

Printer Working Group

Plenary – December 9, 2009
Austin, TX

Plenary Agenda



- Administrivia
 - Introductions
 - Assign Scribe
 - Approve/Modify Agenda
 - Approve Previous Plenary Minutes (?)
 - Review PWG Patent Policy
 - Agenda for the Week
 - PWG Meeting Schedule
 - 2009 Membership (current status)
 - 2010 Membership renewal
 - PWG Financial Overview
- ISO JTC1 SC28 – PWG Liaison
- Google Chrome OS – Print Driver Overload?
- PWG Working Group Status [WG Chairs]
 - IDS (Imaging Device Security)
 - IPP (IPP v2)
 - MFD (Semantic Model)
 - WIMS (DMTF CIM, PMP, Power Management)
- Next Meeting Details

PWG Patent Statement



- PWG standards may include the known use of essential patents and patent applications provided the PWG Chair receives assurance from the patent holder or applicant with respect to patents whose infringement is, or in the case of patent applications, potential future infringement the applicant asserts will be, unavoidable in a compliant implementation of either mandatory or optional portions of the standard. This assurance shall be provided without coercion. This assurance shall be either:
 - a) A general disclaimer to the effect that the patentee will not enforce any of its present or future patent(s) whose use would be required to implement either mandatory or optional portions of the proposed PWG standard against any person or entity complying with the standard; or
 - b) A statement that a license for such implementation will be made available without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination.
- The PWG is not in a position to give authoritative or comprehensive information about evidence, validity or scope of patents or similar rights, but it is desirable that any available information should be disclosed. Therefore, all PWG members shall, from the outset, draw PWG's attention to any relevant patents either their own or of other organizations including their Affiliates that are known to the PWG members or any of their Affiliates, although PWG is unable to verify the validity of any such information.

Inappropriate Topics for PWG WG Meetings



- Don't discuss the validity/essentiality of patents/patent claims
- Don't discuss the cost of specific patent use
- Don't discuss licensing terms or conditions
- Don't discuss product pricing, territorial restrictions, or market share
- Don't discuss ongoing litigation or threatened litigation
 - ➔ Don't be silent if inappropriate topics are discussed
 - ... do formally object.

Agenda for the Week



Tue Dec 8

9:00 AM - 12:00 PM	MFD
12:00 PM - 1:15 PM	Lunch
1:15 PM - 5:00 PM	WIMS

Wed Dec 9

9:00 AM - 12:00 PM	MFD
12:00 PM - 1:00 PM	Lunch
1:00 PM - 2:45 PM	Plenary
2:45 PM - 3:00 PM	<break>
3:00 PM - 5:00 PM	IPP

Thu Dec 10

9:00 AM - 12:00 PM	IDS
12:00 PM - 1:15 PM	Lunch
1:15 PM - 3:30 PM	IDS

2010 PWG Meeting Schedule



- Feb 2-4 Scottsdale, AZ (MWAi)
- Apr 6-8 (host: TBD)
- Jun 8-10 Rochester, NY (Xerox)
- Aug 10-12 Bagsværd, Denmark* (MPI Tech)
→ shift to Aug 3-5?
- Oct 18 (week of) Lexington, KY (Lexmark)
- Dec 7-9 (host: TBD)

→ * Attendees for August? Please do survey:
http://www.surveymonkey.com/s.aspx?sm=q2v9XcXMx9dmJ0aRfwqIjA_3d_3d

→ We need hosts!!

August in Denmark?



