



IPP Working Group Session - Day 1

May 16, 2013

PWG F2F Meeting

Cupertino, CA



IPP WG Meeting Agenda

Thursday, May 16

9:00 - 9:05	Introductions, Minute Taker, Agenda Review
9:05 - 9:15	Current IPP WG status
9:15 - 12:00	IPP Shared Infrastructure Extensions (IPPSIX)

Friday, May 17

9:00 - 9:05	Introductions, Minute Taker, Agenda Review
9:05 - 9:15	IPP FaxOut Service Last Call Status
9:15 - 10:30	IPP Everywhere Self-Certification
10:30 - 10:45	Break
10:45 - 11:45	IPP Best Practices
11:45 - 12:00	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 Paid Printing Extensions
 - Smith Kennedy (HP) - IPP Best Practices



IPP WG Status

- IETF RFCs in development:
 - IETF IPP over HTTPS Transport Binding and "ipps" URI Scheme
IETF Area Director Review
 - IETF LDAP Schema for Printer Services (updates RFC 3712)
IETF Area Director Review
- PWG Specifications in development:
 - IPP FaxOut Service
PWG Last Call
 - IPP Paid Printing Extensions
WG Last Call
 - IPP Scan Service
Initial Draft
 - IPP Shared Infrastructure Extensions (IPPSIX)
Initial Draft
- PWG Best Practices in development:
 - IPP Best Practices
Interim Draft
 - IPP Everywhere Self-Certification Manual
Interim Draft

IPP WG Status

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



IPP Everywhere Interoperability

- April 2013 ipptool release includes an IPP Everywhere test suite
 - <http://www.cups.org/software.php>
 - Have one reported test issue and one tool issue, will be doing another release shortly for June 2013
- 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)
- Schedule:
 - Preliminary anonymous results at August 2013 F2F
 - Final anonymous results at October 2013 F2F

Document Editors Needed

- As we complete our work on IPP Everywhere, we need to identify editors for the IPP Multifunction specifications
- Need a new lead editor for IPP Scan Service
- Additional multifunction services need to be addressed: System Control, FaxIn, Orchestrator, Transform, Copy?
 - These should be straight-forward since they are essentially binding specs that reference the corresponding Semantic Model specs
 - See FaxOut as an example
- IPP Multifunction spec will likely be an update of IPP Everywhere with pointers to the corresponding IPP service specifications

IPP Shared Infrastructure Extensions (IPPSIX)



- Current (initial) draft:
 - <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippsex10-20130328.pdf>
- Known issues:
 - Incorporate some clarifications suggested on the Cloud list
 - Need additional figure(s) that show relationship between IPP Manager, IPP Infrastructure Printer, and IPP Printer
 - Rename IPP Manager to IPP Proxy to match Cloud Imaging
- Proposed schedule:
 - Prototype draft Q3 2013
 - Stable draft, WG Last Call Q3/Q4 2013



IPP Working Group Session - Day 2

May 17, 2013

PWG F2F Meeting

Cupertino, CA



IPP WG Meeting Agenda

Friday, May 17

9:00 - 9:05	Introductions, Minute Taker, Agenda Review
9:05 - 9:15	IPP FaxOut Service Last Call Status
9:15 - 10:30	IPP Everywhere Self-Certification
10:30 - 10:45	Break
10:45 - 11:45	IPP Best Practices
11:45 - 12:00	Next Steps



IPP FaxOut Service

- Current (stable) draft:
 - <ftp://ftp.pwg.org//pub/pwg/ipp/wd/wd-ippfaxout10-20130501.pdf>
- PWG Last Call until June 7, 2013
 - Please provide your acknowledgement and any comments



IPP Everywhere Self-Certification

- Consensus thus far has been to define a PWG-endorsed self-certification process for Printers:
 - Each vendor can perform the self-certification process or contract it out as desired
 - Passing self-certification grants the right to use the IPP Everywhere logo
 - Vendors will register their self-certification on the PWG web site, which will display a list of self-certified products and vendors
 - Self-certification will be open to everyone, not just PWG members
 - Primary purpose is marketing
- Self-certification of Clients is currently out-of-scope though technically feasible, e.g., with CUPS ippserver

IPP Everywhere Self-Certification

- What we have today:
 - IPP test tool (CUPS ipptool)
 - Test files for ipptool
 - Sample PDF, JPEG, and PWG Raster files for testing
 - Skeleton self-certification manual and license agreement
 - IPP Everywhere logo:



IPP Everywhere Self-Certification

- What we need:
 - Client software to drive adoption
 - Open Printing???
 - Bonjour test tool
 - Mike to provide in CUPS, LGPL2
 - WS-Discovery test tool
 - wsddebug_client.exe tool is available from MS
 - Volunteer to write test script/program?
 - Enhancements to CUPS ipptool
 - Hostname and port validation support (Host: header)
 - Identification of ipptool and test file versions in output
 - Mike to provide in future CUPS ipptool releases

