The Printer Working Group

Printer Working Group Plenary Session

October 22, 2013

PWG F2F Meeting

Cupertino, CA

Michael Sweet (Apple)

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- Administrivia
- Open Issues
- PWG Working Group Status [WG Chairs]
  - Semantic Model (MFD)
  - IPP
  - IDS (Imaging Device Security)
  - Cloud Imaging Model
- Liaison Status
  - AFP Consortium
  - BBF - CWMP
  - TCG
  - Future: CIP4, Ghent WG, Mopria, W3C, Wi-Fi Alliance?
- 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
- 2013 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

- Tuesday, October 22
  - 9:00 - 10:15   PWG Plenary
  - 10:15 - 10:30   Break
  - 10:30 - 11:00   Mopria Alliance
  - 11:00 - 12:00   IPP - Self-Certification
  - 12:00 - 1:30   Lunch
  - 1:30 - 5:00   Cloud Imaging Model
- Wednesday, October 23
  - 9:00 - 12:00   IDS/MFP TC
  - 12:00 - 1:30   Lunch
  - 1:30 - 5:00   IPP - Implementors Guide, System Control
- Thursday, October 24
  - 9:00 - 12:00   IDS/MFP TC
  - 12:00 - 1:30   Lunch
  - 1:30 - 5:00   Semantic Model

- February 4-6 in Irvine, CA (Samsung)
- May 13-16 in Cupertino, CA (Apple)
  - Joint PWG - OpenPrinting meeting
- August 12-14 (Host TBD)
- October 21-23 (Host TBD)

Please let the PWG Chair know if you would like to host a meeting in August or October 2014.

~~33~~ 34 Members

Apple	Epson	Meteor Network	Samsung
Brother Industries	Fenestrae B.V.	Microsoft	Sharp Labs
Canon	Fuji Xerox	MPI Tech	Technical Interface Consulting (N-V)
Conexant Systems	High North	MWA Intelligence	Thinxtream Technologies
CSR	Hewlett Packard	Nancy Chen	Toshiba America Business Solutions
Danny Brennan	Intel	Northlake	Tykodi Consulting Services LLC
Daniel Dressler (N-V)	Konica Minolta	Oki Data	Xerox
Dell	Kyocera Document Solutions Inc.	QualityLogic, Inc.	
Digital Imaging Technologies	Lexmark	Ricoh	

Invoices for 2014 Dues Going Out November 1, 2013

- PWG Chair: Michael Sweet, Apple

- PWG Vice-Chair: Nancy Chen

- PWG Secretary: Ira McDonald, High North

- PWG Webmaster: Currently Unfilled
  - Michael Sweet temporarily serving in this capacity

There were no new volunteer candidates for this term, so the current officers have been retained.

Open Issues

- Semantic Model (SM) WG needs a secretary
- PWG needs a webmaster
- PWG web site update

PWG Web Site/Server Updates

- We will be rolling out some web site/server updates over the next several months:
  - Appearance changes for the new PWG logo
  - Content management system with blog, comments, web site accounts, etc.
  - New email aliases for PWG and WG officers + spam reporting
- Work being done by Michael Sweet and Daniel Dressler
- Future updates to include:
  - Registration of IPP Everywhere Self-Certification results
  - Issue tracker for reporting of errata/issues in specifications
  - Surveys, polls, meeting calendar
- The old PWG Wikispaces, Survey Monkey, and Google calendar accounts will be closed out ASAP

The Printer Working Group

PWG Working Group Status

The Printer Working Group

Semantic Model Workgroup Status

October 22, 2013

PWG F2F Meeting

Cupertino, CA

Daniel Manchala (Xerox)

- 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 Februrary 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
- Mapping Related Standards
  - Mapping related standards to/from PWG PJT v1.0
- Semantic Model / MFD Charter
  - Revise the Semantic Model/MFD charter

- Schema Status:
  - Named version (v1.180) published for PWG Print Job Ticket
  - Latest (v1.185) Up to date with In Progress specifications
    - Transform Service (mostly complete)
    - FaxIn Service (up to date)
    - FaxOut Service (up to date)
    - Cloud Print extensions (WIP – WSDL operations needs update)