Results to date:

http://www.surveymonkey.com/s.aspx?sm=q2v9XcXMx9dmJ0aRfwqljA_3d_3d

Definitely able to go	2
Likely able to go	4
Possible as of today	3
Not likely able to go	2
Definitely not able to go	1
Total	12

A new survey will be issued in early 2010

2009 Membership: 23 Members

(as of 8/01/2009)



- ✓ 366 Software ❖
- ✓ Apple Inc. ❖
- ✓ Canon, Inc. ❖
- ✓ Coretronic
- ✓ Dell ❖
- × Epson
- ✓ Fuji Xerox Co. Ltd. ❖
- ✓ Hewlett-Packard ❖
- × Intermate A/S (Kodak)
- ✓ InfoPrint Solutions ❖
- × Konica Minolta
- ✓ Kyocera Corporation ❖
- ✓ Lexmark International ❖
- ✓ Microsoft ❖
- ✓ MPI Tech ❖
- ✓ MWA Intelligence Inc. ❖
- ✓ NEC Display Solutions ❖
- ✓ Northlake Software, Inc ❖
- ✓ Oki Data ❖
- × Ricoh
- ✓ Samsung Electronics ❖
- ✓ Sharp Labs of America ❖
- × Sigma-Tel => Conexant
- ✓ Toshiba ❖
- ✓ Xerox Corporation ❖
- ✓ Zoran Imaging Division ❖
- ✓ Tykodi Consulting Services LLC. ❖
- ✓ Technical Interface Consulting ❖

- ✓ Indicates 2009 membership paid
- ❖ Indicates Membership Agreement Signed

2010 Membership: 4 Members

(as of 12/04/2009)



- 366 Software**
- Apple Inc.**
- Canon, Inc.**
- Coretronic**
- ✓ **Dell**
- Epson**
- Fuji Xerox Co. Ltd.**
- Hewlett-Packard**
- Intermate A/S (Kodak)**
- InfoPrint Solutions**
- ✓ **Konica Minolta**
- Kyocera Corporation**
- Lexmark International**
- Microsoft**
- MPI Tech**
- MWA Intelligence Inc.**
- NEC Display Solutions**
- Northlake Software, Inc**
- ✓ **Oki Data**
- Ricoh**
- Samsung Electronics**
- ✓ **Sharp Labs of America**
- Sigma-Tel => Conexant**
- Toshiba**
- Xerox Corporation**
- Zoran Imaging Division**
- Tykodi Consulting Services**
- Technical Interface Consulting**

✓ Indicates 2009 membership paid

ISO JTC1 SC28

PWG Liaison

Google Chrome OS

Print Driver Overload?

Questions / Comments / Discussion



PWG Working Group Status

PWG Plenary Status Report IDS Working Group

December 10, 2009
Austin, TX, PWG F2F Meeting

Joe Murdock (Sharp)
Brian Smithson (Ricoh)

Purpose of the effort



- The industry is moving beyond basic authentication for access to corporate networks to a more detailed assessment of the “health” of devices before allowing them to access the network.
 - Examples of what’s being measured for PC Clients:
 - OS Type, Version, Patch Level
 - Anti-virus Type, Version, Definition Level, Is Active
- Hardcopy Devices attach to networks, but there’s no standard set of metrics that is used to assess an HCD.
 - As a result, HCDs are treated as an exception and are allowed to attach to the network based solely on a MAC address.
- Our goal is to provide the metrics and mechanisms that allow HCDs to fully participate in assessment-protected networks.

Purpose of the effort



- The IDS working group is chartered to enable Hardcopy Device support in the network assessment protocols that measure and assess the health of client computers and other devices that are attached to enterprise networks.
- The group will define a set of common assessment attributes for Hardcopy Devices and will liaison with the specific network assessment protocol efforts to include Hardcopy Device support in these protocols where necessary.
- In the future, the IDS WG charter may be revised to allow the working group to deal with other types of Imaging Devices (Network Projectors, Displays, etc.) in network assessment protocols or other security-related work items.

Work Items for the WG



- What We're Doing
 - We are defining a standard set of metrics that can be measured or assessed in Hardcopy Devices to gauge if they should be granted access to a network.
 - Current targets are MS NAP and IETF NEA.
 - We are defining example "bindings" for how these metrics are used in the individual network assessment protocols.
- What We're NOT Doing
 - We are NOT defining any new assessment protocols, nor assessment extensions to existing authentication protocols.
 - We are NOT endorsing any of the competing network assessment protocols (TNC, NAC, NAP, NEA). Our goal is to enable Hardcopy Devices to participate in any/all of them.

