# Printer Working Group Plenary Session

August 6, 2012

Redmond, WA

PWG F2F Meeting

Michael Sweet (Apple)

# Plenary Agenda

- Administrivia
- Open Issues
- PWG Working Group Status [WG Chairs]
  - Semantic Model (MFD)
  - WIMS
  - IPP (IPPv2 Interop, IPP Everywhere)
  - IDS (Imaging Device Security)
  - Cloud Imaging
- Liaison Status
- Next Meeting Details

# Administrivia

- Welcome and Introductions
- Confirm Minutes Taker
- Approve/Modify Agenda
- Approve Previous Plenary Minutes
- Review PWG Patent Policy
- Agenda for the Week
- Future PWG Meeting Schedule
- 2012 Membership
- PWG Officers

# 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.

# PWG Patent Statement

- 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.

# PWG Patent Statement

- 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

- **Monday, August 6**
  - 9:00 - 11:00    CWMP BOF
  - 11:00 - 12:00    PWG Plenary
  - 12:00 - 1:30    Lunch
  - 1:30 - 5:00    Cloud Imaging
- **Tuesday, August 7**
  - 9:00 - 12:00    Semantic Model (Transform Service)
  - 12:00 - 1:30    Lunch
  - 1:30 - 5:00    IPP Everywhere
- **Wednesday, August 8**
  - 9:00 - 11:00    IDS
  - 11:00 - 3:00    Cloud Imaging/Lunch

# 2012 PWG Meeting Schedule

- October 1-3      Lexington, KY (hosted by Lexmark)
- December 4-6    Irvine, CA (hosted by Samsung)

# 2013 Proposed PWG Meetings

- Want to move to a quarterly meeting schedule

- February 5-7
- May 7-9          Cupertino, CA (hosted by Apple)
                   (Joint PWG/OpenPrinting?)
- August 6-8
- November 5-7

- Volunteers to host these meetings are GREATLY appreciated!

# 2012 Membership

## 29 Members

| | | |
|---|---|---|
| Apple | Hewlett Packard | Oki Data |
| Brother Industries | Intel | Ricoh |
| Canon | Konica Minolta | Samsung |
| CSR (was Zoran) | Kyocera Mita | Sharp Labs |
| Danny Brennan | Lexmark | Technical Interface Consulting (N-V) |
| Dell | Microsoft | Thinxtream Technologies (N-V) |
| Epson | MPI Tech | Toshiba America Business Solutions |
| Fenestrae B.V. | MWA Intelligence | Tykodi Consulting Services LLC |
| Fuji Xerox | NEC Display Solutions, Ltd | Xerox |
| High North | Northlake | |

# PWG Officers (2011-2013 Term)

- PWG Chair
  - Michael Sweet, Apple
  - Moving; will continue working for Apple and as PWG chair although not attending most face-to-face meetings in person

- PWG Vice-Chair
  - Nancy Chen, Oki Data

- PWG Secretary
  - Ira McDonald, High North

# Open Issues

- IDS WG needs co-/vice chair and secretary
- Semantic Model (MFD) WG needs a chair, secretary, and WSDL/XML schema editor
- WIMS WG needs a secretary

# PWG Working Group Status

# Semantic Model Working Group Status

August 6, 2012

Redmond, WA

PWG F2F Meeting

Peter Zehler (Xerox)

# Purpose of the effort

- The Semantic Model working group is concerned with the modeling of imaging services and subunits that comprise a network connected Multifunction Device. The Objectives are:
  - The definition of a framework for the complete MFD model.
  - 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.

# Approved Documents:

- Print Service: Approved January 2004
  - PWG 5105.1: 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
  - PWG 5108.02-2009: 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
  - PWG 5108.03-2009: 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

# Approved Documents:

- ## MFD Common Semantics: Approved April 2011
  - PWG 5108.1: MFD Model and Common Semantics Version 1.00
  - ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-mfdmodel10-20110415-5108.1.pdf

- ## Copy Service: Approved June 2011
  - PWG 5108.04: Copy Service Semantic Model and Service Interface Version 1.00
  - ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-copy10-20110610-5108.04.pdf

