

# Printer Working Group Plenary Session

April 5, 2011 Cupertino, CA

#### Plenary Agenda



- Administrivia
- Open Issues
- PWG Working Group Status [WG Chairs]
  - MFD (Semantic Model)
  - WIMS (DMTF CIM, PMP, Power Management)
  - IPP (IPP v2 + 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, April 4

• 8:30 - 9:00 Breakfast

• 9:00 - 12:00 WIMS

• 12:00 - 1:00 Lunch

• 1:00 - 5:00 MFD

Tuesday, April 5

• 8:30 - 9:00 Breakfast

• 9:00 - 11:00 Cloud Imaging

• 11:00 - 12:00 Plenary

• 12:00 - 1:00 Lunch

• 1:00 - 6:00 IPP / IPP Everywhere

# Agenda for the Week



Wednesday, April 6

• 8:30 - 9:00 Breakfast

• 9:00 - 12:00 IDS, part 1

• 12:00 - 1:00 Lunch

• 1:00 - 2:00 IDS, part 2

• 2:00 - 3:30 Open Printing Joint Working Session

# 2011 PWG Meeting Schedule



May 24-26 Webster, NY (hosted by Xerox)

August 2-4 Vancouver, WA (hosted by HP)

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

December 6-8 Austin, TX (hosted by Dell)

# 2012 PWG Meeting Schedule



- All Dates Tentative please contact the PWG chair if you wish to host
- February 7-9
- April 3-5
- June 5-7
- August 7-9
- October 2-4
- December 4-6

# 2011 Membership



#### 27 Members

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

#### **PWG Officers**



- PWG Chair
  - Michael Sweet, Apple
- PWG Vice-Chair
  - Nancy Chen, Oki Data
- PWG Secretary
  - Paul Tykodi, Tykodi Consulting Services LLC

• These positions coming up for re-election in September 2011

#### Open Issues



- PWG web site
  - Update in progress, should be live by May F2F
- MFD WG secretary needed
- WIMS WG secretary needed



# **PWG Working Group Status**



# PWG Plenary Status Report MFD Working Group

April, 2011 Cupertino, CA PWG F2F Meeting

Peter Zehler (Xerox)

# Purpose of the effort



# The MFD 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 an overall MFD specification, Copy Service, FaxOut Service and FaxIn Service.
  - The Print, Scan and Resource Services have been completed
- The definition of a framework for the complete model is an 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.pwq.org/pub/pwg/candidates/cs-sm20-resource10-20090703-5108.03.pdf

#### Approved Documents:



#### MFD Requirements: Approved September 2010

- Multifunction Device Service Model Requirements
- <a href="ftp://ftp.pwg.org/pub/pwg/informational/req-mfdreq10-20100901.pdf">ftp://ftp.pwg.org/pub/pwg/informational/req-mfdreq10-20100901.pdf</a>

#### In Progress Documents:



#### MFD Common Semantics: (In PWG Formal Vote)

MFD Model and Common Semantics: Mar 20, 2011 Stable Draft <a href="ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdmodel10-20110310.pdf">ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdmodel10-20110310.pdf</a>

## Copy Service: (In PWG Last Call)

Copy Service Semantic Model and Service Interface – Mar 21, 2011 Stable Draft <a href="ftp://ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdcopymodel10-20110321.pdf">ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdcopymodel10-20110321.pdf</a>

# FaxOut Service: (Ready for WG Last Call)

#### FaxOut Service:

Semantic Model and Service Interface – Jan 17, 2011 Stable Draft

ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdfaxoutmodel10-20110117.pdf

# In Progress Documents:



# FaxIn Service: (Work in Progress)

FaxIn Service:

Semantic Model and Service Interface – July 28 Interim Draft <a href="mailto:cftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdfaxinmodel10-20100728.pdf">ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdfaxinmodel10-20100728.pdf</a>

# System Service: (Work in Progress)

MFD System Service:

Semantic Model and Service Interface – Mar 25, 2011 Interim Draft

ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdsystemservicemodel10-20110325.pdf





#### Schema Status:

- Latest (v1.126 not yet published) Up to date with In Progress specifications
- Named version (v1.125) ready for publishing containing only the semantic elements from completed and approved specifications
  - Namespace and content locked down for MFD Model and Common Semantics

#### 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 for MFD Model and Common Semantics specification.
- Complete Last Call of the Copy Service specification then proceed with Formal Vote
- Begin Last Call of the FaxOut service specification followed by Formal Vote
- 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 MFD That includes links to the latest documents, schema and a browsable version of the schema

http://www.pwg.org/mfd/index.html

# More Info/How to participate



- Information on subscribing to the MFD mailing list is available at
  - <https://www.pwg.org/mailman/listinfo>
- MFD holds periodic phone conferences, with dates, call numbers and agenda announced on the MFD mail list.



