

# Printer Working Group Plenary Session

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June 5, 2012

Webster, NY

PWG F2F Meeting

Michael Sweet (Apple)

# Plenary Agenda

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- Administrivia
- Open Issues
- PWG Working Group Status [WG Chairs]
  - Semantic Model (MFD)
  - WIMS
  - IPP (IPPs2 Interop, IPP Everywhere)
  - IDS (Imaging Device Security)
  - Cloud Imaging
- Liaison Status
- Next Meeting Details

# Administrivia

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- 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

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- 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

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- 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

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- 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

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- Tuesday, June 5
  - 9:00 - 11:00 CWMP BOF
  - 11:00 - 12:00 PWG Plenary
  - 12:00 - 1:00 Lunch
  - 1:00 - 5:00 Cloud Imaging
- Wednesday, June 6
  - 9:00 - 12:00 IDS
  - 12:00 - 1:00 Lunch
  - 1:00 - 5:00 IPP Everywhere
- Thursday, June 7
  - 9:00 - 12:00 Semantic Model (Transform Service)
  - 12:00 - 1:00 Lunch
  - 1:00 - 3:00 WIMS



# 2012 PWG Meeting Schedule

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- August 6-8 Redmond, WA (hosted by Microsoft)
- October 1-3 Lexington, KY (hosted by Lexmark)
- December 4-6 Irvine, CA (hosted by Samsung)

# 2013 Proposed PWG Meetings

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- February 5-7
- April 2-4? TBD    Cupertino, CA (hosted by Apple)  
(Joint PWG/OpenPrinting)
- June 4-6
- August 6-8
- October 1-3
- December 3-5
  
- 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	Thinstream 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)

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- 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, Samsung/High North

# Open Issues

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- IDS WG still needs co-/vice chair
- Semantic Model (MFD) WG still needs a secretary
- WIMS WG still needs a secretary
- PR/Marketing of the PWG

# PR/Marketing of the PWG

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- The PWG has limited visibility
- Have been contacted by several media outlets for interviews and information concerning our work
- At the April 2012 F2F meeting we agreed to the following marketing activities:
  - Promote the IEEE-ISTO PWG as an active standards body with market leader participation
  - Highlight existing standards and current initiatives including IPP Everywhere and Cloud Imaging
  - Encourage adoption of PWG standards among ISVs, System Integrators, and VARs
  - Encourage participation from non-PWG members
  - Coordinate interviews and requests for information and interviews
- Engaging PR-Works to begin work

# PWG Working Group Status

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# Semantic Model Working Group Status

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June 5, 2012

Webster, NY

PWG F2F Meeting

Peter Zehler (Xerox)



# Purpose of the effort

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- 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:

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- **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:

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- **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:

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- 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>

# In Progress Documents:

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- **Print Job Ticket: (Completed PWG Last Call)**
  - PWG Print Job Ticket and Associated Capabilities – May 9, 2012 Stable Draft
  - <ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-sm20-printjobticket10-20120509.pdf>
- **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

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- Schema Status:
  - Named version (v1.170) published for System Control Service
  - Latest (v1.177) Up to date with In Progress specifications
    - JPS3
    - Transform Service
    - IDS SystemHealth linked to SystemStatus

# Remaining Services

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

# Next Steps

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- Complete Formal Vote on
    - Print Job Ticket and Associated Capabilities specification
  - 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
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- We need people to step up as editors of Email In/Out service specifications



# More Info/How to participate

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- 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

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- Information on subscribing to the Semantic Model mailing list is available at  
<<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

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June 5, 2012

Webster, NY

PWG F2F Meeting

William Wagner (TIC)

- 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

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

# Activities and Status

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- MFD Alerts Document
  - Voting for advancement to candidate standard scheduled to end June 15.
  - <ftp://ftp.pwg.org/pub/pwg/pmp/wd/wd-pmpmfdalerts10-20120517.pdf>
  - Three votes received so far.
- Power MIB Interop Test
  - Test Procedure at:  
<http://pwg-wiki.wikispaces.com/Power+MIB+Interop>
- MIB Errata WIKI
  - <http://pwg-wiki.wikispaces.com/MIB+Errata>
  - Needs more input
- Additional MFD Management Elements
  - [ftp://ftp.pwg.org/pub/pwg/wims/white/Management\\_elements-20120530.pdf](ftp://ftp.pwg.org/pub/pwg/wims/white/Management_elements-20120530.pdf)
  - Consider new project to provide identification of elements to SM

# Next WIMS/PMP Activities

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- PWG Power MIB Interop
  - Continuing Effort
- MIB Errata Page
  - Adding errata, comments, clarifications
  - Publicize
- Additional Management Elements to be identified in Semantic Model
  - More Elements?
  - Review of Lists
  - Form of submission to SM working group

# More Info/How to participate

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- 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

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June 5, 2012

Webster, NY

PWG F2F Meeting

Ira McDonald (Samsung/High North)

# IPP WG Officers

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- 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 JPS3, IPP Scan Service, IPP over HTTPS Transport Binding and “ipps” URI Scheme, LDAP Schema for Printer Services
  - Michael Sweet (Apple) – IPP Everywhere, IPP JPS3, 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

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- IPP Everywhere specs in development:
  - IPP Everywhere
  - IPP: Job and Printer Extensions - Set 3 (JPS3 - about to enter PWG Formal Vote)
  - 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

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- New Candidate Standard:
  - PWG 5102.4-2012: PWG Raster Format
- Up-to-date pending IANA registrations online:
  - <http://www.pwg.org/ipp/ipp-registrations.xml> (+ .txt)
  - Will maintain this in parallel for new specifications
  - Also have some MIB registrations pending

# IPP Interoperability Event

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- 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
- Future update to include tests for undefined attribute and group tags, plus additions to IPP/2.1 and IPP/2.2 tests
- Test results to be sent to Mike Sweet ([msweet@apple.com](mailto:msweet@apple.com)) for presentation at future F2F's
  - Updated results tomorrow
  - "Final" results at August 2012 F2F?