- ## MFD Requirements: Approved September 2010
  - Multifunction Device Service Model Requirements
  - ftp://ftp.pwg.org/pub/pwg/informational/req-mfdreq10-20100901.pdf

# Approved Documents:

- FaxOut Service: Approved August 2011
    - PWG 5108.05-2011: FaxOut Semantic Model and Service Interface
    - ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-faxout10-20110809-5108.05.pdf

- System Control Service: Approved February 2012
    - PWG 5108.06-2011: System Object and System Control Service Semantics Version 1.0
    - ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-20120217-5108.06.pdf

- Print Job Ticket: Approved August 2012
    - PWG : PWG Print Job Ticket and Associated Capabilities Version 1.0
    - ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-pjt10-20120813-5108.07.pdf

# In Progress Documents:

- FaxIn Service: (Work in Progress)
  - FaxIn Service: Semantic Model and Service Interface – November 30, 2011 Interim Draft
  - ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdfaxinmodel10-20111130.pdf

- Transform Service (Work in Progress)
  - Transform Service: Semantic Model and Service Interface - April 12, 2012 Interim Draft
  - ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdtransformmodel01-20120412.pdf

# In Progress Documents

- Schema Status:
  - Named version (v1.180) published for System Control Service
  - Latest (v1.181) Up to date with In Progress specifications
    - JPS3
    - Transform Service
    - IDS SystemHealth linked to SystemStatus

# Remaining Services

- Services planned to be addressed after the current Services are complete.  (Subject to volunteers to be Editors )
  - EmailIn Service
  - EmailOut Service

# Next Steps

- Complete Last Call and Formal Vote on
  - Transform Service: Semantic Model and Service Interface
- Complete the work on FaxIn specification
- Update the MFD Model and Common Semantics Version 1.0 to be the PWG Semantic Model Specification Version 2.0

- Transition Chair/Secretary of Semantic Model Working Group
- Transition maintainer of PWG Semantic Model schema
- We need people to step up as editors of Email In/Out service specifications

# More Info/How to participate

- We welcome more participation from member companies
- The group maintains a Web Page for Semantic Model that includes links to the latest documents, schema and a browsable version of the schema
  - http://www.pwg.org/mfd

# More Info/How to participate

- Information on subscribing to the Semantic Model mailing list is available at <[https://www.pwg.org/mailman/listinfo/mfd](https://www.pwg.org/mailman/listinfo/mfd)>

- MFD holds periodic phone conferences, with dates, call numbers and agenda announced on the MFD mail list.

# Workgroup for Imaging Management Solutions (WIMS/PMP) Status

August 6, 2012

Redmond, WA

PWG F2F Meeting

William Wagner (TIC)

# Introduction

- ## What WIMS is Doing

  - Supporting the existing IETF and PWG Printer and related MIB documents (PMP, FIN, JMP) including the advancement, extension and expansion of these standards.

  - 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 interfaces.

  - Considering Hardcopy Device (MFD) management aspects in the light of changing usage, operational and security environments.

  - Coordinating Hardcopy Device and Service management aspects with the model, protocol and security efforts of other PWG Working Groups.

  - Correlating  Hardcopy Device management  aspects with other Device and Service management standards.

- ## What WIMS is NOT Doing

  - Addressing the delivery of Hardcopy services.

  - Defining a management service or protocol.

  - Dealing with security issues other than observing security requirements imposed on the management  of Hardcopy Devices or Services by IDS, IEEE2600 or other applicable security group.

# Officers & Editors

- Co-Chairs:
  - Bill Wagner (Technical Interface Consulting)
  - Danny M. Brennan (GTS Services Delivery)
- Secretary:
  - NONE
- Document Editors:
  - Ira McDonald (High North)

- MFD Alerts Document
  - Passed as PWG Candidate Standard 5107.3
  - ftp://ftp.pwg.org/pub/pwg/candidates/cs-pmpmfdalerts10-20120629-5107.3.pdf

- Power MIB Interop Test
  - Test Procedure at: http://pwg-wiki.wikispaces.com/Power+MIB+Interop
  - No reported participation

- MIB Errata WIKI
  - http://pwg-wiki.wikispaces.com/MIB+Errata
  - No additional work done - effort suspended

- Additional MFD Management Elements
  - ftp://ftp.pwg.org/pub/pwg/wims/white/Management_elements-20120530.pdf
  - Activity suspended

# Next WIMS/PMP Activities

- Activity in this working group has been suspended pending identification of a project in which there is reasonable interest and participation.