IPP Everywhere Self-Certification

- What we need (con't):
 - More IPP test files to test media-ready, printer-state-reasons, printer-supply, etc.
 - Volunteers?
 - Define machine-readable report formats for test results
 - ipptool provides XML output using Apple's plist schema, probably sufficient for Bonjour and WS-Discovery
 - Develop 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
 - Get ISTO legal review/updates of license agreement
 - Get ISTO to register new logos as trademarks



IPP Everywhere Self-Certification

- What we need (con't):
 - Guinea pigs to test the self-certification manual and tools



IPP Everywhere Self-Certification

- Nice to have:
 - GUI that automates self-certification
 - LDAP/SLP/SSDP test tools



IPP Everywhere Self-Certification

- Self-certification test procedures and license agreement will be published using the PWG Best Practices process but use a different prefix and location of published documents:
 - “PWG Licensing” document
 - “IPP Everywhere Self-Certification Manual 1.0”
 - `ftp://ftp.pwg.org/pub/pwg/general/licensing/lic-ippeveselfcert10-YYYYMMDD.{docx|pdf}`
- Working drafts in IPP wd directory:
 - `ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeveselfcert10-YYYYMMDD.{docx|pdf}`
- Major versions (1.0, 2.0, etc.) contain new content, requirements, license agreements, etc.
- Minor versions (1.1, 1.2, etc.) contain errata to the corresponding major version



IPP Everywhere Self-Certification

- Proposed process for Major Versions:
 - IPP WG reviews potential changes for new versions, prepares a stable working draft
 - IPP WG Last Call of at least 10 working days (14 calendar days)
 - Review of WG Last Call, preparation of a new stable working draft as needed
 - PWG Last Call of at least 16 working days (22 calendar days) to span a face-to-face meeting
 - Formal Review by Steering Committee
 - PWG Formal Vote of at least 16 working days (22 calendar days)
 - Formal Approval by Steering Committee
 - Publication of new self-certification manual
- This is the process for Best Practices documents (section 8 of Process/3.0)

IPP Everywhere Self-Certification

- Proposed process for Minor Versions:
 - IPP WG reviews potential changes for new versions, prepares a stable working draft
 - IPP WG Last Call of at least 10 working days (14 calendar days)
 - Review by IPP WG, preparation of a new stable working draft as needed
 - PWG Call for Objection of at least 16 working days (22 calendar days)
 - Review by IPP WG
 - Publication of new self-certification manual
- This is the process used for maintenance, clarifications, and technical errata (section 9 of Process/3.0)

IPP Everywhere Self-Certification

- Current (interim) draft of IPP Everywhere Self-Certification Manual:
 - <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeveselfcert10-20130501-rev.pdf>
- Known issues:
 - This is just a skeleton document and needs significant amounts of content for the test procedures
 - The legal agreement still requires review by/content from the ISTO lawyers
- Proposed schedule:
 - Stable draft in Q3/Q4 2013

IPP Best Practices

- Current (interim) draft at:
 - <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ipp-bestp10-20130513-rev.pdf>
- Proposed schedule:
 - Stable draft Q3/Q4 2013

IPP WG Next Steps

- IPP Everywhere
 - Virtual interoperability event for IPP Everywhere through October 2013 F2F
- IPP Multifunction
 - PWG Formal Vote of IPP FaxOut Service in Q3 2013
 - Initial working drafts of System Control Service and other specifications starting in Q1/Q2 2014
 - Interim working draft of IPP Scan Service in Q1/Q2 2014
- IPP Shared Infrastructure Extensions
 - Prototype working draft in Q3 2013
- Continue working on IPP Everywhere Self-Certification
 - Stable working draft in Q3/Q4 2013
- Continue working on IPP Best Practices
 - Stable working draft in Q3/Q4 2013



