The Printer Working Group

Printer Working Group Plenary Session

February 4, 2014

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
- 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
- 2014 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, February 4
  - 9:00 - 10:15   PWG Plenary
  - 10:15 - 10:30   Break
  - 10:30 - 12:00   IDS
  - 12:00 - 1:00   Lunch
  - 1:00 - 5:00   Cloud Imaging Model
- Wednesday, February 5
  - 9:00 - 10:00   Mopria Alliance Updates
  - 10:00 - 10:15   Break
  - 10:15 - 12:00   IPP
  - 12:00 - 1:00   Lunch
  - 1:00 - 5:00   IPP
- Thursday, February 6
  - 9:00 - 12:00   Semantic Model
  - 12:00 - 1:00   Lunch
  - 1:00 - 5:00   Semantic Model

2014 PWG Meetings

- February 4-6 in Irvine, CA (Samsung)
- May 13-16 in Cupertino, CA (Apple)
  - Joint PWG - OpenPrinting meeting
- August 12-14 in Toronto, ON (Venue TBD)
- November 4-6 in Waltham, MA (hosted by Conexant Systems, Inc.)

2014 Membership

36 Members

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

Invoices for 2014 Dues Have Been Sent

PWG Officers (2013-2015 Term)

- 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

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

February 4, 2014

PWG F2F Meeting

Irvine, CA

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.

Semantic Model 3.0 WG Officers

- **SM3 WG Chair:**
  - Daniel Manchala (Xerox)
- **SM3 WG Vice-Chair**
  - Paul Tykodi (TCS)
- **SM3 WG Secretary:**
  - TBD (volunteers needed)
- **SM3 WG Document Editors:**
  - Nancy Chen - CWMP Printer Data Model
  - Daniel Manchala (Xerox) - SM3, SM3 Schema
  - Ira McDonald (High North) – CWMP Printer Data Model
  - Paul Tykodi (TCS) - SM3, Mapping

Approved Documents:

- Multifunction Device Service Model Requirements (September 1, 2010)
- PWG 5105.1-2004: PWG Semantic Model Specification Version 1.00
- PWG 5108.1-2011: MFD Model and Common Semantics Version 1.00
- PWG 5108.02-2009: Network Scan Service Semantic Model and Service Interface Version 1.0
- PWG 5108.03-2009: Network Resource Service Semantic Model and Service Interface Version 1.0
- PWG 5108.04-2011: Copy Service Semantic Model and Service Interface Version 1.00
- PWG 5108.05-2011: FaxOut Semantic Model and Service Interface
- PWG 5108.06-2011: System Object and System Control Service Semantics Version 1.0
- PWG 5108.07-2012: PWG Print Job Ticket and Associated Capabilities Version 1.0

Active Documents:

- Mapping Related Standards
  - Mapping related standards to PWG PJT v1.0
- Semantic Model 3.0
  - Review the SM 3.0 sections 1-3
  - Add Transform Use Cases
- Imaging Job Ticket Model 3.0
  - Generalize PWG PJT v1.0 for Multifunction
- CWMP Printer Data Model

Schema Status

- Named version (v1.180) published for PWG Print Job Ticket and Associated Capabilities

- Latest (v2.900) Up to date with In Progress specifications

  - Cloud Print extensions (WIP – WSDL operations needs update)

- Planned to be addressed after the current documents are complete. (Subject to volunteers to be Editors)
  - Resource Service
  - Mapping Standard v2.0 (add AFP and MODCA)
  - Service Integration with Workflow Environments v1.0

Next Steps

- Appoint Secretary of Semantic Model Working Group
- Continue SM3 work

More Info/How to participate

- We welcome participation from all interested parties
- SM3 Web Page:
    - http://www.pwg.org/sm3
- Subscribe to the SM3 mailing list:
    - https://www.pwg.org/mailman/listinfo/sm3
- SM3 WG holds bi-weekly phone conferences announced on the SM3 mailing list
    - Next conference call is February 17, 2014 at 11am PT

The Printer Working Group

IPP Workgroup Status

February 4, 2014

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 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 Finishings 2.0
  - Smith Kennedy (HP) - IPP Implementors Guide 2.0
  - Peter Zehler (Xerox) - IPP Scan Service

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 Finishings 2.0   - Interim Draft
    - IPP Implementors Guide 2.0   - Interim Draft
    - IPP Scan Service   - Interim Draft
    - IPP Shared Infrastructure Extensions (IPPSIX)
      - Prototype Draft

- Candidate Standards:
  - PWG 5100.14-2013: IPP Everywhere
  - PWG 5100.15-2013: IPP FaxOut Service
  - PWG 5100.16-2013: IPP Transaction-Based Printing Extensions
- 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
  - https://www.pwg.org/mailman/listinfo/ipp
- IPP WG holds bi-weekly phone conferences announced on the IPP mailing list
  - Next conference calls March 3 and March 17, 2014 at 3pm ET

The Printer Working Group

IDS Workgroup Status

February 4, 2014

PWG F2F Meeting

Irvine, 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 5110.1-2014
  - HCD-Attributes (revised)
- PWG 5110.2-2013
  - HCD-NAP
- PWG 5110.3-2013
  - PWG-LOG Common Log