Remaining Projects

- Planned to be addressed after the current documents are complete. (Subject to volunteers to be Editors)
  - Semantic Model v3.0 (Print, Scan, Copy, FaxIn, FaxOut, EmailIn, EmailOut, Transform will be merged from previous models)
  - Resource Service
  - Job Ticket Model
  - Service Integration with Workflow Environments v1.0
  - Mapping Standard v2.0 (DTMF-CIM, AFP, and MODCA)
  - CWMP
  - Transform Service

Next Steps

- Appoint Secretary of Semantic Model Working Group
- Include Version 2 of Mapping Document
- Continue Mapping activity
- Web Services binding of Cloud Imaging Model
  - Maybe as part of SM v3.0
- Update the MFD Model and Common Semantics Version 1.0 to be the PWG Semantic Model Specification Version 3.0
  - 1.0: Print Service
  - 2.0: Extended it for other MFD Services
  - 3.0: Add complete imaging systems and workflow

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.

The Printer Working Group

IPP Workgroup Status

October 22, 2013

PWG F2F Meeting

Cupertino, 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 Scan Service, IPP Shared Infrastructure Extensions (IPPSIX), IPP over HTTPS Transport Binding and "ipps" URI Scheme, LDAP Schema for Printer Services
  - Michael Sweet (Apple) – IPP Shared Infrastructure Extensions (IPPSIX), IPP over HTTPS Transport Binding and "ipps" URI Scheme, LDAP Schema for Printer Services, IPP FaxOut Service, IPP Transaction-Based Printing Extensions, IPP Finishings 2.0
  - Smith Kennedy (HP) - IPP Best Practices

IPP WG Status

- IETF RFCs in development:
  - IETF IPP over HTTPS Transport Binding and "ipps" URI Scheme
    - IETF Apps Area Review
  - IETF LDAP Schema for Printer Services (updates RFC 3712)
    - IETF Apps Area Review

- PWG Specifications in development:
  - IPP Everywhere Self-Certification Manual
    - Interim Draft
  - IPP FaxOut Service — PWG Formal Vote
  - IPP Finishings 2.0 — Interim Draft
  - IPP Implementors Guide 2.0 — Interim Draft
  - IPP Shared Infrastructure Extensions (IPPSIX)
    - Prototype Draft
  - IPP Transaction-Based Printing Extensions
    - PWG Formal Vote

IPP WG Status

- ## Candidate Standards:
  - PWG 5100.14-2013 - IPP Everywhere
  - PWG 5100.13-2012 - IPP: Job and Printer Extensions - Set 3 (JPS3)
  - PWG 5101.1-2013 - PWG Media Standardized Names 2.0 (MSN2)
  - PWG 5102.4-2012 - PWG Raster Format

- ## Up-to-date pending IANA registrations online:
  - http://www.pwg.org/ipp/ipp-registrations.xml
  - Continue to maintain this in parallel for new specifications
    - PWG version includes draft specifications that have reached prototype status

IPP WG Info / Participation

- We welcome participation from all interested parties
- IPP Working Group web page
  - http://www.pwg.org/ipp/index.html
- 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 November 4, 2013 at 3pm ET

The Printer Working Group

IDS Workgroup Status

October 22, 2013

PWG F2F Meeting

Cupertino, CA

Joe Murdock (Sharp), Alan Sukert (Xerox)

Purpose of the effort

- IDS is investigating and defining standards for addressing general security attributes for imaging devices and services. Our general goals are to:
  - Define standard metrics and protocol bindings to assess the health of Hardcopy Devices to gauge if they should be granted access to a network.
  - Define a set of standard security and policy attributes and values for authorizing Hard Copy Devices, their services and users in a global workspace
  - Provide a general security model for other PWG standards to reference
- IDS is also providing an anonymous path for vendors to review and contribute to the definition of new Common Criteria MFP Protection Profiles