# IPP WG Info / Participation

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- 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 June 18, 2012 at 3pm (EST)

# PWG Plenary Status Report IDS Working Group

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June 5, 2012

Webster, NY

PWG F2F Meeting

Joe Murdock (Sharp)

# Purpose of the effort

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- 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

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- 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

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- IDS WG Chair
  - Joe Murdock (Sharp)
- IDS WG Vice-Chair
  - vacant
- IDS WG Secretary:
  - Jesse Sanchez (Intel)
- 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 (Samsung), Ron Nevo (Samsung)
  - IDS-Log: Mike Sweet (Apple)
  - IDS-IAA: Joe Murdock (Sharp)

# Current Status

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- IDS-Model Common Requirements specification
  - Prototype draft completion date Q3, 2012
- HCD-TNC Binding Document is under development.
  - Prototype draft completion date of Q3, 2012.
- IDS-Log Common Log Specification is under development
  - Prototype draft completion date of Q2, 2012.
- IDS-IAA specification is under development
  - Prototype draft completion date of Q3, 2012.
- HCD-Attributes specification is under revision
  - Prototype draft completion date of Q2, 2012.
- IDS Security Ticket schema is under development
  - Prototype draft completion date of Q3, 2012.

# More Info/How to participate

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- 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 June 21, 2012

# Cloud Imaging Working Group Status

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June 5, 2012

Webster, NY

PWG F2F Meeting

Ron Nevo (Samsung)

# Officers

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

# Overview

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- To allow support of convenient and full featured imaging services in conjunction with Cloud Computing and other Cloud-based facilities, the PWG held a series of BOF meetings focused on modeling and understanding the use cases, requirements, and existing implementations.
- This culminated with the creation of the Cloud Imaging Working Group in February 2011.
- Under the current charter, the WG will address:
  - Best Practice Mapping Document from JDF, MSPS, and PPD to PWG Job Ticket and Printer Characteristics (Phase 0)
  - Cloud Printing Model and Requirements (Phase 1)
  - Cloud Multifunction Model and Requirements (Phase 2)

# Overview (con't)

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- Cloud Imaging is also coordinating with other working groups to define:
  - PWG Job Ticket and Printer Characteristics (Semantic Model WG)
  - Cloud Print IPP Binding (IPP WG)
  - IPP Shared Infrastructure Extensions (IPP WG)
  - Cloud Print SOAP Binding (Semantic Model WG)
  - Cloud Multifunction IPP Binding (IPP WG)
  - Cloud Multifunction SOAP Binding (Semantic Model WG)



# Phase 0 - Mapping

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- Phase 0 considers how current Cloud Printing implementations might better reflect PWG compatible semantics in the printer characteristics information and Job Ticket aspects
- A best practices document, “Mapping of MSPS, PPD, and JDF to/from PWG Print Job Ticket and PWG Print Service” (CLOUDMAP), is under development to provide guidance to existing implementations:
  - <ftp://ftp.pwg.org/pub/pwg/cloud/wd/wd-cloudmap10-20111204-rev.pdf>
- Development has been delayed due to time constraints of the principle document editors

# Phase 1 - Cloud Print Model

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- Phase 1 defines the basic model and requirements for Cloud Printing in the PWG Semantic Model
- Development of this specification has begun thanks to the efforts of a new document editor, Larry Upthegrove:
  - <ftp://ftp.pwg.org/pub/pwg/cloud/wd/wd-cloudmodel10-20120412-rev.pdf>

# Cloud Imaging WG Participation

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- 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](mailto:cloud@pwg.org)
- Cloud Imaging WG holds bi-weekly phone conferences announced on the Cloud mailing list
  - Next conference call is June 25, 2012 at 3 pm (ET)
  - Conferences on opposite weeks of IPP WG calls

# Liaison Status

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- The AFP Consortium develops the Advanced Function Presentation architecture used primarily with mainframe computing:
  - <http://www.afpcinc.org/>
- Almost finished with a test mapping between media handling available in the AFP Consortium specified Intelligent Printer Data Stream (IPDS) and the PWG Media Standardized Names, to determine whether a full mapping between PWG Semantic Model and AFP Consortium IPDS is warranted to help them with integrating JDF support into their architecture and to determine whether IPDS encapsulated in IPP would be a viable option for them to consider as a mechanism to support their architectural deployment via Cloud.

- 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
  - June 19-21, 2012 in Madrid, Spain
- TCG Website
  - <http://www.trustedcomputinggroup.org/>

# TCG Workgroups

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- 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

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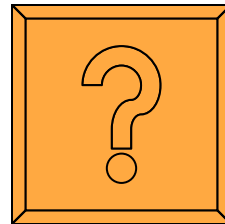


- The IPP over USB project has been approved by the USB Forum Board
  - Also covers HTTP over USB
- Working group formation is in process
  - You must sign an IP agreement to join the WG
- Five vendors have signed
  - Still want more printer vendors to sign the IP agreement and join the WG



# Other Questions / Comments

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# Next PWG Meetings

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- August 6-8 in Redmond, WA (hosted by Microsoft)
- October 1-3 in Lexington, KY (hosted by Lexmark)

Thank you Xerox for hosting this meeting!

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