

Internet Printing Protocol WG Minutes

August 12-14, 2014

Meeting was called to order at approximately 3:00pm ET August 12, 2014, 3:00pm ET August 13, 2014, and 1:00pm ET August 14, 2014.

Attendees

Danny Brennan (IBM)
Till Kampeter (Canonical/OpenPrinting)
Smith Kennedy (HP - call in)
Alex Korobkin (Google - call in)
Shane Lin (Monotype)
Daniel Dressler
Daniel Manchala (Xerox - call in)
Ira McDonald (High North - call in)
Johannes Meixner (SuSE)
Joe Murdock (Sharp)
Mike Sweet (Apple)
Paul Tykodi (TCS - call in)
Bill Wagner (TIC)
Rick Yardumian (Canon)
Pete Zehler (parc)

Agenda Items

1. IP Policy and Minute Taker
 - a. Policy accepted with Mike taking the minutes
2. Review IPPSIX
 - a. <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippsix10-20140226.pdf>
 - b. Change abbreviation to IPPINFRA
 - c. Change filename to wd-ippinfra10-yyyymmdd.ext
 - d. Abstract:
 - "This document defines extensions to IPP that allow IPP Printers to interface with shared services based in the network infrastructure, i.e., software-defined networks, and/or through Cloud solutions to remotely ..."
 - Add reference to Cloud Imaging Model
 - e. Reference compression-accepted and document-format-accepted from IPP Scan (PWG5100.SCAN)
 - f. Section 1:
 - Add reference to Cloud and SDN references
 - Add reference to Cloud Imaging Requirements and Model document [PWG5109.CLOUD]
 - "This specification defines an IPP Binding of the Cloud Imaging

Requirements and Model [PWG5109.CLOUD]. While the focus is on IPP Cloud Printers, the same IPP Binding can be used in any environment where ..."

- ", as is common ..." -> ". This is common ..."
 - ". Some examples are:" -> ", such as:"
 - "uses the printing interface defined ..." -> "uses the IPP Binding defined ..."
- g. Figure 1: Add [RFC2911]
- h. Show mapping of IPP operations to Cloud Imaging Model operations
- i. Q: Do we make "Binding" a defined term?
- A: Reasonable, do we ever do it?
 - Action: Joe to provide definition of IPP Binding for IPPINFRA
- j. Global: "interface" -> "IPP Binding", etc.
- k. Update RFC2616 to RFC7230
- l. Section 2.2:
- Proxy: "An IPP Client ..."
 - Move Infrastructure Printer definition here from 2.3
 - Make new 2.2 for Printer Terminology, list 2911 terms
 - 2.2 becomes 2.3 Protocol Role Terminology
 - 2.3 becomes 2.4 Other Terminology
 - Add period to end of Output Device definition.
 - Perhaps more review after IPP System Control Service
- m. Global: IPPSIX -> IPPINFRA
- n. Global: 5100.SIX -> 5100.INFRA
- o. Section 3
- "Given the existing specifications below and ..."
 - Also look at IPP System Control and IDS Model
 - Add quotes around document titles, no leading "The" on those lines.
- p. Figure 2: Update IPPSIX
- q. Section 4:
- Lines 477-479: "The Infrastructure Printer can augment the capabilities of the Output Device, such as by providing document conversion,"
 - Line 485: "Figure 3 shows two Proxy implementations of this model."
 - Add forward references from Infrastructure Printer and Proxy to the 4.x subsections.
- r. Figure 3: "Examples of IPP Proxy Implementations"
- s. Section 4.1:
- Line 505: Comma after e.g.
- t. Section 4.1.1:
- Line 524: "minimal pre-processing (late binding)"
 - Maybe add examples about watermarking and conversion explicitly being allowed. Reword to allow pre-processing, focus on late binding to preserve fidelity and minimize bandwidth.
 - For example, pre-binding copies can cause problems down the

