



# The Printer Working Group

IPP Workgroup Session - Day 1

October 22, 2013

PWG F2F Meeting

Cupertino, CA

# IPP WG Meeting Agenda



## October 22, 2013

When	What
10:30 - 11:00	Mopria Alliance Q&A
11:00 - 11:15	Status
11:15 - 12:00	IPP Everywhere Self-Certification

## October 23, 2013

When	What
1:30 - 3:00	IPP Implementor's Guide v2.0
3:00 - 3:15	Break
3:15 - 4:00	IPP Shared Infrastructure Extensions (IPPSIX)
4:00 - 4:45	IPP System Control Service
4:45 - 5:00	Next Steps



# IPP WG Officers

- **IPP WG Co-Chairs:**
  - Paul Tykodi (TCS)
  - Ira McDonald (High North)
- **IPP WG Secretary:**
  - Michael Sweet (Apple)
- **IPP WG Document Editors:**
  - Ira McDonald (High North) – IPP Scan Service, IPP Shared Infrastructure Extensions (IPPSIX), IPP over HTTPS Transport Binding and “ipps” URI Scheme, LDAP Schema for Printer Services
  - Michael Sweet (Apple) – IPP Shared Infrastructure Extensions (IPPSIX), IPP over HTTPS Transport Binding and “ipps” URI Scheme, LDAP Schema for Printer Services, IPP FaxOut Service, IPP Transaction-Based Printing Extensions, IPP Finishings 2.0
  - Smith Kennedy (HP) - IPP Implementors Guide 2.0



# 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 1.0
    - Interim Draft
  - IPP FaxOut Service
    - PWG Formal Vote
  - IPP Finishings 2.0
    - Interim Draft
  - IPP Implementors Guide 2.0
    - Interim Draft
  - IPP Shared Infrastructure Extensions (IPPSIX)
    - Prototype Draft
  - IPP Transaction-Based Printing Extensions
    - PWG Formal Vote



- **Candidate Standards:**
  - PWG 5100.14-2013 - IPP Everywhere
  - PWG 5100.13-2012 - IPP: Job and Printer Extensions - Set 3 (JPS3)
  - PWG 5101.1-2013 - PWG Media Standardized Names 2.0 (MSN2)
  - PWG 5102.4-2012 - PWG Raster Format
- **Up-to-date pending IANA registrations online:**
  - <http://www.pwg.org/ipp/ipp-registrations.xml>
  - Continue to maintain this in parallel for new specifications
    - PWG version includes draft specifications that have reached prototype status



# IPP Everywhere Interoperability

- July 2013 ipptool release includes an IPP Everywhere test suite
  - <http://www.cups.org/software.php>
  - Resolves all known issues, adds new Bonjour tool “ippfind”
- Sample PWG Raster data available on PWG FTP server:
  - <ftp://ftp.pwg.org/pub/pwg/ipp/examples/>
- To run the test suite:
  - Download and extract the PWG Raster sample files
  - Run “`ipptool -XV 2.0 printer-uri ipp-everywhere.test >results.plist`”
- Send reports to:
  - Michael Sweet ([msweet@apple.com](mailto:msweet@apple.com))
- So far we have received NO reports
  - Proposal: Combine IPP Everywhere interoperability with IPP Everywhere Self-Certification (which will provide similar information)



# Move IPP to Full IEEE-ISTO Standard?

- From PWG Process/3.0:
  - *When a PWG Candidate Standard has passed Last Call, demonstrated interoperability and acquired Formal Approval, it is promoted to the final status of a PWG Standard. At this point, "STD" replaces the prefix "CS" in the IEEE-ISTO standard number and "PWG" is replaced by "IEEE-ISTO," resulting in a number such as "IEEE-ISTO STD 5105.2."*
- IPP/2.0 already has demonstrated interoperability
- IPP Everywhere with self-certification results will also demonstrate interoperability
- Next Steps:
  - IPP WG needs to produce new Stable Drafts containing any errata to the Candidate Standards
  - IPP WG then holds a PWG Last Call for each document, responding to any last call comments, and produces (as needed) new stable drafts
  - IPP WG holds a PWG Formal Vote for each document



# IPP Everywhere Self-Certification

- Current (interim) draft of IPP Everywhere Self-Certification Manual 1.0:
  - <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeveselfcert10-2013MMDD-rev.pdf>
- Standards track document with tools:
  - Minor releases (1.x, 2.x, etc.) will be errata with PWG Call For Objection process
  - Major releases (1.0, 2.0, etc.) will go through PWG Last Call and Formal Approval process
  - Tools and document released together on [pwg.org](http://pwg.org)
- Known issues:
  - This is just a skeleton document and needs significant amounts of content for the test procedures
- Proposed schedule:
  - Prototype draft in Q4 2013/Q1 2014



# IPP Everywhere Self-Certification (con't)



- What we have today:
  - Client software coming in next round of (Linux) OS updates
  - IPP test tool (CUPS ipptool)
  - Bonjour test tool (CUPS ippfind)
  - Test files for ipptool
  - Sample PDF, JPEG, and PWG Raster files for testing
  - Interim draft of self-certification manual and license agreement
  - IPP Everywhere logo:



# IPP Everywhere Self-Certification (con't)



- What we need:
  - WS-Discovery test tool
    - wsddebug\_client.exe tool is available from MS
    - Volunteer to write test script/program?
  - More IPP test files to test media-ready, printer-state-reasons, printer-supply, etc.
    - Volunteers?
  - Registration page(s) on pwg.org
    - Daniel Dressler has volunteered to do this work along with the PWG site update
  - Complete the Self-Certification Manual
    - Define test procedures and requirements in detail
    - Define exception process for tests that might fail
    - Register new logos as trademarks through ISTO (ongoing)
  - Guinea pigs to test the process and tools



# The Printer Working Group

End of Day 1



# The Printer Working Group

IPP Workgroup Session - Day 2

October 23, 2013

PWG F2F Meeting

Cupertino, CA

# IPP WG Meeting Agenda



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1:30 - 3:00	IPP Implementor's Guide v2.0
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4:00 - 4:45	IPP System Control Service
4:45 - 5:00	Next Steps



- Current (interim) draft at:
  - <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippig20-20131002-rev.pdf>
- Proposed schedule:
  - Prototype draft Q4 2013 / Q1 2014



# The Printer Working Group

Scheduled Break

# IPP Shared Infrastructure Extensions (IPPSIX)



- **Current prototype draft:**
  - <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippsix10-20131008-rev.pdf>
- **Known Issues:**
  - Need to include device-uuid as an optional operation attribute for Identify-Printer request and Acknowledge-Identify-Printer response
  - Address any sync up with the Cloud Imaging Model
  - Address any interoperability issues with XMPP notifications
- **Proposed schedule:**
  - Detailed review of prototyping at February 2014 PWG F2F
  - Stable draft end of Q1 2014 followed by WG Last Call





# IPP System Control Service

- Done in two steps:
  - 1.0 is mostly read-only, list services, pause/resume services, etc.
  - 2.0 will address service creation, AAA, ACLs, power management, etc.
- Get feedback on interest in the 2.0 phase
  - Maybe 2.0 would address registration/association for IPPSIX?
- Some System Control Service operations have already been defined in RFC 3998
  - Restart-Printer
  - Shutdown-Printer
  - Startup-Printer

# IPP System Control Service 1.0 Outline



## 1. Introduction

- Relationship of System object and System Control Service to IPP Printer
- Synopsis of rationale

## 2. Terminology

- Conformance, imaging, other, acronyms, etc.

## 3. Requirements

- Rationale, use cases, out-of-scope, design requirements

## 4. IPP System Model

- System Object
- Subunit Object
- Printer Object
- Job Object
- Subscription Object
- etc.

## 5. System Object

- Configuration (subunits)
- Description (charset, language, name, UUID, location, etc.)
- Power calendar/events ???
- Status (state, health, alerts, configured services/resources, counters, etc.)
- Power log/meters ???

## 6. System Control Service

- Description (charset, language, name, UUID, location, etc.)
- Status (state, alerts, etc.)

## 7. System Control Service Operations

- Disable-Printers
- Enable-Printers
- Get-Printers
- Get-System-Attributes
- Pause-Printers
- Pause-Printers-After-Current-Job
- Restart-Printers
- Resume-Printers
- Shutdown-Printer (extend RFC 3998)
- Shutdown-Printers
- Startup-Printers

## 8. Conformance Requirements

- IPP Client
- IPP Printer

## 9. Internationalization Considerations

## 10. Security Considerations

## 11. IANA Considerations

## 12. References

## 13. Authors' Addresses

## 14. Change History



# IPP WG Next Steps

- IPP FaxOut Service
  - Complete PWG Formal Vote
- IPP Transaction-Based Printing Extensions
  - Complete PWG Formal Vote
- IPP Shared Infrastructure Extensions (IPPSIX)
  - Get prototype experience
  - Stable draft
  - WG Last Call



# IPP WG Next Steps

- Continue working on IPP Everywhere Self-Certification Manual 1.0
  - Prototype working draft in Q4 2013/Q1 2014
- Continue working on IPP Implementors Guide 2.0
  - Prototype working draft in Q4 2013/Q1 2014
- Continue work on IPP Finishings 2.0
  - Prototype working draft in Q4 2013/Q1 2014
- Start work on IPP System Control Service 1.0 (Mike/Ira)
  - Initial working draft in Q4 2013/Q1 2014
- Investigate advancing IPP/2.0 and/or IPP Everywhere to full IEEE-ISTO standards



# IPP WG Info / Participation

- We welcome participation from all interested parties
- IPP Working Group web page
  - <http://www.pwg.org/ipp/index.html>
- Subscribe to the IPP mailing list
  - <http://www.pwg.org/mailhelp.html>
- IPP WG holds bi-weekly phone conferences announced on the IPP mailing list
  - Next conference calls November 4 and December 2, 2013 at 3pm ET (second meeting delayed due to holidays)