

Internet Printing Protocol WG Minutes

February 5, 2014

Meeting was called to order at approximately 10:00am PT February 5, 2014.

Attendees

Andre Geertsema (Lexmark)
G. Gupta (Oki Data)
Smith Kennedy (HP)
Daniel Manchala (Xerox)
Ira McDonald (High North - call in)
Joe Murdock (Sharp Labs America)
Rainer Prosi (CIP4/Heidleberg)
Rourke Randle (Toshiba)
Jesse Sanchez (Intel)
Norbert Schade (Conexant)
Tak Shiozaki (Epson)
Brian Smithson (Ricoh - call in)
Mike Sweet (Apple - call in)
Paul Tykodi (TCS - call in)
Bill Wagner (TIC)
Rick Yardumian (Canon)
Peter Zehler (Xerox)

Agenda Items

1. IP Policy and Minute Taker
 - a. Policy accepted with Mike taking the minutes
2. IPP Everywhere Self-Certification
 - a. <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeveselfcert10-20140124-rev.pdf>
 - b. Proposal: Defer WS-Discovery to later version of manual?
 - No objections
 - Q: Why does a lack of WS-Discovery tool hold up a prototype draft?
 - A: Currently there is no way to prototype the tests and can't write the tests without the prototype tools
 - Include a placeholder or paragraph explaining that WS-Discovery testing is not addressed or included in IPP Everywhere self-certification at this time (required by IPP Everywhere, not addressed/tested in 1.0).
 - c. Title: IPP Everywhere Printer Self-Certification Manual 1.0
 - d. Section 1.1:
 - "Overview of IPP Everywhere Self-Certification Process"
 - "The following summarizes the steps for IPP Everywhere self-certification:"

- Item 1 becomes "1. Conformance to this specification is voluntary; ..."
- Item 2 becomes "2. Version 1.0 of this process only applies to Printer implementations.
- item 4 becomes "3. Version 1.0 of this process does not test the WS-Discovery capabilities of your IPP Everywhere implementation."
- Item 3 becomes "4. This manual tests the Bonjour ... of your IPP Everywhere Printer implementation"
- Item 5 becomes "5. This manual defines only one conformance ..."
- Item 6 becomes "6. Printer self-certification is normally performed using the latest approved version of this process, however you may use an older approved version of the process if the latest version was approved within the last 12 months. ..."
- Add figure showing timeline for item 6
- Item 8 becomes "8. There is no requirement to re-certify an existing Product Family against updated versions of this process.
- Item 9:
 - Change to "25 working days".
 - Add some waffle words to cover holidays.
- Item 10: Update accordingly for list below
- Q: What about process?
 - Who sees/approves the certifications?
 - Need to appoint neutral persons to do the reviews - have submitter choose two PWG officers to approve the self-certification at time of submission
 - Automate as much as possible (so direct inspection if possible)
 - Exception requests are anonymized for discussion in the PWG steering committee
 - Exceptions need to be limited to avoid dilution of self-cert
 - Document what metadata will be exposed on pwg.org on IPP Everywhere list page
 - Product Family/Models
 - Manufacturer
 - Version of self-certification completed
 - URL to manufacturer for additional information
 - List of exceptions that have been granted for certification (just the exception number, no details)
 - What sorts of things do we allow exceptions for?
 - Mainly test tool/process issues like race conditions that can sometimes fail
 - Will not grant exceptions for missing required operations or attributes
- Add item about testing with the most capable model in the product

- family
- Section 1.2:
 - "This document may be updated ..."
 - "The version numbers of this document will be updated to reflect these changes according to the following rules:"
- Section 1.3:
 - "with the test tools ARE reported using ..."
 - "You CAN subscribe to this LIST in order to post questions:"
- Section 2.3:
 - Add "Product Family: One or more products based on the same core software or hardware implementation of IPP Everywhere."
- Section 3.2.1:
 - Rewrite slightly to include vendor doing certification to get Jane to buy their printer.
- Section 3.3:
 - "The following are considered out of scope for version 1.0 of this document:"
 - Add "3. Conformance of optional operations, attributes, and values"
 - Add "4. Conformance testing of optional OpenXPS document format support."
- Section 3.4:
 - Import HTTP/IPP/PWG Raster/JPEG/PDF/etc. versions from IPP Everywhere 1.0
 - Item 6: Remove OpenXPS
 - "Provide realistic document data for print testing" instead of "comprehensive"
- Section 4.x: tool filenames should have -5100.SELFCERT in template.
- Section 4.1:
 - "The Printer being certified MUST be running production-ready code with the default customer configuration. The Printer MUST include all features of the Product Family being certified, e.g., all document formats, duplexing, etc. As with any IPP implementation, the Printer can be a physical device or a spooler."
 - Q: When to require re-certification?
 - A: Not specifically re-certification, but confirmation by the vendor that an update does not break prior self-certification.
 - Make some recommendation in section 1.1 about when to re-test internally, no requirement to submit new results
- Section 4.3:
 - Mention why tools are distro specific (SSL library version issues)

