

# Internet Printing Protocol Meeting Minutes

## January 18, 2024

Meeting was called to order at 3pm ET.

### Attendees

Benjamin Gordon (Google)  
Smith Kennedy (HP)  
Jeremy Leber (Lexmark)  
Ira McDonald (High North)  
Piotr Pawliczek (Google)  
Chris Rizzo (Xerox)  
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-ip-policy.pdf)
  - [https://www.pwg.org/chair/membership\\_docs/pwg-antitrust-policy.pdf](https://www.pwg.org/chair/membership_docs/pwg-antitrust-policy.pdf)
  - Antitrust and IP policies accepted, Mike taking minutes
2. IPP minutes from previous meetings
  - <https://ftp.pwg.org/pub/pwg/ipp/minutes/ippv2-concall-minutes-20240104.pdf>
  - Approved as posted
3. Status/Review of various IPP mailing list notes
  - <https://www.pwg.org/archives/ipp/2024/021506.html>
    - [Acme] New Version Notification for draft-sweet-iot-acme-04.txt (Mike)
  - <https://lore.kernel.org/printing-architecture/eeece40c-a883-44d0-820f-5ec9bbaa0510@redhat.com/T/#u>
    - Printer's IPP response declares AirPrint, but it's missing urf-supported - workaround?
4. Status of AMSC and ISO liaisons w/ PWG (Paul)
  - <https://ftp.pwg.org/pub/pwg/general/sc/pwg-sc-call-minutes-20231211.htm>
  - <https://ftp.pwg.org/pub/pwg/general/sc/pwg-sc-call-minutes-20231218.htm>
  - <https://ftp.pwg.org/pub/pwg/general/sc/pwg-sc-call-minutes-20240108.htm>
  - See PWG Steering Committee minutes from 12/11/23, 12/18/23, 01/08/24
5. Status of PWG and IPP WG Formal Approvals and Last Calls (All)
  - IPP Enterprise Printing Extensions v2.0 - status (Smith)

- <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippepx20-20240102.pdf>
  - <https://www.pwg.org/archives/ipp/2024/021496.html>
  - PWG Last Call started 01/02/24 ends 02/02/24
  - Only 1 response so far - 30% of 29 members = 9 responses for quorum
  - Schedule - PWG Formal Vote in Q1 2024
  - Action: Mike to post last call reminder for EPX
6. IPP Charter Update - review (Ira/Mike)
- <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ipp-charter-20231205-rev.pdf>
  - Partial update in Interim draft on 12/05/23 - all Current projects?
  - IPP WG discussion on 12/07/23
  - IPP WG discussion on 01/04/24
  - Schedule - PWG Call for Objections in Q1 2024
7. IPP Remote Attestation - update (Ira)
- <https://datatracker.ietf.org/doc/draft-ietf-rats-eat/> - EAT - to RFC Editor
  - <https://datatracker.ietf.org/doc/draft-ietf-rats-concise-ta-stores/> - Trust Anchor Stores
  - <https://datatracker.ietf.org/doc/draft-ietf-rats-yang-tpm-charra/> - YANG RATS w/ TPM - to RFC Editor
  - <https://datatracker.ietf.org/doc/draft-ietf-rats-tpm-based-network-device-attest/> - TPM-based Network Device Integrity - to RFC Editor
  - <https://datatracker.ietf.org/doc/draft-voit-rats-trustworthy-path-routing/> - Trusted Path Routing
  - IPP WG discussion on 12/07/24
  - Overview slides on IETF RATS et al - not yet posted (Ira)
  - Value propositions for Home / Enterprise / Production environments
  - Schedule - TBD
  - US NIST, German ESI, French ANSIS all pushing for "health"/"integrity" information
8. IPP System Service v1.1 - review (Mike)
- <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippssystem11-20240105-rev.pdf>
  - Initial draft posted on 01/05/24
  - Errata update plus X.509 registration extensions from 2020 and 2021
  - Support for IPP OAuth and IPP Infrastructure Printers
  - Schedule - Prototype draft in Q1/Q2 2024
  - Section 3.2.6:
    - "to find AN IPP System Service"
  - Section 6.3.8:
    - Smith: Do we need Get-User-System-Attributes?
      - Mike: No, for the scope of this operation we aren't conflating capabilities with description/status information; Get-Printers and Get-Resources provide the per-user views of Printers and Resources on a System, Get-System-Supported-Values provide the per-user view of the supported System attribute values for Set-System-Attributes
    - Mike: Really the only analog would be what Resource Template attributes would be supported for a given End User (can an

- ordinary user create a resource object? Probably not)
- Bill: Does the System need to allow access to everyone?
  - Mike: Yes, for discovery/configuration - preferred URI/hostname, authentication and security requirements, etc.
- Clarify how Get-System-Attributes is used, in relation to other operations? Maybe add some stuff to section 4 and reference?
  - Smith/Ira: Add sequence diagrams?
- Include information about Printer objects not necessarily residing on the same network host/device?
  - Ira: Yes
- Piotr: Hard to implement Xxx-All-Printers operations when spread out...
  - Mike: Yes
- Smith: Does System only deal with Printers?
  - Mike: No, while we use Printer to refer to any imaging service in IPP, we have Print, Print 3D, Scan, and FaxOut currently (printer-service-type)
  - Smith: Clarify section 6.1.4 to indicate "Get-Printers" is not just for Print services
- Add Authenticated User definition from EPX, use it instead of repeating the same reference to STD92
- Section 6.3.12:
  - Add note about not allowing both output-device-x509-certificate and -request in the same request
- Section 6.3.12.2:
  - "The System returns this attribute ..." for output-device-x509-certificate when the request contains output-device-x509-request
- Section 7.2.35: No type2
- Ira: Do we want to support/use PSK for TLS authentication?
  - Mike: Not sure, hard to do right/securely
  - Smith: We should talk about this another time
- Sectoin 11.1.4.1: Update for new cert+ values
- 1. IPP Document Object v1.2 (DOCOBJECT) - status (Mike)
  - <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippdocobject12-20240103-rev.pdf>
  - Initial draft posted on 01/03/24
  - Simple errata update of the 2019 version
  - Update references
  - Remove obsolete attributes, values, and operations
  - Add the generic document event notification keywords from INFRA
  - Schedule - Prototype draft in Q1 2024
  - Did not get to this.

## Next Steps / Open Actions

- Next conference call on February 1, 2024 at 3pm for slides
- F2F sessions on February 14 and 15, 2024

- Action: Mike to post last call reminder for EPX
- Action: Ira to prepare slides to show options for doing remote attestation for IPP (PENDING)
- Action: Paul to review existing 3D use cases and identify any gaps (PENDING)
- Action: Mike to post registration updates for marker printer-state-reasons to IANA IPP Registry and IANA Printer MIB (PENDING - IPP updates done, Printer MIB updates still to do)
- Action; Mike to address 5100.3 and 5100.16 editorial errata (PENDING - 5100.3 is done, 5100.16 still to do)
- Action: Mike to update IPP Everywhere 2.0 test files (PENDING)