2019 Year-in-Review
From the desk of Jeff Hilland, DMTF President

Every December, we take the opportunity to pause and reflect on the last twelve months. As another highly productive year comes to a close, I’m proud to highlight the significant accomplishments the organization achieved in 2019. We appreciate the hard work of our members who have helped the organization reach the following milestones.

Technical Milestones:
CIM
DMTF continued to provide a steady cadence of updates to the Common Information Model (CIM):

- DMTF published three CIM Schema releases including the latest release of the CIM Schema, version 2.52. This is the fifty-second update to CIM since the launch of 2.0.
- The group formerly known as System Management Forum became the CIM Forum. As part of this restructuring, all work on the Common Information Model (CIM) has been consolidated under this single umbrella for increased efficiency.
In April, new versions of the Conformance Test Suite (CTS) were released for the Desktop and Mobile Architecture for System Hardware (DASH) standard. DASH CTS offers significant speed and performance improvements, and the tool has been expanded to include more extensive testing of optional DASH features.

PMCI Working Group Standards
The Platform Management Components Intercommunication (PMCI) Working Group defines standards to address “inside the box” communication interfaces between the components of the platform management subsystem. Among the notable technical milestones in 2019:

- The PLDM for Redfish Device Enablement Specification (RDE) was released as a Standard. This was preceded by several Work In Progress (WIP) releases to garner input from the industry. This standard enables a management controller to present Redfish-conformant management of I/O devices in a server, without the need for code specific to each device family/vendor/model.
- Fulfilling its obligation to the industry, the SPDM Specification Release 0.99 was made available for public download as a Release Candidate while the final version goes through processing. The final 1.0 is expected to be released before the end of the 2019. While going through the development process, the Security Task Force of PMCI released a number of Work in Progress documents.
- In May, the PMCI Security Task Force published architecture details for its forthcoming security specification, with the goal of aligning component authentication and integrity objects across the industry.
- The PMCI Security Task Force published a WIP architecture presentation for their two new specifications, Security Protocol and Data Model (SPDM) Specification (DSP0274) and SPDM over MCTP Binding Specification (DSP0275).
- In June, the SPDM Specification, as well as the SPDM over MCTP Binding Specification, were released as a WIP. These specifications incorporate the input of the organization’s Alliance Partners to help align component authentication and integrity objects across the industry.
- DMTF detailed the work in progress on its SPDM release 1.1 in a presentation available for download and public comment. Building on SPDM 1.0 standard protocols for device authentication, SPDM 1.1 defines secure session protocols using SIGMA protocol option and pre-shared secret option.
- An updated PMCI Architecture White Paper was released in September. This white paper provides an overview of the PMCI workgroup and its goals, PMCI architecture, and a high level summary of the primary specifications which it creates. The paper also provides an overview on how the specifications relate to each other within the PMCI stack model.
- PMCI Monitoring and Control, IDs and Codes all received refreshed releases. Additionally, we also worked on NC-SI changes needed for areas such as upcoming networking technologies.
Technical work on the Redfish® standard takes place in the Redfish Forum. The Forum has made significant progress this year including:

- Redfish® version 2018.3 added interoperable management of certificates via the Redfish interface, with new schemas for CertificateService (which includes Properties and Actions to manage security certificates), CertificateLocations, and Certificate (with a description of each security certificate).
- Redfish version 2019.1 included 19 schema updates, revisions to the Redfish specification, and additional developer resources.
- Continuing its aggressive development of Redfish, DMTF released updated WIP schemas for public review and comment in version 0.9a of the Redfish Data Center Equipment Model (DCIM).
- Redfish release 2019.2 added support for standardized push-style software updates – delivered in direct response to industry feedback.
- The latest release of the Redfish standard, 2019.3, is now available for public download. The latest release of the standard includes 14 schema updates and features support for configuring SNMP or SMTP-based services and event delivery, which allow users to migrate additional legacy deployment tools and scripts to use Redfish (including the configuration of legacy functionality such as SNMP).
- Be on the lookout for Redfish 2019.4 to be released shortly after the first of the year!