Current Document Status

- HCD-TNC Binding Document
  - Prototype draft completion date Q1, 2014
  - Need prototypes
- IDS-Model Common Requirements
  - Prototype draft completion date Q3, 2014
- IDS-IAA specification
  - Prototype draft completion date Q4, 2014
- HCD Health Remediation
  - Prototype draft completion date Q1, 2015

Next Steps

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

Participation

- We welcome participation from PWG member companies and input from the user community
- The group maintains a Web Page for IDS update:
  - http://www.pwg.org/ids/index.html
- 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 March 3, 2014

The Printer Working Group

Cloud Imaging Model Workgroup Status

February 4, 2014

PWG F2F Meeting

Irvine, CA

Ron Nevo (Samsung), Bill Wagner (TIC)

Introduction

- The intent of the Cloud Imaging Model Working Group is to develop a model for providing Imaging Services via a Cloud Imaging System in a way consistent with the PWG Semantic Model.

- The current PWG Cloud Imaging Model contends that the operations interface between a User Client and a Cloud Imaging Service is no different than that between a User Client and any networked Imaging Service, with the exception of asynchronous notification capability (if any).

- However, Cloud Imaging Services often must interface with out-of-cloud end devices (e.g., printers, scanners) to which direct access is blocked by a firewall. The PWG Model identifies a Local Imaging System Proxy intermediate agent and defines a new set of operations from Proxy to Cloud Service.

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

- Although the Registration of a Local Imaging System with a Cloud Imaging System, making selected capabilities of the Imaging Services in the local system accessible through the Cloud System Services, is retained, the concept of registering the individual local Imaging Services has been dropped.

- The querying of the Cloud Imaging System Control Service by the Local Imaging System Proxy for System notifications is replaced by Service Notification queries to each of the Cloud Services corresponding to a proxied Local Service.

- Names of some Operations and Actors have been changed to better reflect their function.

- To allow recovery of Job Status after communication loss or local equipment reset, the operation by which the Proxy informs the Cloud Service of Jobs still active and their States, is supplemented by a new operation by which the Cloud Service informs the Proxy of Cancelled or Aborted Jobs.

Status of Requirements and Model

- Draft at:
  - ftp://ftp.pwg.org/pub/pwg/cloud/wd/wd-cloudimagingmodel10-20140128.pdf
- Schedule
  - Charter calls for PWG Last Call of Cloud Imaging Requirements and Model specification Q4 2013. This has not been met. However, a Prototype Draft is anticipated by Q2 2014
  - PWG Last Call requires previous notice of prototyping of the model binding by either the IPP or SM2 WG. Last Call milestone dependent upon binding efforts.
  - The WGs have attempted to co-ordinate the Model design and IPPSIX.
  - Although a Prototype working draft of IPP SIX was posted by Q4 2013, a prototype implementation has not yet been announced and the IPP SIX draft is not yet in Stable state.
  - However, it is anticipated that IPP SIX interoperability testing and specification Last Call will be completed by Q4 2014, and that the Cloud Imaging Requirements and Model Specification will also be in Last Call state by that time.
- Next Steps
  - The Cloud Imaging Model Workgroup Charter identifies no project beyond this Requirements and Model specification.

Cloud Imaging WG Participation

- We welcome participation from all interested parties
- Cloud Imaging Workgroup Web page
  - http://www.pwg.org/cloud/index.html
- 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 February 17, 2014 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
  - Working with the PWG SM WG to produce an initial draft version of the mapping by the end of 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

BBF - CWMP

- 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

TCG News

- 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
    - http://www.trustedcomputinggroup.org/resources/ tms_use_cases__bring_your_own_device_byod
- Next TCG Members Meetings
  - February 10-14, 2014 in Salt Lake City, UT USA
  - June 23-27, 2014 in Barcelona, Spain
  - October 20-24, 2014 in New Orleans, LA USA
- TCG Website
  - http://www.trustedcomputinggroup.org/

- Trusted Multi-tenant Infrastructure (TMI)
  - Scope - Trusted Cloud/SDN end-to-end reference models
  - TMI Reference Framework published by TCG on 16 December 2013
    - http://www.trustedcomputinggroup.org/resources/ trusted_multitenant_infrastructure_reference_framework
  - TMI Use Cases published by TCG on 16 December 2013
    - http://www.trustedcomputinggroup.org/resources/ tcg_trusted_multitenant_infrastructure_use_cases
- Trusted Platform Module (TPM) 2.0
 - Published by TCG in February 2013 – APIs under development

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

- Focus is on mobile printing, scanning, etc.
- Web Site:
  - http://www.mopria.org/
- Presentation will be given by Mr. Brent Richtsmeier (Samsung, Mopria Alliance Technical Committee Chair) tomorrow morning

Other Questions / Comments
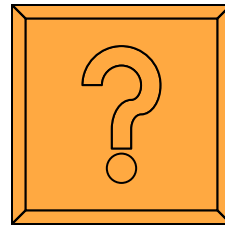
Next PWG Meetings

- May 13-16 in Cupertino, CA (hosted by Apple, joint PWG-OpenPrinting)
- August 12-14 in Toronto, ON (venue TBD)

Thank You!

- Thank you Samsung for hosting this meeting!