- The mailing lists remain open and are monitored

- If an Imaging device or service management area is identified, and there is interest expressed on the mailing list, conference calls and face-to-face meetings can be resumed to consider a project to address that area.

# 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 various WIMS activities.
    - http://www.pwg.org/wims/index.html
    - http://pwg-wiki.wikispaces.com/WIMS
    - http://pwg-wiki.wikispaces.com/WIMS-CIM
    - http://pwg-wiki.wikispaces.com/MIB+Errata
    - http://pwg-wiki.wikispaces.com/Power+MIB+Interop

- To subscribe to the WIMS mailing list, go to :
    - https://www.pwg.org/mailman/listinfo/wims

# IPP Working Group Status

August 6, 2012

Redmond, WA

PWG F2F Meeting

Ira McDonald (High North)

# IPP WG Officers

- IPP WG Co-Chairs:
  - Paul Tykodi (TCS)
  - Ira McDonald (High North)
- IPP WG Secretary:
  - Michael Sweet (Apple)
- IPP WG Document Editors:
  - Ira McDonald (High North) – IPP Everywhere, IPP Scan Service, IPP over HTTPS Transport Binding and "ipps" URI Scheme, LDAP Schema for Printer Services
  - Michael Sweet (Apple) – IPP Everywhere, PWG Media Standardized Names 2.0, IPP over HTTPS Transport Binding and "ipps" URI Scheme, LDAP Schema for Printer Services, IPP FaxOut Service

# IPP WG Status

- IPP Everywhere specs in development:
  - IPP Everywhere (PWG Last Call)
  - IETF IPP over HTTPS Transport Binding and "ipps" URI Scheme
  - IETF LDAP Schema for Printer Services (updates RFC 3712)
  - PWG Media Standardized Names 2.0 (MSN2)

- IPP Multifunction specs in development:
  - IPP Scan Service
  - IPP FaxOut Service

- IPP Cloud binding specs in development:
  - None

# IPP WG Status

- New Candidate Standards:
  - PWG 5100.13-2012: IPP Job and Printer Extensions - Set 3 (JPS3)
  - PWG 5102.4-2012: PWG Raster Format

- Up-to-date pending IANA registrations online:
  - http://www.pwg.org/ipp/ipp-registrations.xml
  - Will maintain this in parallel for new specifications
  - Also have some MIB registrations pending

# IPP/2.0 Interoperability Event

- During the August 2011 F2F we decided the IPP/2.0 interoperability event will be virtual using the CUPS ipptool program and conformance test files

- February 2012 release of ipptool covers:
  - All required operations and attributes for IPP/2.0
  - Partial coverage of operations and attributes for IPP/2.1
  - Basic testing for existence of IPP/2.2 operations and attributes

- Final results for IPP/2.0 tomorrow!

# 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
  - Next conference call is August 20, 2012 at 3pm (EST)

# IDS Working Group Status

August 6, 2012

Redmond, WA

PWG F2F Meeting

Joe Murdock (Sharp)

# Purpose of the effort

- Hardcopy device have security and access considerations that are not addressed within current hardcopy standards.  These considerations should be addressed in a manner common to all hardcopy devices:

    - Hardcopy Devices are currently allowed unfettered access to and storage of secure and controlled documents.  There is no standard for controlling document access and defining usage behavior for protecting secure documents.

    - Hardcopy Devices are providing services to mobile devices running different operating system with different methods to consume Hardcopy service. Hardcopy Devices are extending their services as "cloud" resources, and consuming resources from the "cloud".  There is no standard or recommended methodology for authenticating and securing the mobile and hardcopy device, their services or the users consuming those services.

    - Hardcopy Devices are providing and consuming services outside of the traditional concept of a local user on a physical device.  There are currently no standards or recommendation for controlling or validating access to these services.

    - 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.  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 and provide secure, controlled access to documents and hardcopy services regardless of location or consumer.

