

Printer Working Group Plenary Session

August 1, 2011

Camas, WA

Plenary Agenda

- Administrivia
- Open Issues
- PWG Working Group Status [WG Chairs]
 - MFD (Semantic Model)
 - WIMS
 - IPP (IPPv2 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
- 2011 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

- Monday, August 1
 - 9:00 - 11:00 WIMS
 - 11:00 - 12:00 Plenary
 - 12:00 - 1:15 Lunch
 - 1:15 - 5:00 Common Use Case BOF
- Tuesday, August 2
 - 9:00 - 12:00 Cloud Imaging
 - 12:00 - 1:15 Lunch
 - 1:15 - 5:00 MFD

Agenda for the Week



- Wednesday, August 3

- 9:00 - 12:00 IPP Everywhere
(PWG Raster, PWG Media Standardized Names)
- 12:00 - 1:15 Lunch
- 1:15 - 5:00 IPP Everywhere
(JPS3, IPP Everywhere)

- Thursday, August 4

- 9:00 - 12:00 IDS
- 12:00 - 1:15 Lunch
- 1:15 - 3:00 IDS

2011 PWG Meeting Schedule



- October 4-6 Cupertino, CA (hosted by Ricoh)
- December 6-8 Austin, TX (hosted by Dell)

2012 PWG Meeting Schedule



- Please contact the PWG chair if you wish to host
- February (7-9) TBD
- April 3-5 Cupertino, CA (hosted by Apple)
- June 5-7 Webster, NY (hosted by Xerox)
- August 7-9 Redmond, WA (hosted by Microsoft)
- October 2-4 Lexington, KY (hosted by Lexmark)
- December 4-6 Irvine, CA (hosted by Samsung)

2011 Membership



28 Members

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

PWG Officers

- PWG Chair
 - Michael Sweet, Apple
- PWG Vice-Chair
 - Nancy Chen, Oki Data
- PWG Secretary
 - Paul Tykodi, Tykodi Consulting Services LLC
- *These positions are coming up for re-election in September 2011*

PWG Officer Candidates for the 2011-2013 Term



- PWG Chair
 - Michael Sweet, Apple (incumbent)
- PWG Vice-Chair
 - Nancy Chen, Oki Data (incumbent)
- PWG Secretary
 - Ira McDonald, High North/Samsung (new candidate)
- *Please notify the PWG chair if you wish to serve as an officer. If no other candidates come forward before September 1, 2011, the steering committee will appoint these candidates for a two-year term.*

Open Issues

- PWG web site
 - Now live
- MFD WG secretary urgently needed
- WIMS WG secretary urgently needed

PWG Working Group Status

Cloud Imaging WG Plenary Report

August 1, 2011
Camas, Washington

Officers



- ❖ Chair: Ron Nevo (Samsung)
- ❖ Vice Chair: Bill Wagner (TIC)
- ❖ Secretary: Michael Sweet (Apple)
- ❖ Document Editors:
 - Ira McDonald (High North): Cloud Print Internet Printing Protocol Binding, Cloud Imaging Model and Requirements, Print Ticket Mapping
 - Joe Murdock (Sharp): Cloud Print SOAP Binding, Cloud Imaging Model and Requirements
 - Peter Zehler (Xerox): Cloud Print SOAP Binding, Cloud Imaging Model and Requirements, Print Ticket Mapping
 - Ron Nevo (Samsung): Cloud Imaging Model and Requirements, Print Ticket Mapping
 - Michael Sweet (Apple): Cloud Imaging Model and Requirements, Print Ticket Mapping
 - Justin Hutchins (Microsoft): Print Ticket Mapping (XPS)

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.
- ❖ The approved charter of the working group is at <ftp://ftp.pwg.org/pub/pwg/cloud/charter/ch-cloud-charter-20110620.pdf>
- ❖ Under this charter, the WG is to address Cloud Printing in Phase 1, extending to Cloud Imaging in Phase 2.
- ❖ The Phase 1 effort is to produce three documents:
 - Cloud Imaging Model and Requirements
 - Cloud Print Internet Printing Protocol Binding
 - Cloud Print SOAP Binding