Administration



- IDS WG Chairs
 - Joe Murdock (Sharp)
 - Brian Smithson (Ricoh)
- IDS WG Secretary:
 - Lee Farrell (Canon)
- IDS WG Document Editors:
 - HCD-ATR: Jerry Thrasher (Lexmark)
 - HCD-NAP: Joe Murdock (Sharp), Brian Smithson (Ricoh)
 - HCD-NEA: Randy Turner (Amalfi), Jerry Thrasher (Lexmark)

Current Status



- HCD Assessments Attributes document was developed and it is in stable condition now.
- HCD-NAP Binding Document under development.
 - Target completion date of Q1 2010.
- HCD-NEA Binding Document has been started.
 - Target completion date of Q2 2010.
- Recent/ongoing discussions with assessment protocol designers (Microsoft/NEA) to finalize and endorse the IDS Binding documents.
- There is an issue about how to deploy HCD NAP in practice: how can we get MS's SHV to recognize and apply HCD_ATR?

Next steps



- Address final comments on attributes specification.
- Finish NAP binding specification – (Q1 2010)
- Develop NEA binding specification – (Q2 2010)
- Seek approval/adoption w.r.t. assessment protocol vendors.
- Possible interop (?)
- Address deployment issues
 - How to securely populate and update SHVs with HCD attributes and base values from vendors?
 - Should we first target the MS SCCM SHV by defining HCD responses that do not require SHV changes?
- Address remediation issues.
 - Should remediation mechanisms be vendor-specific? Or HCD-industry specific? Or can it be solved in a general way?

PWG Plenary Status Report IPP Working Group

9 December 2009

Austin, TX - PWG F2F Meeting

IPP WG Officers

- IPP WG Chair:
 - Paul Tykodi (TCS)
- IPP WG Secretary:
 - Michael Sweet (Apple)
- IPP WG Document Editors:
 - Tom Hastings (formerly Xerox) – IPP JPS2
 - Ira McDonald (High North) – IPP Version 2.0
 - Mike Sweet (Apple) – IPP Version 2.0

IPP WG Current Status

- IPP Version 2.0 First Edition
 - PWG Candidate Standard – defines IPP/2.0 and IPP/2.1
 - <ftp://ftp.pwg.org/pub/pwg/candidates/cs-ipp20-20090731-5100.10.pdf>
- IPP Printer State Extensions (PSX)
 - PWG Candidate Standard – IPP Printer/Finisher alerts
 - <ftp://ftp.pwg.org/pub/pwg/candidates/cs-ippstate10-20090731-5100.9.pdf>

IPP WG Current Status

- IPP Job and Printer Operations Set2 (JPS2)
 - Prototype Draft – extends IPP Production Printing Set 1
 - Resubmit-Job, Cancel-Jobs, Cancel-My-Jobs, job save, proof print, etc.
 - <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippjobprinterext10-v14-20091202-rev.pdf>
- IPP Version 2.0 Project Charter
 - PWG SC Approved – adds IPP Job and Printer Operations Set2
 - <ftp://ftp.pwg.org/pub/pwg/ipp/charter/ch-ippv2-20090819.pdf>

IPP WG Next Steps

- IPP Job and Printer Operations Set2 (JPS2)
 - Revise Prototype Draft per review at December F2F
 - Prototype at Xerox (or elsewhere)
 - PWG Last Call in Q1 2010 (w/IPP Version 2.0 2nd Ed)
- IPP Version 2.0 Second Edition
 - Initial draft in Q4 2009 – add IPP/2.2 (Prod Print)
 - Include all IETF and PWG IPP extension specs
 - PWG Last Call in Q1 2010 (w/JPS2)
- IPP 2.0/2.1/2.2 Interoperability Testing
 - Interoperability event in Q2/Q3 2010
- IPP Everywhere
 - BOF at PWG F2F in February 2010 (Mike Sweet)

