

Internet Printing Protocol Meeting Minutes

February 8-9, 2022

Meeting was called to order at 10:45am EDT on February 8 and 12:45pm on February 9.

Attendees

Graydon Dodson (Lexmark)
Smith Kennedy (HP)
Jeremy Leber (Lexmark)
Ira McDonald (High North)
Michael Rhines (Qualcomm)
Anthony Suarez (Kyocera)
Michael Sweet (Lakeside Robotics)
Taiki Arai (Okidata)
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-february-22.pdf>
3. Prototype/stable drafts
 - IPP Driverless Printing Extensions v2.0 (NODRIVER)
 - <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippnodriver20-20220207-rev.pdf>
 - Prototype draft
 - Section 6.1.1: Clarify: REQUIRED for Printer to support, OPTIONAL for Client to supply, copied only when processing accepted job creation requests
 - Section 8: sort sub-sections
 - Section 8.2: Drop last sentence referencing requesting-user-uri, clean up
 - IPP Encrypted Jobs and Documents v1.0 (TRUSTNOONE)
 - <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ipptrustnoone10-20210428-rev.pdf>
 - Prototype draft
 - IPP Enterprise Printing Extensions v2.0 (EPX)

- <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippepx20-20211101-rev.pdf>
 - Prototype draft
 - Just need the Job Storage attributes from Mike's registration
 - IPP Finishings v3.0 (FIN)
 - <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippfinishings30-20220207-rev.pdf>
 - Stable draft
 - Consensus is to do a working group last call ending February 23rd
 - Action: Mike to start IPP WG last call of Finishings ending Feb 23rd
 - IPP Production Printing Extensions v2.0 (PPX)
 - <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippppx20-20211020-rev.pdf>
 - Prototype draft
4. Internet Printing Protocol/2.x: Fourth Edition
- <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippbase23-20211020-rev.pdf>
 - Interim draft
 - Get-Printer-Attributes
 - Ira; Make sure to make it clear that the HTTP request might still include authentication information as a side-effect of some prior request being authenticated
 - Ira: Also talk about discovery
 - Smith: Also add Get-Printer-Attributes on / (as documented in System service)
 - Ira: Might hide privacy-sensitive attributes that are returned by Get-User-Printer-Attributes
 - Mike: Also Get-Printer-Supported-Values (which can require auth) returns all supported values (vs. configured)
 - Mike: Get-Printer-Attributes MUST return full set of printer-uri/xri-supported values but might return "guest" print policy attributes for Job Template/Default/Supported values
 - Just informative reference to NODRIVER for Get-User-Printer-Attributes
 - Printer Classes/Categories
 - Ira/Smith: Add Photo printer as subset of Workgroup for personal/kiosk photo printing
 - Bill: What is the purpose of these definitions? How are we using them?
 - Ira: Used without definition all the way back to IPP/1.0 to specify an environment
 - Bill: What about a Cloud printer as a subset of Enterprise?
 - Mike: Maybe better to call it a "Managed Printer" that include Cloud and local services managing multiple Output Devices
 - Ira/Mike: Talk about these in IPP/2.x, how they can be mixed and matched
 - Section 9:
 - Add "including TLS and OAuth 2.0" after 5199.10 reference
5. IPP Everywhere v2.0
- <https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeve20-20220124-rev.pdf>

- Interim draft
- Support for Special-Purpose Printers
 - Mike will update ipptool to support generating raster data dynamically
 - Jeremy has resources for testing
 - Target is for 1.1 update 4 self-certification tools
- Section 5.3:
 - jpeg-features-supported should also be in 5100.13
- Section 15.1: Fix PWG 5100.22 reference (underlined/blue)
- Still need to add Enterprise and Production (cond. required) features
- Do an initial draft of 2.0 self-cert manual so we can start aligning documents and what will be tested

6. 3D Discussions

- Cura issue on supporting IPP 3D:
 - <https://github.com/Ultimaker/Cura/issues/2526>
- 3MF:
 - Smith has the renewal in process
- AMSC:
 - Pauls needs to identify which gaps are addressed by PWG specs (job ticket and safe G-code)
- INCITS:
 - Questions about 3D light scanners (vs. laser scanners)
 - Do IPP 3D and IPP Encrypted Jobs and Documents solve their secure 3D workflow (AMSP)
 - Trying to get more members to participate (to retain voting rights)
- VDMA is a German standards group, sponsoring DRUPA 3D printing content
- OPC40540 event will be an opportunity to get IPP 3D visibility for submission of files for printing
- PDF Association:
 - Invite to next F2F to discuss 3D PDF
- SME iRAMP:
 - Ask if they are interested in IPP 3D equivalent of IPP Everywhere?
- America Makes TRX:
 - Probably nothing in March 2022 that affects PWG
- RAPID + TCT:
 - No longer as relevant for standards discussions
- Q: IPP Everywhere 3D?
 - Mike: Not yet, we need to get people on board for Clients and Printers
 - Smith: agreed, need to get a Client implementing it so that Printer vendors will see the need
 - Mike: Not enough to say "IPP 3D + TRUSTNOONE" solves the problem, need people to implement to make it a real solution
- AMNOW has been pushing MT/Connect, but that is just for monitoring not submission
 - Providing a Raspberry Pi to relay local machine info to AMNOW

- cloud service securely
- Paul can reach out to them WRT using IPP 3D+TRUSTNOONE vs. MT/Connect
- Smith: Would vendors get upset about us pushing IPP 3D?
- Paul: MT/connect provides printer status from printer to service, IPP provides print content from client to printer/service (may be seen as a separate piece)
- Action: Paul to reach out to vendors concerning IPP 3D/TRUSTNOONE/INFRA
- Action: Paul to ask AMNOW for more information on current Raspberry Pi solution
- Q: Does it make sense to have a separate IPP 3D workgroup? (Smith)
 - Paul: It might make sense if there are 3D vendors that wanted to join/participate with the PWG
 - Consensus is that we need 3D manufacturers directly involved to support a separate workgroup
 - Mike: Paul can encourage membership as a way to get their needs addressed beyond what the current IPP 3D/TRUSTNOONE/INFRA specs provide
 - Ira: Probably need at least 6 vendors to work effectively

Next Steps / Open Actions

- Conference calls on February 24 and March 10, 2022 at 3pm
- Action: Mike to start IPP WG last call of Finishings ending Feb 23rd (DONE)
- Action: Paul to reach out to vendors concerning IPP 3D/TRUSTNOONE/INFRA
- Action: Paul to ask AMNOW for more information on current Raspberry Pi solution
- Action: Mike and Smith to get new code signing cert for Windows (PENDING)
- Action: Paul to provide Mike with a list of important 3D organizations and projects for 2021-2022 (PENDING - Mike will ping...)
- Action: Paul to reach out to Pat at ASTM to determine contacts for IPP expansion (PENDING)
- Action: Mike, Ira, and Smith to develop IPP Everywhere value proposition content (PENDING, part of pending SC article content)