

TM Forum / DMTF Work Register Addendum

Version 1.3

Date Initiated: March 31, 2010

Cloud Computing Environment Management Standards Development and Adoption

Alliance Organizations

[Distributed Management Task Force](#) (DMTF) and [TM Forum](#)

TM Forum Work Area Associated with Liaison

Cloud Services Initiative, Service Delivery Framework (SDF), Information Framework (SID), SLA Management, Integration Framework and the work of Enterprise Cloud Byers Council (ECBC) would be the relevant areas of the TM Forum activity associated with the alliance with the Cloud Services Initiative work being a focal point.

Distributed Management Task Force Work Area Associated with Liaison

The work the Cloud Standards Incubator performs on development of the Cloud reference architecture, use cases including service catalog interactions, as well as Virtualization resource models and Open Virtualization Format (OVF), storage requirements for virtual servers and OVF images, security requirements for virtual servers/images, network requirements and specifications as applicable to virtualized environment as well as computing platforms, storage and network resource metrics

Business Justification for Liaison

This joint effort between DMTF and TM Forum aims to coordinate the work around development and adoption of the standards for the cloud computing environment to prevent the divergence of information models, management interfaces, protocols and metrics used for the cloud computing management.

Industry divergence in the management area drives development, integration and operational costs up. For this reason, equipment vendors, service providers and enterprises will benefit from this work.

Customers and vendors of both organizations benefit from this effort by having consistent information models, management interfaces, protocols and metrics used for the cloud

computing management from technology through business perspectives. Combined work will provide a stronger basis for application interoperability and co-existence and will allow to lower development, integration and operational costs.

Scope of Liaison Activity

This addendum to the existing Work Register between DMTF and TM Forum aims to coordinate the effort between DMTF and TM Forum around development and adoption of the standards for the cloud computing environment.

The following ongoing work and associated artifacts such as whitepapers, specifications, and technical reports will be contributed to the alliance by participating members:

Provided and supported by DMTF:

- Cloud reference architecture
 - Use cases including service catalog interactions
- Virtualization resource models and OVF
 - Networking requirements specifications
 - Virtual Network use cases for OVF extension
- Storage (via SNIA alliance) requirements for virtual servers and OVF images
- Security (via CSA alliance) requirements for virtual servers/images
- Computing platforms and storage resource metrics

Provided and supported by TM Forum:

- Service Delivery Framework (reference model and use cases)
- Integration Contracts/Business Services and other frameworks:
 - Business Process Framework (eTOM) harmonized with ITIL
 - Information Framework (SID)
- Customer experience and e-2-e application performance (SLA/SLO and metrics)
- Network performance metrics/KPIs
- Transport network models
 - Ethernet Service Management
- Service Catalog interactions from Cloud Catalyst experience
- Reference Architecture for hybrid / stateless cloud environment from ECBC

Results of ongoing collaboration work:

- Model harmonization methodology developed as a result of the past SID/CIM harmonization work
- Harmonization between SID and CMDBf in the context of eTOM and ITIL applications

It is expected that the following items will be developed as a result of the liaison:

- Bridge between metrics (e.g. SLAs from TMF to SLOs for IT resources) to allow proper resource allocation and Service Quality/Customer Experience assurance (e.g. monitoring and reporting on the SLAs based on resource utilization)
- Cloud-centric specialization for metrics and contracts (if and where needed) – ensure lifecycle of cloud service from subscription to fulfillment and assurance
- Network virtualization – the “location-aware” cloud services – ability to represent a cloud service and have its networking requirements specified and provisioned
- Converged/harmonized security model specialized for the Cloud
- Info/data model harmonization – continuation of the effort

Cloud Standards Incubator and OVF workgroup would be two DMTF parties to the alliance with the Telco WG managing the DMTF-TMF relationship. Cloud Services Initiative, SDF Team, Information Framework (SID) Team, SLA Management and Integration Framework Teams would represent TM Forum in the alliance with the Cloud Services Initiative being a primary coordination point for the TM Forum.

