

Printer Working Group Plenary Session

April 24, 2012

Cupertino, CA

PWG F2F Meeting

Michael Sweet (Apple)

Plenary Agenda

- 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

- 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



- Tuesday, April 24

- 9:00 - 10:15 PWG Plenary
- 10:15 - 10:30 Break
- 10:30 - 12:00 Open Printing Plenary
- 12:00 - 1:00 Lunch
- 1:00 - 2:00 CUPS Plenary
- 2:00 - 2:15 Break
- 2:15 - 3:15 Common Mobile Print Client
- 3:15 - 3:30 Break
- 3:30 - 5:00 POSIX Print Clients

Agenda for the Week



- Wednesday, April 25
 - 9:00 - 12:00 Printing and Color Management
 - 12:00 - 1:00 Lunch
 - 1:00 - 5:00 IPP Everywhere

- Thursday, April 26
 - 9:00 - 12:00 Semantic Model (Transform Service)
 - 12:00 - 1:00 Lunch
 - 1:00 - 3:15 CWMP BOF
 - 3:15 - 3:30 Break
 - 3:30 - 5:00 Workgroup for Imaging Management Solutions (WIMS)

Agenda for the Week



- Friday, April 27
 - 9:00 - 12:00 Cloud Imaging
 - 12:00 - 1:00 Lunch
 - 1:00 - 2:00 Future of Open Printing
 - 2:00 - 2:15 Break
 - 2:15 - 5:00 Imaging Device Security (IDS)

2012 PWG Meeting Schedule



- June 5-7 Webster, NY (hosted by Xerox)
- August 6-8 Redmond, WA (hosted by Microsoft)
- **October 1-3** Lexington, KY (hosted by Lexmark)
- December 4-6 Irvine, CA (hosted by Samsung)

2012 Membership



29 Members

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

PWG Officers (2011-2013 Term)



- PWG Chair
 - Michael Sweet, Apple
 - Moving in June 2012; will continue as 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

- 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



- The PWG has limited visibility
- Have been contacted by several media outlets for interviews and information concerning our work
- It would be to our benefit to engage a PR firm to handle basic marketing for the PWG:
 - Announcements/Press Releases
 - Blogs, Wikis, Tweets, and other social media
 - Conference Calls
 - Email Interviews
 - White Papers
- Have identified a firm that can provide these services
 - They provide all of these services for the TCG
- ISTO PR/Marketing resources are limited
- This is possible within our existing budget and fees

PWG Working Group Status

Semantic Model Working Group Status

April 24, 2012

Cupertino, CA

PWG F2F Meeting

Peter Zehler (Xerox)

Purpose of the effort

- The Semantic Model working group is concerned with the modeling of imaging services and subunits that comprise a network connected Multifunction Device. The Objectives are:
 - 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.
 - Currently being addressed are PrintJobTicket and the FaxIn and Transform services.
 - The Print, Scan, Copy, Resource, and SystemControl Services and the MFD Model and Common Semantics specifications have been completed.
 - The definition of a framework for the complete MFD model is the objective.

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>

In Progress Documents:

- **Print Job Ticket: (Completed PWG Last Call)**
 - PWG Print Job Ticket and Associated Capabilities – April 7, 2012 Stable Draft
 - <ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-sm20-printjobticket10-20120407.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



- Schema Status:
 - Named version (v1.170) published for System Control Service
 - Latest (v1.176) Up to date with In Progress specifications
 - JPS3
 - Raster
 - IDS SystemHealth linked to SystemStatus

Remaining Services

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

Next Steps

- 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
-
- We need people to step up as editors of Email In/Out service specifications

More Info/How to participate

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

More Info/How to participate

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

April 24, 2012

Cupertino, CA

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

- 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



- MFD Alerts Document
 - PWG Last Call issues being addressed.
 - Will be up for PWG vote for advancement to candidate standard in the near future.
- Power MIB Interop Test
 - Test Procedure at:
<http://pwg-wiki.wikispaces.com/Power+MIB+Interop>
- MIB Errata WIKI
 - Page at: <http://pwg-wiki.wikispaces.com/MIB+Errata>
 - Needs more observations, publicity
- Additional MFD Management Elements
 - Typical management elements not addressed by Standards MIBS
ftp://ftp.pwg.org/pub/pwg/wims/white/Management_elements-20120420.pdf
 - Intend to provide identification of additional management elements to Semantic Model working group.

More Info/How to participate

- We welcome participation from PWG member companies and input from the user community
- The group maintains a Web Page and separate WIKI pages for various WIMS activities.
 - <http://www.pwg.org/wims/index.html>
 - <http://pwg-wiki.wikispaces.com/WIMS>
 - <http://pwg-wiki.wikispaces.com/WIMS-CIM>
 - <http://pwg-wiki.wikispaces.com/MIB+Errata>
 - <http://pwg-wiki.wikispaces.com/Power+MIB+Interop>
- To subscribe to the WIMS mailing list, go to :
 - <https://www.pwg.org/mailman/listinfo/wims>
- WIMS has bi-weekly conference calls on Thursdays at 1:00pm ET / 10:00am PT, alternating with IDS
 - The next WIMS teleconference is May 24, 2012

IPP Working Group Status

April 24, 2012

Cupertino, CA

PWG F2F Meeting

Ira McDonald (Samsung/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 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



- IPP Everywhere specs in development:
 - IPP Everywhere
 - IPP: Job and Printer Extensions - Set 3 (JPS3 - **PWG Last Call**)
 - IETF IPP over HTTPS Transport Binding and "ipps" URI Scheme
 - IETF LDAP Schema for Printer Services (updates RFC 3712)
 - PWG Media Standardized Names 2.0 (MSN2)
- IPP Multifunction specs in development:
 - IPP Scan Service
 - IPP FaxOut Service
- IPP Cloud binding specs in development:
 - None

IPP WG Status



- New Candidate 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



- 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) for presentation at future F2F's
 - Preliminary results at IPP session tomorrow
 - "Final" results at August 2012 F2F?