# Workgroup for Imaging Management Solutions (WIMS/PMP)

April 5, 2011 Cupertino, CA PWG F2F Meeting

#### 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



- Chair:
  - Bill Wagner (Technical Interface Consulting)
- Vice-Chair:
  - NONE
- Secretary:
  - NONE
- Document Editors:
  - Ira McDonald (High North/Samsung)
  - Andrew Mitchell (HP)

#### **Activities and Status**



- Power Management Specifications:
  - Power Management Model and Power Management MIB and MIB Specifications have been enhanced with more explanatory material reflecting editorial comments made during ballot.
    - PWG Power Management Model for Imaging Systems 1.0 PWG Candidate Standard 5106.4-2011
    - PWG Imaging System Power MIB v1.0 Specification- PWG Candidate Standard 5106.5-2011
    - Imaging Power MIB (PDF, MS-Word, and ASN.1 PlainText formats -ftp://ftp.pwg.org/pub/pwg/candidates/cs-wimspowermib10-20110214-5106.5.pdf
       ftp://ftp.pwg.org/pub/pwg/candidates/cs-wimspowermib10-20110214-5106.5.doc
       ftp://ftp.pwg.org/pub/pwg/candidates/cs-wimspowermib10-20110214-5106.5.mib
- CIM Printer activity:
  - The remaining CIM CRs have passed. The following will be in the CIM Schema v2.29 to come out in about a month.
- PrintService ftp://ftp.pwg.org/pub/pwg/wims/cim/ CIMCoreCR01610\_PrintService.php.htm
- PrintServiceSettings ftp://ftp.pwg.org/pub/pwg/wims/cim/ CIMCoreCR01612\_PrintServiceSettings.php.htm
  - PrintServiceCapabilities ftp://ftp.pwg.org/pub/pwg/wims/cim/ CIMCoreCR01611\_PrintServiceCapabilities.php.htm
  - PrintJob (Passed) ftp://ftp.pwg.org/pub/pwg/wims/cim/CIMCoreCR01609\_PrintJob.php.htm
  - CIM Printer Profile
    - Work is intended on an outline.
  - Extension of CIM activity to MFDs is being considered

#### **Activities and Status**



#### MFD Alerts:

- Extending Printer MIB alerts to MFD subunits and security alerts
- No new activity
- CMMI: Coherent MFD Management Interfaces
  - Identifies management interfaces applicable to MFDs
  - May identify compliance level(s)
  - No New Activity

#### MPSA Interaction:

- Continue to work on providing articles and surveys to Managed Print Services Association
- User Access Control article posted by MPSA mid March
- Work to be started on Data Security Article for April-May timeframe.

# Working Group Issues



- Hardcopy Device and Service maintenance issues relate to the operability and reliability of printer and MFDs.
  - Reliability is of extreme importance to the user
  - Economic maintainability is necessary to the owner
  - Minimizing service calls is critical to the manufacturer
- Servicing of Hardcopy Devices generally continues to be considered a problem.
- Therefore, although not a 'sexy' topic, there should be significant interest in management issues.
- However, although there is general agreement that the identified projects are desirable,
  - WIMS does not have the necessary officer positions filled
  - There are few Editing /Writing volunteers.
  - Conference call participation is anemic
- Any suggestions?

# 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



# IPP Working Group Status

April 5, 2011 Cupertino, CA 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 Version 2.0, IPP Everywhere, IPP JPS3, IPP Scan, IPP over HTTPS Transport Binding and "ipps" URI Scheme, LDAP Schema for Printer Services
  - Michael Sweet (Apple) IPP Version 2.0, IPP Everywhere, IPP JPS3, PWG Raster, IPP over HTTPS Transport Binding and "ipps" URI Scheme, LDAP Schema for Printer Services
  - Andrew Mitchell (HP) IPP Scan, LDAP Schema for Printer Services

#### **IPP WG Status**



- PWG Formal Vote for IPP/2.0 SE passed
- Revised IPP Everywhere charter:
  - Two phases of development: first edition for printing, second edition for multifunction support
- 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 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 Q2/Q3 2011
- IPP Everywhere First Edition
  - Initial working draft of updated LDAP Schema for Printer Services in Q2 2011
  - Initial working draft of IPP Scan in Q2 2011
  - Prototype draft specifications in Q3/Q4 2011
  - Interoperability event for IPP Everywhere First Edition in Q2 2012

## 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 April 18, 2011 at 1pm (EST)



# PWG Plenary Status Report IDS Working Group

April 5, 2011 Cupertino, CA 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 WG Document Editors:
  - HCD-ATR: Jerry Thrasher (Lexmark)
  - HCD-NAP: Joe Murdock (Sharp), Brian Smithson (Ricoh)
  - HCD-TNC: Ira McDonald (Samsung), Jerry Thrasher (Lexmark), Brian Smithson (Ricoh)
  - 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 Logging 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
  - Target completion date April, 2011
- IEEE 2600.1 Supporting Document charter under review
  - Target completion date April, 2011
- MPSA Data Security Article was published in February

#### **Current Activities**



- HCD-TNC Binding Specification (Q3 2011)
  - Interaction with TCG Hardcopy Workgroup
  - IDS-Model specification (Q3 2011)
- HCD-HR (Health Remediation) specification (Q3 2011)
- IDS-Log (Q3 2011)
- IDS-IAA (Q3 2011)
- PWG Security Ticket (Q2 2011)
- IDS Charter Update (April 2011)
- IEEE 2600.1 supporting documents (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.