# 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.
  - We are providing recommendations for identifying and authenticating Hard Copy and mobile devices, services and users in a global workspace.
  - We are defining standard attributes and values for authorizing Hard Copy Devices, their services and users in a global workspace
  - We are defining a set of standard security attributes to be associated with mobile and remote imaging jobs, users, services and devices
  - We are defining common log formats and values to facilitate automated log analysis.

- 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.
  - We are NOT defining any new security protocols.

# Administration

- IDS WG Chair
  - Joe Murdock (Sharp)
- IDS WG Vice-Chair
  - vacant
- IDS WG Secretary:
  - vacant
- IDS WG Document Editors:
  - HCD-ATR: Jerry Thrasher (Lexmark)
  - HCD-NAP: Joe Murdock (Sharp), Brian Smithson (Ricoh)
  - HCD-TNC: Ira McDonald (Samsung)
  - IDS-Model: Joe Murdock (Sharp), Ira McDonald (High North), Ron Nevo (Samsung)
  - IDS-Log: Mike Sweet (Apple)
  - IDS-IAA: Joe Murdock (Sharp)

# Current Status

- IDS-Model Common Requirements specification
  - Prototype draft completion date Q4, 2012

- HCD-TNC Binding Document is under development.
  - Prototype draft completion date of Q4, 2012.

- IDS-Log Common Log Specification is under development
  - Prototype draft completed.

- IDS-IAA specification is under development
  - Prototype draft completion date of Q4, 2012.

- HCD-Attributes specification is under revision
  - Prototype draft completion date of Q3, 2012.

- HCD-Nap specification is under revision
  - Prototype draft completion date of Q3, 2012

- IDS Security Ticket schema is under development
  - Prototype draft completion date of Q4, 2012.

# 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 IDS update
  - http://www.pwg.org/ids/index.html
  - http://pwg-wiki.wikispaces.com/Imaging+Device+Security+WG

- To subscribe to the IDS mailing list, go to :
  - https://www.pwg.org/mailman/listinfo/ids

- The group hold bi-weekly conference calls on Thursdays at 10:00AM PST/1:00PM EST.
  - Next teleconference August ??, 2012

# Cloud Imaging Working Group Status

August 6, 2012

Redmond, WA

PWG F2F Meeting

Ron Nevo (Samsung)

# Officers

- Chair: Ron Nevo (Samsung)
- Vice Chair: Bill Wagner (TIC)
- Secretary: Michael Sweet (Apple)
- Document Editors:
  - Ira McDonald (High North):Cloud Print Model and Requirements, Job Ticket Mapping (JDF)
  - Larry Upthegrove: Cloud Print Model and Requirements
  - Peter Zehler (Xerox): Cloud Print Model and Requirements, Job Ticket Mapping (MSPS)
  - Ron Nevo (Samsung): Cloud Print Model and Requirements, Job Ticket Mapping
  - Michael Sweet (Apple): Job Ticket Mapping (PPD content)
  - Justin Hutchings (Microsoft): Job Ticket Mapping (MSPS)

# Status Items

- State of Print Job Ticket Specification:
  - Voting to advance to Candidate Standard ended 30 July
  - Sufficient Votes received to meet quorum; no NO votes recorded
  - Some editorial changes requested
- State of Mapping Specification
  - Title made more general, intended specification type changed from "Best Practice" to "Candidate Standard", and two-phase effort defined
  - Last post (ftp://ftp.pwg.org/pub/pwg/cloud/wd/wd-cloudmap10-20120604.pdf) reflects comments made on review of May version, but does not include any substantive changes.
  - Effort to resume:
    - Ira to work with Justin on MSPS mapping (ONGOING - work started)
    - Mike to update PPD Mapping (ONGOING - pending table updates)
- State of Model Specification
  - Primary current work effort
  - Current Draft: ftp://ftp.pwg.org/pub/pwg/cloud/wd/wd-cloudmodel10-20120723.pdf

# Other Items

- Updated Charter draft:
  - Posted at ftp://ftp.pwg.org/pub/pwg/cloud/wd/wd-cloud-charter-20120428.pdf
  - Review and request that it be approved by SC

- Google I/O 2012 - Beyond Paper: Google Cloud Print and the Future of Printing
  - http://www.youtube.com/watch?v=0G9OaTzdOa0
  - Relation to PWG Model?

