



Object Management Group Meeting (Boston, Mass., USA – June 2018)

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This report contains notes from sessions the author personally led or attended during the OMG® Technical Meeting held in Boston on June 18-22, 2018, including the closing plenary reports.

A comprehensive list of all the committees, task forces and working groups of the OMG can be found at www.omg.org/homepages/. A list of all the work in progress, with links to the corresponding materials (RFPs, etc.) is at <http://www.omg.org/schedule/>. A list of OMG acronyms and abbreviations is included as an Appendix.

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1. Business Modeling & Integration Domain Task Force (BMI DTF)



Fred Cummins (Agile Enterprise Design) and **Claude Baudoin** (cébé IT & Knowledge Management) co-chaired the meeting, which was attended at least in part by a total of 19 different people, the highest attendance in a long time.

1.1. Data Governance



John Butler (Auxilium Technology Group) presented his ideas about writing a Data Provenance and Pedigree RFP. John and Claude Baudoin explained the plan to merge the work on data residency, data provenance and pedigree, data tagging and labeling, and IEF into a single new Data Governance Working Group (see Section 3).

David Lounsbury (Open Group) said that the Open Group's Open Data Format (O-DF) and the FACE (Future Airborne Capability Environment) consortium's model could be relevant to the OMG's data governance convergence effort.

Robert Lario said he was glad that we were forming the DGWG, and that we need to create a context diagram of the major concepts of residency, provenance, pedigree, data tagging and labeling, privacy, data protection, etc.

1.2. Risk Management



We resumed the on-and-off discussion from previous meetings on the need for a standard on risk management. **David Lounsbury** asked the group whether we had considered his organization's Open FAIR™ as a potential solution (or starting point). "FAIR" stands for "Factor Analysis of Information Risk." David offered to give a presentation on Open FAIR at the September meeting.

Open FAIR consists of several things:

- A "body of knowledge," which itself consists of two standards:
 - a risk taxonomy standard, O-RT
 - a risk analysis standard, O-RA
- A certification program.

1.3. Collaboration with ISO TC 309

We held a teleconference with representatives of ISO TC 309, the Technical Committee on Governance of Organizations:

- Mike Henigan (TC Secretary, from the British Standards Institute, based in London),
- Peadar McDuffy (SOLUXR, based in Dublin, who initiated the collaboration),
- Vicky Hailey (management consultant based in Toronto, also involved in the IEEE Society on Social Implications of Technology).

Mike and Peadar provided an overview of the work of TC 309, which includes such aspects of governance as anti-bribery and whistleblower protection. Because “governance is all about decision-making,” the committee expressed an interest in OMG’s DMN standard. “OMG standards are a solid base we can use.” During a previous interaction, Claude Baudoin and Denis Gagné had given TC 309 members some input about the relevance of *other* OMG standards including BMM, BPMN, CMMN, VDML and SBVR.

TC 309 is also interested in AI-based management and decision making. This is interesting because OMG is just now starting to think about what AI-related standards would make sense.

Some participants asked whether TC 309 had a formal definition of governance – the answer was that they do not. Pamela Wise-Martinez (PBGC) asked whether *data* governance was in the scope of the TC. In other words, can one talk about the governance of organizations without also talking about how they govern their information?

Denis Gagné remarked that “you seem to be looking for ‘second-order’ processes: processes that are used to define processes.”

As a result of the initial request from TC 309, and our mutual interest, a liaison application was drafted. Claude Baudoin presented it to the OMG Liaison Subcommittee during the same week. The SC approved it with a minor change.

1.4. Business Architecture Core Metamodel (BACM) Initial Submissions

There are three submissions in progress in response to the BACM RFP. The initial submissions, due at this meeting, were presented. The presentation order was determined by lottery, and strict time equality was observed. While the author of these notes had some personal reactions to the various submissions, those are omitted here to preserve his neutrality as a non-submitting co-Chairs.

1.4.1. Submission 1: “BM-BOM”

Antoine Lonjon (MEGA) presented a joint submission from Model-Driven Solutions and MEGA International, supported by five other organizations. Some key aspects are:



- reuse of a *subset* of UML concepts;
- an extension of the UML class notation;
- use of colors to distinguish classes, classes of classes, etc. – note that the use of colors can be controversial in terms of making the notation unusable by color-blind people (an issue that was encountered and resolved by the ESSENCE submitters a few years ago);
- a “concept grid”;
- a distinction between the “business model” and the “business operating model” (hence the title “BM-BOM”).

There were questions and feedback from several participants including David Lounsbury, Bill Ulrich (TSG Inc.), and Bob Martin (MITRE), who asked about assurance cases.

1.4.2. Submission 2

Bill Ulrich (TSG Inc.) presented a joint submission from Benchmark Consulting, the Business Architecture Guild, Capsifi, Holocentric, and TSG Inc., supported by ten other organizations. The submission:



- distinguishes between normative and non-normative packages;
- follows a high-level perspective, contained in the BA Guild's BizBOK™, which is used to show the connection between concepts, but which is not part of the submission itself;
- is centered on business capabilities, and remains “within two semantic jumps” from this core concept;
- contains three main packages (summary package, capability package, business object package) and provides “alignment packages” with TOGAF, BMM, and VDML, but currently not with UAF.

