Printer Working Group

Plenary – June 25, 2008
Longmont, CO

Plenary Agenda

- Introductions
- Approve/Modify Agenda
- Approve Previous Plenary Minutes
- Review PWG Patent Policy
- F2F Meeting Agenda
- Future PWG F2F Meeting Schedule
- 2008 Membership (current status)
- PWG Financial Overview
- PWG Working Group Status
  - WIMS and DMTF/CIM
  - MFD (and SM)
  - IPP (IPP v2)
  - PDM (Projector and Display Management)
  - IDS (Imaging Device Security)
- SNMP to CIM Proxy BoF overview
- PWG BoFs and Potential Future Items
- Plenary Adjourn

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.

F2F Meeting Agenda

- **Wed. 06/25**
  - 8:30 AM   11:30 AM   Imaging Device Security
  - 11:30 AM   12:30 PM   Plenary
  - 12:30 PM   2:00 PM   Lunch
  - 2:00 PM   4:00 PM   WIMS/CIM WG
  - 4:00 PM   6:00 PM   IPP v2
- **Thurs. 06/26**
  - 9:00 AM   12:30 PM   IDS (session 2)
  - 12:30 PM   2:00 PM   Lunch
  - 2:00 PM   5:30 PM   MFD model
- **Fri. 06/27**
  - 9:00 AM   12:30 PM   MFD model
  - 12:30 PM   2:00 PM   Lunch
  - 2:00 PM   3:00 PM   MFD model

Future PWG F2F Meeting Schedule

- ## 2008

  - ### August
    - 12-15, Portland OR (Hosted by Sharp)

  - ### October
    - 21-23, Lexington KY (Hosed by Lexmark)

  - ### December
    - 2-4, Irvine CA (Hosted by Samsung)

- ## 2009

  - ### February
    - 16-19   Waikoloa Beach Marriott Resort & Spa
      69-275 Waikoloa Beach Drive

      Waikoloa - Hawaii, Hawaii 96738 USA (ISTO Planned)

2008 Membership

(25 member companies)

- ✓ **366 Software**
- ✓ **Apple Inc.**
- • Boeing
- ✓ **Canon, Inc.**
- ✓ **Coretronic**
- ✓ **Dell**
- ✓ **Epson**
- ✓ **Fuji Xerox**
- ✓ **Hewlett-Packard**
- ✓ **Intermate A/S**
- ✓ **Konica Minolta**
- ✓ **Kyocera Corporation**

- ✓ **Lexmark International**
- ✓ **Microsoft**
- ✓ **MPI Tech**
- ✓ **NEC Display Solutions**
- ✓ **Northlake Software, Inc**
- ✓ **Oki Data**
- X Peerless Systems
- ✓ **Ricoh**
- ✓ **Samsung Electronics**
- ✓ **Sharp Labs of America**
- ✓ **Sigma-Tel**
- ✓ **Toshiba**
- ✓ **Xerox Corporation**
- • Zoran Imaging Division

✓ Indicates 2008 membership paid

PWG Working Group Status

PWG Plenary Status Report
WIMS/CIM Working Group

Purpose of the effort

The WIMS working group is concerned with the management of imaging services and devices via the Web. The Objectives are:

- Continuing support and update of the protocols and specifications produced by the working group.
- Definition of new and the recasting of previously defined imaging device and service management elements into a web management compatible context.
- Continuing update and upgrade of the DMTF/CIM printing classes in anticipation of this forming the basis for imaging service and device management over the Web.
- Monitoring other standards activities relating to Web-base management of Imaging Systems

Work Items for the WG

- **What We're Doing**
  - Continuing Update of DMTF/CIM Printing MOFs, as part of the work register agreement between the PWG and the DMTF and with the objective of ensuring printing management via a Web Services approach using CIM
  - Providing information to include a management perspective in the Semantic Model effort.

- **What We're NOT Doing**
  - We are no longer defining a Imaging management service or protocol.
  - We are not involved in the extension or updating of Imaging Management protocols or protocols used for management, such as the Printer MIB over SNMP or the management aspects of IPP.
  - The CIM Update effort seeks to include already defined management elements for inclusion in CIM, not to define new management elements.