Overview (cont)



- ❖ This effort is taking longer than envisioned, with activity still on Use Cases, after the first draft milestone dates.
- ❖ Meanwhile, actual Cloud Printing implementations have proceeded. It is suggested that the WG should take the opportunity to encourage the use of PWG compatible semantics in the printer and printing specific aspects of what may become cloud printing implementations.
- ❖ Therefore, the Cloud Imaging WG is also considering:
 - Job Tickets and Printer Characterizations for Cloud Printing Services such as Google Cloud Print
 - Job Ticket Persistence and serializing/embedding Job Ticket information in document file
 - Methods of tracking document processing aspects requested in Job Ticket performed as print job proceeds from originator to final device.
- ❖ These considerations do require a WG Charter update.

Intended and Potential Publications



❖ Identified in Charter

- Cloud Imaging Requirements and Model (define the reference model, terminology, and requirements for Cloud Imaging)
- Cloud Print SOAP Binding
- Cloud Print Internet Printing Protocol Binding
- Cloud Multifunction SOAP Binding
- Cloud Multifunction Internet Printing Protocol Binding

❖ PWG Job Ticket to XPS and PPD Mapping Best Practices

- Contributors
 - Ron Nevo: Editor
 - Michael Sweet: PPD Mapping
 - Justin Hutchins: XPS elements
 - Peter Zehler, Ira McDonald: PWG Semantics

❖ Job Ticket/Job Data Bundling

- Binding job ticket, job receipt, and document data together
- Possible approach to use ISO OPC standard (http://en.wikipedia.org/wiki/Open_Packaging_Convention)

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 August 15th, 2011 at 1 pm (ET)
 - Conferences on opposite weeks of IPP WG calls

PWG Plenary Status Report IDS Working Group

August 1, 2011

Camas, WA

PWG F2F Meeting

Joe Murdock (Sharp)

Brian Smithson (Ricoh)

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 Chairs
 - Joe Murdock (Sharp)
 - Brian Smithson (Ricoh)

- IDS WG Secretary:
 - Brian Smithson (Ricoh)
 - IDS is looking for a new Secretary

- IDS WG Document Editors:
 - HCD-ATR: Jerry Thrasher (Lexmark)
 - HCD-NAP: Joe Murdock (Sharp), Brian Smithson (Ricoh)
 - HCD-TNC: Ira McDonald (Samsung)
 - HCD NAC Business Case: Joe Murdock (Sharp)
 - IDS-Model: Joe Murdock (Sharp), Ira McDonald (Samsung), Ron Nevo (Samsung)
 - HCD-HR: Joe Murdock (Sharp)
 - HCD-NAP-SCCM: Joe Murdock (Sharp)
 - IDS-Log: Mike Sweet (Apple)
 - IDS-IAA: Joe Murdock (Sharp)

Current Status

- IDS-Model Common Requirements specification
 - Target completion date Q3, 2011
- HCD-TNC Binding Document is under development.
 - Target completion date of Q3, 2011.
- HCD-HR (Health Remediation) Specification is under development
 - Target completion date of Q3, 2011.
- IDS-Log Common Log Specification is under development
 - Target completion date of Q3, 2011.
- IDS-IAA specification is under development
 - Target completion date of Q3, 2011.
- IDS Working Group Charter update
 - Approved May, 2011

Current Activities

- HCD-TNC Binding Specification (Q4 2011)
 - Interaction with TCG Hardcopy Workgroup
 - IDS-Model specification (Q3 2011)
- HCD-HR (Health Remediation) specification (Q4 2011)
- IDS-Log (Q3 2011)
- IDS-IAA (Q4 2011)
- PWG Security Ticket (Q3 2011)
- NIAP Tailored Assurance (TBD)

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.