The relationships between the “business object” and the “business role object” was deemed unclear by some in the audience.

1.4.3. Submission 3: BAVE

Fred Cummins (Agile Enterprise Design) and **Henk de Man** (VDMbee) presented their joint submission entitled Business Architecture VDML Extension (BAVE).



The core proposition is that VDML already contains most of the concepts needed by business architects, and can become a response to the BACM requirements through some extensions. A number of remarks were made in response to the exposition:

- the highlights of VDML integration raised some questions about the relationships in the model;
- a method is not a subtype of collaboration;
- there is a concept called “CapabilityOffer” but not “Capability” itself, and Jim Rhyne (Thematrix) said that the connection between CapabilityOffer and Activity needed to be clearer;
- Jim Rhyne also asked what concepts in BAVE align with those contained in BMM.

Henk de Man ended his part of the presentation with an update on the work of his company to implement VDML.

1.4.4. RFP Calendar

Fred Cummins noted that a revised submission date had not been set, and moved to set it for 12 November 2018 (four-week rule for the December meeting). Bill Ulrich seconded. Jim Rhyne proposed to delay this to the March meeting. As this change was not accepted as a “friendly amendment” by Fred, it was formalized as a motion-to-amend. After reviewing the voting list, voting proceeded on the amendment, which was rejected by a vote of 2-12-1. With no further discussion, the original motion was put to a vote, and passed by white ballot proposed by John Butler.

1.5. BPMN, CMMN and DMN

1.5.1. Context and Initial Discussion

Previous meetings had broached the topic of whether BPMN might need to be revised in order to establish an interface to CMMN and DMN. This time, the discussion started on Monday morning with Henk de Man (VDMbee) saying that users would “be scared” by a big merged BPMN specification. Denis Gagné (Trisotech) said, as he had at the March meeting, that BPMN vendors have “no interest” in a new version, both because of the work needed to upgrade their tools, and because users might shy away from a tool that would not claim conformance to the revised specification.

1.5.2. Healthcare Workflow Modeling



During the Thursday session (second day of BMI DTF meetings), **Stephen White** (BPM Advantage Consulting) presented on the work done in the Healthcare DTF and facilitated by Denis Gagné and Robert Lario.

There have been a series of workshops, since the December 2016 meeting, to socialize the value of defining healthcare workflows using a combination of OMG standards, usually with an emphasis on the complementary role of process management, case management, and decision models. See www.omg.org/hot-topics/healthcare-and-bpmn.htm. A field test was performed, in which BPMN, CMMN and DMN models were built, using the tools from Trisotech that extend the notations to interconnect the models. This has resulted in a “healthcare process modeling field guide.”

Frederick Hirsch (Fujitsu) asked whether the models include safety and privacy considerations. The answer is no, this is just about the workflows.

This is a significant effort that should be marketed to a broader community of people, such as the authors of “Process Modeling and Management for Healthcare” (Carlos Combi *et al.*). These authors only used BPMN, therefore there could be a useful exchange between them and Stephen, Denis and Robert.

By the guide authors’ own admission, “the connection between BPMN and DMN is a little confusing.”

1.5.3. BPMN Specification Evolution

An interesting outcome of the healthcare modeling effort described above was to invent a “behavioral scope” diagram – a high-level view of the integrated model that shows the overall connection between cases, processes, and decision services. Stephen White said that there should be a BMI DTF RFP to “harmonize” at least BPMN and CMMN, in particular by standardizing the connections between cases and processes. This triggered an active discussion, in which we classified the main options:

- A “BPMN 3” that would be a grand unification of BPMN, CMMN and DMN, adding cases and decisions to BPMN.
- Separate “tweaks” to BPMN, CMMN and DMN so that each standard would include a way to describe a connection to the other two.

- Leave the existing standards alone, but standardize the scope diagram and library of elements that Stephen, Denis and Robert introduced in their healthcare workflow model.

Denis repeated his assertion that vendors of existing BPMN tools would resist the “BPMN 3” approach. JD Baker (Sparx Systems) said that this is much needed work and he is interested in pursuing it.

1.6. Requirements

We revisited the scope of a potential RFP for a requirements standard – a discussion started in previous meetings. Jason Smith (TSRI) said that Manfred Koethe had told him that Conrad Bock was defining a very generalized requirements package for SysML v2, and that it was not specific to systems engineering. Upon follow-up, it turned out that Conrad is not involved. However, we still need to understand how requirements will be specified in SysML and take this into account in any potential BMI DTF work on this topic.

