

Internet Printing Protocol WG Face-to-Face Minutes

May 25, 2011

Meeting was called to order at approximately 1:00pm (EST) May 25 and 26, 2011.

Attendees

Nancy Chen (Oki Data - call in)
Justin Hutchings (Microsoft)
Adrian Lannin (Microsoft - 25th only)
Ira McDonald (High North/Samsung - call in)
Joe Murdock (Sharp)
Ron Nevo (Samsung - call in 25th only)
Glen Petrie (Epson - call in)
Amir Shahindoust (Toshiba - call in)
Michael St. Laurent (PrinterOn)
Michael Sweet (Apple)
Jerry Thrasher (Lexmark)
Paul Tykodi (TCS - call in 25th only)
Bill Wagner (TIC)
Rick Yardumian (Canon)
Pete Zehler (Xerox)

Agenda Items

1. IP Policy and Minute Taker
 - a. Policy accepted with Mike taking the minutes
2. Use Cases
 - a. Add Selection of Previous Selected Printer
 - b. Selection of a Printer Using Address or URI
 - "IP address or FQDN"
 - Split into two use cases
 - Discuss probing IP address to determine URI - SNMP port monitor MIB, directed discovery via WS-Discover, etc.
 - Validation of IP address or URI is a step
 - c. Selection of Printer Using a Directory Service
 - IPP Everywhere: Conformance requirements for LDAP more than RFC requirements
 - Preconditions: Printer is registered with the directory service
 - Step 1: Client obtains list of Printers registered with the Directory Service for the User
 - Step 2: Client validates supported protocols for each Printer in the list
 - Step 3: Client user interface presents supported Printers to the User for selection
 - Step 4: User selects a Printer
 - Postconditions:
 - The Printer is selected
 - The Printer is not selected
 - d. Add Selection of Printer Using Criteria
 - Protocol
 - Limit
 - Job Ticket Capabilities
 - Printer Description (Geo-location/location, speed)
 - Job size - k-octets yes, impressions/sheets no (in SM, not in IPP)
 - JPS3: job-impressions-supported, job-media-sheets-supported, other job description attributes as needed
 - Description: Criteria provided by User input or group/device/site policy or software heuristic
 - Step 1: Client obtains a list of Printers for the User that meet given Job Ticket and Printer Description criteria provided by Client software or User
 - other steps identical to directory service
 - e. Add Validation of Printer Use Case
 - Verify access to printer
 - Follows selection in all scenarios

- Includes marco-polo stuff
 - f. Add Selection using a discovery protocol
 - Continuous discovery as printers come and go - list is dynamic
 - Start and end discovery steps
 - User may select at any time
 - g. Selection of Printer Using a Cloud Service
 - Merge changes from Directory Service
 - Note issues in description with managing multiple online identities for different cloud services that clients need to address outside of the use case
 - Precondition: Client has obtained necessary credentials/identity for cloud service
 - Description: geo-location/location important/almost required
 - h. Selection of Printer Using Proximity
 - For Bluetooth/other proximity technologies
 - Potentially a list
 - Use UUID to tie to a visible/accessible printer
 - i. Selection of Printer Using Identifying Technology
 - For NFC/QRCode/BarCode selection like IP Address/URI
3. PWG Raster
- a. <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ipp raster10-20110327-rev.pdf>
 - b. Abstract: May want to note (elsewhere) that the attributes are not that useful in directory service or discovery
 - c. Sample files: keep single file size under 250MB, limit srgb-16 for photo, alternate sizes and resolutions, put under pub/pwg/ipp/raster with proper PWG naming convention
 - d. Proposal for page count: no objections
 - e. Proposal for coordinate space: no objections
 - f. Proposal for bounding box: no objections, pixels
 - g. Proposal for lower bound conformance requirements for pwg-raster-resolutions-supported; objections since we don't want to exclude printers and vendors won't want to provide an inferior print experience. No objection to providing a recommendation.
 - h. No support for indexed color
 - i. Grayscale: Add sRGB primary for target color for sgray colorspaces
 - j. Vendor data: cupsInteger[14] is vendor ID, [15] is length, cupsReal and cupsString fields are reserved for vendor data.
 - k. Add recommendations for using PWG Raster over legacy "busses".
 - l. Did not get to spec review.
4. JPS3 (May 26th)
- a. <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippjobprinterext10v3-20110517-rev.pdf>
 - b. Abstract: no objections
 - c. Lines 216-218 (last paragraph in section 1): make bullets
 - d. Section 1.1: Replace first-xxx-index/first-xxx-id with "first-index (integer)" operation attribute as the generic "first" value indicator. Also drop limit-operations-supported and limit-attributes-supported - instead document that successful-ok-ignored-or-substituted-attributes is the status code if not supported and to return "first-index" and/or "limit" in unsupported attributes group.
 - e. Line 239: "which attribute values are supported for a"
 - f. Section 1.2: Expand coloring to any operation, provide examples for authentication (limit returned jobs and job attributes) and get-printer-attributes (sides=two-sided-long-edge to limit the list of media-col-database values) also add definition of coloring for terminology
 - g. Section 1.3: Use "Preferred" rather than "-preferred", and add note that we don't do this for subscriptions because they always act like ipp-attribute-fidelity=true
 - h. Line 262: "color rendering ESPECIALLY when the Printer..."
 - i. Line 272-273: drop "protocol roles" since we have more than that in the terminology now.
 - j. 3.2 Use Cases: Need use cases for limits and coloring, identification
 - k. 3.4 Design Requirements: Include discussion of limits and coloring for efficiency, security considerations for identify-printer, policy for printing page, etc.
 - l. Section 4.1: Add language from 2911 for authorized user, security considerations, intended use, etc. and prevention of denial-of-service attacks, etc.(point at RFC)
 - m. Section 5.1.1: Make "first-index"
 - n. Section 5.1.2: Drop "first-subscription-id"
 - o. Section 5.1.3: Drop "print a page" and explain why (DoS, authorization, accounting, etc.)
 - p. Table 3: write out "Black Point Compensation" (bpc).
 - q. Line 404-405: "specifies how document colors (or shades of gray) are mapped to device colors"