Activity Tracking

The specific recommendations will be tracked between the TM Forum and the DMTF as an action item list. The action item list will contain the recommendation, recommendation date, TM Forum contact/working group, DMTF contact/working group, status (open/closed/in progress), TM Forum tracking number or DMTF Change Request Number (or both), and the corresponding specifications versions where the recommendation will appear. If there are questions, the DMTF or TM Forum contact may need to participate in a conference call with the "other" team.

Risks Associated with Liaison or Non-Activity

Without this work there is a very high potential of the divergence in the development of the information models, management interfaces, protocols and metrics used for the cloud computing management.

Milestones, Dates to be Achieved and Review Points

The collaboration work needs to be accompanied by proper tracking of identified work items with associated actions, change control requests and responses to the co-operating party.

The work will start with bi-directional exchange of information provided by both parties. Below is the list of documents/specifications that will be provided.

By DMTF:

- Cloud incubator whitepaper
- Cloud use cases (will be available in April 2010)
- Cloud architecture document (will be available in May 2010)

By TM Forum:

- TR139 – Service Delivery Framework Overview
- TMF519 – Service Delivery Framework Business Agreement

- GB942 – Business Services: Concepts and Principles
- Business Services ECORE-based metamodel (this is machine-readable artifact, should be fully documented by now)
- The latest version of SLA Guidebook
- The latest versions of eTOM and SID Guidebooks

The work will begin with the discussion of the relevant Use Cases, including Service Catalog interactions - contributed by DMTF Cloud Incubator, establishing their linkage to TM Forum Business Process model and Cloud reference architecture and how it is related to the TM Forum SDF reference architecture.

The next phase of work should be built around Service Catalogs and Business Services/Integration Contracts specification. This phase will include discussion, harmonization and development around SLA and Service Quality/Customer Experience metrics framework.

Also, harmonization between DMTF Virtualization resource model and TM Forum SID would be needed to support abovementioned work. This would be the continuation of SID/CIM Harmonization work that was performed by two alliance partners earlier.

Finally, recognizing the importance of location awareness of the virtualized resources for the adequate customer experience of the service quality, content rights management and effectiveness of the control plane the concept of the “context-aware” cloud services needs to be introduced and developed by the liaison, at least covering the transport services distribution aspects.

The work under this liaison will go through several phases. Each phase will determine the scope, plan, duration and deliverables for the successor phase of the joint work under this liaison.

The following is proposed to be generated as the deliverables of the first, initial phase (suggested duration – 3 to 6 month):

- The Technical Report with the area-by-area overview of the relevant ongoing work and the detailed plan on how to coordinate the standards development for the given domains
- Catalyst project(s) for the areas where it makes more sense (e.g. security)

Target completion date of the first phase is set to be July 31st 2010, however the quarterly review of the deliverables will be held in the interim.

Work Register Review Date

The review date of this work register is July 31st 2010 following the completion of the first phase. The work register will be updated upon closure to refocus the milestones and

deliverables as needed to include on-going dialogue on cloud management and future coordination proposals.

Resources Identified / Points of Contact:

Within TM Forum:

James Warner (Cloud Services Initiative, jwarner@tmforum.org)
Martin Creaner (Board, mcreaner@tmforum.org)
Ken Dilbeck (IGAC and Technical Leadership, kdilbeck@tmforum.org)
John Wilmes (SID, jwilmes@progress.com)
Nigel Davis (TIP, nigeld@nortel.com)
Jenny Huang (SDF, jh2873@att.com)
John Timms (SLAM/SQM, john.timms@telchemy.com)
Stephen Fleece (VCI, sfleece@tmforum.org)

Within DMTF:

Alex Zhdankin (Telco, alex.zhdankin@hstx.com)
David Judkovics (Telco, djudkovi@us.ibm.com)
Jeff Wheeler (Telco, jewheele@cisco.com)
Mike Baskey (Board, mbaskey@us.ibm.com)
Jeff Hilland (Technical Committee, technical-chair@dmtof.org)
Mark Carlson (Alliance, Mark.Carlson@sun.com)
Winston Bumpus (President, wbumpus@vmware.com)
Krishna Sankar (Cloud Incubator, ksankar@cisco.com)
Mark Johnson (Cloud Incubator, mwj@us.ibm.com)

Approved by the DMTF Board of Directors; Board Resolution **2010-03-20**