Bob Martin (MITRE) addressed the relevance of OMG’s Structured Assurance Case Metamodel (SACM) to requirements. He said that the range of assurance cases permitted in SACM could handle generic “squishy” requirements, but “we’ve also allowed very concrete and rigorous requirements and claims.” There are often two classes of requirements, functional and non-functional, the latter kind being often overlooked. An assurance case can capture assumptions, preconditions or external operational requirements. There's a terminology package in SACM that would allow a user to rename a claim to "requirement" if that worked in a certain domain. That’s how you one might apply SACM to a “Business Assurance Case.”

The Open Group has a standard, “Dependability through Assuredness” (O-DA), which captures requirements and evidence of certain qualities in SACM as users go through iterations of a design.

To Bob, "constraints" are a kind of requirement -- they're just imposed by some external reality and are inviolable. This was a response to a comment made by Antoine Lonjon (MEGA) at the previous meeting, discussing the remote presentation from Dr. Richard Bender.

Henk de Man (VDMbee) said that there are many requirements on things that are not in the BMI Task Force’s scope. Bob Martin countered that business works by selling products or services, so business and technical requirements are all connected.

In summary, the BMI DTF has to decide:

- whether an assurance case (in the SACM sense) meets our goal in defining requirements (in which case we don't have to do anything);
- whether we need to have an activity to define what a “business assurance case” or “business contract” is;
- whether we should ask BACM submitters to include business assurance cases in their proposed metamodels (this can only be an informal request, since the RFP did not specify that this was a requirement of the submissions or would be an evaluation criterion).

2. Liaison Subcommittee Meeting

The Liaison Subcommittee met early on Tuesday, chaired by Richard Beatch (Bloomberg). Sumeet Malhotra, the other co-chair, was excused. The main topics were:

Transition from Len Levine. Richard and Sumeet are exploiting an archive of e-mails provided by previous chair Len Levine in order to make sure that all liaison efforts are correlated with the relevant OMG Task Forces.

ISO TC 184/SC 4, Industrial Data. Uwe Kaufman (ModelAlchemy) said that the official OMG representative on record with ISO is someone who left a couple years ago. That person needs to be replaced, but Uwe does not have funding to attend ISO meetings.

ISO TC 309, Governance of Organizations. Claude Baudoin explained the origin of the liaison request (see Section 1.3). Richard Beatch mentioned that the ISO liaison request form submitted by Claude needed a sentence or two removed, but was otherwise fine and would be forwarded to Larry Johnson for action.

The Open Group. David Lounsbury talked about the relevance of establishing a liaison with the Open Group.

3. Data Governance

3.1. Data Governance Working Group Formation

John Butler (Auxilium Technology Group), **Robert Lario** (Visumpoint), **Claude Baudoin** (cébé IT & Knowledge Management), **Mike Abramson** (ASMG) and **Char Wales** (MITRE) discussed the idea, raised at earlier meetings, to coalesce the following initiatives into a single new *Data Governance Working Group*:

- the Information Exchange Facility (IEF) Working Group
- the Data Residency Working Group
- the Data Provenance & Pedigree Working Group
- the effort to create an RFP on Data Tagging and Labeling in the C4I Task Force

The people present explored other potential names for the new working group, doing some online research. This did not result in a better name, but it surfaced the need to consider the work of DAMA International (the Data Management Association) and in particular its DMBOK (Data Management Book of Knowledge).

Action items were taken to:

- draft a mission statement (contained in the wiki page)
- create a new mailing list (datagovernance@omg.org)
- create a wiki page (<https://www.omgwiki.org/datagovernance/>)

The Provenance & Pedigree RFP currently being drafted may eventually be issued by MARS or by ADTF.

3.2. Data Residency Discussion

The last action of the Data Residency Working Group as a separate entity was to present the Data Residency Maturity Model (DRMM) to a small meeting of the Finance DTF. This led to a constructive discussion. Nick Stavros (Jackrabbit Consulting) made two suggestions:

- write a short paper to socialize the DRMM,
- apply to the DRMM to OMG itself (assuming that OMG has information that is sensitive to its location, which is not clear since it is a not-for-profit entity with an open process).

4. Finance DTF – Distributed Ledger Technology Discussion

One of the items on the Finance DTF agenda was a discussion of DLT technology (including but not limited to blockchain).

Claude Baudoin and Bobbin Teegarden (No Magic) had an exchange about the use of blockchain in Oil & Gas. Claude had chaired a conference on this topic in Calgary in February, and was aware of specific case studies as a result. Bobbin said she also had examples and wanted to exchange them.

Nick Stavros presented his discussion paper on a Reference Architecture for Distributed Immutable Data Objects (DIDO). There was some nitpicking about (a) the definition of the reference architecture in this paper, (b) what types of distributed technologies should be named in the paper, since blockchain is not the only DLT in existence.

In particular, we discussed tangles (explained pretty clearly at <https://blog.iota.org>) and the standardization efforts of the IOTA Foundation, which offers three things:

- IOTA Platform: this is being handed over to the ECLIPSE Foundation.
- IOTA Protocol: this is being pass on to ETSI (European Telecommunications Standards Institute)
- IOTA Tangle: this could be made into an OMG standard through an RFC.