WIMS/CIM Project Status & Plans

- ➢ **Imaging State & Counter MIB**
  - ➢ **Document Posted**
  - ➢ **More implementations?**

- ➢ **CIM Status**
  - ➢ **Printer MOFs approved and in CIM Schema V2.19**
  - ➢ **Counter Classes Question Resolved**
  - ➢ **Counter MOFs drafted**
  - ➢ **Prototyping of Printer MOFs underway at Dell**

- ➢ **Next Projects?**
  - ➢ **CIM Printer Profile**
  - ➢ **Providing for CIM elements currently supported in standard MIBs**
  - ➢ **Providing for CIM elements from IPP**
  - ➢ **Other elements**
    - ➢ **Private MIBs (e.g.,Power Management)**
    - ➢ **Web pages**
    - ➢ **Not presently supported**

More Info/How to participate

➢ **We welcome more participation from member companies**

  ❖ Element Selection

  ❖ MOF Evaluation/Proofing

  ❖ Change Request Generation

➢ **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

➢ **Subscribe to the WIMS mailing list by sending an e-mail to majordomo@pwg.org with a blank subject line and a message:**

  subscribe WIMS

➢ **WIMS holds periodic phone conferences, with dates, call numbers and agenda on PWG Google Calendar.**

  http://www.google.com/calendar/embed?src=istopwg%40gmail.com

PWG Plenary Status Report
MFD Working Group

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PWG Plenary Status
IPPv2 Working Group

Longmont, CO - PWG F2F Meeting
June 25, 2008

Goals

- There are currently multiple extensions to IPP version 1.1.
    - 7 approved IETF RFCs
    - 6 approved PWG ISTO standards
- Many IPP implementers are unaware of the existence of all these extensions.
- A new IPPv2 (or v2.0, 2.1, ..., 2.X) standard will bring attention to these extensions and encourage their adoption.
- No new extensions will be developed.

IPPv2 Working Group Officers

- ## IPPv2 WG Chair:
  - Ron Bergman (Ricoh)

- ## IPPv2 WG Secretary:
  - Craig Whittle (Sharp)

- ## IPPv2 WG Document Editors:
  - Jerry Thrasher (Lexmark)
  - Ira McDonald (High North)

Current Document Status

IPP 1.0 Documents
- **RFC 2565 Internet Printing Protocol/1.0: Encoding and Transport**
- **RFC 2566   Internet Printing Protocol/1.0: Model and Semantic**

IPP 1.1 Documents
- **RFC 2910 Internet Printing Protocol/1.1: Encoding and Transport**
- **RFC 2911 Internet Printing Protocol/1.1: Model and Semantics**
- **RFC 3510 Internet Printing Protocol: IPP URL Scheme**

IPP Other Documents
- **RFC 3380 Internet Printing Protocol: Job and Printer Set Operations**
- **RFC 3381 Internet Printing Protocol: Job Progress Attributes**
- **RFC 3382 Internet Printing Protocol: The 'collection' attribute syntax**
- **RFC 3995 Internet Printing Protocol: Event Notifications AND Subscriptions**
- **RFC 3996 Internet Printing Protocol: The 'ippget' Delivery Method for Event Notifications**

- **RFC 3998 Internet Printing Protocol: Job and Printer Administrative Operations**
- **PWG 5100.1 Internet Printing Protocol: "finishings" attribute values extension**
- **PWG 5100.2 Internet Printing Protocol: "output-bin" attribute extension**
- **PWG 5100.3 Internet Printing Protocol: Production Printing Attributes – Set 1**
- **PWG 5100.5 Internet Printing Protocol: Document Object**
- **PWG 5100.6 Internet Printing Protocol: Page Overrides**
- **PWG 5100.7 Internet Printing Protocol: Job Extensions**
- **PWG 5100.8 Internet Printing Protocol: "-actual" Attribute**
- **PWG 5101.1 PWG Standard for Media Size Names**

