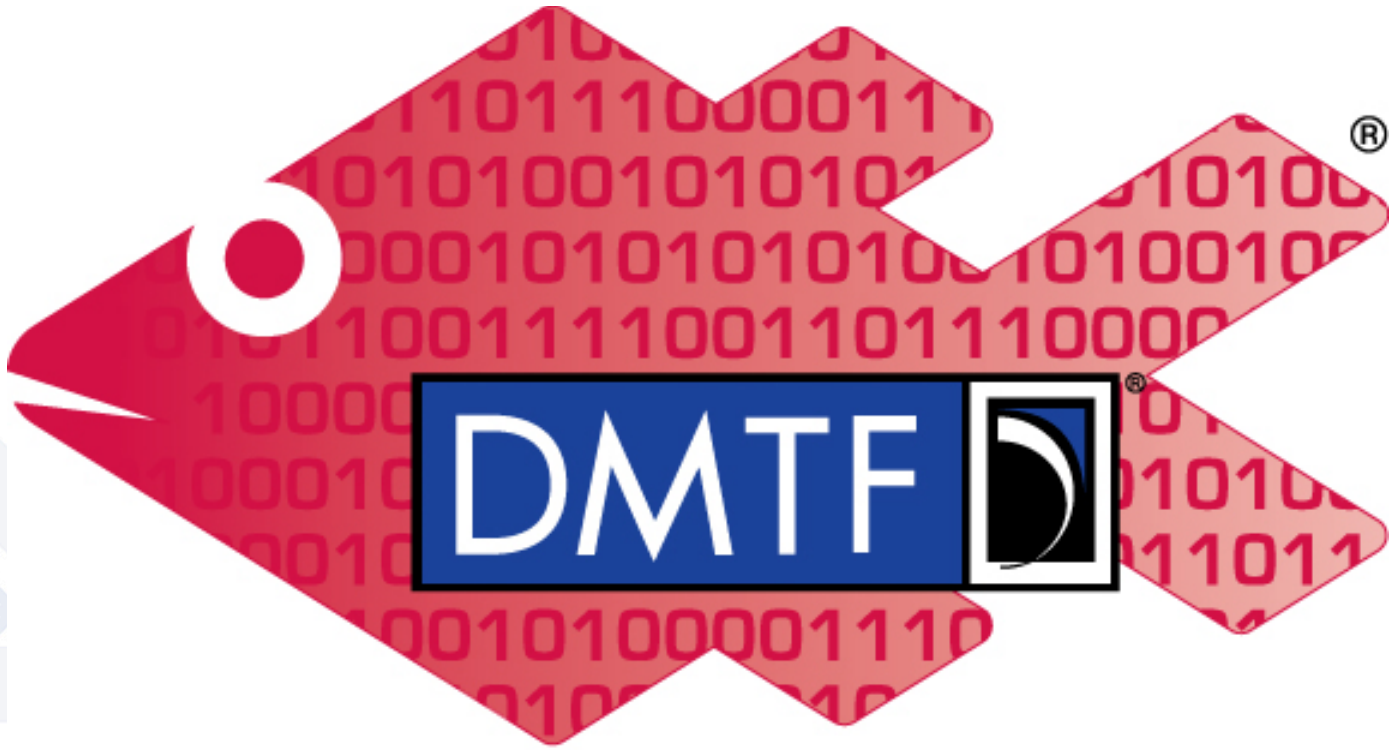
Active Redfish Forum Task Forces

- **Legacy Removal Task Force**
 - Creating Message Registries to enable migration from IPMI SEL usage
 - Working with OS vendors to understand data requirements
 - Seeking end user feedback on ongoing usage of legacy protocols
- **Host Interface Task Force**
 - SMBIOS type 42 improvements
 - Kernel / OS credential handshaking
 - Defining additional standard methods for authentication
- **Data Center Infrastructure (DCIM) Task Force**
 - Completing work on Power Distribution schemas
 - Covering Rack-level PDUs, Floor PDUs, Automatic Transfer Switches
 - Expect to leverage PDU schemas for defining UPS schemas
 - Seeking to align Alarm schema with ISA / ANSI 18.2 practices



Active Redfish Forum Task Forces, continued

- Tools Task Force
 - Weekly builds of popular validation and developer tools
 - **NEW: Redfish Tackle Box** – “Microtools” for common Redfish operations
 - Download at: <https://github.com/DMTF/Redfish-Tacklebox>
 - Firmware update
 - Sensor, system inventory listings
 - Boot override, system power, and reset controls
 - Continued integration work with Ansible and OpenStack
 - Virtual media support
 - Firmware update
 - RAID management
- Fabrics Task Force
 - Enhancements to the data model to support Gen-Z fabric management



Redfish