Qubic is another project of the IOTA Foundation. “Qubic is a protocol that specifies IOTA's solution for oracle machines, smart contracts, outsourced computations, and more” (<https://qubic.iota.org>).

5. Plenary Reports and Technical Committee Sessions

Friday morning, as always, was devoted to plenary sessions during which all OMG subgroups briefly reported on their work, and the Platform and Domain Technology Committees made decisions on technology adoptions. While many attendees leave after the work of their Task Forces and SIGs ends on Wednesday or Thursday, the plenary reports offer a comprehensive view of OMG activities.

The points listed in the subsections that follow were singled out as worthy of mention, but are not an exhaustive list of the work the group chairs reported.

This section will frequently refer to the three forms of requests issued by OMG Technical Committees:

- A **Request for Proposal (RFP)** is a formal call for the submission of specifications; it opens up a time window for organizations at the appropriate level of membership to submit proposals.

- A **Request for Comments (RFC)** is a fast-track process whereby someone submits a specification that is expected to receive broad consensus. A comment period opens to allow people to voice any objections or submit changes. If there are no serious objections, the proposal is adopted. If there are, then the process may revert to a competitive RFP.
- A **Request for Information (RFI)** is a less formal process to obtain feedback from the community, and organizations can respond regardless of OMG membership level. An RFI is often used to generate enough information about the “state of the practice” to allow the writing of an RFP.

5.1. Architecture Board Subgroup Reports

The Business Architecture SIG (BASIG) and the Model Interchange Working Group (MIWG) did not meet this time.

Specification Management Subcommittee (SMSC)	<p>Larry Johnson reported on behalf of Jishnu Mukerji.</p> <p>Five formal publications were made since the last meeting: PSCS 1.1, IDL 4.2, CPP11 (C++11 Language Mapping) 1.3, Archetype Modeling Language (AML) 1.0, and SACM 2.0.</p> <p>Four specifications are going to be published within a few days: SMM 1.2, RoIS 1.2, SysPHS 1.0, and DDS Security 1.1.</p> <p>There were 6 specifications in the edit queue already, and 3 were added at this meeting: Essence 1.2, VDML 1.1, and XTCE 1.2. No specifications are “missing in action.”</p> <p>Linda Heaton is “trying to retire” and her daughter is taking over her role as specification editor.</p> <p>The SMSC is recommending to the Architecture Board to accept specifications in Microsoft Word format, as an alternative to LibreOffice (which doesn't handle redlining well) and FrameMaker (which is expensive and old).</p>
Liaison Subcommittee	<p>Richard Beatch (Bloomberg) reported and reminded the audience that while the LSC is mostly attended by OMG staff, others are welcome to attend.</p> <p>As usual, most activities were related to ISO:</p> <ul style="list-style-type: none"> • IDL 4.2 may be submitted as a “publicly available specification” (PAS) • Representation to TC 184 SC4 (industrial data) needs to be updated • Liaison with TC 309 was discussed (see Section 1.3 of this report) • Richard Beatch and Elisa Kendall were named representatives to TC 68 and two of its subcommittees (financial services). <p>In addition, there was a discussion about the Open Group liaison (see Section 2) and one about the liaison process. There is a need to catalog all the connections that exist.</p>

5.2. Platform Technical Committee Plenary Meeting

Larry Johnson verified that the quorum was met. The minutes of the previous meeting were approved by white ballot. The PTC then proceeded with the presentation of subgroup reports.

Agent PSIG	Bobbin Teegarden (No Magic) said that the SIG usually meets by teleconference between OMG TC meetings. The PSIG supported the submitters' presentation of the AgEnt initial submission (a combined response to both the AMP and EMP RFPs to the ADTF. The revised submission date was set to December 2018.
Architecture-Driven Modernization (ADM) Task Force	<p>Jason Smith (TSRI) said that the TF continued to discuss ideas for its 15-year roadmap, including:</p> <ul style="list-style-type: none">• Mapping KDM to business architecture• Using an abstraction of the machine architecture to enhance reverse engineering. <p>Work on an RFC for additional software metrics is being done in conjunction with CISQ (Bill Curtis).</p>
Analysis and Design Task Force (ADTF)	<p>Elisa Kendall (Thematrix) reported on behalf of Jim Logan.</p> <ul style="list-style-type: none">• Manas Bajaj presented the "SysML v2 API and Services" RFP, which had been separated from the main SysML v2 RFP at the previous meeting, and the Task Force voted to issue it.• Cory Casanave presented an "updated SMIF specification with semantic grounding," which will use a language called Flora 2 (see http://flora.sourceforge.net).• The UML Profile for ROSETTA (UPR) RFC, which was transferred from MARS to ADTF, was recommended for adoption.• Jim Logan presented on a UML Profile for Concept Modeling. <p>Various submission deadlines were postponed as a result of these reviews. ADTF still has as many as 6 submissions to process in the next few meetings.</p>
Methods and Tools SIG	No one was present to report on the meeting.
Data Distribution Service (DDS™) SIG	<p>Char Wales (MITRE) reported on behalf of the co-chairs. Erik Hendriks (ADLink) was elected co-chair to replace Angelo Corsaro. Gerardo Pardo (RTI) remains the other co-chair. The two main issues handled at the meeting were:</p> <ul style="list-style-type: none">• Improving the presentation of DDS (portal, slide sets)• Better tracking and rationalizing the work of the various RTFs. <p>A DDS Time-Sensitive Networking (TSN) RFP may be issued in September, based on work coming from IEEE.</p> <p>The two submissions for a DDS PSM for TCP/IP (one from PT and ADLINK, the other from RFI and Twin Oaks Computing) are being merged. In order to give the submitters enough time to prepare their joint revised submission, the deadline was extended to the December meeting (Seattle).</p>

