



WIMS F2F Meeting

Workgroup for Imaging Management Solutions (WIMS/PMP)

December 8, 2011

Austin, Texas

Intellectual Property Policy Statement



This meeting is being held in accord with the PWG Policy on Intellectual Property and Confidentiality, dated January 01, 2009.

The policy is accessible at:

<ftp://ftp.pwg.org/pub/pwg/general/pwg-ip-policy.pdf>.

PWG members have agreed to be bound by this policy as a condition of membership. Nonmember participants implicitly agree to be bound by this policy statement as a condition of participation.

In essence, the policy is that any information presented at an PWG or PWG working group meeting or conference call, or to any PWG mail list may be treated as public information and may be incorporated into a PWG specification or other PWG document.

Agenda



When	What
9:00 – 9:15	Introduction and Administrative Issues Intellectual Property Policy Statement Identify Minute Taker Introduce Participants Consider Agenda Acceptance of Previous Minutes (ftp://ftp.pwg.org/pub/pwg/wims/minutes/wims_111110.pdf)
9:15 – 9:30	Status/Action Items Review
9:30 – 9:50	Status of MFD Alerts Document
9:50 – 10:00	Issue of Adding TC Entries to Printer MIB
10:00 – 10:30	Next Activities Continued CIM efforts Support of Elements Identified in CWMP
10:30 – 10:45	Break
10:45 – 11:45	PWG Power MIB Interop Procedure
11:45 – 12:00	Next Steps and New Action Items

Officers

❖ Co-Chairs:

- Bill Wagner (Technical Interface Consulting)
- Danny M. Brennan (GTS Services Delivery)

❖ Secretary:

- NONE

❖ Document Editors:

- Ira McDonald (High North/Samsung)
- Rick Landau [CIM Printer Profile]

Current Action Areas and Items



❖ Areas

- MFD Alerts Document
 - Comments from WIMS and IPP reviews incorporated
 - Draft at Prototype Level, awaiting notice of prototype to proceed to last calls
- Power MIB Interop Test
 - Outline of test procedure exists
- Printer MIB Additions and Updates
 - Some requested IANA Printer MIB TC values have been added

❖ Outstanding Action Items

- Ira to update MFD Alerts document prior to Face-to-Face; this is to include aligning Table 3 (IPP printer-state-reasons) and Section 9.2 (Alert Codes for IANA registration) with the information in Table 2 (MFD and Printer Subunit Alerts.)
- Ira to work with Mike to propose test procedure at December 2011 F2F (input for slides prior to December 1)

Printer MIB Multifunction Device Alerts



- ❖ This specification defines additional SNMP alert and equivalent IPP “printer-state-reasons” and “printer-alert” values for Scanner, ScanMediaPath, and FaxModem subunits beyond the Printer centric values already defined.
 - ❖ The latest version addresses comments from WIMS and IPP WG, and is at Prototype level
- ([ftp://ftp.pwg.org/pub/pwg/pmp/wd/wd-pmpmfdalerts10-20111030-rev.pdf](http://ftp.pwg.org/pub/pwg/pmp/wd/wd-pmpmfdalerts10-20111030-rev.pdf))
- ❖ MFD Alerts Document is an update to and completion of the Printer **MIB Alert Table Groups Extension for Multi-Function Devices** document left in Prototype state in March 2007.
 - ❖ By PWG Process, a specification must be prototyped before it can advance to a Candidate Standard. By tradition, the working group must have a notice of prototype before a specification can go to the Stable state and into last call.
 - ❖ It is anticipated that a notice of prototype for the IPP aspects will be provided in connection with CUPS developments.

Printer MIB Multifunction Device Alerts



- ❖ However, a notice of prototype for the SNMP aspects is necessary to allow this specification to advance.
- ❖ Notice of Prototype is simply a statement that the basic provisions of the specification have been implemented, at least to the level of a test-of-principle model.
 - The intent is to show that the provisions of the specification are sufficiently clear and achievable, or alternatively to expose ambiguities, unreasonable requirements, or other problems that might affect the consistent and wide-spread implementation of the final standard.
 - The prototyping effort does not need to cover all values or provisions of the specification. It does not need to be done in a shipping product, or even in equivalent hardware. Prototyping in lashups or by software simulation are acceptable.
 - Although it is desirable to provide as much information as possible, it is not necessary that the notice of prototype provide any specific information on the prototype effort other than identifying problems in specification.

Adding TC Entries to Printer MIB

- ❖ A reasonably ordinary request from Xerox to register two new enumerations to Printer MIB TCs exposed some problems. The intent, after some discussion was for adding:
 - 'hundredthsOfItems(20)' to 'PrtMarkerSuppliesSupplyUnitTC'
 - 'matteToner(36)' to 'PrtMarkerSuppliesTypeTC'
- ❖ 'matteToner' and 'matteInk' (considered to be applicable) were added to PrtMarkerSuppliesTypeTC in IANA Printer MIB.
(<http://www.iana.org/assignments/ianaprinter-mib>)
- ❖ However, PrtMarkerSuppliesSupplyUnit is one of 23 (out of 37) TCs identified in RFC3805 as a Type 1 (para 2.4.1), which means the enumerated set of values can be added to only by a new RFC, not via the IANA Printer MIB. For list of Printer MIB V2 TCs identifying their types, see:

<ftp://ftp.pwg.org/pub/pwg/pmp/white/rfc3805-tc-names.txt>

Adding TC Entries to Printer MIB

- ❖ As a general problem, there were several ideas on how to address this (beyond doing nothing).
 - Generate a new Printer MIB V3 RFC
 - (a) move ALL of the textual conventions into the IANA Printer MIB;
 - (b) fix known typos, including missing/incorrect ranges;
 - (c) update references to IETF and PWG specs (MSN, IPP/2.0, etc.)
 - Submit an Errata for RFC3805
 - (a) fix known typos, including missing/incorrect ranges;
 - (b) update references to IETF and PWG specs (MSN, IPP/2.0, etc.)
 - (c) make clearer what TCs can have values added via IANA
- ❖ Considering the long RFC turnaround time and that most of the “unchangeable” TCs are unlikely to need changing, Printer MIB V3 seems a no-starter.

