

PWG Plenary Status Report

Workgroup for Imaging Management Solutions

Printer Working Group
Face-to-Face Plenary
October 14, 2009
Apple –Cupertino, CA

Purpose of the effort



- **The WIMS working group is concerned with:**
 - Supporting the remote management of Hardcopy Imaging devices by the definition of new and the recasting of previously-defined imaging device and service management elements for mapping into standard management semantics and protocols, including but not limited to SNMP, CIM, and Web Services Management
 - Continuing update and extension of the DMTF/CIM classes concerned with Imaging Devices and Services.
 - Continuing support and update of the printer-related PWG and IETF published MIB documents
 - Continuing support and update of the specifications produced by the former PWG MIB Working Group (PMP) as well as by the PWG WIMS Working Group.

Work Items for the WG



• **What We're Doing**

- Supporting the existing IETF and PWG Printer and related MIB documents, including the potential advancement, extension and expansion of these specifications.
- Advancing a basic public management elements structure for Hardcopy Services and Devices that draws upon existing structures and that utilizes a set of management elements that is consistent over the various management protocols and methods.
- Update, Create and Prototype DMTF/CIM Imaging MOFs, with the objective of ensuring Hardcopy Device and Service management via a Web Services approach that is consistent with the basic public management elements structure

• **What We're NOT Doing**

- We are not addressing the delivery of Hardcopy services.
- We are not specifically concerned with security issues related to Hardcopy Devices or Services, although management must recognize and accommodate the requirements and constraints demanded by security.
- We are not defining a management service or protocol.

Current Activities - CIM



➤ Print Service Classes Definition

- Ira has posted the following DMTF MOFs at <ftp://ftp.pwg.org/pub/pwg/wims/cim/mofinput/ira-20090923.zip>
 - CIM_PrintJob.mof -NEW version adds all IPP/1.1 Job attributes
 - CIM_PrintService.mof -NEW version adds IPP/1.1 Printer attributes (description)
 - CIM_PrintServiceCapabilities.mof -NEW Class adds IPP/1.1 Printer attributes (xxx-supported)
 - CIM_PrintServiceSettings.mof -NEW Class adds IPP/1.1 Printer attributes (xxx-default)
- With these additions, the CIM Printing classes support IPP/2.0.
- Remaining tasks for Printer Classes:
 - PrintQueue, PrintSAPand other small classes still need some update.
 - Diagram of the extended CIM Printing classes must be written in Visio and PDF, per DMTF process
 - New CIM Change Requests (CRs) must be written using the DMTF CR template, SeaMonkey or some other HTML editor

Current Activities - CIM



➤ **Printer Class Cleanup**

- Rick Landau has collected the few minor items remaining to be cleaned up in the printer device classes, and sent the list and recommendations to the WIMS reflector. Ira and Rick will work on drafting the corrections and CRs embodying those corrections

➤ **Printer Proxy CIM Provider Related**

- Dell has officially notified the DMTF about the implementation of the new printer device classes in the prototype, and that it should count against the quota of two needed to promote the classes from experimental to final.
- Rick remains interested in feedback on user's experiences with the CIM Printer Proxy CIM package

Current Activities - PMP



- The IEEE1284 Device ID "COMMAND SET" element content has been standardized in a draft by Ira.
- Although originally intended as an appendix to the Printer Port Monitor MIB, WIMS requested that this be cast as a separate PWG candidate standard because of the extensive use of this ID set in other protocols.
- Ira has posted a draft of this information as a candidate standard at:
<ftp://ftp.pwg.org/pub/pwg/pmp/wd/wd-pmp1284cmdset10-20091001.pdf>
- Since the basic information has been public for some time in the previous version:
<ftp://ftp.pwg.org/pub/pwg/pmp/white/tb-ppm-1284-cmd-20090803.htm>
it is intended to begin WIMS last call now and to start PWG last call to conclude at the December Face-to-Face.

Current Activities - PMP



- The IEEE1284 Device Id is a standard element for identifying printing devices, not just in IEEE1284 but in other interfaces and protocols including USB and, via the Port Monitor MIB, Ethernet.
- The IEEE 1284 spec identified three necessary keys, MANUFACTURER, COMMAND SET, and MODEL.
- Identifying the Command Set is important in understanding how to communicate with the printer. However, there is inconsistency in how information is presented in this field, making automatic identification difficult.
- At the request of the PWG, Ira McDonald has proposed a normative appendix to the PWG Printer Port Monitor MIB, standardizing the content of "COMMAND SET" (CMD).
 - <ftp://ftp.pwg.org/pub/pwg/pmp/white/tb-ppm-1284-cmd-20090803.htm>
- WIMS is considering the content and application of this proposal.

Current Activities – Imaging Power Management



- Ira McDonald has posted a draft specification of the Imaging Power Elements (an update is expected)
<ftp://ftp.pwg.org/pub/pwg/wims/wd/wd-wimspower10-20091007.pdf>
- Several issues have arisen, particularly concerning the complexity of the element set and the balance between accommodating the wide range of Imaging Equipment to which it will apply while not having so much optional that it defeats interoperability objectives.
- WIMS is soliciting comments, additions, suggestions and general participation of all interested parties in the development of this specification, especially in the Use Cases area. Actual or intended use cases are the best criteria to identify and ascertain the area of applicability for management elements.
- A MIB binding of these abstract elements is also being done, with a CIM implementation for Web Services use to follow. Ira has posted an ASN.1 *sketch* (not complete objects) of the Power MIB, based on recent discussions.

<ftp://ftp.pwg.org/pub/pwg/wims/wd/wd-wimspowermib10-20090930.txt>

Potential MIB Activities



- **Printer Port Monitor MIB**
 - update spec
 - interoperability testing ?
 - advance PPM to PWG standard ?
- **Identify Printer MIB Problems**
 - MIB will be basis for future WS management. Therefore, MIB problems will delay development and/or restrict effectiveness of WS Imaging Management utilities.
 - Users and Fleet Management Agencies both need to understand some of MIB implementation variations, and should have some place to voice the questions.
- **MFD MIB or MIB extensions?**
 - Many attempts, of varying completeness, started in the past, especially MFD Alerts.
 - MFD group is addressing service semantics; need to address management elements

Next Steps



- Continue with the CIM effort, eventually to include the CIM Printer Profile
- Continue the Hardcopy Imaging Device Power Management Project, including the abstract specification of elements and the Hardcopy Imaging Device Power Management MIB
- Develop Hardcopy Imaging Device Power Management MIB
- Maintain and update existing set of Printer- and MFP-related specifications
- Attempt at increased contact with user community understand needs and identify real use cases.

More Info/How to participate



- We welcome more participation from member companies and input from user community
- The group maintains a Web Page and separate WIKI pages for WIMS and for CIM update
 - <http://www.pwg.org/wims/index.html>
 - <http://pwg-wiki.wikispaces.com/WIMS>
 - <http://pwg-wiki.wikispaces.com/WIMS-CIM>
- To subscribe to the WIMS mailing list, go to :
 - <https://www.pwg.org/mailman/listinfo/wims>
- WIMS holds periodic phone conferences. Dates, call numbers and agenda on PWG Google Calendar.
 - <http://www.google.com/calendar/embed?src=istopwg%40gmail.com>