Internet Printing Protocol Meeting Minutes
November 7, 2024

Meeting was called to order at 3:00pm ET.

Attendees

Charles Armstrong (Canon)
Benjamin Gordon (Google)
Smith Kennedy (HP)
Jeremy Leber (Lexmark)
Ira McDonald (High North)
Chris Rizzo (Xerox)
Michael Sweet (Lakeside Robotics)
Anthony Suarez (Kyocera)
Uli Wehner (Ricoh)

Agenda Items

1. PWG IP policy, minute taker, administrivia
    -   Mike is taking minutes
2. Review IPP minutes from previous meeting:
    -   https://ftp.pwg.org/pub/pwg/ipp/minutes/ippv2-concall-minutes-20241024.pdf
    -   Approved as posted
3. Pending IPP WG documents:
    -   IPP/2.x Fourth Edition (BASE)
        -   https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippbase23-20240912-rev.pdf
        -   PWG CfO concludes November 8, 2024
4. Mail list notes
    -   https://www.pwg.org/pipermail/ipp/2024/021721.html
        -   Registration of new media sizes
        -   Deferring to F2F to come up with a final decision
5. Review IPP F2F Slides
    -   https://ftp.pwg.org/pub/pwg/ipp/slides/ipp-wg-agenda-november-24.pdf
    -   Uli: Latest Windows 11 24H2 build now supports HTTP Basic authentication with the IPP class driver
    -   Slide 7: Prototyped (instead of prototyping)
    -   Add slides for media name additions
    -   Slide 11: Add repo links for test files and tools
    -   Slide 22: Update next steps, drop IPP/2.x
    -   Slide 23: Update next concalls
6. Review IPP Firmware Update Extensions v1.0
    -   https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippfwupdate-20241024-rev.pdf
    -   Section 2.2:

- - Add "Authenticated User" definition
- Section 5.1:
  - Add paragraph on Authenticated User MUST be an operator or admin
- Section 5.1.1:
  - Get-User-Printer-Attributes -> Check-For-Firmware-Update
  - requesting-user-name MAY be supplied by Client, MUST be accepted by Printer
- Section 5.1.2:
  - Add intro paragraph
  - Drop "Client MUST support and the Printer MUST supply" and just make declarative (The Printer returns the XXX attribute if it contains a new value, or something like that)
  - Don't return attributes/values if they haven't changed from the previously cached values
  - Sync up list of Printer Status attributes from section 6
  - Add some discussion about the "last updated" value that is returned
- Section 5.2:
  - "if there new Firmware is available from the Firmware Repository"
  - Update operation name (Firmware-Self-Update -> Update-Printer-Firmware)
  - Add paragraph on Authenticated User
  - "A Client sends the Update-Printer-FIrmware request over a secure (HTTPS or HTTP Upgrade to TLS) connection [STD92]. If the Printer receives an Update-Printer-Firmware over an unsecured (HTTP) connection then it MUST respond with HTTP status 426 to initiate an upgrade to TLS."
  - Include references to HTTPS (RFC 9110, successor to RFC 2818) and HTTP Upgrade to TLS (RFC 2817)
  - Move "printer-firmware-xxx" attributes to new Section 4.x Required Attributes
  - Add paragraphs about semantics for name/URI and delay attributes to control what and when to update
- Section 5.2.1:
  - requesting-user-name MAY be supplied by Client, MUST be accepted by Printer
  - Mike: If you don't specify a firmware name/URI, does the Printer install all pending updates? Or multiple?
    - Smith: Good question, some wanted a way to specify a partial update
    - Mike: Should be 1setOf if we are allowing partials, otherwise an update of 3 of 4 items would take 3 reboots
    - Smith: HP wouldn't offer multiple versions, just the latest
      - Mike: Apple would offer the newest compatible update, so macOS 11 -> 13, then a separate update to macOS 15 after the macOS 13 is completed
    - Smith: Current focus is on SOHO users, might need to

expand for enterprise
            - Smith: Do we want to support arbitrary URIs?
                - Mike: Major issues are discoverability and validation
                - Ira: Smells like print-by-reference, which is deprecated
                - Smith: Would expect that printers won't implement if there isn't a way to cryptographically validate the image, maybe have some security considerations requiring it?
    - Stopped in section 5.2.1
    - Mike will add slides to discuss goals and requirements
        - Are firmware updates installed monolithically or as separate components?
        - How complex do we want this registration? What category of printers do we want to support?
        - Good user experience, simple client interface, secure/safe updates
        - Do we want to support updates by name/URI?
    - Global: "name(255)" should be "name(MAX)"

Next Steps / Open Actions

- Next conference calls on December 5 and 19, 2024 at 3pm
- F2F meetings on November 12 and 13, 2024
- Talk about more "Strong Device Identity" at future (soon) concall, determine requirements/use cases
- 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)