Redfish Release 2020.1

DMTF Redfish Forum
April 2020
Redfish Release 2020.1

- Redfish Specification v1.10.0
  - “Deep” operation support for creating or updating multiple resources with a single operation
  - Restructured Security details clause for readability
  - Require support of TLS v1.2 or later
  - Deprecated use of TLS v1.1

- Redfish Specification v1.9.1
  - Numerous clarifications regarding query parameters and Actions
  - Clarified naming guidelines, especially concerning acronyms
  - Deprecated use of full ISO8601 “Duration” format to allow for a simplified version that omits years/months/weeks

- Redfish Schema Bundle 2020.1
  - Bundle (DSP8010) contains all released Redfish schemas

- Redfish Message Registry Bundle 2020.1
  - Bundle (DSP8011) contains all released Redfish message registries
  - NEW NetworkDevice registry to provide NIC / networking adapter-specific events or status changes
  - Minor release of Base Registry adding MaximumErrorsExceeded, PreconditionFailed, PreconditionRequired, OperationFailed and OperationTimeout messages

- 2 NEW Schemas, 19 updated schemas
  - Addition of SecureBootDatabase and Signature

Download all published material at: [http://www.dmtf.org/standards/redfish](http://www.dmtf.org/standards/redfish)
NEW SecureBoot Database

• SecureBootDatabase contains UEFI SecureBoot certificates or hashes

• DatabaseId – Database name from the UEFI specification
  • e.g. PK, KEK, db, dbx, dbc, dbt, Pkdefault, KEKDefault, dbDefault, dbxDefault, dbrDefault, dbtDefault

• Link to SignatureCollection for this database
  • Contains the hashes and encrypted hashes that are stored in this database

• Link to CertificateCollection for this database
  • Contains the Certificates that are stored in this database

• Action to ResetKeys
  • Allows resetting individual databases to their default (ResetAllKeysToDefault), or deleting all keys in this database (DeleteAllKeys)
NEW Signatures

- Each SecureBootDatabase contains a SignatureCollection
- Signature contains the following:
  - SignatureTypeRegistry to look up the definitions
    - Values of: UEFI, TCG, IANA, DMTF
  - SignatureType - Definition from referenced specification
  - SignatureString - Encodes the signature bytes in hexadecimal format
  - UefiSignatureOwner – Similar to the property in Certificate
Redfish Schema Minor Revisions (1 of 3)

- **Certificate v1.2.0**
  - Added `UefiSignatureOwner` property
- **Chassis v1.12.0**
  - Added `MaxPowerWatts` and `MinPowerWatts` properties
- **ComputerSystem v1.11.0**
  - Added `AutomaticRetryConfig`, `AutomaticRetryAttempts`, and `RemainingAutomaticRetryAttempts` properties to `Boot`
- **EthernetInterface v1.6.0**
  - Added `EthernetInterfaceType` property
  - Added `NetworkDeviceFunction` to `Links`
- **EventDestination v1.8.0**
  - Added `IncludeOriginOfCondition` property – this allows an event subscriber to request the entire resource be included in the event payload
- **EventService v1.5.0**
  - Added `IncludeOriginOfConditionSupported` property
Redfish Schema Minor Revisions (2 of 3)

- **LogEntry v1.6.0**
  - Added *Modified* property
- **Manager v1.8.0**
  - Added *ResetToDefaults* action
- **ManagerAccount v1.6.0**
  - Added *PasswordExpiration* property
- **ManagerNetworkProtocol v1.6.0**
  - Added *ArchitectureId* to *EngineId* in *SNMP*
- **MemoryMetrics v1.3.0**
  - Added *OperatingSpeedMHz* property
- **MessageRegistry v1.4.0**
  - Added *MessageSeverity* property and deprecated *Severity* property
  - *Severity* was not tied to the enumeration values of *State*, which caused interoperability issues
Redfish Schema Minor Revisions (3 of 3)

- **NetworkDeviceFunction v1.4.0**
  - Added *EthernetInterface* to *Links*
- **PCleSlots v1.3.0**
  - Added *U2* to *PCleSlotType*
- **Processor v1.8.0**
  - Added *SystemInterface*, *OperatingSpeedMHz*, and *MinSpeedMHz* properties
  - Added *AMBA*, *CCIX*, and *CXL* values to the interface type enumeration
- **ProcessorMetrics v1.1.0**
  - Added *OperatingSpeedMHz* property and deprecated *AverageFrequencyMHz*
- **SecureBoot v1.1.0**
  - Added *SecureBootDatabases* property
- **SoftwareInventory v1.3.0**
  - Added *WriteProtected* property
Errata Schema Revisions (1 of 2)

- **Event v1.x.x**
  - Updated description for *OriginOfCondition* to show that a subscriber can request the full resource for the origin of the event to be included in the event itself

- **ManagerAccount v1.x.x**
  - Corrected formats for *AuthenticationKey* and *EncryptionKey* within *SNMP* to support patterns defined in RFC3414

- **ManagerNetworkProtocol v1.x.x**
  - Clarified *EnterpriseSpecificMethod* is tied to the "type 2 format" of the RFC3411-defined snmpEngineID
  - Made *PrivateEnterpriseId* and *EnterpriseSpecificMethod* read-only

- **MemoryMetrics v1.x.x**
  - Corrected description of *HealthData* to allow its usage with regards to being metrics for a memory summary
Errata Schema Revisions (2 of 2)

- **MetricReportDefinition v1.x.x**
  - Clarified that `ReportUpdates` and `ReportActions` should be ignored when `MetricReportDefinitionType` is `OnRequest`
  - Clarified behavior of some properties when a metric report stops.
  - Clarified `ReportTimespan` is the maximum timespan the report can cover

- **SecureBoot v1.x.x**
  - Updated descriptions as needed to reference UEFI Secure Boot databases

- **TaskService v1.x.x**
  - Clarified `LifeCycleEventOnTaskStateChange` to reference the Task Event Message Registry for task events

- 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