

Printer Working Group Plenary Session

December 5, 2012

PWG F2F Meeting

Irvine, CA

Michael Sweet (Apple)

Plenary Agenda

- Administrivia
- Open Issues
- PWG Working Group Status [WG Chairs]
 - Semantic Model (MFD)
 - IPP
 - IDS (Imaging Device Security)
 - Cloud Imaging Model
 - CWMP BOF
- 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



- Wednesday, December 5
 - 9:00 - 10:00 PWG Plenary
 - 10:00 - 10:45 Cloud Imaging (Requirements & Model)
 - 10:45 - 11:00 Break
 - 11:00 - 12:00 Cloud Imaging (Operations)
 - 12:00 - 1:00 Lunch
 - 1:00 - 3:00 Cloud Imaging/Semantic Model (Mapping)
 - 3:00 - 3:15 Break
 - 3:15 - 5:00 Semantic Model (Transform, FaxIn, SMv2)
- Thursday, December 6
 - 9:00 - 12:00 IPP (FaxOut and Best Practices)
 - 12:00 - 1:00 Lunch
 - 1:00 - 5:00 IDS

2013 PWG Meetings



- Moving to a quarterly meeting schedule
- February 6-7 El Segundo, CA (hosted by Xerox)
- May Cupertino, CA (hosted by Apple)
[Joint OpenPrinting, dates pending]
- August 6-8 Camas, WA (hosted by Sharp)
- October 22-24 Cupertino, CA (hosted by Ricoh)

2012 Membership



30 Members

Apple	High North	Northlake
Brother Industries	Hewlett Packard	Oki Data
Canon	Intel	Ricoh
CSR (was Zoran)	Konica Minolta	Samsung
Danny Brennan	Kyocera Mita	Sharp Labs
Dell	Lexmark	Technical Interface Consulting (N-V)
Digital Imaging Technologies	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

Note: Renewal notices for 2013 have been sent out.

PWG Officers (2011-2013 Term)



- PWG Chair
 - Michael Sweet, Apple
- PWG Vice-Chair
 - Nancy Chen, Oki Data
- PWG Secretary
 - Ira McDonald, High North

Open Issues

- IDS WG needs co-/vice chair
- Semantic Model (MFD) WG needs a secretary

PWG Working Group Status

Semantic Model Working Group Status

December 5, 2012

PWG F2F Meeting

Irvine, CA

Peter Zehler/Daniel Manchala (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 July 2012
 - PWG 5108.07-2012: PWG Print Job Ticket and Associated Capabilities Version 1.0
 - <ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-pjt10-20120801-5108.07.pdf>

In Progress Documents:



- FaxIn Service: (Work in Progress)
 - FaxIn Service: Semantic Model and Service Interface – December 1, 2012 Interim Draft
 - <ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdfaxinmodel10-20121201-rev.pdf>
- Transform Service (Work in Progress)
 - Transform Service: Semantic Model and Service Interface - August 7, 2012 Interim Draft
 - <ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdtransformmodel01-20120807.pdf>

In Progress Documents



- Schema Status:
 - Named version (v1.180) published for PWG Print Job Ticket
 - Latest (v1.182) Up to date with In Progress specifications
 - Transform Service
 - IDS SystemHealth linked to SystemStatus
 - Cloud Print extensions

Remaining Specifications

- Planned to be addressed after the current Services are complete. (Subject to change based on group consensus)
 - Scan Service v2.0
 - Print Service v2.0
 - Transform Server v2.0
 - Semantic Model v2.0
 - Service Integration with Workflow Environments v1.0
 - EmailIn Service
 - EmailOut Service

Next Steps

- Appoint Vice Chair and Secretary of Semantic Model Working Group
- Complete Last Call and Formal Vote on
 - Transform Service: Semantic Model and Service Interface
 - FaxIn Service: Semantic Model and Service Interface
- Coordinate transition of Cloud Mapping activity
- Update the MFD Model and Common Semantics Version 1.0 to be the PWG Semantic Model Specification Version 2.0
- We need people to step up as editors of additional 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>>
- MFD holds periodic phone conferences, with dates, call numbers and agenda announced on the MFD mail list.

