IPPv2 Face-to-Face Minutes
August 5, 2010

Meeting was called to order at approximately 12:30 pm (local) August 5, 2010.

Attendees

Nancy Chen (Oki Data)
Till Kamppeter (Linux Foundation)
Ira McDonald (High North - call in)
Andrew Mitchell (HP - call in)
Joe Murdock (Sharp)
Ole Skov (MPI Tech)
Brian Smithson (Ricoh)
Michael Sweet (Apple - call in)
Paul Tykodi (TCS)
Bill Wagner (TIC)
Rick Yardumian (Canon)
Marc Yousey (HP - call in)
Pete Zehler (Xerox)

Agenda Items

1. IP Policy and Minute Taker
   a. Policy accepted with Mike taking the minutes
2. Approved IPP minutes from July 26:
   b. Mike: Still need to post updated minutes
   c. Ira: post draft for ipps URL scheme
3. IANA Status:
   a. All IETF and PWG specs have been integrated, doing review
4. IPP/2.0 SE discussion:
   a. Table 1: extend conformance text to empty cells to the right
   b. Add note about blank == OPTIONAL
   c. Group TLS RFCs together, add note that they are TLS/1.0, /1.1, and /1.2.
   d. Discussion of "JPS2" in JPS2 reference - it is part of the title.
   e. Remove gray background in Tables 4 and 5 for RFC2911 operations.
   f. Table 4 - remove extra line from Restart-Job and Purge-Jobs
   g. Table 4 and 5: mark the first row as a header so that it gets repeated on the following pages
   h. Table 6: Add version-number, operation-id, request-id, and status-code as parameters to (RFC 2911 section 3.1.x) with note that they are parameters
   i. Table 6: Make requested-attributes and requesting-user-name apply to All objects
   j. Section 6.2: Just "RECOMMENDED", not "STRONGLY RECOMMENDED".
   k. Table 7: change "CONDITIONAL" to "REQUIRED for color".
   l. Section 12: remove "formerly at ..." for Shah and Lee, change Dave Whitehead to "Independent Contractor"
5. JPS2 discussion:
   a. Call for all members to post their "I've reviewed the document" messages for the PWG last call
   b. Paul: should we provide a summary of major changes in the last year? Yes, Ira will
include in reminder notice

c.  Review of JP2 document
d.  Add subsections to 8.2 for attributes
e.  Should make job-creation-attributes-supported REQUIRED for IPP/2.2 and and IPP Everywhere and RECOMMENDED for IPP/2.0 and IPP/2.1
f.  Should we add filters for media-col-database?
g.  Table 15 has a different format than other tables in spec?
h.  Section 12.1, item 6 doesn't have "if supported (section 6.4)"
i.  Section 12.5: first sentence refers to job-save-disposition instead of proof-print (which should be the REQUIRED proof-print attribute)
j.  Include forward references to section 12.5 for all proof-print stuff.
k.  Update affiliations in section 17 for other participants (no affiliation for Lee)

6.  Review of ipptool
7.  Review of IPP Everywhere charter
8.  IPP Everywhere Use Cases:
a.  Change "Mobile device" to "Mobile Internet device"
b.  Change "Cloud applications" to "Server applications"
   - Focus on private/internal server apps where direct IPP printing is possible/more likely
c.  Clients: Add "Other network-enabled devices"
   - Refrigerators, TVs, e-readers, etc.
d.  Printers: note photo printing use case, "Printing service"
   - Kiosks, front-ends for large-volume print services, print-on-demand books
   - Kinkos, Shutterfly, etc.
   - Not a physical device, but ultimately maps to one or more real printers
e.  Mobile Internet device:
   - IP-connected Cell phone
   - iPad and other tablets
   - Netbook
   - Issue: limited resources might require Print-URI: to print large documents by reference
   - Discovering a local printer geographically or WRT network topology, selection via capabilities (duplex, color, etc.) or intent/content (photo printing) or security capabilities
f.  UC1: Pete is traveling and wants to print a list of local pubs to visit to a printer in the hotel he is staying at.
   - Discovery by geographic location
g.  UC2: Jane wants to print a photo from her IP-enabled phone to a local photo printer
   - Local network printer
   - Capabilities/content
h.  UC3: Joe is wants to print a document at a coffee shop
   - Print Service
   - Print and pay (and went to pay/be charged?)
   - Third-party identification/authorization
   - Cost per page/job accounting information? Color vs. B&W pages?
i.  UC4: Ira wants to print a secure document from his Mobile Internet device to a secure printer
   - Discovery by security capabilities
j.  Need to include life cycle of job, including:
   - Printer states/status
   - Supply levels
   - Error recovery
   - Job retrieval (getting the printed output)
k. Maybe also talk about choosing a printer, seeing it is out of ink/paper, and then choosing a different printer.

9. IPP Everywhere Requirements:
   a. Discovery Protocol
      - LAN OK
      - WAN -> global
      - Wi-Fi/Wi-Max/G3/Wi-Fi Direct (peer-to-peer)
      - Discover basic capabilities (color, duplex, etc.)
      - Discover security capabilities
      - Discover if printer is free or pay-to-print
   b. Transport Protocol:
      - Job/printer information for paid printing?
      - Encryption for secure printing
   c. Attributes:
      - job-ticket and job-receipt for "real" job ticket info?
      - PIN printing, other attributes for paid printing
   d. Document formats:
      - ISSUE: DRM
      - Encrypted document format support? No, even Adobe Reader prints in unsecured format
      - Think about what to do for format version support
      - Satisfied as PDF 1.4/1.5 as vector format
      - Raster: 1 lossy + maybe 1 lossy?
      - Compression: recommend but not require
      - Proposed: CUPS Raster v2 with optional document compression
      - JBIG2: Issues with patents?
      - Raster requirements:
         - Multi-page
         - Lossless compression
         - Multiple color space support
         - Low-overhead
         - Existing, defined/documentated format

10. IPP Everywhere Attributes:
    a. UUIDs - printer-uuid, job-uuid, document-uuid, subscription-uuid any RFC 4122 "urn:uuid:..." value
       - CUPS already supports job-uuid
    b. Geolocation attributes
       - RFC 1876 covers DNS LOC records
       - Use proper units/integers for size, precision, and position
       - Fix error in lower bound for altitude (-1000000)
    c. Proposal for "human" location attributes
       - Organizational unit from X.509?
       - Add 2 or 3 top-level attributes from LDAP
       - Ira to propose to list
    d. Marker attributes:
       - Drop marker-change-time
       - Start with MIB, then add new attributes as needed (still CUPS extensions)?
       - Pete: prefer direct mapping of Printer MIB properties
    e. Proposal for supporting other SNMP Printer MIB properties:
       - Use printer state extensions as template
       - printer-alert textual encoding
       - Use in conjunction with specialized encodings for important printer MIB info
Next Steps / Open Actions

- Next IPP conference call August 23, 2010 at 4pm (ET)
- Action: Ira to post proposal for location attributes from LDAP and X.509
- Action: Ira to post reminder with summary of changes over last year
- Action: Ira to post updated draft for WG last call as stable prototype
- Action: Mike to update links to charter on wiki and project pages?
- Action: Mike to post updated IPP Everywhere minutes with new attendees and updates
- Action: Ira/Mike to register ipps URL scheme with IANA/IETF/W3C (ongoing, Ira to post draft IPP mailing list)
- Action: Mike to add TLS key and _ipps._tcp regtype to Bonjour printing spec (ongoing, under review at Apple)