Internet Printing Protocol Meeting Minutes
September 29, 2022

Meeting was called to order at 3pm EDT on September 29.

Attendees

Benjamin Gordon (Google - ChromeOS)
Smith Kennedy (HP)
Jeremy Leber (Lexmark)
Ira McDonald (High North)
Piotr Pawliczek (Google - ChromeOS)
Anthony Suarez (Kyocera)
Michael Sweet (Lakeside Robotics)
Bill Wagner (TIC)
Uli Wehner (Ricoh)
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. Review previous minutes:
   - https://ftp.pwg.org/pub/pwg/ipp/minutes/ippv2-concall-minutes-20220915.pdf
   - Approved as posted
3. Status of AMSC and ISO liaisons w/ PWG (Paul)
   - https://ftp.pwg.org/pub/pwg/general/sc/pwg-sc-call-minutes-20220725.htm
   - https://ftp.pwg.org/pub/pwg/general/sc/pwg-sc-call-minutes-20220822.htm
   - https://ftp.pwg.org/pub/pwg/general/sc/pwg-sc-call-minutes-20220919.htm
   - See PWG Steering Committee minutes
4. Status of PWG and IPP WG Formal Approvals and Last Calls (All)
   - IPP Production Printing Extensions v2.0 (Mike)
     - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippppx20-20220708.pdf
     - https://www.pwg.org/archives/ipp/2022/021221.html
     - Stable draft - for a Candidate Standard
     - PWG F2F discussion on 16 August 2022
     - IPP WG discussion on 1 September 2022
     - IPP WG Last Call started on 08/25/22 and ended on 09/09/22
     - Schedule - PWG Last Call in Q3 2022
     - Pushed the end of the last call to Oct 27th since Mike wasn't able to start it last week.
5. Google OAuth2 Design Spec - discussion (Benjamin, Piotr, Mike)

- https://ftp.pwg.org/pub/pwg/ipp/whitepaper/OAuth-based-authentication-for-IPP-Print-Systems-2.pdf
- https://ftp.pwg.org/pub/pwg/ipp/slides/ipp-wg-agenda-august-22.pdf
- https://ftp.pwg.org/pub/pwg/ipp/minutes/ippv2-f2f-minutes-20220816.pdf
- https://ftp.pwg.org/pub/pwg/ipp/minutes/ippv2-concall-minutes-20220825.pdf
- https://ftp.pwg.org/pub/pwg/ipp/minutes/ippv2-concall-minutes-20220901.pdf
- Google document reflects progress thus far but hasn't been updated since the last discussion
    - Working draft, Google has implemented the Client side of this
- Trust issues:
    - Who to trust as an OAuth Authorization Server?
        - Google opted to have a list of existing trusted servers, possibly with a user prompt for non-standard servers (but that poses obvious security issues)
    - Who to trust as an IPP Printer?
- Smith-reported issue on IPP mailing list:
    - IPP Endpoint should be IPP Printer and/or IPP System (to be consistent with IPP terminology)
- Important to discuss certificate validation for auth servers/printers/systems - need certs signed by a trusted root, not self-signed
    - Public CA, private CA, ACME-IoT, etc.
- Token Exchange Request is used to validate that the given printer is registered/associated with the OAuth Authorization server
- Smith: What if two printers with the same name are issued valid certificates, there is no way to distinguish between the two printers
    - Piotr: Would need to pin one of them to avoid sending to the wrong printer, but this isn't intended as a valid configuration and would require either the CA to issue certs to both printers for the same name, or for someone to manually load the same certificate on both printers
    - Mike: ACME-IoT has some things to say about not re-issuing certs for the same name unless the device can authenticate itself, locally-generated certs are only as secure as the network connection protocol being used
- Smith: What about cloud auth with local printing?
    - Mike: Microsoft has the printer send a CSR and issues a certificate using the auth server's root certificate
- Piotr: Currently just discussing Client to Printer/Print Server/Auth Server, but not Printer/Proxy to Auth Server
- Nest steps - continue offline review, start sketching other configurations and printer/proxy to auth server communications
6. IPP Driverless Printing Extensions v2.0 - review (Smith/Mike)
    - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippnodriver20-20220919-rev.pdf
    - https://www.pwg.org/archives/ipp/2022/021231.html
    - https://www.pwg.org/archives/ipp/2022/021229.html

- Stable draft - for a Candidate Standard
- Mike reported on prototyping on 30 August 2022
- IPP WG review on 15 September 2022
- Mike reported feedback on "client-info" on 12 September 2022
- Schedule - PWG Last Call in Q4 2022
- Section 6.1.1.1
    - Symbolic names should be lowercase and hyphenated ("operating-system", "application", etc.)
- Section 6.1.1.2 and 6.1.1.4: name(127) instead of name(128)
- Section 6.4, table 13: Add max-client-info-supported, printer-requested-client-type, others as needed
- Section 6.4.1: "A Printer that supports"
- Section 6.5.44: 'for the "client-type" member attribute'
- Section 16.3: Fix client-info and related attribute syntaxes
- Section 16.4: Fix client-type symbolic names
- Smith to post an update and start an IPP WG last call (about 2 weeks duration)

7. PWG/3MF Consortium Call - debrief (Smith, Mike)
- PWG/3MF officers liaison call on 27 September 2022
- Lots of enthusiasm - looking to do prototyping at the various levels to push IPP forward, 3DPJT and potentially Safe-G-Code embedding in 3MF files
- Mike will be the new liaison officer on the PWG side
- New liaison agreement will not have a built-in expiration date

Next Steps / Open Actions

- Next conference calls on October 13 and 27, 2022 at 3pm
- Action: Mike to post PWG Last Call of PPX, ending Oct 27th (PENDING - bumped end date out two weeks)