IPP Working Group Status

December 5, 2012

PWG F2F Meeting

Irvine, CA

Paul Tykodi (TCS)

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 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) (PWG Last Call)
- IPP Multifunction specs in development:
 - IPP Scan Service
 - IPP FaxOut Service
- IPP Cloud binding specs in development:
 - None

IPP WG Status



- Recent 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 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 January 14, 2013 at 3pm ET

IDS Working Group Status

December 5, 2012

PWG F2F Meeting

Irvine, CA

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:
 - Alan Sukert (Xerox)
- 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-Log Common Log Specification
 - In PWG Last Call
- HCD-Attributes specification
 - In PWG Last Call
- HCD-Nap specification
 - In PWG Last Call
- HCD-TNC Binding Document
 - Prototype draft completion date of Q1, 2013
- IDS-Model Common Requirements specification
 - Prototype draft completion date of Q1, 2013
- IDS-IAA specification
 - Prototype draft completion date of Q2, 2013
- IDS Security Ticket schema
 - Prototype draft completion date of Q2, 2013

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 Mondays at 11:00AM PT/2:00PM ET
 - Next teleconference January 7, 2013

Cloud Imaging Model Working Group Status

December 5, 2012

PWG F2F Meeting

Irvine, CA

Ron Nevo (Samsung)

Officers



- Chair: Ron Nevo (Samsung)
- Vice Chair: Bill Wagner (TIC)
- Secretary: Michael Sweet (Apple)
- Document Editors:
 - Cloud Imaging Model Working Group Activities
 - Larry Upthegrove: Cloud Printing Requirements and Model
 - Ron Nevo (Samsung): Cloud Printing Requirements and Model
 - Related Semantic Model and IPP Working Group Activities
 - Daniel Manchala (Xerox): Cloud Printing Model Web Services Binding
 - Ron Nevo (Samsung): Job Ticket Mapping – Overall Editor
 - Michael Sweet (Apple): JobTicket Mapping (PPD), Cloud Imaging Model IPP Binding
 - Ira McDonald (High North): Job Ticket Mapping (JDF), Cloud Imaging Model IPP Binding
 - Justin Hutchins (Microsoft): Job Ticket Mapping (MSPS)
 - Paul Tykodi (TCS): Job Ticket Mapping (MSPS)

Background and Purpose



- Cloud-based applications and solutions are increasingly common, and Cloud-based printing, scanning, and facsimile (collectively called "Cloud Imaging") are emerging in several different forms. Adopting standard protocols and schemas now will help interoperability, speed adoption, and address privacy and security issues involved in Cloud Imaging.
- A basic functional model was developed at previous Cloud Printing BOF sessions. This model revealed several new requirements beyond the existing PWG Semantic Model including new operations to be initiated on behalf of the imaging device to communicate with the Cloud Imaging Service. In addition, there are requirements for device registration, enumeration/selection, use of late transforms to preserve fidelity, additional notification events, strict privacy and security policies, and reliable logging.
- The goal of the Cloud Imaging project is to develop the following new documents to support Cloud-based printing and multifunction imaging using the PWG Semantic Model:
 - (a) Cloud Printing Requirements and Model (CLOUDMODEL - wd-cloudmodel10-yyyymmdd) – defining the reference model, terminology, and requirements for Cloud Printing.
 - (b) Cloud Imaging Requirements and Model, extending the reference model, terminology, and requirements established for Cloud Printing to Cloud Imaging.

Background and Purpose



- In developing this model, it was recognized that Cloud Imaging will operate in a rich Cloud environment, largely determined by others. Therefore, although the Requirements and Model specification will outline the requirements for imaging device registration, enumeration/selection, strict privacy and security policies, and reliable logging, it will not specifically model these aspects.
- In addition, to facilitate the correlation between PWG Semantic Model elements and other models that may be used in Cloud Imaging, it was determined that a mapping between the PWG Semantic Model elements and other imaging job ticket and job handling mechanisms would be useful. Two sets of mapping were identified.
 - (1) Mapping of MSPS, PPD, and JDF to/from PWG Print Job Ticket and PWG Print Service define a PWG Candidate Standard document that includes a recommended mapping of PWG Print Job Ticket and PWG Print Service (capabilities and selected description and status elements) [PJT] to and from elements in the Microsoft Print Schema Specification [MSPS], Adobe Postscript Printer Description [PPD], and CIP4 Job Definition Format [JDF];
 - 2) Mapping of IPDS, MODCA and CIM to/from PWG Print Job Ticket and PWG Print Service
- However, because such mappings were of more general use than just Cloud Imaging, the effort to document them was transferred to the Semantic Model Working Group.

