

Internet Printing Protocol Workgroup Meeting Minutes

August 23 and 24, 2016

Meeting was called to order at approximately 10:30am PT on August 23, 2016 and 11:15am PT on August 24, 2016.

Attendees

Shivaun Albright (HP)
Smith Kennedy (HP)
Gyaneshwar C Gupta (Oki Data - call in)
Takuya Katayama (Intel)
Jeremy Leber (Lexmark - call in)
Daniel Manchala (Xerox - call in)
Ira McDonald (High North - call in)
Alan Sukert (Xerox - call in)
Michael Sweet (Apple - call in)
Paul Tykodi (TCS - call in)
Bill Wagner (TIC)
Craig Whittle (Sharp Labs)
Rick Yardumian (Canon)

Agenda Items

1. IP Policy and Minute Taker
 - IP policy accepted, Mike taking minutes
2. Slides
 - <http://ftp.pwg.org/pub/pwg/ipp/slides/ipp-wg-agenda-august-16.pdf>
 - Smith: Found some typos in the IANA IPP registry, will send to Mike and IPP WG list
 - IPP/1.1: RFC2911bis is missing an acknowledgements section
 - Action: Mike to post IETF LC comment about the missing RFC2911bis acknowledgements section
 - Alternate Vendor Prefix for Keyword Names
 - "com.hp" is more recognizable than "smi11" when looking at names
 - RFC 2911 says to use forward DNS name (hp.com)
 - RFC 2911bis currently says to use reverse DNS name (com.hp)
 - First IETF LC comments included discussion of using SMI numbers instead
 - What to do?
 - Change recommendation to use SMI prefix
 - Add implementation note that RFC 2911 recommended forward DNS names, historically implementations have also used reverse DNS names, but DNS names can change hands and there is confusion over which country-specific

- DNS name to use.
 - Action: Mike to post IETF LC comment about changing keyword/attribute extension prefix rules to SMI numbers
- IPP Everywhere Self-Certification
 - Working on getting a 1.0 tools update out ASAP
 - Submission page has been updated so that results can be submitted.
 - Q: What about using different versions of tools (ippfind/ipptool executables)?
 - A: Process says you can use older tools/process up to 12 months after newer tools/process are released
 - Tools themselves are pretty stable, most changes are to test scripts or the libcups support library
 - Three separate copies of the source for ipptool, ippfind, ippserver, and libcups are maintained by Mike (CUPS, ippsample, and ippeveselfcert repositories)
 - ippeveselfcert tools represent current stable CUPS release at time of tools release
 - ippsample and CUPS repositories are kept in sync
 - Smith noticed a problem with the current Github code on Linux - the IPPS Bonjour test is hanging for one printer, continuing to investigate and will coordinate with Mike
 - Q: What should the process be for changes to the repository?
 - A: Review/approval of changes with significant impact, not for simple editorial changes.
 - Review all changes in Git before doing a release.
- 3. IPP System Service
 - <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippsystem10-20160818-rev.pdf>
 - Section 5.9:
 - Line 815 (Note 2): Double period at end.
 - Global: Fix "allows allows"
 - Section 6.1:
 - SHOULD delete Resource data
 - Section 6.2.1:
 - Add list of REQUIRED Printer Description attributes
 - Add "system-mandatory-printer-attributes (1setOf type2 keyword)" System Description attribute that lists the attributes that are required to create a printer.
 - Create a very short list of attributes that must be supplied (from the required Printer attributes)
 - Printer MUST accept any required Printer attribute
 - Action: Mike to create an IPP Resource state diagram
 - Section 6.x:
 - Re-group all Printer-specific operations that shows the common request and response template.
 - Ditto for Resource-specific operations
 - Ditto for Xxx-All-Printers operations

- Section 6.9 (Get-Printers):
 - Clarify that the list is also filtered by requesting-user (who has access to what printers?)
- Section 6.10 (Get-Printer-Attributes):
 - Line 1258: "an explicit".
 - Returns Printer ID plus
 - Need printer-uri-supported, uri-authentication-supported, uri-security-supported, etc.
 - Talk about this providing backwards-compatibility for existing IPP clients
 - Talk about supporting both system-uri + OPTIONALLY printer-id OR printer-uri as the target attribute(s)
 - "Groups 3 to N" should just be "Group 3"
- Section 6.13:
 - Maybe require explicit request for configured-printers, etc. like we do for media-col-database.
- Section 6.15:
 - Resource states: pending, available, installed, canceled, aborted?
 - Install either moves state to 'installed' immediately or sets a state-reason 'install-requested'.
 - All resources need to be installed to be used in a Create-Job request (via "resource-ids (1setOf integer(1:MAX))" operation? attribute)
 - Install does a validation of resource (also send-resource-data can also do validation)
 - What about failed install?
 - Either status code (immediate install) or state-reason (reboot install)
- Section 7:
 - Title: Operation Attributes
 - Add lead-in sentence that these are used by various System, Resource, Printer, and Job operations.
- Model discussion:
 - Owners for Jobs and Subscriptions are immutable (short-lived objects)
 - Owners for Systems, Resources, and Printers are mutable (long-lived objects)
- Section 7.2.13: Just keep the uppercase MAX
- Section 7.3.17:
 - List system-specific keywords
 - Note any printer-state-reason keyword can be used.
 - IANA registry will list system-specific keywords with the "any printer-state-reasons" value"
- Section 7.5.3 (printer-service-type):
 - Add 'print3d' service type with reference to PWG 5100.P3D.
 - Drop 'emailin' and 'emailout' - not fully specified, security nightmare.
 - Drop 'vendor', talk about 'smiNNN-name' vendor names and/or