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 May 14, 2012 at 3pm (EST)

PWG Plenary Status Report IDS Working Group

April 24, 2012

Cupertino, CA

PWG F2F Meeting

Joe Murdock (Sharp)

Purpose of the effort



- Hardcopy device have security and access considerations that are not addressed within current hardcopy standards. These considerations should be addressed in a manner common to all hardcopy devices:
 - Hardcopy Devices are currently allowed unfettered access to and storage of secure and controlled documents. There is no standard for controlling document access and defining usage behavior for protecting secure documents.
 - Hardcopy Devices are providing services to mobile devices running different operating system with different methods to consume Hardcopy service. Hardcopy Devices are extending their services as “cloud” resources, and consuming resources from the “cloud”. There is no standard or recommended methodology for authenticating and securing the mobile and hardcopy device, their services or the users consuming those services.
 - Hardcopy Devices are providing and consuming services outside of the traditional concept of a local user on a physical device. There are currently no standards or recommendation for controlling or validating access to these services.
 - The industry is moving beyond basic authentication for access to corporate networks to a more detailed assessment of the “health” of devices before allowing them to access the network. Hardcopy Devices attach to networks, but there’s no standard set of metrics that is used to assess an HCD. As a result, HCDs are treated as an exception and are allowed to attach to the network based solely on a MAC address.
- Our goal is to provide the metrics and mechanisms that allow HCDs to fully participate in assessment-protected networks and provide secure, controlled access to documents and hardcopy services regardless of location or consumer.

Work Items for the WG



- What We're Doing
 - We are defining a standard set of metrics that can be measured or assessed in Hardcopy Devices to gauge if they should be granted access to a network.
 - We are providing recommendations for identifying and authenticating Hard Copy and mobile devices, services and users in a global workspace.
 - We are defining standard attributes and values for authorizing Hard Copy Devices, their services and users in a global workspace
 - We are defining a set of standard security attributes to be associated with mobile and remote imaging jobs, users, services and devices
 - We are defining common log formats and values to facilitate automated log analysis.
- What We're NOT Doing
 - We are NOT defining any new assessment protocols, nor assessment extensions to existing authentication protocols.
 - We are NOT endorsing any of the competing network assessment protocols (TNC, NAC, NAP, NEA). Our goal is to enable Hardcopy Devices to participate in any/all of them.
 - We are NOT defining any new security protocols.

Administration



- IDS WG Chair
 - Joe Murdock (Sharp)
- IDS WG Vice-Chair
 - vacant
- IDS WG Secretary:
 - 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

- 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

- 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 May 17, 2012

Cloud Imaging Working Group Status

April 24, 2012

Cupertino, CA

PWG F2F Meeting

Ron Nevo (Samsung)

Officers



- Chair: Ron Nevo (Samsung)
- Vice Chair: Bill Wagner (TIC)
- Secretary: Michael Sweet (Apple)
- Document Editors:
 - Ira McDonald (High North): Cloud Print Model and Requirements, 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



- 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)



- 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

- 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

- 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



- 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 May 21, 2012 at 3 pm (ET)
 - Conferences on opposite weeks of IPP WG calls

Liaison Status

- 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.

- Apparently ISO 10175 (DPA) has been (or is in the process of being) withdrawn by ISO
 - This specification is basically referenced by every IPP, Semantic Model, and MIB standard we've ever done
- Does this matter to the PWG?
- How do we want to address this in our standards?

- OpenICC has two main goals. The first goal is to work out a common set of settings for color savvy applications to share profiles and settings. The second goal is to bring together those developers in areas like printing, display and desktop applications to work together to make color management end to end work for open source applications.
- Basic color management based on PPD keywords is now in the major Linux distributions (“colord” support in CUPS, Ghostscript)
- A LOT of discussion on the openicc mailing list
 - IPP JPS3 “print-rendering-intent” and “printer-icc-profiles” attributes address OpenICC soft proofing, profiles with presets, and client-side color management use cases

- 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

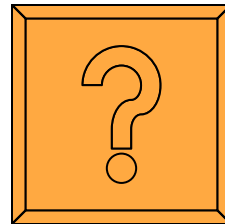
- Trusted Mobility Solutions (TMS)
- Authentication
- Embedded Systems (EmSys)
- Infrastructure
- Mobile Phone (MPWG)
- PC Client
- Server Specific
- Storage
- Trusted Multi-tenant Infrastructure (TMI)
- Trusted Network Connect (TNC)
- Trusted Platform Module (TPM)
- TCG Software Stack (TSS)
- Virtualized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

USB IF - IPP over USB WG



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

Other Questions / Comments



Next PWG Meetings

- June 5-7 in Webster, NY (hosted by Xerox)
- August 6-8 in Redmond, WA (hosted by Microsoft)

Thank you Apple for hosting this meeting!