Officers

- Chair:
  - Joe Murdock (Sharp Labs)
- Vice-Chair:
  - Alan Sukert (Xerox)
- Secretary:
  - Alan Sukert (Xerox)
- Document Editors:
  - Ira McDonald (High North):   HCD-TNC
                                    IDS-Model
  - Joe Murdock (Sharp Labs):   HCD-Remediation
                                    IDS-Model
                                    IDS-IAA

Approved Candidate Standards

- PWG 5110.1-2013
  - HCD-Attributes
- PWG 5110.2-2013
  - HCD-NAP
- PWG 5110.3-2013
  - PWG-LOG Common Log

- HCD-TNC Binding Document
  - Prototype draft completion date Q3, 2013
- HCD Health Remediation
  - Prototype draft completion date Q1, 2014
- IDS-Model Common Requirements
  - Prototype draft completion date Q1, 2014
- IDS-IAA specification
  - Prototype draft completion date Q1, 2013

Next Steps

- IDS Identification, Authentication and Authorization specification
  - Definition of core set of Policy Attributes
    - Harmonize with TCG TNC specifications
    - Define access control values
- IDS model specification
- Monitor progress of MFP Technical community on Protection Profile work

- 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 PST/2:00PM EST
  - Next teleconference Dec 2, 2013

The Printer Working Group

Cloud Imaging Model Workgroup Status

October 22, 2013

PWG F2F Meeting

Cupertino, CA

Ron Nevo (Samsung), Bill Wagner (TIC)

Introduction

- 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 including a Client, Cloud Print Provider, Cloud Print Manager, and Printer was developed at previous Cloud Printing BOF sessions. This model revealed several new requirements beyond the existing PWG Semantic Model including 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 a model for providing Imaging Services via a Cloud Imaging System in a way consistent with the PWG Semantic Model and adding to that model as necessary.

Introductions

- Initially-defined projects included:
  - Mapping of Imaging Service Capabilities and Job Ticket structures used in current Cloud Imaging Systems to and from the Service Description & Status elements and the Job Ticket elements in PWG Semantic Model. When the mapping effort was extended beyond Microsoft Print Schema Specification and the Adobe Postscript Printer Description, it became apparent that this was no longer a Cloud specific activity and the project was transferred to the Semantic Model Working Group.
  - Cloud Printing Requirements and Model, defining the reference model, terminology, and requirements for Cloud Printing. The intent was to quickly provide a viable model for Cloud Printing, and to then extend this model to Cloud Imaging. However, the effort did not proceed quickly and, on consideration, there was not a simple extension to Imaging Services. This project was therefore abandoned in favor of concentrating on the Imaging Services Model.
  - Cloud Imaging Requirements and Model, defining the reference model, terminology, and requirements for Cloud Imaging, including all of the job-oriented services defined in the PWH Semantic Model 2. This is the current project of the Work Group.

Officers and Contributors

- Chair: Ron Nevo (Samsung)
- Vice Chair: Bill Wagner (TIC)
- Secretary: Michael Sweet (Apple)
- Document Editors:
  - Bill Wagner (TIC): Editor
  - Ron Nevo (Samsung): Editor
- Contributors to Transferred or Discontinued Projects:
  - Peter Zehler (Xerox): PWG Job Ticket (basis for Cross Mapping documents)
  - Michael Sweet (Apple): PPD Cross Mapping; Requirements and Model
  - Ira McDonald (High North): JDF Cross Mapping
  - Justin Hutchings (Microsoft): MSPS Cross Mapping
  - Larry Upthegrove: Cloud Printing Requirements and Model

Status - Cloud Imaging Requirements and Model Specification

- Initial Draft was posted in February, based upon the Printing Model draft
- Current Draft at:
  - ftp://ftp.pwg.org/pub/pwg/cloud/wd/wd-cloudimagingmodel10-20131012.pdf
- Schedule
  - Q1-2014
- Issues
  - Synchronism with Semantic Model WG future work
  - Compatibility with IPP WG work, especially since IPP Multifunction activity is suspended.
  - Addition of Notification Functionality