- IANA registrations.
- Section 7.6 (Resource Description Attributes):
 - Line 2377: "of the "resource-settable-attributes-supported" System Description attribute defined in section ..."
- Section 7.7.4:
 - Delete, and punt on this - just document that the resource data contains the manifest, cryptographic signature and identity, etc. for validation by the System.
 - Resource data URI provides access to the resource data (potentially separate from manifest)
- Section 7.7.? (resource-category)
 - Do we need this?
 - No, use prefix for resource-type
- Section 7.7.16 (resource-type)
 - Use prefix on keyword - 'executable_XXX', 'static_XXX', 'template_XXX'
- Stopped at resource-category.
- Need an appendix on design choices (revised resource object/service, etc.)
- 4. IPP 3D Printing Extensions
 - <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ipp3d10-20160816-rev.pdf>
 - Off-topic (white papers):
 - Q: Should a white paper make suggestions about conformance requirements
 - A: Probably, either as a separate section or in an introduction to each section.
 - Always talk in conditionals, e.g., "the following Job Template attributes will probably be required for conformance", or guidance/guidelines for what is required or recommended.
 - Section 5.1.2 (Service Type)
 - "over DNS-SD"
 - Section 6.4 (Operations)
 - Q: Define requesting-user-vcard here?
 - A: No, be silent and we can pick it up once IPP System Service is approved.
 - Table 4: Drop document-password (just recommended?)
 - Section 6.5 (Printer Description)
 - Table 5: Drop document-password-supported, fix section reference for material-shell-thickness-supported
 - Note 1: Fix section reference for link-local addresses (IPP Everywhere section)
 - Section 6.7 (Job Template)
 - Table 7: Fix section references for print-accuracy and print-objects
 - Section 8.1.3 (print-accuracy)
 - Break into subsections with initial table.
 - Section 8.1.4 (print-objects)
 - Add table listing member attributes

- Section 8.1.4.2 (object-offset)
 - Add "(integer)" syntax to each
- Section 8.1.4.3 (object-size)
 - Add "(integer)" syntax to each
- Section 8.1.4.4 (object-uuid)
 - "object's unique identifier"
- Section 8.2:
 - Add remaining xxx-actual attributes corresponding to all Job Template attributes
 - Investigate just providing a stable showing the mapping from Job Template to Job Status attributes
- Section 8.3.18 (print-accuracy-supported)
 - Break out member attributes as standalone ?-accuracy-supported (1setOf (integerInRangeOfInteger))
 - Fix table at start of 8.1 and in section 6.5
- Section 17.3:
 - Say something about the syntax being integer(-273:MAX) (absolute zero to 2 billion C)

5. IPP Finishings 2.1

- <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippfinishings21-20160815-rev.pdf>
- Section 5.1:
 - Line 495: of "media-col.media-source-properties"
- Section 5.2.1:
 - Line 680: Missing close paren, reword to avoid parens.
 - "These qualifying labels also ALLOW variants' ..."
 - Line 682: Remove "a number of"
- Section 6.9:
 - Lines 1178-1185: Reword. The focus is that "finishings-col-database" does not need to contain all of the possible/supported combinations. But vendor/administrator can still create composite/preset finishing templates that combine multiple finishing processes.
 - Drop conformance requirement, just make a declarative statement, something like:
 - Printers specify each finishing process ("finishing-template" value) separately to limit the overall size of the "finishings-col-database" attribute. Combinations of finishing processes ("presets") can be specified by the Client in the Job Creation request or added with custom "finishing-template" values by the administrator or implementation as needed.
 - Use double quotes consistently in the examples on lines 1214-1254
 - "These situations are REPORTED by the Printer"?
 - Action: Mike to fix registration of job-constraints-supported and job-resolvers-supported to include "resolver-name (name(MAX))" member attribute
- Section 6.18:
 - Line 1327: Change "only list" to "list only"

- Smith will put out another stable draft when the WG Last Call is completed.

Next Steps / Open Actions

- Next IPP conference calls September 12, 2016 at 4pm to discuss 3D printing and September 19, 2016 at 3pm ET for 2D topics
- Action: Mike to post IETF LC comment about the missing RFC2911bis acknowledgements section (DONE)
- Action: Mike to post IETF LC comment about changing keyword/attribute extension prefix rules to SMI numbers (DONE)
- Action: Mike to create an IPP Resource state diagram
- Action: Mike to fix registration of job-constraints-supported and job-resolvers-supported to include "resolver-name (name(MAX))" member attribute
- Action: Mike to publish an updated prototype IPP 3D draft before the F2F (DONE)
- Action: Mike to file an issue against PWG 5102.4 to talk about relationship between pwg-raster-document-resolution-supported and printer-resolution-supported (DONE, Issue #46)
- Action: Mike to move -actual attributes to the Job Status group, update issue #42 accordingly (DONE)
- Action: Mike to send updated IANA IPP registrations to Ira (DONE)