IPP Working Group Status

August 1, 2011

Camas, WA

PWG F2F Meeting

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, 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, PWG Raster, IPP over HTTPS Transport Binding and “ipps” URI Scheme, LDAP Schema for Printer Services

- Several IPP Everywhere specs in development:
 - IPP Everywhere First Edition (EVEPRT)
 - IPP: Job and Printer Extensions - Set 3 (JPS3)
 - IPP over HTTPS Transport Binding and “ipps” URI Scheme
 - PWG Media Standardized Names (minor update)
 - PWG Raster
 - IPP Scan
- Up-to-date pending IANA registrations now online:
 - <http://www.pwg.org/ipp/ipp-registrations.html> (+ .txt)
 - Will maintain this in parallel due to IANA processing time

IPP WG Next Steps

- IPP 2.0/2.1/2.2 Interoperability Testing
 - Interoperability event in Q3 2011?
- IPP Everywhere First Edition
 - Initial working draft of updated LDAP Schema for Printer Services in Q3 2011
 - Prototype draft specifications in Q3/Q4 2011
 - Interoperability event for IPP Everywhere First Edition in Q2 2012
- IPP Everywhere Second Edition
 - Interim working draft of IPP Scan in Q3 2011

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 August 22, 2011 at 1pm (EST)

PWG Plenary Status Report Semantic Model Working Group

August, 2011

Camas, WA

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.
- Services currently being addressed are FaxOut, FaxIn and SystemControl.
 - The Print, Scan, Copy and Resource 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*

- PWG5105.1
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*

- PWG5108.02-2009:
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*

- PWG5108.03-2009
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*

- PWG5108.1
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*

- PWG5108.04
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>

In Progress Documents:

FaxOut Service: (In PWG Formal Vote)

FaxOut Service:

Semantic Model and Service Interface – July 5, 2011 Stable Draft

<ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdfaxoutmodel10-20110705.pdf>

FaxIn Service: (Work in Progress)

FaxIn Service:

Semantic Model and Service Interface – July 28, 2010 Interim Draft

[<ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdfaxinmodel10-20100728.pdf>](ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdfaxinmodel10-20100728.pdf)

System Control Service: (Work in Progress)

MFD System Object and System Control Service Semantics – July 22, 2011 Interim Draft

<ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdsystemcontrolservicemodel10-20110722.pdf>

In Progress Documents:

Schema Status:

- Named version (v1.27) published for MFD Model and Common Semantics
- Latest (v1.135) Up to date with In Progress specifications
 - JPS3 included except for section 6 “Additional Semantics for Existing Operations”
 - IDS Security schema being updated but has not yet been linked to any Semantic Model elements.

Remaining Services



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

Next Steps



- Complete Formal Vote of the FaxOut Service specification
- Complete work on System Service and FaxIn specifications
- We need people to step up as editors of remaining service specifications. The MFD specification reduces the amount of work to produce a service specification. The current Copy specification and FaxOut specification can be used as templates.

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)

August 1, 2011

Camas, Washington

Introduction



What WIMS is Doing

- Supporting the existing IETF and PWG Printer and related MIB documents, including the advancement, extension and expansion of these specifications.
- 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 (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 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 the 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



- PWG Power Management Model for Imaging Systems.
 - The PWG approved the “PWG Power Management Model for Imaging Systems 1.0” (PWG Candidate Standard 5106.4-2011) and its MIB binding “PWG Imaging System Power MIB v1.0” (PWG Candidate Standard 5106.5-2011) in February 2011. The charter for the Imaging System Power Management Project included a Power MIB Interoperability event, basically a demonstration that client and server implementations of the MIB are interoperable.
 - To plan for this event in a way compatible with the needs and interests of the PWG membership, we have created a survey accessible at:

<http://www.surveymonkey.com/s/L63VFHK>

- MFD Alerts:
 - Extending Printer MIB alerts to MFD subunits and security alerts.
 - Project Charter approved by PWG Steering committee

<ftp://ftp.pwg.org/pub/pwg/pmp/wd/wd-pmpmfdalerts10-20110515.pdf>

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 WIMS and for CIM update
 - <http://www.pwg.org/wims/index.html>
 - <http://pwg-wiki.wikispaces.com/WIMS>
 - <http://pwg-wiki.wikispaces.com/WIMS-CIM>
- To subscribe to the WIMS mailing list, go to :
 - <https://www.pwg.org/mailman/listinfo/wims>