- road (bandwidth, etc.)
 - Also email revised text to IPP mailing list for specific discussion.
 - u. Stopped at 4.1.1
 - v. From Cloud Imaging Model session:
 - Add job-id to Identify-Printer extensions to specify output-device handling a given job
 - Also passed in response to Acknowledge-Identify-Printer request?
 - IANA and PWG Considerations section
 - PWG Semantic Model Registrations sub-section
 - Boilerplate text pointing to 5108.01
 - Table of registrations for elements, operations, and well-known values from IPP attributes
 - Clarify reject job requirements? (i.e. proxy wants to reject, or proxy wants to ignore?)
 - Talk more about document-uri and how a proxy gets the Infrastructure Printer to dereference
3. Session 2: IPP Everywhere Self-Certification Status
- a. <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeveselfcert10-20140729-rev.pdf>
 - b. Section 2.2: Protocol Role terminology
 - c. Section 2.3:
 - Drop "existing" from Product Family definition
 - Add definition of Production-Ready Code and update references/terms throughout
 - d. Section 4.5:
 - Add back reference to section 1.3 for mailing list (how to subscribe)
 - You -> vendor
 - e. Global: change You to Vendor (or Developer) as needed
 - f. Section 8.2:
 - Change "production-ready software and/or firmware" to "Production Ready Code"
 - Include a definition of Production-Ready Code on the web form
 - g. Section 8.3:
 - "or cancel the self-certification" instead of abandon
 - "Otherwise, the submitter can a) correct ..., b) cancel ..., or c) appeal the decision to the PWG Steering Committee."
 - h. Section 8.4:
 - #4, "timely Production-Ready Code update"
 - #5 Remove until we have examples
4. Session 3: IPP Implementor's Guide 2.0 Review
- a. <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippig20-20140513-rev.pdf>
 - b. Reviewing Smith's in-progress draft
 - c. Section 7.1
 - Title: Targets
 - Intro: IPP operations require a target consisting of a "printer-uri" operation attribute and zero or more identifier attributes such as "job-id" [section 3.1.5 of RFC 2911].

- MUST use ipp/ipps, MUST NOT use http/https, reference RFC 2910
 - Also /ipp/print/queue (copy from IPP Scan or IPP FaxOut)
 - 'A Print, FaxOut, or Scan service are identified by a "printer-uri" attribute.'
 - SHOULD support / for Get-Printer-Attributes and SHOULD NOT support Job Creation requests (can be used to discovery correct service URIs)
 - Add reference to RFC 3510 for "ipp", Ira draft for "ipps"
 - Add reminder that relative URIs are not allowed, with reference to RFC 3510
 - Printers SHOULD NOT allow requests using relative URIs.
 - Add paragraphs for FaxOut and Scan URIs with references to the corresponding specs
 - Add:
 - The "job-uri" path has never been fully specified. Printers SHOULD choose a path appropriate for the implementation. Clients MUST use the "printer-uri" and "job-id" attributes to target a Job object for a Job operation and MUST NOT use the "job-uri" attribute to target a Job object.
- d. Section 7.2:
- FaxOut SHOULD handle URIs using the "fax" URI scheme as being equivalent to the "tel" URI scheme.
 - Drop last sentence.
- e. Section 7.3:
- Title: "Printer Resource URIs"
 - "... to various Printer-resident resources ..."
 - "... SHOULD be Network Accessible even ..."
 - Line 1413: Drop "used to direct a Client", "URIs for" instead of "URIs to"
 - Line 1414: Drop "other than IPP"
 - Line 1414-1415: "Printer or print server" -> "Output Device"
 - Line 1416: "printer" -> "Output Device"
 - Line 1416-1419: 'Since the "printer-icons" attribute is defined to contain a set of "http:" or "https:" URIs, each URI SHOULD include the port number of the IPP Server, e.g., "http://myprinter.example.com:631/icon.png".'
- f. Document header: Add "(Updates RFC 3196)" after title
- g. Section 4.x: Add something somewhere about fax: basic FaxOut recommendation, Clients SHOULD use "tel" instead of "fax" URIs with reference to tel URI RFC
- h. Section 4.x: Add something somewhere about scan: basic pull scan and push scan recommendations
- i. Section 8:
- Add a brief statement that 8.x.1 is client and 8.x.2 is server specific.
- j. Section 8.1:
- Update title "New HTTP/1.1 Specifications"

