

DMTF Architecture Working Group

Dated 2016-01-28

The information provided below is subject to change and reflects the current knowledge of the Working Group.

Management Problem(s) and Environment

The DMTF (Distributed Management Task Force) has a number of working groups dedicated to the individual technical standards and initiatives that compose the DMTF technologies. This working group is dedicated to defining and documenting the architecture and language infrastructure that is the foundation for DMTF management profiles, registries, protocols, and schemas.

Working Group Charter

This DMTF Architecture Work Group is responsible for defining and documenting the architecture and language infrastructure that is the foundation for DMTF management profiles, registries, protocols, and schemas.

The work of this group covers the following major topics:

1. Specification of the Common Information Model (CIM) Infrastructure (meta-model and qualifiers, and the Managed Object Format (MOF) language)
2. Specification of Generic Operations specification which form the basis for protocols defined for the WBEM architecture.
3. Specification of the WBEM based query languages including CIM Query Language (CQL) and Filter Query Language (FQL).
4. Specification of Standard Message infrastructure
5. Specification of a mapping between the CIM meta-model and the Object Management Group (OMG) Unified Modeling Language (UML)
6. Specification of DMTF management profile infrastructure, including artifacts, to enable the authoring and production of machine-readable profiles
7. Specification of Web-based Enterprise Management (WBEM) discovery
8. Specification of management profiles for configuration, monitoring, security, and management of WBEM servers
9. Specification of management profiles for common functions.
10. Specification of standard metadata related to metrics (metric schema) and the semantics of standard metrics (metric registry)

11. Specification of the WBEM based client/server and listener/server protocols consistent with the architecture and generic operations definitions. Originally definition and support for each protocol was a separate subgroup; however, these subgroups have been subsumed into the architecture work group as of January 2016.
 - a. CIM-XML Protocol – The CIM-XML protocol was the initial protocol developed for the WBEM infrastructure and is widely used. The primary work of this activity is the continued maintenance and possible extension of the specifications for this protocol
 - b. WS-Man Protocol – The primary work for this activity is any required maintenance of the existing specifications.
 - c. CIM-Rs Protocol - A number of companies and organizations desire to use RESTful web services for systems management. In this environment, interoperability with implementations that utilize DMTF CIM technologies requires that the interfaces of these implementations be exposed as RESTful services in a consistent and standardized manner. The primary goal of this activity is to deliver standard specifications defining RESTful protocols for requests and replies between CIM servers, CIM clients, and CIM listeners

The DMTF Architecture Working Group defines and documents the issues and proposed solutions involving the overall management architecture and the future directions of the DMTF technologies. This includes:

1. Development of a strategy for migration to future versions of CIM (ex. CIM v3) from CIM v2.
2. Providing recommendations regarding the evolution of the CIM meta-model and supporting technology extensions.
3. Review and approval of new DMTF architectures and technology submissions.
4. Development and documentation of best design and use practices for CIM Schemas (defined by DMTF or elsewhere) and extensions.
5. Developing models (schema and profiles) for metrics and statistical data.
6. Development and support of protocols that are part of the WBEM architecture.

Reliance/Coordination with other DMTF Groups

The DMTF Architecture Working Group coordinates with all of the other DMTF subcommittees and working groups.

DMTF Contacts

The Architecture Working Group Chairs can be contacted at:
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To join the DMTF and/or the WG, see <http://www.dmtf.org/join/>
and <http://www.dmtf.org/apps/org/workgroup/technical/dmtf-arch/join.php>