- Section 4.5:
 - Add note to contact ippeveselfcert list to request sample files at other resolutions.
 - Section 8.1, table 4:
 - Title: Document Format Test Checklist
 - New top-level 1. PWG Raster Tests
 - 1-5 become 1.N, add extension to filenames
 - 6.3 color.jpg (not color.jpeg)
 - 7.4: ", if supported."
 - May be able to generate OpenXPS files from the PDFs on Windows 8.
 - Section 8.3:
 - "MUST be inspected BY THE TESTER to verify ..."
 - Add note that hardcopy output is not submitted with the test results and need not be retained.
 - Section 9:
 - Line 599: production-ready code
 - Need to coordinate with ISTO for submission of license agreements (like membership process), including timeframe for processing
 - Separate into two subsections for license and test submission
 - Rewrite step-by-step instructions accordingly based on Daniel's IPP Everywhere page
 - e. Global: "implementation" becomes "Product Family"
 - f. Global: "this specification" becomes "version of this document" (change carefully)
3. IPP Scan Service
- a. <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippscan10-20140127-rev.pdf>
 - b. Q: Can the IPP Scan spec proceed before SM updates?
 - A: Yes, IPP doesn't require schema or WSDL
 - Long term desirable that SM "catches up" with changes in IPP Scan and other base class updates
 - c. Section 3.3:
 - Item 3: "The IPP Scan Service performing document format conversions. ..."
 - d. Section 4.1.1:
 - Q: How does a Client know that a Scan service can spool?
 - A: There is a job-spooling-supported attribute in JPS2 for incoming spooling
 - Add job-destination-spooling-supported with values 'spool', 'stream', 'automatic'
 - If the scanner is unable to spool, the scanner returns an error and the Client does the retry.
 - "Output Spooling Services"
 - "temporarily spool scan output documents"
 - e. Section 4.1.2:

- "Output Streaming Services"
- Delete "Other"
- f. Q: What to do if you are unable to fully scan a document?
 - A: Abort job
- g. Q: What to do if you are unable to deliver a document?
 - A: Abort job
- h. Q: What to do if you have a jam?
 - A: Abort or continue, set corresponding printer-state-reasons keyword
 - User may also abort (cancel) or continue
- i. Add two exception use cases:
 - Failed delivery (fail to send email)
 - Failed input (ADF jam)
- j. Add 4.1.x section on failed input exceptions (4.1.3 already handles failed delivery)
- k. Job Status attributes: "input-attr-actual" -> "input-attributes-actual"
- l. Figure 1: is a flowchart
- m. Q: Why require PDF support?
 - A: Generation of PDFs is much easier than consumption of PDF
- n. 6.1.x: Update formatting (indentation/bolding/etc.) per prior specs
- o. 6.1.1:
 - Change notify-wait-mode to get-next-image-wait-mode
 - Copy document-format-accepted from IPPSIX and reference the local section instead to avoid dependency issues
- p. 6.1.2:
 - Change notify-get-interval to get-next-image-interval
 - Line 547: "that ten last document" should be "that THE last document"
- q. Add operation attribute definitions for get-next-image-xxx
- r. 6.2 Create-Scan-Job gets moved to a section on amended semantics for existing operations, just call it Create-Job (see recent specs for examples)
- s. 7.1: what is input-sheet-count in current SM CopyInput?
 - ImagesToTransfer
 - But we need something to select sheets from the ADF (e.g. like page-ranges)
- t. input-color-mode:
 - Add caption to table
 - Fix keywords to conform to IPP (lowercase hyphenated, see PWG Raster keywords also for inspiration)
 - Add generic keywords from IPP FaxOut
- u. input-noise-removal -> noise-removal
- v. 7.1.2.x: Add output-attributes-supported 1setOf type2 keyword listing supported member attributes (just like input-attributes-supported) and no xxx-supported attributes for the member attributes using a normalized range
- w. 7.2.1:
 - "The CONDITIONALLY REQUIRED ... Output Spooling Services