Ontology Platform SIG	<p>Elisa Kendall (Thematrix) reported on behalf of SIG chair Evan Wallace and said that the PSIG had “a fantastic meeting.”</p> <p>The SIG reviewed its work in progress (API4KP, MOF2RDF, etc.). Tony Mallia (Edmond Scientific Company) presented on the Semantic MediaWiki platform, which uses RDF under the covers to create a wiki with dynamic content – hence an “executable ontology.” This may lead to an RFC. Arthur Keen (Cambridge Semantics) and Evren Sirin (Stardog Union) gave matching presentations:</p> <ul style="list-style-type: none"> • Anzo allows integration of structured and unstructured data to put it in a knowledge base or to query it in place for analytics. • Stardog is a triple store with OWL reasoning under the covers to federate several knowledge bases. <p>Both Cambridge Semantics and Stardog Union recognize limitations in the W3C standards and want to put together an RFP to fill those gaps, which would make OMG more relevant to the semantic space.</p> <p>There are several new possible RFIs/RFPs to be addressed at the next meeting.</p>
Middleware and Related Services (MARS) Task Force	<p>Char Wales (MITRE) reported on the extensive (as usual) meeting. A large number of items were on the agenda, including some already mentioned in the above notes about the DDS PSIG and the Data Governance WG.</p> <ul style="list-style-type: none"> • A new co-chair, Peter Denno (NIST) was elected. • Jeff Smith presented the RFI on Secure Network Communications (SNC, formerly SBC/SDR), and an extensive response by NASA on their Space Telecommunications Radio System (STRS) was reviewed. The deadline was extended to September, at which point issuance of an RFP or RFC will be considered. • The discussion paper on Distributed Immutable Data Objects (DIDO) was reviewed with the Finance DTF. • IDL 4.2 is being “recast” to be submitted to ISO using the Publicly Available Specification (PAS) process, and the next steps will be managed by the Liaison Subcommittee of the AB. <p>IDL 4-to-Java mapping initial submissions are due before the September meeting.</p> <p>DDS-to-JSON mapping initial submissions are due before the December meeting. This works has a connection with the IIC’s Reference Architecture.</p> <p>The work on the UML Profile for ROSETTA has been moved to the ADTF.</p> <p>Tracie Berardi presented on the migration from the Cloud Standards Customer Council (CSCC) to the new Cloud Working Group (CWG). MARS decided that the CSCC white papers will only be given an OMG cover page upon revision.</p>
System Assurance (SysA) Platform Task Force	<p>Char Wales reported on behalf of Ben Calloni.</p> <ul style="list-style-type: none"> • SysA participated in the Monday meet-and-greet on cybersecurity. • There were status updates on the Operational Threat and Risk (OTR) Metamodel RFP and on the SACM 2.1 RTF • As reported in Section 1.6, there was a joint discussion with BMI DTF on the relevance of SACM to business requirements.

Following the subgroup reports, various motions were made and approved to charter, extend, and update the membership or leadership of various RTFs, FTFs and voting lists.

The SysML v2 API & Services RFP (second part of the SysML v2 effort) was issued by white ballot. So were RTF reports on UML Testing Profile (UTP) v2, fUML 1.4, and Unified Component Model (UCM) 1.1.

Initial votes were taken on two platform technology adoptions: the RFC on the UML Profile for ROSETTA (second reading) and the FTF report on a DDS Consolidated XML syntax. Those votes will be completed by e-mail.

Diane Ebrahimian (OMG Marketing Manager) said that she wants to create an Academic Working Group to support outreach to universities. Several people volunteered to be part of the group.

5.3. Domain Technical Committee Subgroup Reports

Larry Johnson verified that the quorum was met. The minutes of the previous meeting were approved by white ballot. The DTC then proceeded with the presentation of subgroup reports.