SMBIOS
System Management BIOS (SMBIOS) is one of the most widely used IT standards in the world, simplifying the management of more than two billion client and server systems since its release in 1995.

- In September, Version 3.3 of the System Management BIOS (SMBIOS) Reference Specification was released. Since its first release in 1995, the widely implemented SMBIOS standard has simplified the management of more than two billion client and server systems.

Alliances:
Several official Alliance Partner work registers were established in 2019, and a few were revised to address new areas of interest.

- DMTF and The Open Group extended their long-standing alliance for standards-based IT management. The new effort focuses on utilizing the Redfish standard for out-of-band management in the telemetry process automation space.
- DMTF and the Peripheral Component Interconnect Special Interest Group (PCI-SIG®) formed an alliance to help ensure the two organizations’ standards are coordinated and address management requirements, including security object definitions, schema definition, and JSON/OData interoperability, as well as management of devices using
MCTP over PCIe.

- **HDBaseT Alliance** and DMTF agreed to a new work register. As part of its agreement, the organization plans to reference the security standards, protocols and flows as defined by SPDM specification.

- Our annual **Alliance Partner Technical Symposium** was held in July in Portland. The event was led by DMTF’s Vice President of Alliances, John Leung, and hosted in partnership with longstanding Alliance Partner SNIA. Members of the **Redfish Forum** also gathered for a plugfest around the Redfish standard.

- In October, DMTF and **MIPI Alliance** agreed to collaborate on SPDM standards. MIPI will evaluate and provide feedback on SPDM standards and use cases applicable to devices, which potentially could support MIPI security specifications.

**Education and Forum Events:**

DMTF continued its dedication to industry outreach and education.

- DMTF executives and technology representatives participated in several events on behalf of the Redfish Forum:
  - Open Compute Project Global Summit
  - 2019 Storage Developer Conference
  - LISA19
  - The Linux Foundation Open Source Summit 2019
  - The Linux Foundation European Open Source Summit
  - SuperComputing19 (SC19)
  - The OpenFabrics Alliance (OFA) -- OpenFabrics Interfaces Working Group (OFIWG) meeting

- In March, we published a positioning paper titled, “End-to-End Interoperable Management: The Standards Requirement for Modern IT”. Detailing the organization’s uniquely holistic approach to the development of Redfish®, SMBIOS, and the suite of standards from the PMCI Working Group, this paper describes how these standards provide a powerful combination for interoperability – purpose-built for today’s complex IT environments.

- The organization’s “Redfish School” YouTube series continues to be popular with viewers. In July, we published a new mini-tutorial video about Certificate Management in Redfish. Stay tuned for more videos in 2020!

**International Activity:**

As part of its global outreach and standardization work, DMTF provides resources and information for users and developers worldwide. Our **Regional Chapter in China** and **Regional Task Force in Japan** each offer websites where visitors can access translated DMTF documents and specifications.

- The Japan Regional Task Force participated in the 28th annual **Japan IT Week Spring** in Tokyo. The group also hosted a joint presentation with representatives from SNIA.
- The China Chapter translated and published several key documents. For a complete list of
Lydia Wang of Lenovo was appointed to serve as the new DMTF Vice President of Regional Chapters. This important role facilitates DMTF’s continued commitment to global standardization efforts, providing resources and information for users and developers worldwide.

It has clearly been another banner year for DMTF! As we step into 2020, we thank you for your ongoing commitment to the work of the organization. I hope all of our members and valued volunteers take a moment to feel pride in these achievements – without you, none of it would be possible. Together, we are creating meaningful standards addressing industry needs and solving challenges for the end user. I look forward to our continued collaboration in the coming year. Thank you for your hard work and dedication – here’s to the year ahead!

### In Case You Missed It

#### 2019 Star Award Recipients

Each year, the DMTF Star Awards program recognizes members who have demonstrated great value to the organization through the dedication of their time and efforts to advance DMTF standards and initiatives.

