

Internet Printing Protocol Meeting Minutes

August 9-10, 2023

Meeting was called to order at 10:45am ET on August 9 and 12:45pm on August 10.

Attendees

Graydon Dodson (Lexmark)
Benjamin Gordon (Google)
Tsutomu Iwasaki (OKI)
Smith Kennedy (HP)
Jeremy Leber (Lexmark)
Ira McDonald (High North)
Piotr Pawliczek (Google)
Mike Rhines (Qualcomm)
Anthony Suarez (Kyocera)
Michael Sweet (Lakeside Robotics)
Paul Tykodi (TCS)
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. Status
 - <https://ftp.pwg.org/pub/pwg/ipp/slides/ipp-wg-agenda-august-23.pdf>
 - IPP Everywhere 2.0
 - Smith: Want to clarify classes of printers
 - Mike: Agreed, also for 2.0 4th edition
 - Smith: Can we define a process for defining classes/categories of features?
 - Mike: Historically been difficult to categorize based on specs, but we are getting better about that
 - Ira: Many printers belong to multiple categories
 - Ira: Features don't necessarily map directly to categories
 - Smith: Let's not hold up 2.0 for every test, define the framework so they can be added to 2.x updates
 - Mike: Framework would allow for new feature sets in an errata update vs. major version, focus on core feature sets for 2.0
 - IoT ACME

- <https://datatracker.ietf.org/doc/draft-sweet-iot-acme/>
 - Smith: Lots of work in this space for attestation with additional certificate support
 - Mike: Existing protocols tied to manufacturers and internet connectivity, serious security and device mobility issues
 - Smith: DNS-SD SRP work as well
3. PWG Media Standardized Names v2.1 (Mike)
- <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-pwgmsn21-20230724-rev.pdf>
 - Stable draft - for a Candidate Standard
 - IPP WG Last Call started 07/24/23 ended 08/08/23
 - No responses
 - Consensus is to start a PWG Call for Objections
 - Action: Mike to start PWG Call for Objections for MSN2.1 ending September 15, 2023
4. IPP OAuth Extensions v1.0 (Mike, Smith, Benjamin, Piotr)
- <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippoauth10-20230725-rev.pdf>
 - Section 2.4:
 - Ira: I will look for an official definition of Trust On First Use (TOFU)
 - <https://www.rfc-editor.org/rfc/rfc7435> Opportunistic Security: Some Protection Most of the Time - defines TOFU
 - Section 3.1:
 - Bill: Does this document actually define IPP attributes and values?
 - Mike: Yes, this is a specification that the INFRA and SYSTEM specifications will reference for OAuth content
 - Mike: Any new content to add to this spec?
 - Consensus: No
 - Consensus: Move this to prototype status
 - Piotr: May already have much of this prototyped
 - Smith: Should we add this to IPP Everywhere 2.0?
 - Mike: Maybe, let's see where this spec ends up - don't want to hold up 2.0 but if it is ready, sure!
 - Piotr: Optional feature
 - Ira: IETF OAuth JWT fingerprinting extensions?
 - IETF 117 sessions are archived on Youtube, meeting materials on the IETF web site
 - 10 OAuth documents were discussed
5. 3D Discussions
- VDMA with OPC UA (IEC standard)
 - Many "flavors" of OPC, still need to write for specific hardware/technology
 - Limitations in support for large "point cloud" jobs
 - Another OPC UA group looking at developing job ticketing
 - Lots of known security issues with OPC
 - Paul received an OPC file transfer standard which shows why there are performance issues
 - Want to propose IPP to address security issues, use for job submission and monitoring, etc.

- If accepted, will get prototyped by/on "umati" (<https://umati.org>) and demoed at trade shows, etc.
 - Should know their decision by the PWG November 2023 F2F
 - Formnext 2023
 - Probably not going to happen due to scheduling
 - AMSC
 - Version 3 published with changes showing 3MF as a recognized file format and the 3MF Consortium as a standards organization
 - 3D PDF
 - Keep adding more formats, but not clear they will be useful
 - Confusion for knowing how to support/validate 3D PDF content
 - American Concrete Institute (ACI)
 - Sponsoring many different "recipes" for concrete to use with 3D printing
 - Lots of hand-coded G-code, looking whether using IPP and PWG Safe G-Code could allow greater sharing of printable content while varying the job ticket
 - Having difficulties setting up a conference with the participants
 - Fall 2023 conference is in Boston, Paul reaching out to see about doing an overview of PWG Safe G-Code and IPP
6. Next steps
- New "printer-state-reasons" keywords from HP
 - Smith posted the final list in the IANA registration template, will review/approve during August 31, 2023 meeting
 - ippeveselfcert mailing list is discarding messages from non-members, Mike will update to moderate them instead.

Next Steps / Open Actions

- Next conference calls on August 31 and September 14, 2023 at 3pm
- Action: Mike to start PWG Call for Objections for MSN2.1 ending September 15, 2023
- Action: Smith to create IPP Everywhere 2.0 slides showing changes (PENDING - started on it)
- Action: Mike to update IPP Everywhere 2.0 test files (PENDING)