Liaison Status

AFP Consortium



- The AFP Consortium develops the Advanced Function Presentation architecture used primarily with mainframe computing:
 - <http://www.afpcinc.org/>
- Developing “Interoperability Set 3” specification closer to what we have in the PWG and ISO DPA models

- The Managed Print Services Association (MPSA) is an independent non-profit international organization that seeks to develop Managed Print Services (MPS) within the industry through Communications, Collaboration, Education and Best Practices.
 - <http://yourmpsa.org/>
- The PWG has agreed to provide a series of articles on our activities and concerns for the MPSA to make available to its membership. Each article will have an associated survey to solicit information on what information is of interest to MPS members and on specific issues of importance in PWG activities.
- Three articles have been supplied and posted to the MPSA membership, and the survey results have been discussed in previous face-to-face meetings.

MPSA – PWG Relationship



- The MPSA underwent a Management restructuring late in 2010 and the new president, Joe Barganier, suggested that a written plan of the intended interaction be agreed to “so that things do not fall through the cracks moving forward”
- Bill Wagner developed a formal statement of the liaison agreement between the PWG and MPSA, and that statement has been approved by both the PWG and MPSA steering committees
- We are currently working with the MPSA to publish more articles

- 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.
- The group is now tackling color managed printing.
- Discussions on the openicc mailing list are influencing use cases and JPS3 extensions
 - Change in focus for printer-icc-profiles
 - New relative-bpc keyword value for print-rendering-intent
 - May add some recommendations for PDF color handling

TCG Overview



- TCG Website
 - <http://www.trustedcomputinggroup.org/>
- TCG Developer Resources
 - <http://www.trustedcomputinggroup.org/developers>
- TCG Description
 - The Trusted Computing Group (TCG) is a not-for-profit organization formed to develop, define and promote open, vendor-neutral, industry standards for trusted computing building blocks and software interfaces across multiple platforms
- TCG Membership Levels
 - TCG Promoter (\$55,000/year) – voting
 - TCG Contributor (\$16,500/year) – voting
 - TCG Adopter (\$8,250/year) – non-voting
 - TCG Adopter (\$1,000/year) – non-voting small company

TCG Workgroups

- Authentication
- Embedded Systems – NEW
- Hardcopy
- Infrastructure
- Mobile Phone
- PC Client
- Server Specific
- Storage
- Trusted Multi-Tenant Infrastructure (TMI)
- Trusted Network Connect (TNC)
- Trusted Platform Module (TPM)
- TCG Software Stack (TSS)
- Virtualized Platform

TCG Embedded Systems WG



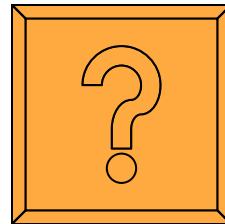
- Embedded Systems (EmSys) WG – chartered in May 2011
 - Develop open and vendor neutral architecture, interfaces, and standards framework for embedded systems
- Embedded Systems (EmSys) WG – scope of activities
 - Driven by solution level architecture expertise
 - Develop use cases that include vertical market requirements
 - Identify and document specification requirements
 - Develop necessary extensions to TCG specs per requirements
 - Align requirements to existing or future TCG WG activities
 - Develop architectural framework using TCG standards
 - Develop architectural components, rules, and specs
 - Cooperate with related external standards groups
- Embedded Systems (EmSys) WG – meeting in June 2011
 - During TCG Members Meeting in Munich, Germany

TCG Hardcopy WG



- Current work
 - Use Cases (e.g., trusted startup, trusted services)
 - Threats (e.g., disclosure, modification)
 - Requirements (e.g., secure data-at-rest)
- Next steps
 - Hardcopy devices are in scope for Embedded Systems WG
 - Relationship with Embedded Systems WG to be discussed in June 2011 during TCG Members Meeting in Munich, Germany

Other Questions / Comments



Next PWG Meeting



- October 4-6 in Cupertino, CA (hosted by Ricoh)

- Thank you Sharp for hosting this meeting!