

OGSA-WG F2F minutes, Jan 16th 2006 PM

(note-taker: Fred Maciel)

1 Information model discussion

1.1 Participants

Hiro Kishimoto
Dave Snelling
Fred Maciel
Andreas Savva
Fred Brisard
Patricia Kovatch
Chris Jordan
Dave Berry
Ravi Subramaniam
Steven Newhouse
Steve McGough
Darren Pulsipher
Takuya Mori
Mark Morgan
Andrew Grimshaw
Jay Unger
Tom Maguire
Ellen Stokes

1.2 Container model document

- Andrew, setting context: containers need to expose attributes that will then be used for scheduling decisions.
- Ellen: Container is defined as collection, which is a bag of things. Shows where it fits inside the CIM schema (derived class of collection).
 - Steven: why specify operations again? Ellen, FredM: not re-defining, the model reflects what has been defined by the BES spec.
 - Jay: is a BES container a derived element of this class or an instance of this container class? Ellen: it's an instance, guided by profile. Jay: then these operations should not be in the model, since these are BES-specific. Other kinds of containers might not have these methods.

- Ellen: attributes depend on the kind of container, not all of them are present and all instances.
 - ♦ Ellen: if container does not have attributes, then the container can be a ConcreteCollection.
- DavidS: the meaning of having the operations here depends whether if we use the model to define all operations and functionality, or fitting BES into a wider context.
- Steven: if the operations are present they will drive selection; WSDL is better.
- Tom Maguire: we should not get hung up on whether we model in WSDL, UML, or any other way. Tom Maguire: the question is in fact what is the domain of management and functional. (Some discussion follows on which BES functions are management or functional).
- Jay: if we are going to enumerate operations for the generic container, then we have to enumerate operations that are not BES specific. DavidS: goal is to define management operations on the container.
- Ellen: is the question what is the normative definition of the WSDL interface? Steven: yes, if the specs are not normative, then where are creating the specs? This is going to be confusing. Ellen: WSDL is going to be authoritative, and that's what is going to be used. The model is used to get the broader picture.
- Jay: can add operations as “parenthesis, operation XYZ, please see BES spec”. The information model acts as documentation and de-normalization. The data model is given by e.g., the BES spec. Steven agrees, but still thinks that it will be confusing.
- Steven: what will be important in practice is the data model. DavidS: yes, the real power of the information model only shows when you translate it to the data model.
- Jay: collection does not have generic operations; we need open, close, add, delete for the container.
- Jay: container might be defined as a service instead of a collection. Some discussion on whether this fits CIM definition of service. AI: look into definition and current usage of CIM_Service.

1.3 Container attributes doc

- Ellen shows the result of discussions with Andrew and Mark on what attributes should exist for the container. Ravi: are there any data objects? Ellen: yes, but that is beyond “Basic” Execution Services. Andrew: these are the attributes that are non-controversial. Ravi: wants to find what data is already in the container. Andrew: would be a great addition, but might leave for later. DavidS: we might leave for the data container. DaveB: or, might be CDDL.M.

- Ravi: network bandwidth might come from provisioning around networking; may want to prune set down and focus on composition.
- Steven: how were the attributes selected? Andrew: Globus and Condor and GLUE stuff.
- Activities: outside of BES scope, remove.
- Operating system:
 - Andrew: it will be difficult to do resource selection without the ones marked as required; optional ones are the ones that can be controversial.
 - SteveM: how about something that does not have an operating system? Andrew: we are capturing the operating environment, which is this class in CIM. Ellen: operating system type has a “Not Applicable”.
 - Steven: do not go too far in adding features until we know that we are going to use it. We need to engage with both the academic and industry communities to confirm the needs. (Agreement on this from many participants.) Jay: in GLUE there were a lot of discussions of what was needed, and it’s still not settled. Ellen: in DMTF a new class is added as experimental, and if it’s not useful it never becomes final. Knowing that we are able to do it if we want is good to convince people to adopt it.
 - Ellen: spent some time with GLUE authors, with mutual suggestions. Newest GLUE version went final in the end of the year, will study it.
- Processor
 - CIM does not have enough information (CIM’s Family is in fact instruction set), took attributes from GLUE.
 - Jay: is this processor information what is going to be used for matching or by users, or some higher abstraction? Some agreement that providers might also provide this abstraction, but the basic data is the processor information. Steven: add something like SpecInt or SpecFp (in GLUE), SpecJava (in Condor), would be good for the communities that use them. Hiro: is that container or processor attribute? Answer: container.
 - FredM: exchange current and max clock speed, since “max” is probably the clock when running an activity, and “current” is usually the minimum if the machine is idle. Rough consensus that it’s OK (Ravi disagrees, since this is not the general case).
 - Ravi: is there anything in CIM for processor features such as MMX, SSE, etc.? AI: FredM and Ellen will verify.
- Computer System
 - Moved hyperthreading attribute to Processor
 - Ravi: load optional? Ellen: it’s in this category since its meaning has not been defined. Need definition.

- **Networking**
 - Some discussion on the need for location (its meaning and whether it's a container attribute). There is currently no good agreement on what should be used for topology, needs much study. Decided to take out for now.
 - Discussion on the need for link type and speed; added. Look at topology later.
- **Storage**
 - Not sure what people would say about storage, so still TBD in spec. Tom Maguire will look into it.
- **Filesystem**
 - DavidS: relationship between file system and storage in CIM? Ellen, TomM: yes. DavidS: we use file system now; CIM storage might be too gory. TomM: once you talk about quality of service, it's storage level.
- **Manageability interface**
 - Andrew, DavidS: ideally one single framework should take care of manageability, but in practice it's not the case. Discuss later.
 - Do we talk about management in document? Agreement that it's out of scope of this document.
 - We need a rendering section, but other renderings can be created.

1.4 Modeling Guidelines Document

- **FredM presents the first draft of the modeling guideline document, and asks for suggestions if the structure is correct and what is missing.**
 - FredM will add short technical introduction to CIM (classes, associations, aggregations, etc.).
 - David: need to add the purpose of modeling in the introduction, e.g., a discussion on the uses that can be made of the model once we have it.
 - DavidS, Steven: move explanation of "information model" vs. "data model" to the beginning, since this is essential to the understanding of the contents of the document.
 - Darren: make the CIM model available, and choose which version to use. Add discussions on existing tools.
 - Ravi: why is this document being created? FredM: there were a lot of discussions on why we are doing information modeling and how we will move this work forward. This document puts the results into text as guidance inside and outside the OGSA-WG.
 - Ravi: how about modeling for specific areas? FredM: this document is a generic one for all areas of OGSA. People doing modeling for specific areas (execution

management, data, security, etc.) should read this document and develop the area-specific information model according to the process described in it.

2 BES Composite Roadmap

- Discussion on how to continue the work.
- Don't discuss document on Tuesday, but on Wednesday instead. However, read document for the discussion with CDDL on Tuesday.