Next Activities ?

❖ Continued CIM efforts

- Potential work exists as does a resource to assist in developing, if there is interest.
 - Printer Profile
 - Update Printing Classes
 - Extend Printing Classes to Imaging

❖ Support of Elements Identified in CWMP

- CWMP for Imaging Activity may identify management elements that are necessary but for which no public standard exists for imaging equipment
- Elements relate primarily to configuration of the device with respect to networking aspects .
- Elements may be entered into Semantic Model directly, or first processed by WIMS
- Indication of management elements deemed necessary but not supported by standard MIBs is provided by the methods by which the Celstream CWMP proxy derives management information.

Celstream Information Sources for CWMP Proxy



Information	SNMP	EWS	Access
Network configuration			
DNS and WINS Configuration	No	Yes	Read-write
SMTP configuration	No	Yes	Read-write
FTP configuration	No	Yes	Read-write
HTTP configuration	No	Yes	Read-write
LPD and Port 9100	No	Yes	Read-write
SNMP configuration	No	Yes	Read-write
Time configuration	No	Yes	Read-write
TCP/IP configuration	Yes	No	Read-write
Printing Settings			
Email alerts configuration	No	Yes	Read-write
Finishing configuration	No	Yes	Read-write
Scan, print, fax settings	No	Yes	Mixture of read and read-write
PCL settings	No	Yes	Read-write
PS settings	No	Yes	Read-write
Printer information			
Printer general, identification and asset information	Mostly Yes	Mostly no	Few are read-write
Consumables and paper usage			
Consumable status and estimates	Yes	No	Read
Service	Yes	No	Read
Paper – Metering	Yes	No	Read
Tray status	Yes	No	Read
Printer interaction			
SNMP and EWS connection settings	No	Yes	Read-write

Imaging Power MIB Interop Demo

- ❖ The PWG approved the “PWG Power Management Model for Imaging Systems 1.0” ([PWG Candidate Standard 5106.4-2011](#)) and its MIB binding “PWG Imaging System Power MIB v1.0” ([PWG Candidate Standard 5106.5-2011](#)) in February 2011. The charter for the Imaging System Power Management Project included a Power MIB Interoperability event, basically a demonstration that client and server implementations of the MIB are interoperable.
- ❖ It was decided at the October Face-to-face that a test procedure would be made available for participants to run this procedure when, where, and on whatever platform they wished. The records of results would be sent to Michael Sweet, as an independent evaluator, to be compiled. The results of this compilation would be released, with all participants remaining anonymous.
- ❖ A draft of the test procedure was to be presented at this meeting.

Outline of Power MIB Interop Procedure

- ❖ Tests are run with MIB Walk tool providing record of request/response. Suitable free tools are identified, although any tool providing the necessary output record can be used.
- ❖ SNMP MIB walks are done of the following MIBs:
 - IETF MIB-II (RFC 1213)
 - IETF Host Resources MIB v2 (RFC 2790)
 - IETF Printer MIB v2 (RFC 3805)
 - PWG Power MIB (PWG 5106.5)

[The MIB walk includes the additional public MIBS because the PWG Power MIB specifies consistency/correlation between responses to certain PWG Power MIB objects and the responses to object requests in the other MIBS]

Outline of Power MIB Interop Procedure

- ❖ The MIB walk program records queries and responses in plaintext, CSV, or PDF (preferably without headers and footers, for ease of review) format. The following fields are to be provided for each object:
 - object name or OID (compiled object name is convenient for human browsing, but not necessary)
 - object instance - scalars are always '.0' - all Power MIB columnar objects are simple integers
 - object datatype - base or textual convention
 - object value - integer, string (w/ hex? optionally)
- ❖ Interop editor will review MIB walks and produce a table of object groups and individual objects, showing coverage, implementation issues, etc. in a summary report for the April or June F2F (according to the timing of the event).

Power MIB Interop Procedure

❖ Questions

- Is this approach likely to provide some instance of all mandatory object values of all required objects (which was a desirable objective of the interop test)?
 - Should testers run the MIB walks with the device (or component or subunit, if supported) in various power states?
- ❖ In perhaps an anticipated result of the interop test, it was suggested that the SNMP query itself will bring the device to ON state, in which case requesting current power state (powMonitorPowerState), at least for the system, is useless.
- ❖ It is unknown if this true for all devices. If it is, the powLogTable would seem to be especially important.
- ❖ Should procedure encourage, request, demand that MIBs be walked with component in various power states? Anything else?

Next Steps

❖ PWG Power MIB Interop Procedure

- Who does
- What
- By When

❖ MFD Alerts

- Prototype Volunteers?
- Schedule

❖ CIM Efforts

- Volunteers?

❖ Additional Management Elements from CWMP Effort

- Any action?

Wrapup

- ❖ Comment and Questions?
- ❖ New Action Items
- ❖ Next Conference Call: 1PM EST, 19 January 2012