

# 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:
  - a. <ftp://ftp.pwg.org/pub/pwg/ipp/minutes/ippv2-concall-minutes-20100726.pdf>
  - 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/documented 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)