



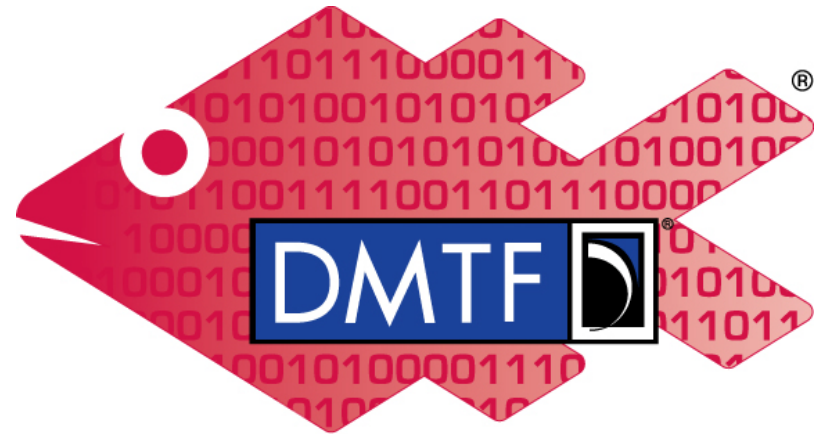
Redfish Release 2021.4

DMTF Redfish Forum
December 2021



Redfish Release 2021.4

- Redfish Specification v1.15.0
 - Updated Operation apply time and Multipart HTTP push updates to expand usage of *OperationApplyTimeSupport*
- Redfish Specification v1.14.2
 - Errata release
- Redfish Schema Bundle 2021.4
 - DSP8010 contains all released Redfish schemas
- Redfish Message Registry Bundle 2021.4
 - DSP8011 contains all released Redfish registries
 - StorageDevice v1.1.0 adds new messages for controller and battery-related conditions
 - ResourceEvent v1.2 adds *AggregationSourceDiscovered*
- Redfish Interoperability Profile v1.5.0
 - Added JSON Pointer support for property-level comparisons
- **4 NEW Schemas, 29 updated schemas**
 - Addition of ComponentIntegrity, ManagerDiagnosticData, RegisteredClient, and ServiceConditions schemas
 - See release notes in DSP8010 for errata details
- Download all published material at: <http://www.dmtf.org/standards/redfish>



Redfish



Schema Guide, Property Guide, and Schema Supplement

- Guide documents are updated for each schema (DSP8010) release
 - Description text for properties taken directly from schema files
 - DMTF documentation generator creates these guide documents
- Redfish Resource and Schema Guide (DSP2046)
 - Presents schema definition contents in a more human-readable format
 - Includes example payloads for each schema
- Redfish Property Guide (DSP2053)
 - 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
- Redfish Schema Supplement (DSP0268)
 - Presents normative (“LongDescription”) schema definition contents
 - Useful for Redfish Service developers to ensure conformance



NEW Component Integrity Model

- New **ComponentIntegrity** resource to represent security related information between two entities (typically a BMC and end device)
 - Measurement information
 - Secure channel information
 - Health of the channel between the devices
 - Action to return signed measurements from the end device
- **ComponentIntegrity** resources located in a collection off service root
 - Provides a single location for a client to discover all internal secure channels and their status
- Model aligns with SPDM and TPM types of devices
 - Additional technologies can be added over time as needed



NEW RegisteredClient and ServiceConditions

- **RegisteredClient** resource collection enables clients to be aware of other clients to limit configuration from a single client when desired
 - Intended as a cooperative approach from clients, no enforcement required (or expected) from Manager
 - Clients may check for other registered clients to inform users of other configuration tools to limit “collisions”
 - Allows clients to register for configuration of collections and down to individual resources if necessary
- **ServiceConditions** resource provides a roll up of all active, non-normal status conditions that require attention
 - Located at </redfish/v1/ServiceConditions>
 - Uses the common object definition for *Conditions[]* within *Status*
 - Allows clients to retrieve a “status dashboard” with a single operation



Redfish Schema Minor Revisions (1 of 6)