# Cloud Printing Requirements and Model – Scope Consideration

- Affirmation of the functional elements in the original model

- Recognition that:

  - Cloud Print Provider is an environment rather than a functional element;

  - Cloud Print Provider includes  "Printer Registration", " Client Association", and "Printer Enumeration" aspects that may be part of a larger Cloud environment with specific interfaces determined by others

  - Client ⇔ Cloud Print Service interface should conform to the Client ⇔ Print Service interface already defined in the Semantic Model (with some additional identification, authentication, authorization considerations)

  - Primary "new" and Printing specific interface is that between the "Print Cloud Service ⇔ Cloud Print Manager".

# Cloud Printing Requirements and Model – Scope Consideration

- Therefore, the intent is that the specification will:
  - Identify the Rationale for and Requirements of a Cloud Printing capability with respect to addressing identified Use Cases.
  - Outline the operation of the Cloud Printing Facility
  - Define the "Print Cloud Service ⇔ Cloud Print Manager" interface.
  - Describe the Client ⇔ Cloud Print Service interface, referring to existing PWG standards for details.
  - Functionally describe the relationship between the Cloud Print Provider and the Client and the Cloud Print Manager with respect to "Printer Registration", " Client Association", and "Printer Enumeration" aspects.

# Next Steps

- Cloud Imaging Model and Requirements Specifications
  - Continue with Cloud Printing Model and Requirements
    - Additional Contributors ?
  - Cloud Multifunction Model and Requirements
- Support of Current Cloud Printing Approaches
  - CLOUDMAP V1- Mapping of PWG Semantic Model elements into PPD, MSPS and JDF formats
  - CLOUDMAP V2- Mapping of PWG Semantic Model elements into IPDS, MODCA and CIM formats
- Specific Action Items!

# Cloud Imaging WG Participation

- We welcome participation from all interested parties
- Cloud Imaging Working Group Web page
  - http://www.pwg.org/cloud/index.html
- Cloud Imaging Working Group Wiki
  - http://pwg-wiki.wikispaces.com/Cloud+Imaging
- Subscribe to the Cloud mailing list
  - https://www.pwg.org/mailman/listinfo/cloud
  - cloud@pwg.org
- Cloud Imaging WG holds bi-weekly phone conferences announced on the Cloud mailing list
  - Next conference call is August 27, 2012 at 3 pm (ET)
  - Conferences on opposite weeks of IPP WG calls

# Liaison Status

# TCG News

- Embedded Systems (EmSys)
  - Near-term focus
    - SmartGrid, Financial, Medical, Auto, Industrial Control
  - Define Embedded TPM and facilitate practical demos in 2012
- Trusted Mobility Solutions (TMS)
  - Near-term focus
    - Business-to-Consumer (trusted execution environments)
    - Dual-Use (user mobile phones in enterprise networks)
  - Define TM solutions and facilitate practical demos in 2012
- Next TCG Members Meeting
  - October 2012
- TCG Website
  - http://www.trustedcomputinggroup.org/

# TCG Workgroups

- Trusted Mobility Solutions (TMS)
- Authentication
- Embedded Systems (EmSys)
- Infrastructure
- Mobile Phone (MPWG)
- PC Client
- Server Specific
- Storage
- Trusted Multi-tenant Infrastructure (TMI)
- Trusted Network Connect (TNC)
- Trusted Platform Module (TPM)
- TCG Software Stack (TSS)
- Virtualized Platform (VPWG)

# USB IF - IPP over USB WG

- The IPP over USB project has been approved by the USB Forum Board
  - Also covers HTTP over USB
- Working group formation is in process
  - You must sign an IP agreement to join the WG
- Five vendors have signed
  - Still want more printer vendors to sign the IP agreement and join the WG

# Other Questions / Comments
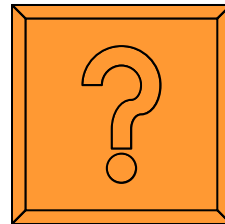
# Next PWG Meetings

- October 1-3 in Lexington, KY (hosted by Lexmark)
- December 4-6 in Irvine, CA (hosted by Samsung)

# Thank you Microsoft for hosting this meeting!