- MUST support this attribute."
- Add a note after the Scan content to forbid the use of Fax URI schemes (tel, fax, sip, etc.) and remove current references to FaxOut.
- x. 7.3: Not member attributes, Job Status attributes, job-impressions-completed (defined in RFC 2911, extended in IPPFAX)
- y. 7.4:
 - Not member attributes, Printer Description attributes
 - input-color-mode instead of input-color-entry
 - multiple-destination-uris-supported
- z. Global: [IPPFAX] -> [PWG5100.15]
- a. 7.4.1:
 - Line 665: Missing quote on ftps
 - Line 669: An IPP Scan Service
 - Line 670: "does not satisfy the additional ..."
 - Line 671: Drop "that is required..." at the end.
- b. 7.5.1:
 - The RECOMMENDED "input-attributes-actual" ...
 - Drop last sentence
- c. 8.1:
 - Make it clear just reporting features for this service
- d. 8.2:
- e. 9.1:
 - Should be _ipp._tcp._scan (subtype)
 - Action: Mike to produce IPP FaxOut errata update with informative appendix for Bonjour usage with FaxOut: _ipp._tcp._faxout
 - Normative material for IPP Multifunction
- f. 9.3:
 - Drop representation (URLs are big, client can get URIs via Get-Printer-Attributes and printer-icons attribute)
 - rp -> rs (scan)
 - Drop pdl
 - Drop Color, Duplex, and Monochrome (to avoid confusion with Print service capabilities)
 - Add default values column
 - ADF values: "S" for single-sided, "D" for double-side, "N" for none (default value is "N")
 - Drop Camera and Platen
- g. 9.3.1:
 - Mumble._scan._sub._ipp._tcp.local.
- h. Stopped at section 10.
- i. Next draft can be a prototype draft
- 4. IPP Implementor's Guide 2.0
 - a. <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippig20-20140124-rev.pdf>
 - b. 9:
 - Add references to RFC 2911 (IPP/1.1) and RFC 5246 (TLS/1.2) security considerations.

- c. 9.1.1:
 - Q: When to use Expect header?
 - A: Always unless you know the Printer doesn't support it
 - Stop after "Expect header."
- d. 9.1.2:
 - Update as Client Security Policies
 - Clients that support TLS SHOULD advertise their ability to upgrade an HTTP connection to TLS in the Upgrade header.
 - 9.1.4 content here - Clients that support TLS SHOULD prefer access via the "ipps" URI scheme.
 - Lines 1192-1193 at end, talk about policies can set min/required security
- e. Drop 9.1.3, 9.1.4, 9.1.5
- f. 9.2.1:
 - a Printer MUST support ...
 - Also check section 8.2 to make sure it shows the requirement properly
- g. Q: Is the minimum IPP/2.0 or IPP Everywhere?
 - A: IPP/2.0
 - Talk about this in the introduction about why this is not tied to IPP Everywhere
- h. Q: What to do about conformance requirements?
 - How do we raise conformance requirements in an implementor's guide?
 - The only MUSTs in the document are already MUSTs in IPP/1.1
 - A: Defer to parent specs
 - In conformance requirements, reference IPP/2.0 conformance requirements and talk about why this document is focused on recommending best practices.
- i. 9.2.2 and 9.2.3:
 - Copy conformance requirements from pending IPPS RFC
 - Printers that support the "ipps" URI scheme [IPPS] MUST support TLS Upgrade [RFC2817], otherwise they SHOULD support TLS Upgrade ...
 - Copy references from IPP Everywhere
- j. Drop 9.2.4
- k. Add 9.2.x section on server security policies
 - OK to have different policies on each operation
 - Setting/configuring policy is out of scope
- l. Drop 10, 10.2
- m. 10.1:
 - Line 1228, "However, xxx-actual attribute values are not stable ..."
 - Reword as a recommendation to only use xxx-actual for the job receipt and not for detecting substitutions because ...
 - Section 4.5: remove xxx-actual to detect substitutions, use preferred-attributes and unsupported attributes group
 - Move to 4.5.1 subsection as a note

- n. 11. Add standard boilerplate I18N stuff from recent IPP spec
- o. 11.2 Printer Considerations
 - Global: Server -> Printer unless we are talking about HTTP
 - Global: HTTP User Agent [RFC2616] == Client for HTTP stuff
- p. 12.1 Normative References
- q. 12.2 Informative References
 - Reference to IPPS draft
 - RFC 3196
 - IPP Design Requirements RFC 2567, 2568
- r. Q: How do we prototype an implementor's guide?
 - A: Prototype experience for good/better/best recommendations
- s. Q: Do we need a separate test suite?
 - A: Needs further discussion, but maybe we can just use existing tests/results
 - Could also use ippserver to evaluate clients

Next Steps / Open Actions

- Next IPP conference calls March 3 and March 17, 2014 at 3pm ET
- 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)
- Action: Mike/Ira to ask Microsoft for WS-Discovery test script (PENDING)
- Action: Mike to ask Justin about WS-Discovery probe response example (PENDING)
- Action: Ira/Paul/SM workgroup to review values of finishings-col member attributes to make sure we have parity with common JDF values (PENDING)
- Action: Ira and Mike to make sure finishing MIB and Finishings 2.0 are in sync (PENDING)
- Action: Mike to add spec best-practices to WD template (PENDING)
- Action: Ira and Mike to review 5100.x specs to remove action items, fix boilerplate copyright text in early specs, fix header/footer/document titles as needed, and fix normative references to drafts, etc. (ONGOING)
- Action: Paul to reach out to label/portable printer vendors to join IPP WG discussions (ONGOING - Paul to send out list ASAP)