- Cable v1.2.0
 - Added “CDFP” and “OSFP” to *CableType*
- Chassis v1.19.0
 - Deprecated *Measurements* in favor of reporting measurements in the **ComponentIntegrity** resource
- Circuit v1.4.0
 - Added *UnbalancedVoltagePercent*, *UnbalancedCurrentPercent*, *PowerControlLocked*, *ConfigurationLocked*, and *PowerStateInTransition*
 - Added “PowerCycle” to *PowerState* parameter for *PowerControl*
- ComputerSystem v1.17.0
 - Added *OffloadedNetworkDeviceFunctions* to *Links*
 - Deprecated *Measurements* in favor of reporting measurements in the **ComponentIntegrity** resource
- Control v1.1.0
 - Added “Pressure” and “FrequencyMHz” to *ControlType*



Redfish Schema Minor Revisions (2 of 6)

- Drive v1.14.0
 - Added *NetworkDeviceFunctions* to *Links*
 - Deprecated *Measurements* in favor of reporting measurements in the **ComponentIntegrity** resource
- EnvironmentMetrics v1.2.0
 - Added *AbsoluteHumidity* and *EnergyJoules*
- EthernetInterface v1.8.0
 - Deprecated “Stateful” and “Stateless” for *OperatingMode* in *DHCPv6* in favor of “Enabled”
- Fabric v.3.0
 - Added *UUID*
- LogEntry v1.10.0
 - Added *Originator* and *OriginatorType*



Redfish Schema Minor Revisions (3 of 6)

- **Manager v1.14.0**
 - Added *ManagerDiagnosticData*
 - Deprecated *Measurements* in favor of reporting measurements in the **ComponentIntegrity** resource
- **Memory v1.14.0**
 - Deprecated *Measurements* in favor of reporting measurements in the **ComponentIntegrity** resource
- **NetworkAdapter v1.9.0**
 - Deprecated *Measurements* in favor of reporting measurements in the **ComponentIntegrity** resource
- **NetworkDeviceFunction v1.8.0**
 - Deprecated *PhysicalNetworkPortAssignment* in favor of *PhysicalNetworkPortAssignment* in *Links*
- **Outlet v1.4.0**
 - Added *PowerControlLocked*, *ConfigurationLocked*, and *PowerStateInTransition*
 - Added “PowerCycle” to *PowerState* parameter for *PowerControl*



Redfish Schema Minor Revisions (4 of 6)

- **OutletGroup v1.1.0**
 - Added *PowerControlLocked*, *ConfigurationLocked*, and *PowerStateInTransition*
 - Added “PowerCycle” to *PowerState* parameter for *PowerControl*
- **PCleDevice v1.9.0**
 - Added *Slot* to describe slot capabilities
- **Port v1.6.0**
 - Added *InfiniBand* property with *AssociatedPortGUIDs*, *AssociatedNodeGUIDs*, and *AssociatedSystemGUIDs*
- **PowerDistributionMetrics v1.3.0**
 - Added *AbsoluteHumidity*
- **PowerSupply v1.3.0**
 - Added *LineInputStatus*
- **Processor v1.14.0**
 - Deprecated *Measurements* in favor of reporting measurements in the **ComponentIntegrity** resource



Redfish Schema Minor Revisions (5 of 6)

- Resource v1.14.0
 - Added *Resolution* to *Conditions*
 - Added *MACAddress* to *DurableNameFormat*
- Sensor v1.5.0
 - Added “AbsoluteHumidity” and “PressurekPa” to *ReadingType*
 - Added *ApparentkVAh*, *ReactivekVARh*, and *PhaseAngleDegrees*
- ServiceRoot v1.13.0
 - Added *ComponentIntegrity*, *RegisteredClients*, and *ServiceConditions*
- SoftwareInventory v1.6.0
 - Deprecated *Measurements* in favor of reporting measurements in the **ComponentIntegrity** resource
- Storage v1.12.0
 - Deprecated *Measurements* in favor of reporting measurements in the **ComponentIntegrity** resource