- when printing."
- r. Add Gamut, Black Point Compensation, etc. to terminology
- s. Conditional conformance: print-rendering-intent and printer-icc-profiles are tied together.
- t. Move job-uuid to top of job description attributes (Section 5.3)
- u. Section 5.6.6/5.6.7: Remove since we are doing limits more widely.
- v. "media-source-properties (collection)" member attribute for media-col-ready and media-col-database.
 - "feed-direction (type2 keyword)" and "feed-orientation (type2 enum)" member attributes.
 - Does not appear in media-col-supported (not for job tickets)
 - Add discussion of media-source/media-source-properties to Section 1.
 - Informational/descriptive media-col member attributes to describe how media is pulled through the printer and its natural orientation (e.g. for envelopes). Include discussion of using feed-orientation as orientation-requested (when supported).
 - Include discussion that Clients should use media-col-ready, when available, instead of media-col-database.
- w. Section 5.6.15/16: "printer-description-change-xxx" -> "printer-config-change-xxx"
- x. Section 5.6.17: RECOMMENDED for printer-geo-location, MUST support manual configuration (regardless of auto-location capabilities)
- y. Section 5.6.19: "one or more Printer" (capitalize), talk about device colorspace and color proofing, conditional conformance with print-rendering-intent - reference system control and resource specs for how to add/replace/remove profiles
- z. Table 5: Make supply index OPTIONAL instead of RECOMMENDED, Make colorantname RECOMMENDED for supplies like ink and toner (with a note), maxcapacity REQUIRED
 - Note: Well-known values for colorant need to be added to the model
 - Update ABNF to reflect requirements
- a. 5.6.26: "human-readable embedded web server page" - normalize to "printer-resident" for both web page and icons and profiles
- b. 5.6.27: Move printer-uuid to be the first in this section
- c. 6.1: Additional semantics for all operations - coloring, where meaningful.
- d. 6.2: Make this first-index and limit
- e. media-xxx-margin: RECOMMENDED for JPS3, REQUIRED for IPP Everywhere
- f. Line 932, "Printer's" should be "Printers"
- g. Section 2: Add Image Box reference
- h. Section 7.5: "smallest non-zero hardware margins" instead of "best non-fullbleed margins".
- i. Stopped at 7.5.
- 5. PWG 5101.1: Update to register with IANA and add photo sizes
 - a. Also character repertoire
- 6. IPP over USB
 - a. Presented to chair, will be presented at Seattle DRB meeting (5-7 Wednesday) face-to-face next week and will likely form a working group project.
 - b. Issue: working group activities in USB IF are private.
 - c. Unique identifier: serial number traditionally for USB, but UUID (same as UUID for network IF) to eliminate duplicates
 - d. Add text/html as a standard format?
 - e. Clarify that this is based on USB Printer class, so it inherits everything from that class
 - f. Sleep states? Do we need to map USB sleep states to IPP?
 - Those will probably get defined by the USB IF

Next Steps / Open Actions

- Next conference call June 13, 2011 at 1:00pm (EDT) - 2 HOURS
- Action: Mike to issue new draft of JPS3 with changes accepted up to section 5.5.14 (COMPLETED)
- Action: Mike to prepare draft slides for IPP sessions for next concall (COMPLETED)
- Action: Paul and Ira to solicit DLNA assistance for UPNP discovery (ONGOING)
- Action: Mike and Paul to reach out to label/portable printer vendors to join IPP WG discussions (ONGOING - both to send summary to ipp list and details to SC list)