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Bill Wagner provided an overview of WBMM for those who have not, previously, been involved. This Portland meeting represents the first formal face to face of WBMM (preceded by the BOF in Maui).

There were questions about how WBMM, PSI and the PWG Semantic Model are related (or not). It was asserted that PSI expects to leverage WBMM for configuring services and that WBMM extends the Semantic Model which, to this point, has been mostly concerned with job submission and monitoring.

What about relationship between WBMM and WBEM? We haven't intentionally overloaded or discarded WBMM but we have started extending our common semantics from a Printer MIB basis. We also need to look at CIM and other models such as 1284.1 to derive a complete set of common device and service management semantics.

We discussed the approach to defining WBMM operations. Some want to leverage the PSI model. Some want to leverage the IPP admin ops. We need work here!

Some scenarios and various contexts for WBMM were discussed as follows:

1. We discussed an example where a service provider leases equipment to large enterprises and needs statistics like monthly page counts, usage reports, remote

configuration, alerts and remote (predictive) maintenance. We agreed that WBMM is not just for monitoring but also for setting up and managing characteristics of the device or service, including intra enterprise device and service management and Imaging oriented management capabilities.

- 2. A goal of WBMM is to be more flexible and tuned to the web than SNMP.
- 3. We agreed that "device" includes copy, fax and scan (at least)
- 4. We discussed the notion of building devices and services with web based monitoring and management software that can be reconfigured to enable fee based features.
- 5. We agreed that the ecosystem is likely to include some managed entities which are locally connected via a PC, some with native WBMM and many that require a proxy (at least initially).
- 6. We agreed WBMM may be used in context with single large enterprises or across many small sites.
- 7. We agreed we need more use cases, sequence diagrams to help select the correct operations and methods.
- 8. We need to clarify existing diagrams (such as the Intra-enterprise diagram) to show exactly where WBMM is being used.
- 9. PSI did not define notifications... they are relying on WBMM or some separate PWG notifications group to do so. Notifications appear to be needed by IFX, IPP, PSI and WBMM (at least)
- 10. Going through firewall, the devices themselves will be contacting the management service (periodically configured). But what if the management app wants to contact the device (real time)? Tickle. But only for intra-enterprise. Unicast tickle. Not through firewalls.
- 11. Discovery Multicast tickle. Won't get through routers. Discovery should be separately addressed. We need a discovery method that works through firewalls.
- 12. Another goal is to handle site surveys. Need to know how many scans, e-mailed to device, Simplex/duplex, copies etc.
- 13. Automatic reordering of supplies
- 14. Set config attributes across fleet of devices (default copies = 1, set all printers to stack into the High Cap feeder etc.). Manage via classes of authenticated users.
- 15. Do we need standard LOCs (SNMP analogy) across industry?
- 16. How do we address interrelations between services on MFDs? Is this like the SNMP device table?

3 key elements of WBMM.

We need to

- 1. Identify the transport(s)
- 2. Identity the operations
- 3. Identify the management model or characteristics of how a mgt model should be generated.

We should be able to define some "conformance levels"... ex. BASIC, BASIC MFP, etc.

Define a system that doesn't have to know the model it is dealing with. Data is interpreted by the application.

Muntivendor interoperability. We need to define at what level we expect this to work.

The question was raised... "Do printer companies want to have interoperable management capability?" To the extent that customers want this, mfgrs want this. Also, for environments such as FSG, Linux etc. this is important. But printer vendors need to protect differentiation. So we need a large set of common elements in our management model and a means to accomplish proprietary extensions.

Review Charter Proposal.

Take advantage of XMLs structure to model the complex environment. Not just managing a printer but also a collection of printer. With the MIB you have to structure your requests to retrieve specific OIDs. The protocol limits the way you access information. With WBMM, we want to facilitate alternate views from a more organized and consolidated data model.

GOALS

Unified working draft Q1 2004 Candidate Standard q2 Interop q3 Standard q4.2004

Harmonizing

We need to look at Oasis – (but it may be more Web Services oriented Distributed Management). Also IETF netconf and WBEM CIM.

Back to scope

We reviewed the June 12 document which summarizes all previous meeting minutes. WBMM device and service mgt... not job mgt.
Accounting metrics are in scope. Granularity (per job?), per user?
Setting printer policy... in scope, out of scope?

Interfaces and methods operating on a data model. Can we extend this to manage printer queues?

Methods are different. Get, set attributes.

There is an issue regarding to what degree should WBMM support managing printer policy and how?

Issue regarding to what degree should WBMM support logging and how?

WBMM includes definitions of methods, ops and XML based data model. For device management.

There is an issue related to whether MFP is modeled as device or service(s). Should we divide device and service? Or does the object that we're setting and getting define whether it's a service or not.

Review of IBM proposal for WBMM interface methods

Set and Get... if you need a synchronous version then choose an underlying protocol that provides this capability.

GetAll... is it really needed or do we just ask for root element?

Execute – some feel that each form of invocation should be explicitly modeled... rather than one gross operation. This is to be resolved.

OpPanel message sound be text string element not operation.

Things that change state of machine should be ops, not elements (like Disable, enable, pause, resume, etc.)

We need more use cases and sequence diagrams to help determine the appropriate set of interfaces

Misc.

With commands like PauseNow, PauseAfter, Start, Stop, Reset, Stop now, Stop when you can... how do we know which part we are enabling/disabling if it's an MFP