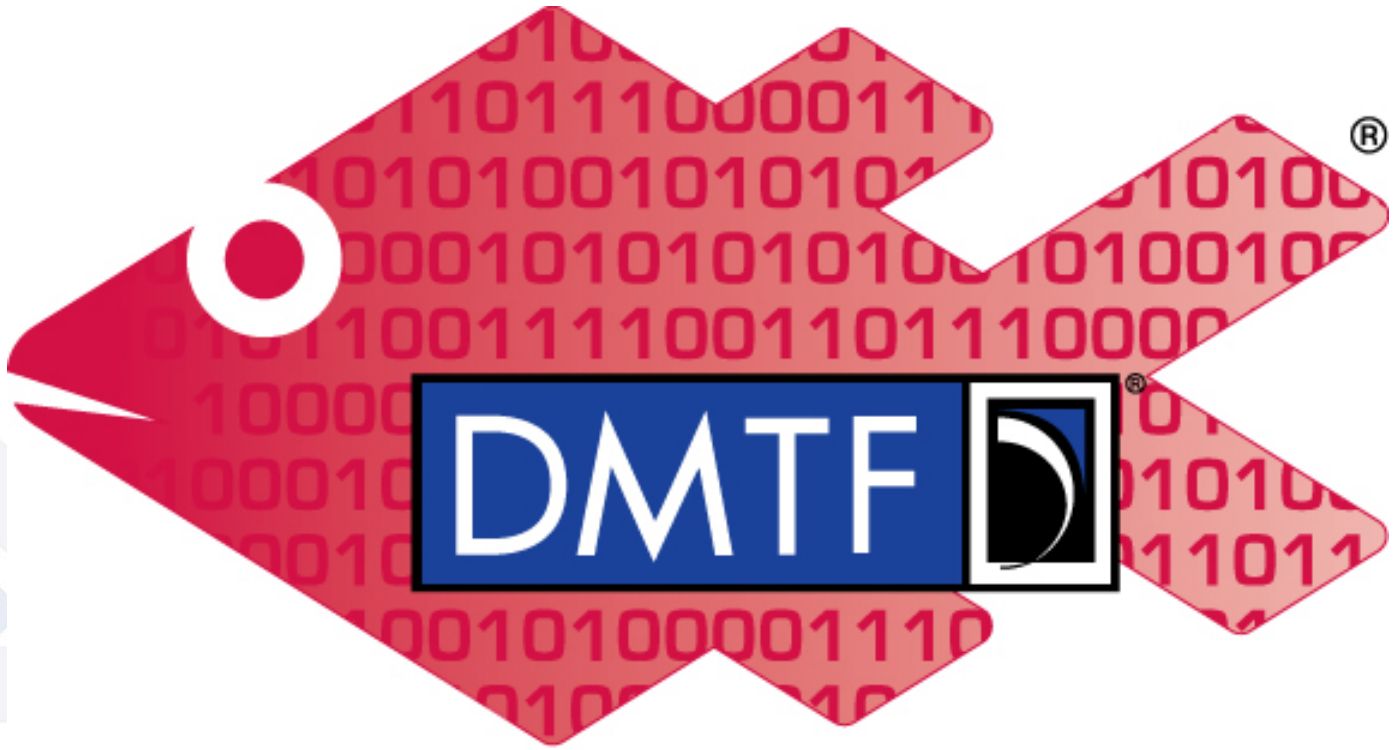
Redfish Schema Minor Revisions (6 of 6)

- StorageController v1.5.0
 - Deprecated *Measurements* in favor of reporting measurements in the **ComponentIntegrity** resource
- Switch v1.8.0
 - Deprecated *Measurements* in favor of reporting measurements in the **ComponentIntegrity** resource
- UpdateService v1.11.0
 - Added *ForceUpdate* to *SimpleUpdate*, multipart HTTP push updates, and *HttpPushUriOptions*
 - Added “OnStartUpdateRequest” to *ApplyTime* in *HttpPushUriApplyTime*



Redfish Schema Errata Revisions

- **Control v1.x.x**
 - Corrected usage of units in various descriptions for *ControlType*
- **Sensor v1.x.x**
 - Clarified “Altitude” is the elevation above sea level
 - Corrected usage of units in various descriptions for *ReadingType*
 - Corrected the minimum value for *PowerFactor*
- **Settings v1.x.x**
 - Clarified the behavior of the *MaintenanceWindowStartTime* property when not initialized by a user
- **(various schema and versions)**
 - Clarified default behavior of *VerifyCertificate*
 - Added normative ties to sensor and control excerpts to include requirements for the resource referenced by *DataSourceUri*



Redfish