Proposed New Groups

- Version 2.0 to include all 1.1 plus:
  - **PWG 5100.1 "finishings" attribute extensions**
  - **PWG 5100.2 "output-bin" attribute extensions**
  - **PWG 5101.1 PWG Standard for Media Size Names**
- Version 2.1 to include all 2.0 plus:
  - **RFC 3380 Job and Printer Set Operations**
  - **RFC 3381 Job Progress Attributes**
  - **RFC 3382 The 'collection' Attribute Syntax**
  - **RFC 3995 Event Notifications and Subscriptions**
  - **RFC 3996 'ippget' Delivery Method for Notifications**
  - **RFC 3998 Job and Printer Administrative Operations**
  - **PWG 5100.7 Job Extensions**
- Version 2.2 to include all of 2.1 plus:
  - **PWG 5100.3 Production Printing Attributes, Set 1**
  - **PWG 5100.5 Document Object**
  - **PWG 5100.6 Page Overrides**
  - **PWG 5100.8 "-actual" Attributes**

Proposed New Groups

Version mapped to Printer Types:

- IPPv2.0
  - Simple Workgroup Printer

- IPPv2.1
  - Enterprise Printer Environment

- IPPv2.2
  - Production Printer Environment

Current Required Operations

- **0x0002**   **Print-Job**
- **0x0004**   **Validate-Job**
- **0x0008**   **Cancel-Job**
- **0x0009**   **Get-Job-Attributes**
- **0x000A**   **Get-Jobs**
- **0x000B**   **Get-Printer-Attributes**
- **0x0016**   **Create-Printer-Subscriptions**
- **0x0017**   **Create-Job-Subscriptions**
- **0x0018**   **Get-Subscription-Attributes**
- **0x0019**   **Get-Subscriptions**
- **0x001A**   **Renew-Subscription**
- **0x001B**   **Cancel-Subscription**
- **0x001C**   **Get-Notifications**
- **0x0033**   **Cancel-Document**
- **0x0034**   **Get-Document-Attributes**
- **0x0035**   **Get-Documents**

Current Work Item

- Review all remaining optional operations

- Determine which should be required

- May be different at each level

    (An optional operation at 2.0 may be required at 2.1 or 2.2)

    - V2.0 has 10 operations
    - V2.1 has 28 operations (18 added to V2.0)
    - V2.2 has 30 operations (2 added to V2.1)

2.0 Optional Operations

- 0x0005   Create-Job
- 0x0006   Send-Document
- 0x0007   Send-URI
- 0x000C   Hold-Job
- 0x000D   Release-Job
- 0x0003   Print-URI
- 0x000E   Restart-Job
- 0x0010   Pause-Printer
- 0x0011   Resume-Printer
- 0x0012   Purge-Jobs

2.1 Optional Operations

0x0005   Create-Job

0x0006   Send-Document

0x0007   Send-URI

0x000C   Hold-Job

0x000D   Release-Job

0x0003   Print-URI

0x000E   Restart-Job

0x0010   Pause-Printer

0x0011   Resume-Printer

0x0012   Purge-Jobs

0x0014   Set-Job-Attributes

0x0015   Get-Printer-Supported-Values

0x0022   Enable-Printer

0x0023   Disable-Printer

0x0024   Pause-Printer-After-Current-Job

0x0025   Hold-New-Jobs

0x0026   Release-Held-New-Jobs

0x0027   Deactivate-Printer

0x0028   Activate-Printer

0x0029   Restart-Printer

0x002A   Shutdown-Printer

0x002B   Startup-Printer

0x002C   Reprocess-Job

0x002D   Cancel-Current-Job

0x002E   Suspend-Current-Job

0x002F   Resume-Job

0x0030   Promote-Job

0x0031   Schedule-Job-After

2.2 Optional Operations

0x0005   Create-Job

0x0006   Send-Document

0x0007   Send-URI

0x000C   Hold-Job

0x000D   Release-Job

0x0003   Print-URI

0x000E   Restart-Job

0x0010   Pause-Printer

0x0011   Resume-Printer

0x0012   Purge-Jobs

0x0014   Set-Job-Attributes

0x0015   Get-Printer-Supported-Values

0x0022   Enable-Printer

0x0023   Disable-Printer

0x0024   Pause-Printer-After-Current-Job

0x0025   Hold-New-Jobs

0x0026   Release-Held-New-Jobs

0x0027   Deactivate-Printer

0x0028   Activate-Printer

0x0029   Restart-Printer

0x002A   Shutdown-Printer

0x002B   Startup-Printer

0x002C   Reprocess-Job

0x002D   Cancel-Current-Job

0x002E   Suspend-Current-Job

0x002F   Resume-Job

0x0030   Promote-Job

0x0031   Schedule-Job-After

0x0036   Delete-Document

0x0037   Set-Document-Attributes

General

- Teleconferences are held bi-weekly at 4 pm EDT
- The teleconference schedule:
  - July 7
  - July 21
  - August 4
  - August 12 (?) (Face to Face meeting)