- RFC 723x obsoletes RFC 2616. Provide whole list of 723x RFCs for HTTP/1.1.
 - Most other places just need to refer to RFC 7230 (lead RFC)
 - "ensure conformance with the current HTTP/1.1 specifications."
- k. Stopped at 8.2.
- l. Updated draft to be posted to:
- <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippig20-20140814-rev.docx>
 - <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippig20-20140814-rev.pdf>
5. IPP Scan Review
- a. <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippscan10-20140806.pdf>
 - b. 6.1.1: Addition of "compression-accepted" is accepted
 - c. 6.1.2: Update of delay section and addition of "compression" attribute are accepted
 - d. 7.1.1: Addition of "compression-accepted" is accepted
 - e. 8.1.2.1: Addition of "access-oauth-scope" is accepted
 - f. 8.1.2.3: Addition of "access-oauth-uri" is accepted
 - g. 8.3.3.1: Addition of "destination-oauth-uri" is accepted, re-sort after "destination-oauth-token"
 - h. 8.3.3.2: Addition of "destination-oauth-scope" is accepted, re-sort before "destination-oauth-token"
 - i. 10.x: Updates are accepted
 - j. Table 10: Fix table style
 - k. Numbered list style: numbers appear to be left of the normal margin instead of indented?
 - l. 2 Terminology: separate out protocol role terminology (if needed)
 - m. Section 14: "IANA and PWG Considerations"
 - n. Add section 14.x "Semantic Model Registrations"
 - List new well-known values? DestinationAccesses, DestinationUriReady
 - Anything else not in SM Scan Service
 - o. Comment 4:
 - Reject, do not remove date-time requirement
 - Most scanners have an attached printer
 - Most MFPs do fax, which requires date/time
 - Printers can use the Date: header in requests to initially set time.
 - Implementor's Guide 2.0 talks about this...
 - Add informational reference to IPP Implementor's Guide 2.0 (so as not to block publication)
 - p. Comment 13: Remove destination-oauth-scope from destination-accesses operation attribute (leave destination-oauth-uri)
 - q. Pete to post new stable draft for final WG review on August 25th before formal vote
6. Next Steps:
- a. IPP/3.0? or IPP/1.1 full standard update
 - Deprecate/drop "job-uri" attribute (section 3.1.5 of RFC 2911, and other places)
 - Lots of other stuff that will set of alarms in IETF about moving

- existing documents to full standard
- Q: Do we care about getting IPP/1.1 updated to full standard?
 - A: Only if it is a requirement for getting 2.0 to full standard
 - PWG Process/3.0 doesn't have any requirement for it
- Q: Is updating RFC 2910/2911/3382 worth the work?
 - A: Maybe, but use the independent stream through the RFC Editor
- Action: Mike to file errata for RFC 2910 and 2911 for the TLS reference and IPP URI scheme issues
- Decisions:
 - Leave 2910/2911 alone (aside from errata)
 - Q2 2015: Prepare an update of IPP/2.x (PWG5100.12) with any errata changes we have so far
 - Q2 2015: WG Last Call
 - Q3 2015: PWG Last Call
 - Q3/Q4 2015: PWG Formal Vote to advance
 - Q1 2016: Paperwork to IEEE
 - Mike will volunteer to edit
 - Action: Ira to update charter to include advancing IPP/2.x (PWG 5100.12) to full standard, updating FaxOut, and other editorial changes as needed
- b. Possible future work for 2015:
 - If no progress is made on IPPS and LDAP updates by December 2014, retarget these documents as PWG 5100.x and 5106.x standards.
- c. IPP FaxOut
 - Update needed to address SM changes for how a hardcopy document object is represented
 - input-attributes as an alternative to document-uri or document data
 - Ira will volunteer to edit
 - Defer scheduling but still add to charter

Next Steps / Open Actions

- Action: Joe to provide definition of IPP Binding for IPPINFRA
- Action: Mike to file errata for RFC 2910 and 2911 for the TLS reference and IPP URI scheme issues
- Action: Ira to update charter to include advancing IPP/2.x (PWG 5100.12) to full standard, updating FaxOut, and other editorial changes as needed
- Joint IPP/Cloud conference call August 4, 2014 at 3pm ET
- IPP F2F meetings August 13 at 3:15pm ET and August 14 at 11:15am ET and 1pm ET
- Next IPP conference call August 25, 2014 at 3pm ET
- Action: Mike to post PWG Last Call of IPP Finishings 2.0 ending August 22
- Action: Mike to post discussion and register 'collator' and 'job-separator' values

for "output-bin" in the IANA IPP registry (PENDING - Mike to send Ira the updated XML registry file with prohibition for output-bin-actual)

- Action: Ira to add comments to Printer MIB TC for fax-modem-protocol-error and xxx-recoverable-storage-error - suffix dropped from IPP keyword with corresponding suffix (-error, -report, -warning) added depending on the printer state. (PENDING)
- Action: Mike to submit IANA registration for IPP printer-state-reasons updates for fax-modem-protocol and xxx-recoverable-storage (PENDING)
- Action: Ira to submit Printer MIB registration for new xxx-missing PrtAlertCodeTC values (PENDING)
- Action: Mike to propose an approach for deprecation of IPP attributes and values in the IANA registry (ONGOING)