Workplace Benefits DTF	<p>This is a recently formed new Task Force. Edie Bice (Unum) reported that the first action of the DTF was to prepare an RFP for a data model to facilitate the electronic data interchange (EDI) between providers of benefits (everything except major medical insurance) and the platform vendors whose systems are used to offer and manage those benefits.</p> <p>The Task Force participated in the LIMRA (Life Insurance Management Research Association) EDI Council meeting.</p> <p>Alan Ingley (Mass Mutual) and Laura Timmer (Sun Life) were elected co-chairs at this meeting.</p> <p>The WB DTF will not meet in September in Ottawa but will continue in December.</p>
Business Modeling & Integration DTF	<p>Claude Baudoin (cébé IT & Knowledge Management) reported on this meeting. See details in Section 1 of this report.</p>
Command, Control, Communication, Computers and Intelligence (C4I) DTF	<p>Char Wales reported.</p> <p>The people working on Future Airborne Capability Environment (FACE™) community has realized that they need to express their models using UML and/or UAF. As a result, there will be an RFP in the near future.</p> <p>At the next meeting, there will be presentation of responses to the DDS Status Monitoring RFP.</p> <p>The Task Force recommended adoption of the TACSIT Data Exchange joint revised submission, and issuance of a new RFP for OARIS Additional Sensors.</p>
Government Information Sharing DTF	<p>No one was present to report.</p>

Finance DTF

Mike Bennett (EDM Council) reported that the Task Force is recommending the issuance of an IOTA Tangle RFC.

EDM Council is proposing a FIBO v2 RFC.

In lieu of formal liaisons, discussions are continuing with ISO TC 68 (Financial Services), ACTUS Algorithmic Contract Types Unified Standards), XBRL (eXtensible Business Reporting Language), and BIAN (Banking Industry Architecture Network).

Healthcare DTF

Robert Lario (Veterans Administration) reported on the meeting, which included a half-day public summit on “Realizing Effective End-to-End Quality Management Within the Health Domain.” The agenda covered:

- medical device interoperability and the technology platform stack
- modeling, modernizing and integrating healthcare IT systems
- software assurance, security and safety of connected devices
- systems engineering for healthcare solutions

Of particular interest was a presentation by Dr. Stanley Huff on the impact of avoidable process errors in healthcare.

The Task Force’s work in progress includes:

- MDMI (Model Driven Model Interoperability) 2.0: initial submissions due in September, revised submissions in December.
- Coordination of Care Services: initial submissions in December.
- Shareable Pathways v2
- Community of Practice Discussion

At the next meeting, the Task Force will start a discussion of a Healthcare Framework Architecture, as well as the HL7 Fast Healthcare Interoperability Resources (FHIR) standard.

Manufacturing Technology and Industrial Systems (ManTIS)

Uwe Kaufmann (ModelAlchemy) mentioned that his previous co-chair, Michael Pfenning, now works for Siemens and cannot participate for the time being. He appealed for candidates to join him as co-chair.

At this meeting:

- Uwe gave, as he often does, an update on the activities of GfSE, the German branch of INCOSE, and on PLM-for-MBSE
- Christian Muggeo (Contact Software) talked about PLM-MBSE-IoT integration
- Pawel Chadzynski (ARAS) talked about the ARAS Systems Architecture
- Manas Bajaj (InterCAX) presented on the Syndeia platform for MBE/MBSE
- Representatives from Boeing discussed a possible RFP (or perhaps an RFI first) for a “product knowledge framework”
- Dirk Slama, from Bosch SI, presented on the IIC Track & Trace testbed, and more specifically on “deriving standards from testbed results.” This should feed into a proposed RFP for a “Track & Trace Logistics API.”

The next meeting should also discuss model interchange “with and beyond XMI.”

Mathematical Formalism SIG	Charles Dickerson (Loughborough University) said that there was no formal meeting this week, and that the SIG’s deliverables were covered by Char Wales’ discussion of the UML Profile for ROSETTA (UPR) in the MARS report.
Retail Domain Task Force (RDTF)	Bart McGlothlin (Cisco) said that the Task Force had an excellent meeting, with a new attendee from GS1 (the consortium that developed the UPC barcode standard) and a good presentation by Dennis Gerson (IBM) on blockchain. There were working sessions on an RFP for a UPOS v2 Fiscal API Service, and one on a retail ontology (Documents, Invoices and Receipts; Goods, Services and Rights; Products, Items and Merchandise).
Robotics DTF	Kenichi Nakamura (JASA) said that two working groups met and provided reports to the Task Force on an RFC for a Hardware Abstraction Layer for Robotic Technology (HAL4RT), and a Robotic Service Ontology (RoSO) RFP. JASA reported on its contacts with ISO/TC 299 WG 6 (Robots and Robotic Devices, Modularity for Service Robots) and on that group’s work item ISO/AWI 22166-1, “Modularity for Service Robots – Part 1: General Requirements.”
Space DTF	Brad Kizzort (Harris Corp.) reported that the Space Task Force had an exploratory meeting with Greg Haun of Analytical Graphics, a vendor that has been working with the US Air Force on model-driven simulations based on an ontology and a state machine model. The Command & Control Messaging Specification (C2MS) RFP was recommended for issuance. The Task Force is now working on an RFP for a SysML Reference Model for satellite mission design and development. The Task Force also discussed updating its roadmap and holding a Space Information Day during the March 2019 meeting.
System Engineering Domain SIG	Sandy Friedenthal (Lockheed-Martin) reported that the SIG reviewed the SysML v2 API and Services RFP prepared by Manas Bajaj (InterCAX) and recommended it for issuance. There were quite a number of presentations at this meeting: <ul style="list-style-type: none"> • Chris Schreiber (Lockheed-Martin) on “Integrating MBSE into a Model-Based Engineering Environment” • Ivan Gomes (NASA) on the NASA JPL Systems Environment • Hans Peter deKoning (European Space Agency) on “ESA Concurrent MBSE Tool Advances” • Manas Bajaj on a “System Lifecycle Handler (SLH) for Enabling a Digital Thread for Smart Manufacturing” • Hisashi Miyashita on “MapleMBSE Introduction” • Robert Karban (JPL) on an overview of the OpenSE Cookbook • Chris Massa (Draper Labs) on a “Model Library and Method for Modeling Electrical Interfaces • Tim Sprock and Conrad Bock (NIST) on System-Analysis Integration for Production & Logistics Systems.

