

Internet Printing Protocol Meeting Minutes

September 1, 2022

Meeting was called to order at 3pm EDT on September 1.

Attendees

Pamela Dingle (Microsoft)
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)
Jimmy Wu (Microsoft)
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-20220707.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>
 - All approved as posted
3. Status/Review of various IPP mailing list notes
 - <https://www.pwg.org/archives/ipp/2022/021213.html>
 - Changing defaults of a driverless printer (physical device) via CLI (Zdenek)
 - <https://www.pwg.org/archives/ipp/2022/021220.html>
 - Links to important IETF HTTPbis WG RFCs and I-Ds
4. Status of AMSC and ISO liaisons w/ PWG (Paul)
 - <https://ftp.pwg.org/pub/pwg/general/sc/pwg-sc-call-minutes-20220627.htm>
 - <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>
 - See PWG Steering Committee minutes from 06/27/22, 07/25/22, 08/22/22
5. Status of PWG and IPP WG Formal Approvals and Last Calls (All)
 - IPP Everywhere Printer Self-Certification Tools v1.1 Update 4 (Mike)
 - <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeveselfcert11-20220510->

- rev.pdf
- <https://www.pwg.org/archives/ipp/2022/021212.html>
- PWG F2F discussion on 16 August 2022
- IPP WG Last Call started 08/19/22 and is still open
- IPP WG review today
- Have two positive responses, expecting a third shortly
- Mike expects to publish the new tools on September 2nd
- IPP Production Printing Extensions v2.0 (Mike)
 - <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippv2-20220708.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 Last Call started on 08/25/22 ends on 09/09/22
 - IPP WG review today
 - Schedule - PWG Last Call in Q3/Q4 2022
- 6. Review of IPP Driverless Printing Extensions v2.0 (Smith)
 - <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippnodriver20-20220817-rev.pdf>
 - <https://www.pwg.org/archives/ipp/2022/021224.html>
 - Prototype draft - for a Candidate Standard
 - PWG F2F discussion on 16 August 2022
 - Mike reported on prototyping on 30 August 2022
 - Schedule - Stable draft in Q4 2022
 - Global: Drop "(45)" from xxx-uuid attribute syntaxes (just "xxx-uuid (uri)")
 - "media-overprint-supported" should be after "media-overprint-method-supported", "1setOf keyword"
 - Next version is stable
- 7. OAuth2 - continue discussion from PWG F2F and IPP WG TT (Mike)
 - <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://github.com/istopwg/ippsample/wiki/IPP-and-OAuth>
 - Cloud Printing:
 - Piotr: I can see two cases - cloud printing or oauth setup for local (direct) authenticated printing
 - <https://ftp.pwg.org/pub/pwg/ipp/slides/OAuth-2.0-Use-Case-Diagrams-2022-08-23.pdf>
 - Slide 2 and 3
 - Printers also need to talk to authz.x.io to validate token if not a JSON Web Token
 - But should say something about using JWTs in the Cloud Printing best practice - JWTs can be validated "off-line" while opaque tokens need introspection
 - Jimmy: Is discovery step still needed?
 - Piotr: This is for getting server configuration
 - Mike: First time for metadata for sure, can probably cache for a short time so you don't do it every time

- Jimmy: Might be nice to show initial and subsequent prints - timeline that shows potential optimizations
- Three primary cloud printing configurations:
 - Client prints to cloud, Printer/Proxy pulls processed document data from cloud, Client and Printer authorize using OAuth/X.509
 - Client prints to Printer, Printer processes document data locally, Client and Printer authorize using OAuth/X.509
 - Client prints to Printer, Printer pushes document data to cloud and pulls processed document data from cloud, Client and Printer authorize using OAuth/X.509
- TPM: Still need to determine whether device X.509 certificates could be used long-term (i.e. can the certificate be renewed or is the length long enough to avoid obsolescence)
 - Device certificates are signed by the chip manufacturers (STM, etc.) and not by the device manufacturers
- PKCE: Should use this all of the time, not just limited to public networks/kiosks
 - Should include this in IPP Auth and Cloud Printing best practices
 - Pamela: Industry is moving to always using this, want to deprecate the "implicit flow" in the new best practice document
 - Pamela: Also TLS isn't explicitly required
 - Many: Yes, let's require TLS
- Implementations:
 - Linux Plumber's conference on September 14th
 - <https://lpc.events/event/16/sessions/142/#20220914>
 - CUPS 2.5 will add OAuth client and server as an alternative to Kerberos, CUPS 3.0 will drop Kerberos
 - mOAuth will be updated for OpenID/new OAuth RFCs
 - PAPPL will be updated for OAuth client for cloud printing support
 - ippsample will be updated for OAuth client and server
- Next steps: debrief on Linux Plumber's conference on the 15th since some attendees will be traveling and unable to call in
- Should probably also start opening up errata updates that can be used as reference points for prototyping

Next Steps / Open Actions

- Next conference calls on September 15 and 29, 2022 at 3pm
- Action: Mike to start IPP WG Last Call on PPX until September 1 (DONE)