- Charter
 - Latest charter was approved by PWG Steering Committee in October
 - (<ftp://ftp.pwg.org/pub/pwg/cloud/charter/ch-cloud-charter-20121030.pdf>)
- Cloud Printing Model Specification
 - Primary current work effort
 - Current Draft at <ftp://ftp.pwg.org/pub/pwg/cloud/wd/wd-cloudmodel10-20121126.pdf>
 - Document simplified by decisions that:
 - Print Job Requesters interaction with Cloud Print Server identical to that with standard network Print Server as defined in Semantic Model
 - Detailed design consideration of elements within the Cloud are out of scope
- Mapping Activity – Transferred to SM WG.

Next Steps

- Cloud Printing Model and Requirements
 - Editor: Larry
 - Additional Contributors: ?
 - Schedule: PWG Last Call of Cloud Print Requirements and Model – Q2, 2013
- Cloud Multifunction Model and Requirements
 - Editor: ?
 - Contributors: ?
 - Schedule: ?
 - Initial working draft Q2, 2013
 - PWG Last Call of Cloud MFD Requirements and Model – Q3, 2013
- Support of Mapping and Binding Efforts in Other WG
 - Mapping V1 and V2 in Semantic Model WG
 - Web Services Binding in Semantic Model WG
 - IPP Binding in IPP WG

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 Jan 7, 2013 at 3 pm (EST)
 - Conferences on opposite weeks of IPP WG calls

CWMP BOF Status

CWMP BOF Status



- Developed, prototyped, and demonstrated a standard CWMP data model for MFD that is a machine translation from the PWG Semantic Model.
- A CWMP data model for MFD or any device with services must be developed in BBF BroadbandHome Working Group as a BBF standard.
- PWG Chair has reached out to BBF CEO on proposing a formal collaboration project to develop such standard in BBF, allowing PWG Semantic Model/IPP experts' who are non-BBF members to active participate in the standard development in BBF.
- BBF CEO will discuss this subject in this week's BBF quarterly meeting in Japan. There is no issue perceived since BBF had a similar project with an IEEE standard working group before.

Liaison Status

AFP Consortium



- Paul Tykodi has committed to creating a small portion of the proposed MO:DCA-P and IPDS mappings to the PWG PJT
- These mappings will be reviewed at the AFP Consortium's upcoming meetings
- The AFP Consortium will provide feedback and guidance on the mappings
- The mappings will be included in the 2.0 version of the PWG PJT Mapping document

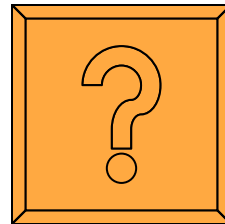
- Embedded Systems (EmSys)
 - Scope - SmartGrid, Financial, Medical, Auto, Industrial Control
 - Define embedded TPM/TNC/SED and facilitate demos in 2013
 - Vehicle Services SG - embedded controllers and Internet
- Trusted Mobility Solutions (TMS)
 - Scope - BYOD (enterprise) and Mobile Banking/Payment (trusted apps)
 - Define trusted mobile solutions and facilitate demos in 2013
- Next TCG Members Meeting
 - February 18-22 2012 - San Francisco, CA
- TCG Website
 - <http://www.trustedcomputinggroup.org/>

USB IF - IPP USB WG



- The IPP USB project has been approved by the USB Forum Board
 - Also covers HTTP over USB
- IPP USB specification has completed last call and is awaiting final approval for publication

Other Questions / Comments



Next PWG Meetings

- February 5-7 in El Segundo, CA (hosted by Xerox)
- May in Cupertino, CA (hosted by Apple - dates will be finalized before February meeting)

Thank You!



- Thank you Samsung for hosting this meeting!