Internet Printing Protocol Meeting Minutes
February 4-5, 2025

Meeting was called to order at 11:30am ET on February 4 and 10am ET on February 5.

Attendees

Charles Armstrong (Canon)
Benjamin Gordon (Google)
Tsutomu Iwasaki (OKI)
Smith Kennedy (HP)
Jeremy Leber (Lexmark)
Ira McDonald (High North)
Mike Rhines (Qualcomm)
Michael Sweet (Lakeside Robotics)
Anthony Suarez (Kyocera)
Paul Tykodi (TCS)
Bill Wagner (TIC)
Uli Wehner (Ricoh)
Michael Ziller (Microsoft)

Agenda Items

1. PWG IP policy, minute taker, administrivia
    - Mike is taking minutes
2. Status:
    - https://ftp.pwg.org/pub/pwg/ipp/slides/ipp-wg-agenda-february-25.pdf
    - INFRA:
        - Add number-of-documents as REQUIRED? yes
        - Add finishings-col-database as REQUIRED? yes
        - Mike: Will post a new stable draft for PWG Call for Objections
    - SYSTEM:
        - No objection to editorial change
        - Mike: Will post a new stable draft for PWG Call for Objections
    - TRUSTNOONE:
        - Mike: S/MIME code worked on in branch of libcups repository, needs code in ippserver as well, hoping to work on this again after IPP Everywhere v2.0 is done
    - OAUTH:
        - Mike: Propose starting PWG Last Call next week (Feb 10) through the end of February
        - No objections
        - Action: Mike to start PWG Last Call of OAUTH from Feb 10 to Mar 7
    - ACME:

- Mike is posting an updated WD of IoT-ACME to address concerns:
    - 802.1X (EAP-TLS) for secure connection, non-random MAC addresses for legacy/constrained IoT devices
    - Manual approval/revocation interface in local ACME server to control what devices have certificates
- SETTLE discussions not making a lot of progress (too many cooks, commercial interests, conflicting ideas of what problem is trying to be solved)
- Mike: Getting adoption by OS/browser vendors (without scary UI) remains a concern, hoping latest changes will help change that

3. IPP Everywhere v2.0
    - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeve20-20250129-rev.pdf
    - Q: Why printer-organization/organizational-unit attributes for home printers?
        - Mike: Some things that are easy to support/implement help to support all categories of printers in the enterprise - identifying the organization would be one of those things but we can discuss where we want to draw those lines and how we want to differentiate printers/conformance in IPP Everywhere
    - Forgot to change status to stable
    - Charles: Would like printer-organization and printer-organizational-unit Printer Description attributes CONDITIONALLY REQUIRED for enterprise printers (move from Table 5 to Table 6)
        - Uli: A lot of home printers on corporate networks since COVID
        - Bill: How much work to support?
        - Smith: Agreed, not a lot of work to support but what value do they provide?
            - Mike: More of a management/monitoring feature to find out who owns a particular printer on the network
            - Also available from other sources (LDAP, X.509, etc.) but convenient to access in one place
        - Mike: Not a lot, but something. Not printer-specific code but an extra something to test/support
        - Smith: Were these required in 1.1?
            - Mike: No, new for 2.0
        - Consensus: Mark as conditionally required for EPX (note 4), recommended otherwise
    - Sections 6.3.6/6.3.7:
        - Make CONDITIONALLY REQUIRED for EPX. If supported, Printers MUST...
    - Section 6.3:
        - printer-serial-number: Any issues making this required?
            - Benjamin: Is this a PII issue?
                - Smith: We already have printer-uuid
                - Mike: Have lots of values, particularly IP address and hostname that can be used to identify
                - Benjamin: printer-serial-number is the only permanent

one, printer-uuid, hostname, etc. can be reset
- - Smith: printer-uuid is fixed at the factory, value is "air gapped" so no association at HP between customer and UUID
  - Uli: Some printers allow serial numbers to be reset when replacing a hardware board (but not by ordinary users)
- Smith: Lets revisit this after consulting with our respective companies
- Mike: Primary reason I want a unique identifier is to have unique hostnames and USB endpoints, otherwise hard to use two of the same printer
- Bill: Don't you need the serial number for support?
  - Mike: Sometimes a MAC address or other identifier, always printed on device, might not be able to ask the printer if it is broken
- Bill: Also, if the information is available (no matter how difficult), and there is a reason to track it, it will be done regardless of whether we put it in an attribute
4. IPP Everywhere Printer Self-Certification Manual v2.0 and Tools
    - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeveselfcert20-20220510-rev.pdf
    - How to handle exceptions?
      - Mike: Proposal is to include Github issue numbers in certification results when an exception is required
        - Smith: Current JSON just has a comment indicating that "--override" was used, could be added as a field in the JSON for it
          - Mike: "issues":[number, number]
      - Mike: Distributing updates between tool releases?
        - Would be nice to have signatures or unique identifiers for releases that were used
        - Will be able to run new test files for verifying fixes, but if the problem is in the tool then we'd need to test a new version
        - Not sure whether we can easily do partial updates
        - Smith: What about CI/nightly releases?
          - Mike: Can be done but we don't release that often, would be nice to automate building and signing so that changes can be committed and approved without me doing them.
5. Envelope Sizes
    - Smith: What about envelopes with flaps open vs. closed?
      - Charles: Don't recall, will consult with colleagues in Japan
      - Mike: Sizes are for closed envelopes
      - Smith: All MSN sizes are rectangular except for CD/disc sizes
      - Charles: Open flap would come last and wouldn't be printable anyways
    - Extending media size names:

- Charles: You 2 == ISO C6
- Mike: Landscape/-long-edge sizes force long edge flaps, otherwise agnostic/default location
- Should we use "iso_c6-long-edge_162x114mm" for You 2?
  - Uli: https://www.wikihow.com/Address-Envelopes-to-Japan
  - Smith: Do clients parse out the dimensions?
    - Mike: Yes
    - Michael Z: Important for clients to parse things out to avoid duplicates
  - Charles: Kaku 6 == C5, with flap on short edge
    - Mike: Is there a long edge version of Kaku 6?
    - Charles: No, they would consider that just C5
    - Mike: My suggestion/recommendation is to localize 'iso_c5_WxLmm' as "Kaku 6" in Japanese localizations and add "iso_c5-long-edge_LxWmm" for "ISO C5 Long Edge Envelope"
  - Mikw: Define iso_cN-long-edge envelope sizes to address overlap between Japanese and ISO envelope sizes, define additional YouChouN sizes as needed, queue up for MSN 2.2 update at some point in the future
  - Mike: Do we do a standalone registration or open 5101.1 (MSN) and 5100.7 (JOBEXT)?
    - Smith: One existing errata for 5100.7, nothing for 5101.1 so far, maybe take a look and revisit next concall? Don't want to open a pandora's box
    - Mike: Doing a single registration would be less work now, we can update the others at our leasure
    - Consensus: Do the registration for now
    - Action: Mike to prepare an envelope size registration document
6. IPP Console Extensions v1.0 (CONSOLE)
   - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippconsole10-20250127-rev.pdf
   - Section 5.1.4:
     - Add port number to example, e.g., "http://hostname.local:631/jhome"
     - Uli: IPP and HTTP on our printers don't use the same ports, but IPPS and HTTPS do (443)
     - Mike: IPP-USB needs the "localhost" and port number from the Host: header
     - Benjamin: ChromeOS rewrites URIs internally but passes localhost with a unique port
     - Rewrite last sentence to be specific to IPP-USB (MUST for IPP-USB/localhost)
       - Mike: Will mirror changes to IPP Everywhere 2.0
     - Smith: What about when the web interface is disabled?
       - Mike: Should add guidance that you don't report this attribute if the web interface is disabled/non-existent.
     - Anthony: Followed up with Mopria members and they are happy/OK with the new language
   - Next steps: Post update with document status: prototype, get some

feedback, do WG last call
7. IPP Firmware Update Extensions v1.0 (FWUPDATE)
   - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippfwupdate-20241024-rev.pdf
   - Drop printer-firmware-update-name operation attribute
   - printer-firmware-update-uri (uri): Specific firmware update, return in Check-For-Firmware-Update response, specify in Update-Printer-Firmware request
   - printer-firmware-repository (uri):
     - Mike: Maybe add "-uri" suffix on name
     - Bill: How to restore to manufacturer value?
       - Mike: Maybe with Get-Printer-Supported-Values?
     - Mike: I like having a way to specify where to look, but still "arm's length" without specifying how the Printer looks up the latest firmware for this printer from the repository
     - Smith: Conformance?
       - Mike: Make it a SHOULD, there are uses for local/custom firmware repos, but many just want a single common repo
   - Update-Printer-Firmware:
     - If you specify an update URI, that URI must remain valid until the firmware has been updated
     - Smith: Make support for printer-firmware-update-uri mandatory?
       - Mike: Make SHOULD, add printer-firmware-update-uri-supported (boolean) Printer Description attribute to know whether Printer supports it
     - Smith: How long does status info on updates remain?
       - Mike: In other situations we've kept the reasons until the next update or power cycle
   - printer-firmware-update-last-status: Remove, make sure we have printer-state-reasons keywords for these values as needed (don't need "no new updates")
   - Smith: should printer-state-reasons suffixes be used to mirror the urgency of the firmware update?
     - "-warning" for security bug fixes, "-report" for others?
     - Mike: Not sure clients care about the suffix, but maybe?
8. 3D Printing
   - No technical sessions about standards at RAPID+TCT 2025
     - Mike: Doesn't sound like they are ready for us?
       - Paul: I agree, other events are probably more important
   - IDS ICAM presentations have been providing a "academic R&D" kind of learning/information sharing experience, showing how it can be done in the future, but ICAM attendees still seem to be happy to be in the "learning" phase and not implementation yet
   - Paul is sending a request to UMATI about adding IPP 3D

Next Steps / Open Actions

- Next conference calls on February 27 and March 13, 2025 at 3pm
- Discuss printer-serial-number and printer-uuid privacy concerns at upcoming concall
- Talk about more "Strong Device Identity" at future (soon) concall, determine requirements/use cases
- Action: Mike to start PWG Last Call of OAUTH from Feb 10 to Mar 7
- Action: Mike to prepare an envelope size registration document
- Action: Mike to update the IPP How-To Guide and post to IPP list for discussion (PENDING)
- Action: Mike to update IPP Everywhere 2.0 test files (PENDING - started work on it)