Following the subgroup reports, two RFPs were issued, both by white ballot:

- OARIS Additional Sensors RFP (C4I)
- EDI Standards for Non-Medical Workplace Benefits (Workplace Benefits)

Several motions were made and adopted to charter, extend or change the membership of RTFs, FTFs and voting lists.

Initial votes were taken on four platform technology adoptions:

- TACSIT Data Exchange (TEX) specification
- RFC for Web Services for Point of Service (WS-POS 1.3.1), 2nd reading
- RFC for Mission Control Message Specification (MCMS), 2nd reading
- IEF-RA 1.0 FTF report

Those votes will be completed by e-mail.

6. Next Meetings

The next OMG Technical Meetings are scheduled as follows:

- Ottawa, Ont., Canada, 24-28 Sep. 2018
- Seattle, Wash., USA, 10-14 Dec. 2018
- Reston, VA, 18-22 March 2019
- Dublin, Ireland or Amsterdam, Netherlands (t.b.d.), 17-21 June 2019
- Nashville, Tenn., USA, 23-27 Sep. 2019
- Southern California (city t.b.d.), USA, 9-13 Dec. 2019

Appendix: Glossary of Abbreviations

Below are initialisms that are likely to appear in these reports. It is not an exhaustive list of all terms and abbreviations used by OMG, nor is it limited to the names of OMG specifications. The official OMG glossary is at www.omg.org/gettingstarted/terms_and_acronyms.htm.

ADM	Architecture-Driven Modernization	CSCC	Cloud Standards Customer Council (replaced by the Cloud Working Group)
ADTF	Analysis and Design Task Force	CTS2	Common Terminology Services version 2
AEP	Automated Enhancement Points	CWM™	Common Warehouse Metamodel
AFP	Automated Function Points	DAF	Dependability Assurance Framework
AgEnt	Agent and Event	DAIS	Data Acquisition from Industrial Systems
Alf	Action Language for fUML	DDS™	Data Distribution Service
ALM	Automated Lifecycle Management	DDS-DLRL	DDS Data Local Reconstruction Layer
ALMAS	Alert Management Service	DDSI	DDS Interoperability
AML	Archetype Modeling Language	DDSI-RTPS ...	DDS Interoperability for Real-Time Publish-Subscribe
AMP	Agent Metamodel and Profile	DDS-TSN	DDS Time-Sensitive Networking
API4KB	Application Programming Interface for Knowledge Bases (now API4KP)	DIDO	Distributed Immutable Data Objects
API4KP	Application Programming Interface for Knowledge Platforms (formerly API4KB)	DMN	Decision Modeling Notation
APP-INST	Application Instrumentation	DoDAF	Department of Defense Architecture Framework
ASCMM	Automated Source Code Maintainability Measure	DOL	Distributed Ontology modeling and specification Language (ex-OntoIOP)
ASCPM	Automated Source Code Performance Efficiency Measure	DRE	Distributed, Real-time and Embedded Systems
ASCRM	Automated Source Code Reliability Measure	DSIG	Domain Special Interest Group
ASCSM	Automated Source Code Security Measure	DSS	Distributed Simulation System
BACM	Business Architecture Core Metamodel	DTF	Domain Task Force
BMI	Business Modeling and Integration	DTV	Date and Time Vocabulary
BMM	Business Motivation Model	EMP	Event Metamodel and Profile
BPMN™	Business Process Model and Notation	FACE™	Future Airborne Capability Environment
C2INav	Command and Control Interface for Navigation	FEEL	Friendly Enough Expression Language
C2MS	Command & Control Message Specification	FIBO	Financial Industry Business Ontology
C4I	Consultation, Command, Control, Communications, and Intelligence	FIGI	Financial Instrument Global Identifier
CIEM	Contract Information Exchange Model	FIRO	Financial Industry Regulatory Ontology
CISQ	Consortium for IT Software Quality	FSM4RTC	Finite State Machine for Robotic Technology Component
CMMN	Case Management Modeling Notation	FTF	Finalization Task Force
CPP11	C++11 Language Mapping	fUML™	Foundational Subset for Executable UML Models
		GEMS	Ground Equipment Monitoring Service