- Contact Information
  - Email distribution list   ipp@pwg.org
  - To subscribe to the IPP mail list see:
    http://www.pwg.org/mailhelp.html

PWG Plenary Status Report
PDM Working Group

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PWG Plenary Status Imaging Device Security (IDS) Working Group

Longmont, CO - PWG F2F Meeting

June 25, 2008

Purpose of the effort

- The industry is moving beyond basic authentication for access to corporate networks to a fairly detailed assessment of the device that is connecting before being allowed 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.
- Our Goal is to provide these metrics!!!

Work Items for the WG

- **What We're Doing**
  - Defining a standard set of metrics that might be measured or assessed in Hardcopy Devices to gauge if they should be given access to a network
  - 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 or assessment extensions to existing authentication protocols.
  - We are NOT endorsing any of the competing network assessment protocols (NEA/TNC, NAC, NAP), but plan to enable Hardcopy Devices to participate in any/all of them.

Working Group Officers

IDS WG Chairs:
- Peter Cybuck (Sharp),
- Ron Bergman (Ricoh)

- IDS WG Secretary:
  - Lee Farrell (Canon)

- IDS WG Document Editors:
  - Jerry Thrasher (Lexmark),
  - Ron Nevo (Sharp)
  - Brian Smithson

Status

- Reviewed Network Assessment Protocols
  - Cisco NAC (Network Access Control)
  - TCG TNC (Trusted Network Connect)
  - Microsoft NAP (Network Access Protection)
  - IETF NEA (Network Endpoint Assessment)
- NAP appears to be the most mature
  - Well documented (public documents)
  - Supported in MS O/S versions
- Defined an initial set of assessment attributes
- Current effort is to
  - Develop Assessment Attribute Specification.
  - Map Assessment Attributes into NAP.
  - Determine the required NAP protocol stacks.

Schedule

- Q1 2008: Initial education and Study
  - Specify Network Assessment Protocols
  - Develop (Use Cases) and Requirements
- Q2 2008: Draft Proposals
  - Required Minimal Attribute Set
  - Extended Attribute Set
- Q3 2008: Standard Finalization
- Q3 2008: Draft Bindings
- Q4 2008: Finalization of Bindings

General

- Teleconferences are held bi-weekly at 1 pm EDT
- The teleconference schedule:
  - July 10
  - July 24
  - August 7
  - August 14 (Face to Face meeting)

- Contact Information
  - Email distribution list   ids@pwg.org
  - To subscribe to the IPP mail list see:
    http://www.pwg.org/mailhelp.html

SNMP to CIM Proxy BoF overview

- SNMP management is widely implemented in imaging devices, however this management mechanism is increasingly considered inappropriate for some networks and is not seen as a desirable future management scheme.
- WS-Man is the leading Web Services-based management protocol for the management of devices in the server and PC space.
- Is there an interim mechanism that would allow imaging devices supporting SNMP to be managed by a Web Services-based management application?
- Would such a mechanism encourage migration to Web Services-based management by allowing the migration without requiring that the existing base of imaging devices be immediately replaced?
- To what extent should the PWG encourage or participate in the development of such a mechanism?
- This will be discussed during the WIMS/CIM F2F session on Wed. (06/25) from 2:00 to 4:00 PM MDT.

- Potential projects being discussed
  1. Vendor Private/Enterprise MIB repository
     - Provide a managed directory (or web site) for vendors to include information about their private MIB(s).

  2. Best Practices for implementing the IEEE 1284 Device ID String
     - Standardization of the keywords that are used in the 1284 string such that they can me programmatically parsed more effectively.

- Other Items
  1. Web 2.0 Widgets and how they might apply to Hardcopy Devices (Randy Turner)

Questions/Discussion?

Plenary Adjourned!