The 2019 Star Awards recipients include Jeff Autor (Hewlett Packard Enterprise), Samer El-Haj-Mahmoud (ARM), Masoud Manoo (Lenovo), Shannon Marsoun (Wold Consulting), John Mayfield (Hewlett Packard Enterprise), Mahesh Natu (Intel Corporation), Scott Phuong (Cisco Systems, Inc.), Michael Raineri (Dell Inc), Nitin Sarangdhär (Intel Corporation), Bill Scherer (Hewlett Packard Enterprise) and many more.

### Upcoming Events

#### OCP 2020

March 4-5
San Jose, CA

Click here for the latest information on DMTF Events.

### Redfish at SC19

Continuing its commitment to industry outreach and education, DMTF participated in SC19, November 17-22, 2019, with a booth representing the Redfish® standard. SC19 is an international conference for high performance computing, networking, storage, and analysis.

Executives and representatives of DMTF’s Redfish Forum were available to speak with attendees about the standard and how
DMTF is proud to acknowledge these members for going above and beyond and contributing to the success of the organization. Our thanks and congratulations to all!

Start Planning Now for DMTF Membership Renewal!

Mark it off the to-do-list! DMTF membership renewals are due early in the New Year, but you can renew today! Click here to join or to renew your membership.

DMTF membership offers front-line access to DMTF standards and interoperability programs, along with the opportunity to participate in the process of defining standards and programs. This important work is funded through membership dues that are among the most cost-effective in the industry. With key technical developments taking place in the DMTF, the organization continues to be the ideal forum for industry-leading companies to come together – in a collegial and established environment – to collaborate on interoperable management standards.

To learn more about the benefits of membership, or to join or renew, please visit the DMTF website at www.dmtf.org/join. Have questions? Get answers from the DMTF membership team at admin@dmtf.org.

Redfish delivers simple and secure management for converged, hybrid IT and the Software Defined Data Center (SDDC). It was a well-attended event; attendance estimates from SC19 are that over 13,900 people attended the week-long conference and expo.

Need a DMTF Logo for your Marketing Materials?
We’ve got you covered! Email press@dmtf.org for the DMTF and/or Redfish logo files as well as the most current Logo Usage Guidelines and Graphic Standards. We’ve recently updated the usage guidelines to include the use of the Redfish logo on a dark background.

New Members

NVIDIA Corporation
Seagate Technology
Multilaser Industrial S/A

Recent DMTF Specifications

- DSP8011_2019.3 (Redfish Standard Registries)
- DSP0268_2019.3 (Redfish Schema Supplement)
- DSP0270_1.2.0 (Redfish Host Interface Specification)
- DSP8010_2019.3 (Redfish Schema)
- DSP0248_1.2.0 (PLDM for Monitoring)
DMTF on YouTube

Check our latest videos and be sure to subscribe to the DMTF YouTube Channel to stay up-to-date with our current and upcoming webinars.

Upcoming DMTF Meetings

12/13/2019 Board Meeting - Teleconference
1/30/2020 Board Meeting - Teleconference
3/6/2020 Board Meeting - Face-to-Face

Newsletter Feedback

We welcome your input on what you’d like to see included here – just Contact Us online and share your suggestions!

Information about the DMTF's leadership technologies and how to participate can be found at www.dmtf.org.
Contact us online or reach us at http://www.dmtf.org/contact.

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About DMTF

The DMTF creates open manageability standards spanning diverse emerging and traditional IT infrastructures including cloud, virtualization, network, servers and storage. Member companies and alliance partners worldwide collaborate on standards to improve the interoperable management of information technologies. The organization is led by a diverse board of directors from Broadcom Inc.; Cisco; Dell Inc.; Hewlett Packard Enterprise; Hitachi, Ltd.; HP Inc.; Intel Corporation; Lenovo; NetApp; Software AG; Vertiv; and VMware, Inc.