GRA	Global Reference Architecture	ODM	Ontology Definition Metamodel
HAL4RT	Hardware Abstraction Layer for Robotic Technology	OntoIop	Ontology Model and Specification Integration and Interoperability (now DOL).
HL7	Health Level 7	OTRM	Operational Threat and Risk Metamodel
HPEC	High Performance Embedded Computing	ORMSC	Object Reference Model Subcommittee
IDL	Interface Definition Language (IDL™)	OSLC	Open Services for Lifecycle Collaboration
IEF	Information Exchange Framework	OWL	Web Ontology Language
IEPPV	Information Exchange Packaging Policy Vocabulary	PDME	Product Data Management Enablers
IIC	Industrial Internet Consortium	PIM	Platform-Independent Model
IIoT	Industrial Internet of Things	PLM	Product Lifecycle Management
IMM ®	Information Management Metamodel	PSCS	Precise Semantics of UML Composite Structures
INCOSE	International Council on Systems Engineering	PSIG	Platform Special Interest Group
IPMSS	Implementation Patterns Metamodel for Software Systems (now SPMS)	PSM	Platform-Specific Model
IPR	Intellectual Property Rights	PSoT	Precise Semantics of Time
ISO	International Organization for Standards	PSSM	Precise Semantics of State Machines
JSON	JavaScript Object Notation	PTF	Platform Task Force
KDM	Knowledge Discovery Metamodel	QVT	Query/View/Transformation
LCC	Languages, Countries and Codes	RAML	RESTful API Modeling Language
LOI	Letter of Intent	RDCM	RIA Dynamic Component Model
MACL	Machine-checkable Assurance Case Language	RDTF	Retail Domain Task Force
ManTIS	Manufacturing Technology and Industrial Systems	ReqIF	Requirements Interchange Format
MARS	Middleware and Related Services	RFC	Request for Comments
MARTE	Modeling and Analysis of Real-time Embedded Systems	RFI	Request for Information
MBSE	Model-Based Systems Engineering	RFP	Request for Proposals
MDMI	Model Driven Message Interoperability	RIA	Rich Internet Applications
MEF	Metamodel Extension Facility	RMS	Records Management Services
MODAF	Ministry of Defence Architecture Framework	RoIS	Robotic Interaction Service Framework
MOF™	Meta Object Facility	ROSETTA	Relational-Oriented Systems Engineering and Technology Tradeoff Analysis
MRC	Management of Regulatory Compliance	RTC	Robotic Technology Components
MVF	Multiple Vocabulary Facility	RTF	Revision Task Force
NIEM	National Information Exchange Model	RTPS	Real-Time Publish-Subscribe
OARIS	Open Architecture Radar Interface Standard	SACM	Structured Assurance Case Metamodel
OCL	Object Constraint Language	SBC	Software-Based Communications (term used in combination with SDR and replaced in OMG parlance with SNC, see below)
		SBVR™	Semantics of Business Vocabulary and Business Rules

SDN	Software-Defined Networking	XUSP	XTCE US Government Satellite Conformance Profile
SDR	Software-Defined Radio (term used in combination with SBC and replaced in OMG parlance with SNC, see below)		
SEAM	Software Assurance Evidence Metamodel		
SIMF	Semantic Information Modeling for Federation (now SMIF)		
SMIF	Semantic Modeling for Information Federation (formerly SIMF)		
SMM	Structured Metrics Metamodel		
SNC	Secure Network Communications		
SoaML ®	Service-Oriented Architecture Modeling Language		
SPMS	Structured Patterns Metamodel Standard (formerly IPMSS)		
SSCD	Safety-Sensitive Consumer Devices		
STIX ™	Structured Threat Information eXpression		
SysA	System Assurance		
SysML ™	Systems Modeling Language		
SysPhS	SysML extension for Physical Interaction and Signal Flow simulation		
TacSit	Tactical Situation Display		
TestIF	Test Information Interchange Format		
TEX	TacSit Data Exchange		
TOIF	Tool Output Integration Framework		
UAF	UML-Based Architecture Framework (formerly UPDM)		
UCM	Unified Component Model		
UML ®	Unified Modeling Language		
UML4DDS ...	Unified Modeling Language Profile for Data Distribution Services		
UPDM ™	Unified Profile for DoDAF and MODAF (now UAF)		
VDML	Value Delivery Modeling Language		
VTW	Vocabulary for Terminology Work		
XMI ®	XML Metadata Interchange		
XML	eXtensible Markup Language		
XRCE	Extreme Resource Constraint Environment		
XTCE	XML Telemetric and Command Exchange		