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scalable platforms management API
specification —**

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This document was prepared by DMTF (as DMTF Redfish Specification, DSP0266, Version 1.13.0) and drafted in accordance with its editorial rules. It was adopted, under the JTC 1 PAS procedure, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

This first edition cancels and replaces the first edition (ISO/IEC 30115:2018), which has been technically revised.

The main changes are as follows:

- a number of clauses have been added expanding the functionality of the protocol, including additions for controlling software-defined composable systems, for performing software or firmware updates and for aggregating multiple service instances;
- the protocol itself has been enhanced to provide a number of optional query parameters to enable more efficient transactions;
- the specification and its data model have been enhanced to provide compatibility with the OpenAPI v3.0 specification allowing the use of the OpenAPI toolchain for both documentation and code generation.

A list of all parts in the ISO/IEC 30115 series can be found on the ISO and IEC websites.

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This document's normative language is English. Translation into other languages is permitted.

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1 Foreword {-}

The Redfish Forum of the DMTF develops the Redfish standard.

DMTF is a not-for-profit association of industry members that promotes enterprise and systems management and interoperability. For information about the DMTF, see [DMTF](#).

This version supersedes version 1.12.1. For a list of the changes, see [ANNEX A \(informative\) Change log](#).

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2 Introduction {-}

Redfish is a standard that uses RESTful interface semantics to access a schema based data model to conduct management operations. It is suitable for a wide range of devices, from stand-alone servers, to composable infrastructures, and to large-scale cloud environments.

The initial Redfish scope targeted servers. The DMTF and its alliance partners expanded that scope to cover most data center IT equipment and other solutions, and both in- and out-of-band access methods.

Additionally, the DMTF and other organizations that use Redfish as part of their industry standard or solution have added educational material.

This document defines the RESTful interface protocol and the various concepts and services necessary to implement a Redfish interface. The definition of the schema based data model and standard messages for the Redfish interface are covered separately in the following documents:

- DMTF DSP8010, *Redfish Schema Bundle*, <https://www.dmtf.org/dsp/DSP8010> contains the individual schema definition files in multiple schema description languages.
- DMTF DSP0268, *Redfish Schema Supplement*, <https://www.dmtf.org/dsp/DSP0268> contains the normative descriptions and example payloads for all standard Redfish schema in a single reference guide.
- DMTF DSP8011, *Redfish Standard Registries Bundle*, <https://www.dmtf.org/dsp/DSP8011> contains the message registries used for error reporting and event messages.

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3 Scope

This specification defines the required protocols, data model, behaviors, and other architectural components for an interoperable, multivendor, remote, and out-of-band capable interface. This interface meets the cloud-based and web-based IT professionals' expectations for scalable platform management. While large and hyperscale environments are the primary focus, clients can use the specification for individual system management.

The specification defines the required elements for all Redfish implementations, and the optional elements that system vendors and manufacturers can choose. This specification also defines at which points an implementation can provide OEM-specific extensions.

The specification sets normative requirements for *Redfish services* and associated materials, such as Redfish schema files. In general, the specification does not set requirements for Redfish clients but indicates how a client can successfully and effectively access and use a Redfish service.

The specification does not require that implementations of the Redfish interfaces and functions require particular hardware or firmware.

4 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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