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 November 18, 2013 at 3 pm (ET)
  - Conferences on opposite weeks of IPP WG calls

The Printer Working Group

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 were reviewed at the AFP Consortium's meeting in October 2013
  - Would like to work with the PWG SM WG to produce a prototype draft version of the mapping by Q1 2014
  - Harry Lewis will be managing the work in the AFP

- The mappings will be included in the 2.0 version of the PWG PJT Mapping document

- PWG developed, prototyped, and demonstrated a standard CWMP Printer Data Model in spring 2012 that is a machine translation of the PWG Semantic Model Print Service
- BBF officers agreed in July 2013 to a formal liaison between the BBF and PWG, with the standard being developed in the PWG SM WG and reviewed for structure and format by the BBF via Thinxtream liaison (member of both BBF and PWG)
- Ira attended the BBF meeting in Atlanta 16-20 September
- Ira presented the benefits of a CWMP Printer Data Model in a BBF plenary session of the Service Providers Action Council (SPAC) on 16 September 2013
- Ira presented the CWMP Printer Data Model to the Broadband Home (BBH) WG later on 16 September 2013
- Robin Mersh (BBF CEO) and Jason Walls (BBH WG co-chair) offered to schedule special review calls as needed

- **Embedded Systems (EmSys)**
  - Scope - Auto, SmartGrid, Financial, Medical, Industrial Control
  - Vehicle Services SG – remote vehicle maintenance
- **Trusted Mobility Solutions (TMS)**
  - Scope – BYOD/CYOD/COPE (enterprise), multi-persona, virtualization, mobile banking (trusted apps), management
  - TMS BYOD Use Case published by TCG on 21 October 2013
- **Trusted Platform Module (TPM) 2.0**
  - Published by TCG in February 2013 – APIs under development
- **Next TCG Members Meetings**
  - 21-25 October 2013 in Osaka, Japan
  - 10-14 February 2014 in Western US (TBD location)
- **TCG Website**
  - http://www.trustedcomputinggroup.org/

W3C

- W3C "Publishing and the Open Web Platform" workshop
  - Dealt with use of Open Web tools for publishing to print
  - http://www.w3.org/2012/12/global-publisher/report.html
- Paul Tykodi submitted a PWG position paper
  - Advanced PWG Print Job Ticket to encode print production intent
  - ftp://pwg.org/pub/pwg/general/proposals/w3c-publishing-august-2013.pdf
- Bill Wagner attended the workshop to present PWG Idea
  - Participated in "Standards Bodies: Who does what?" panel.
  - http://www.w3.org/2012/12/global-publisher/slides/Day1/P3-pwg-w3c-properties-20130823-2.pdf
- One Workshop resolution - liaisons should be established with other standards bodies and industry organizations.
  - PWG will monitor Digital Publishing Activity and CSS WG
  - PWG Members encouraged to join Digital Publishing Interest Group

Wi-Fi Alliance

- The Wi-Fi Alliance is close to publishing new specifications for Wi-Fi Direct-based services
  - "Wi-Fi Direct Services", or WFDS
- The specifications define discovery, transport, and file formats
- There is a WFDS Print service
  - Subset of IPP Everywhere
  - 2 streaming raster formats required for Clients, at least one must be supported by a Printer:
    - PWG Raster
    - PDF-based format (not the PWG PDF/is profile...)

Mopria Alliance

- New organization focused on mobile printing
- Web Site:
    - http://www.mopria.org/
- Presentation will be given by Mr. Glen Stone (Samsung, Mopria Alliance Steering Committee Chair) after the break
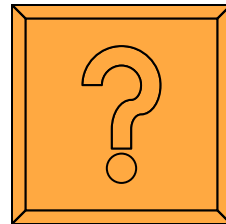
Next PWG Meetings

- February 4-6 in Irvine, CA (hosted by Samsung)
- May 13-16 in Cupertino, CA (hosted by Apple, joint PWG-OpenPrinting)

Thank You!

- Thank you Ricoh for hosting this meeting!