IPP WG Info / Participation

- We welcome participation from all interested parties
- IPP Working Group web page
 - <http://www.pwg.org/ipp/index.html>
- IPP Working Group wiki
 - <http://pwg-wiki.wikispaces.com/IPP>
- Subscribe to the IPP mailing list
 - <http://www.pwg.org/mailhelp.html>
- IPP WG holds bi-weekly phone conferences announced on the IPP mailing list

PWG Plenary Status Report MFD Working Group

December, 2009
Austin, TX PWG F2F Meeting

Purpose of the effort



The MFD working group is concerned with the modeling of imaging services and subunits that comprise a network connected Multifunction Device. The Objectives are:

- Drive to a standard semantic definition for an MFD's Subunits, Services, Jobs and Documents.
 - Agreement on the semantics of their attributes, operations and parameters.
- Currently being addressed are an overall MFD specification, Copy Service and FaxOut Service.
 - The Print, Scan and Resource Services have been completed
- The definition of a framework for the complete model is an objective.

Approved Documents:

Print Service: *Approved January 2004*

- PWG5105.1
PWG Semantic Model Specification Version 1.00
- <ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm10-20040120-5105.1.pdf>

Scan Service: *Approved April 2009*

- PWG5108.02-2009:
Network Scan Service Semantic Model and Service Interface Version 1.0
- <ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-scan10-20090410-5108.02.pdf>

Resource Service: *Approved July 2009*

- PWG5108.03-2009
Network Resource Service Semantic Model and Service Interface Version 1.0
- <ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-resource10-20090703-5108.03.pdf>

In Progress Documents:

MFD Model and Overall Semantics:

- MFD Model and Overall Semantics - September 22, 2009 Interim Draft
- <ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdoverallmod10-20090922.pdf>

Copy Service:

- Copy Service: Semantic Model and Service Interface - October 7, 2009 Interim Draft
- <ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdcopymodel10-20091007.pdf>

FaxOut Service:

- On hold pending available resource to fill primary editor role
- FaxOut Service:
Semantic Model and Service Interface – September 9, 2009 Interim Draft
- <ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdfaxoutmodel10-20090909.pdf>

Schema Status:



- Initial version of Power Management data has been added under SystemDescription
- No overall MFD Service exists at this time to allow modification or query of Power Management data. (i.e., the only defined method is via SNMP Get/Set)

Remaining Services



- Services planned to be addressed after the current Services are complete. (Subject to change based on group consensus)
 - FaxIn Service
 - EmailIn Service
 - EmailOut Service
 - Transform Service
 - MFD Service

Next Steps



- Work to complete the MFD specification.
 - Delay PWG wide Last Call and Formal Vote until at least one service normatively dependant on this specification reaches Last Call status
- Complete Copy Service specification and find resource to prototype
- Resume FaxOut work using normative dependencies on MFD specification
- We need people to step up as editors of remaining service specifications. The MFD specification reduces the amount of work to produce a service specification. The current Copy specification and next version of the FaxOut specification can be used as templates.

More Info/How to participate



- **We welcome more participation from member companies**
- **The group maintains a Web Page for MFD That includes links to the latest documents, schema and a browsable version of the schema**

<http://www.pwg.org/mfd/index.html>

More Info/How to participate



- **Information on subscribing to the MFD mailing list is available at**
<<https://www.pwg.org/mailman/listinfo>>
- **MFD holds periodic phone conferences, with dates, call numbers and agenda announced on the MFD mail list.**

PWG Plenary Status Report

Workgroup for Imaging Management Solutions

**Printer Working Group
Face-to-Face Meeting
December 9, 2009
Dell – Austin, Texas**

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 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.

