Internet Printing Protocol Meeting Minutes
May 18-19, 2022

Meeting was called to order at 2pm EDT on May 18 and 10am EDT on May 19.

Attendees

Amitha (Konica Minolta)
Aveek Basu (OpenPrinting)
Zdenek Dohnal (Red Hat)
Benjamin Gordon (Google)
Till Kamppeter (Canonical/OpenPrinting)
Smith Kennedy (HP)
Jeremy Leber (Lexmark)
Piotr Pawliczek (Google)
Michael Rhines (Qualcomm)
Anthony Suarez (Kyocera)
Michael Sweet (Lakeside Robotics)
Bill Wagner (TIC)
Uli Wehner (Ricoh)
Peter Wyatt (PDF Association)
Steven Young (Canon)

Agenda Items

1. Antitrust and IP policies, minute taker
   - https://www.pwg.org/chair/membership_docs/pwg-ip-policy.pdf
   - https://www.pwg.org/chair/membership_docs/pwg-antitrust-policy.pdf
   - Antitrust and IP policies accepted, Mike taking minutes
2. Status
   - https://ftp.pwg.org/pub/pwg/ipp/slides/ipp-wg-agenda-may-22.pdf
3. ACME for IoT Devices
   - https://datatracker.ietf.org/doc/draft-sweet-iot-acme/
   - Q: What about mobile devices seeing a different printer with the same hostname?
     - A: That is a known issue that needs to be discussed and documented
     - Right now the focus is on restricting trust to the network/router
     - A simple implementation might just destroy/remove the root and local certificates upon disconnection from the network to prevent re-use or collisions (no pinning)
     - There are multi-network configurations that complicate this
     - But current printers typically use a vendor prefix plus the last 3 bytes of the MAC address as the default hostname, so casual collisions are unlikely

4. 3D Discussions
   - https://ftp.pwg.org/pub/pwg/liaison/pdf-association/IEEE-PWG-3D-PDF.pdf
   - Q: What about lack of mobile support for 3D PDF?
     - A: May just be lack of usage of mobile for manufacturing, also size and complexity of files on constrained devices
   - Q: Is there interest in embedding printable content?
     - A: Certainly job tickets, associated files when the displayed model is not printable, but primarily to enable a PDF-based workflow vs. direct submission of PDF
     - Hard to point to any 3D format as "the answer" at this point...
   - Q: Should we use 3D PDF as the print format?
     - A: CAD programs now support producing 3D PDFs, but need job tickets
     - Also need to look at conversion/slicing software to handle conversions
   - Need an errata for IPP 3D and 3D Print Job Ticket to point to the current version of ISO 32000-2 (2020)
5. IPP/2.x Fourth Edition
   - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippbase23-20220428-rev.pdf
   - Section 6, Table 2: Add GUPA operation with appropriate conformance (2.1 is RECOMMENDED, 2.2 is REQUIRED)
   - Sections 6.1, 6.2:
     - GUPA is defined in EPX (5100.11) not NODRIVER (5100.13)
   - Section 12.1: Update references
   - Section 12.2: Verify we still need reference to 5100.13
6. IPP Everywhere v2.0
   - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeve20-20220510-rev.pdf
   - Q: Do we make IPP-USB required for 2.0?
     - Ira: RECOMMENDED?
     - Smith/Mike: Been required since 2014 for AirPrint, maybe CONDITIONALLY REQUIRED?
     - Smith/Uli: MS/Mopria support/require it, too
     - Consensus: RECOMMENDED
7. IPP Everywhere Printer Self-Certification Manual
   - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeveselfcert20-20220510-rev.pdf
   - Platforms:
     - Till: For Linux, snap will work for USB and network access, not sure about Flatpak
     - Till: Windows also has WSL (Windows Subsystem for Linux)
       - Mike: Would prefer to test/use the Windows APIs
     - Smith: GUI could also manage self-cert results, handle submissions
     - Uli: GUI with logging and history would be awesome
     - Action: Mike to put together a proposed UI for new self-cert tools
   - Ira: Regarding publishing on app stores, sure why not
     - Smith: Also takes care of code signing
     - Mike: Concerns for publishing delays, control of developer accounts
   - Smith: What about leveraging existing spec test files?

- Mike: Maybe side functionality in the GUI test tool?
- Smith: Could include specific spec test scripts?
- Mike: Maybe, some tests already work that way
- Section 5.1: "Printers MUST also support" (remove first TLS)
- Add new logo policy wording and link to current policy on FTP server
- Smith: Should we exercise PWG raster support more intensely?
    - Would be useful to test longer documents, a variety of content that compresses better or worse, to detect timing or buffering issues
    - Smith: Random snow bitmap would make for a large file that can't be easily compressed, more pages (4 doesn't show problem on current printers, 8 pages shows an issue, maybe go longer?)
    - Smith: Also, a lot of the print tests are using Print-Job instead of Create-Job + Send-Document
        - Mike: Print-Job deprecated in IPP/2.x Fourth Edition, not listed as required for IPP Everywhere v2.0
        - Move to using Create-Job + Send-Document
    - Smith: Would GUI still use test files?
        - Mike: Yes, might update document tests to not use test files or enhance test file syntax to handle composite sequences like Create-Job+Send-Document+Get-Job-Attributes
    - Smith: What about wide gamut color?
        - Mike: Not doing anything about it at this time
        - Have jpeg-features-supported for 'deep' and 'icc'
    - Uli: Not just using IPP Everywhere test file for product testing, not super important to test every possible scenario
        - Mike: But still important to make sure that common things (like 8 page documents) work consistently

Next Steps / Open Actions

- Possibly swap IPP and IDS conference call days
- Next conference calls on June 2 and June 16, 2022 at 3pm
- Action: Mike to put together a proposed UI for new self-cert tools
- Action: Mike and Smith to get new code signing cert for Windows (PENDING, good until June)