# Cloud Imaging Working Group Status Report

April 5, 2011 Cupertino, CA PWG F2F

#### Introduction



- The PWG held a series of Cloud BOF's over 5 PWG F2F meetings. After the BOF's concluded their work, a decision was made to create the Cloud Imaging WG.
- The Cloud Imaging WG focus is around providing a set of specifications to support Cloud-based printing, scanning, and facsimile (collectively called "Cloud Imaging").
- The Cloud BOF's provided us with a basic functional model, including Client, Cloud Imaging Provider, Cloud Imaging Manager, and Device.
- The Cloud WG will be providing multifunction bindings for both IPP and SOAP.

#### Officers



- Co-Chairs:
  - Andrew Mitchell (Hewlett-Packard)
  - Ron Nevo (Samsung)
- Secretary:
  - Michael Sweet (Apple)
- Document Editors:
  - Ira McDonald (High North): documents tbd
  - Joe Murdock (Sharp): documents tbd
  - Peter Zehler (Xerox): documents tbd
  - Andrew Mitchell (Hewlett-Packard): documents tbd
  - Ron Nevo (Samsung): documents tbd
  - Michael Sweet (Apple): documents tbd

### Phase 1 Milestones



When	What
Current	Formal Vote of Cloud Imaging Charter
Q2 2011	Initial working draft of Cloud Imaging Model and Requirements
Q3 2011	Initial working draft of Cloud Print IPP & SOAP Bindings
Q4 2011	Last Call of Cloud Imaging Model and Requirements
Q4 2011	Prototype working draft of Cloud Print IPP & SOAP Bindings
Q1 2012	PWG Last Call of Cloud Print IPP & SOAP Bindings

#### **Status**



- Cloud Working Group Charter is out for formal vote.
   Please send in your vote if you haven't already done so.
- Conference calls since last BOF have focused around getting the Charter complete and out for vote.
- First F2F Meeting of the WG just ended (see the minutes if you missed the meeting).

## Cloud WG Participation



- We welcome participation from all interested parties
- Cloud Working Group Web page
  - http://www.pwg.org/cloud/index.html
- Cloud 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 WG holds bi-weekly phone conferences announced on the Cloud mailing list
  - Next conference call is April 25th, 2011 at 1 pm (EDT)
  - Conferences on opposite weeks of IPP WG calls



### **Liaison Status**

#### **AFP Consortium**



- The AFP Consortium develops the Advanced Function Presentation architecture used primarily with mainframe computing:
  - http://www.afpcinc.org/
- Still in the very early stages, but want to align the AFP and PWG models

#### **MPSA**



- 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.
- Articles have been supplied and posted to the MPSA membership in October, November-December and January. Survey results have been obtained associated with the October and November-December articles.

## MPSA – PWG Relationship



- The MPSA recently underwent a Management restructuring, and the new president, Joe Barganier has suggested that a written plan of the intended interaction be agreed to "so that things do not fall through the cracks moving forward"
- The PWG Steering Committee has agreed that a clearer statement of the relationship between the PWG and the MPSA was desirable. Bill Wagner developed the statement and Mike Sweet has provided it to the MPSA for their consideration.

#### 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 Member (\$55,000/year) voting
  - TCG Contributor Member (\$16,500/year) voting
  - TCG Adopter Member (\$8,250/year) non-voting

## TCG Workgroups



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

## TCG Trusted Multi-Tenant Infrastructure WG – NEW



- Cloud Security Trusted Multi-Tenant Infrastructure WG – chartered in 2010 to develop standards framework for implementing:
  - Shared infrastructures
  - Multi-provider infrastructures
  - Reference models and implementation guidance
  - Identify and address gaps in existing standards
- Objectives of Trusted Multi-Tenant Infrastructure WG
  - Enable consumers to assess the trustworthiness of provider systems
  - Enable real-time assessment of compliance as part of the provisioning process
  - Support real-time monitoring of compliance to agreed policy
  - Provide a reference implementation guidance framework of standards

## TCG Hardcopy WG - Status



- Current work
  - Use Cases (trusted startup, trusted services, etc.)
  - Threats (disclosure, modification, etc.)
  - Requirements (secure data-at-rest, etc.)
- Next work
  - TCG Hardcopy Device Security
    - Use TCG standards (e.g., TNC, TPM, Opal secure drives)
    - Use PWG standards (e.g., PWG Scan Service w/ WS-Security)
    - Use IEEE 2600 HCD environments and security terminology
- Future work
  - TCG Hardcopy Device Authentication Framework ?
    - Extend PWG IDS Authentication Framework (w/ TCG technologies)
  - TCG Hardcopy Device Logging Framework ?
    - Extend PWG IDS Logging Framework (w/ TCG technologies)







## Next PWG Meeting



May 24-26 in Webster, NY (hosted by Xerox)



• Thank you Apple for hosting this meeting!