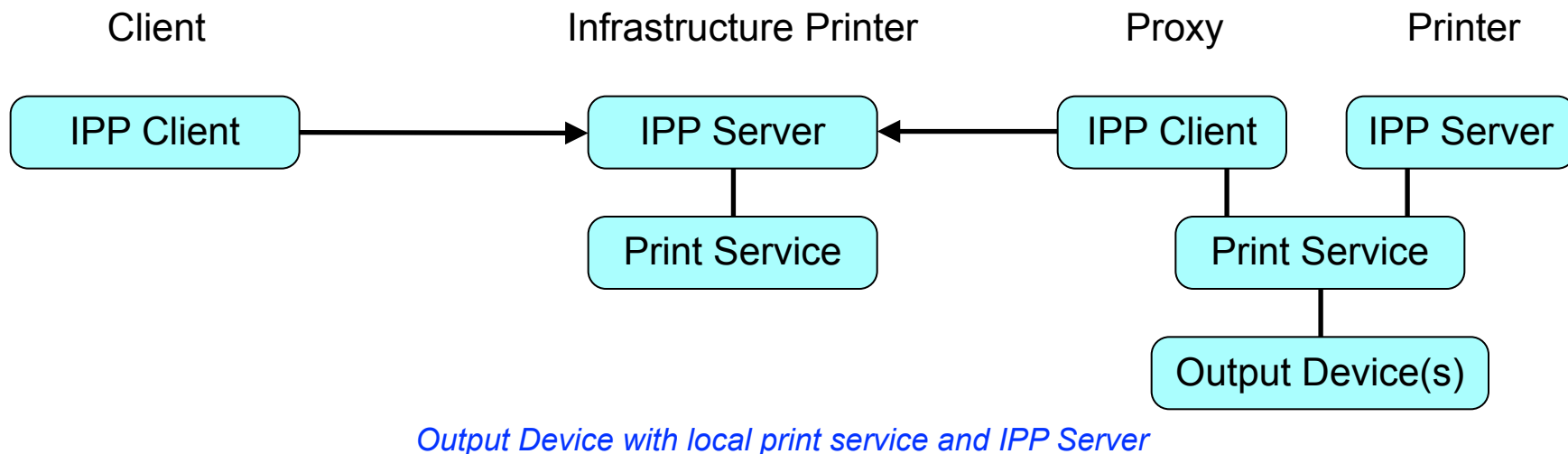
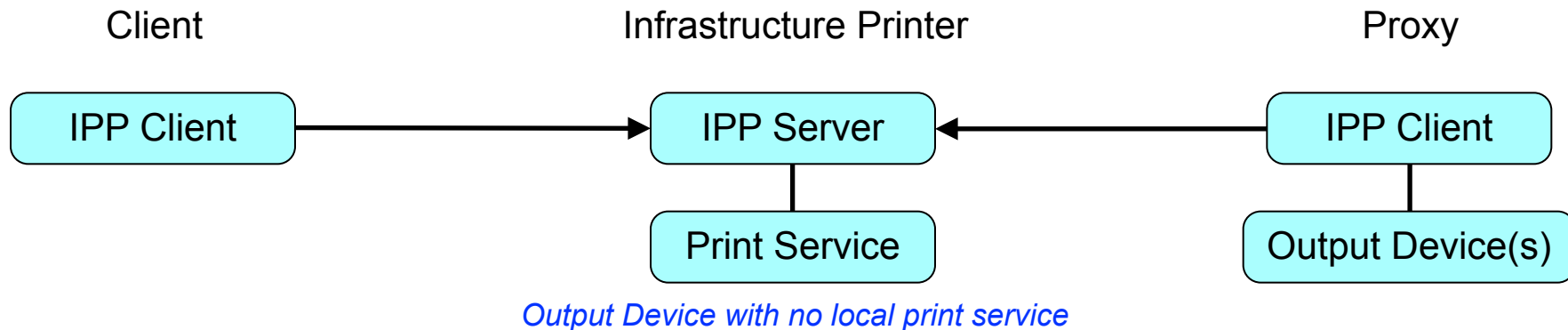
IPP WG Info / Participation

- 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 calls June 10 and June 24, 2013 at 3pm ET



Backup Slides

IPP Shared Infrastructure Extensions (IPPSIX)





Sample ipptool test file

```
# Print a test page using print-job
{
  NAME "Print file using Print-Job"
  OPERATION Print-Job
  FILE $filename

  GROUP operation-attributes-tag
  ATTR charset attributes-charset utf-8
  ATTR language attributes-natural-language
  en
  ATTR uri printer-uri $uri
  ATTR name requesting-user-name $user
  ATTR mimeType document-format
  $filetype

  GROUP job-attributes-tag
  ATTR integer copies 10
  ATTR collection media-col {
    MEMBER collection media-size {
```

```
# A4 - 210x297mm
  MEMBER integer x-dimension 21000
  MEMBER integer y-dimension 29700
  }
  # Letterhead
  MEMBER keyword media-type "stationery-
  letterhead"
  }
  ATTR enum print-quality 5

  # What statuses are OK?
  STATUS successful-ok
  STATUS successful-ok-ignored-or-
  substituted-attributes

  # What attributes do we expect?
  EXPECT job-id
  EXPECT job-uri
  }
```



XML plist Format

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple Computer//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>Transfer</key>
  <string>auto</string>
  <key>Tests</key>
  <array>
    <dict>
      <key>Name</key>
      <string>Get printer attributes using Get-Printer-Attributes</string>
      <key>Operation</key>
      <string>Get-Printer-Attributes</string>
      ...
    </dict>
    ...
  </array>
</dict>
</plist>
```