Recent IANA MIB Updates



➤ In November, Ira submitted and IANA processed the following two IANA MIB updates:

- plasticMultiRing(12)
 - Added as a new FinBindingTypeTC to IANA Finisher MIB
 - Appears after padding(11)
 - See <http://www.iana.org/assignments/ianafinisher-mib>
- langXPS(66) {Microsoft XML Paper Specification}
 - Added as a new PrtInterpreterLangFamilyTC to the IANA Printer MIB
 - defined by <http://www.microsoft.com/whdc/xps/xpsspec>
 - Appears after langC4(65)

and

- langOpenXPS(67) {ECMA OpenXPS}
 - Added as a new PrtInterpreterLangFamilyTC to the IANA Printer MIB
 - defined by <http://www.ecma-international.org/publications/standards/Ecma-388.htm>
- See <http://www.iana.org/assignments/ianaprinter-mib>

Current Activities - CIM



➤ Print Service and Printer Classes

- Posted additional updated MOFs
 - CIM_Printer.mof / pdf (editorial fixups and deprecations)
 - CIM_PrintChannel.mof / pdf (add new enums from IANA Printer MIB)
 - CIM_PrintInputTray.mof / pdf (delete duplicate property)
 - CIM_PrintInterpreter.mof / pdf (add new enums from IANA Printer MIB)
- Remaining tasks for Printer related Classes:
 - PrintQueue, PrintSAP and 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 for new Print Service MOFs as well as well as for those identified above. CR must now use the new DMTF CR template.
- Rick Landau has notified DMTF of Dell's implementation. Need notice of at least one more implementation to move classes beyond "experimental" designation

➤ Printer Proxy CIM Provider

- Rick remains interested in feedback on user's experiences with the SNMP-CIM interpreter package. Information and code is available at:
 - ❑ ftp://ftp.pwg.org/pub/pwg/wims/cim/DellPrinterProviderProxyPrototype_README.txt
 - ❑ ftp://ftp.pwg.org/pub/pwg/wims/cim/DellPrinterProviderProxyPrototype_v10.zip

Current Activities - PMP



- The IEEE1284 Device Id "COMMAND SET" document has been updated to reflect the October face-to-face meeting comments.
- Ira has posted a draft of this document as a prototype draft at <ftp://ftp.pwg.org/pub/pwg/pmp/wd/wd-pmp1284cmdset10-20091130.pdf>
- With the review of this draft and the evidence that existing implementations constitute a valid prototype, the document is now in WIMS Last Call, with the objective of resolving any working group issues by mid-January.
- The document can then be offered for PWG Last Call, intended to continue through the February 2010 Plenary meeting.
- Balloting for advancement to PWG Candidate Standard should be complete by the April 2010 Plenary meeting.

Current Activities – Imaging Power Management



- The Power Management Model for Imaging Systems 1.0 Document has been reviewed. See the most recent version of “wd-wimspower10” at:
<ftp://ftp.pwg.org/pub/pwg/wims/wd/>
- This document is of “Prototype” status, in that the provisions of the document are being implemented in a MIB Binding, the Imaging System Power MIB. Things learned in implementation may be used to correct, clarify or improve both the abstract document and the MIB.
- See the Imaging System Power MIB in the most recent version of the “wd-wimspowermib10” document at:
<ftp://ftp.pwg.org/pub/pwg/wims/wd/>
- The ASN.1 version compiles correctly on several compilers, but it would be helpful to have as wide an exposure as possible.
- Proposed schedule has both drafts reviewed and awaiting MIB prototype implementation by February 2010. After prototype and adjustment of the documents to address issues that arise during prototype, both documents will be up for PWG last call and Ballot.

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 prototype implementation of the Imaging System Power MIB
- Maintain and update existing set of Printer- and MFP-related specifications
- Attempt at increased contact with user community understand needs and identify real hardcopy device management requirements and use cases.

More Info/How to participate



- We welcome participation from PWG member companies and input from the 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 and agenda on PWG Google Calendar.
 - <http://www.google.com/calendar/embed?src=istopwg%40gmail.com>
 - Contact WIMS Chair for phone number and access code.

Questions / Comments / Discussion



Next PWG Meeting



February 2-4, 2010

MWA Intelligence

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Suite C 400

Scottsdale, AZ 85260

(480) 538-5900

Thanks to Dell for Hosting!

- Plenary Adjourned -