## Internet Printing Protocol Workgroup Meeting Minutes February 14, 2017

Meeting was called to order at approximately 2:15pm PT on February 14, 2017 and 9:00am PT on February 15, 2017.

## Attendees

Smith Kennedy (HP) Gyaneshwar C Gupta (Okidata - call in) Ira McDonald (High North - call in) Alan Sukert (Xerox - call in) Mike Sweet (Apple) Paul Tykodi (TCS - call in) Bill Wagner (TIC) Rick Yardumian (Canon - call in)

## Agenda Items

- 1. IP Policy and Minute Taker
  - IP policy accepted, Mike taking minutes
- 2. Slides
  - http://ftp.pwg.org/pub/pwg/ipp/slides/ipp-wg-agenda-february-17.pdf
- 3. IPP System Service
  - http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippsystem10-20170212-rev.pdf
  - Section 5.2, Table 1, Note 10: Create-Resource for resource-type, Send-Resource-Data for resource-format-supported
  - Section 5.6: Should "optional" be "OPTIONAL" or just use a synonym? Try to avoid use of lowercased conformance words
    - Line 815: '... when the Client supplies the "resource-ids" operation attribute ...'?
    - Line 825: Same thing
  - Section 5.9:
    - Reword "optional to supply"
  - Section 5.10:
    - Reword "optional to supply"
  - Section 6.1.2:
    - Line 936: Reword "optional to supply"
  - Section 6.2.2:
    - Lines 1334 and 1344: Reword "optional to supply"
  - Section 6.4.6 (Pause-All-Printers)
    - Add parenthetical about 'stopping' reason, like for Resume-All-Printers
  - Section 6.4.11:

- Lines 1747-1748: The System will change to a "system-state" of 'stopped' when all configured Printers have completed shutdown and moved to the 'stopped' state.
- Make a similar change for Startup, Disable, and Enable
- Global: Add printer attributes to response of Enable/Disable/Pause/ Resume/Shutdown-All-Printers, model on Startup-All-Printers (also add printer-is-accepting-jobs)
- Global: Add printer-message-from-operator operation attribute to Xxx-All-Printers operations
  - Need to research which attribute sets it...
- About 95% content-complete mainly need to expand some operation descriptions and fill out the security considerations.
- 4. Get-User-Printer-Attributes White Paper
  - http://ftp.pwg.org/pub/pwg/ipp/whitepaper/tb-userop-20170201.pdf
  - Section 3.1.1:
    - Why can't Duncan print the photo?
    - Cannot limit based on application no authoritative way to get that info
    - Could limit based on media type (print in color but not on photo media)
  - Section 3.1.x:
    - What about time-of-day restrictions? Source IP?
    - Semantics for Get-User-Printer-Attributes can say that returned attributes and values may vary based on out-of-band information such as most-authenticated user name, time-of-day, source address, etc.
  - Section 3.1.2: Drop since == OAuth or implementation detail separate from IPP
  - Section 3.1.3:
    - Unknown -> guest
    - printer-uri-supported/printer-xri-supported allow for multiple URIs, each with different security/authentication requirements
  - Discussion:
    - Get-Printer-Attributes needs to return list of all attributes and values configured by admin
    - Need to adopt Get-User-Printer-Attributes to get limited list
      - Mike: iOS could do it, macOS/Linux (with CUPS) would not
    - Separate logical printers can provide a restricted list of attributes and values to existing clients
    - Edge case no significant push to add this since IPP/1.0
    - Q: Do we need this?
      - A: Probably not
      - But maybe write up best practices in the future...
- 5. IPP Finishings 2.1
  - http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippfinishings21-20170111-rev.pdf
  - Results of vote so far: 4 yes, 3 abstain
    - Vote concludes this Friday, February 17th

- Jog Offset:
  - Options: do nothing, deprecate in favor of output-bin, add new finishings-col in future rev of finishings spec
    - Deprecate would be done separate from spec using IPP deprecation policy (registration template to IPP mailing list)
    - Printer finisher MIB has a jog reference edge (which edge gets jogged) but no subunit association (but a stacker offset, axis, and type but those are for other finishing processes?)
    - Printer MIB has an offset boolean for output tray
  - Consensus: Deprecate 'jog-offset' in favor of using "output-bin" with the 'mailbox' and 'stacker' values.
  - Action: Mike to post deprecation template for 'jog-offset' finishings/ finishing-template values, with reasons.
- Smith will post an updated draft for WG approval dated Feb 17, 2017 at the conclusion of the formal vote
- 6. IPP 3D Printing Extensions
  - http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ipp3d10-20170110-rev.pdf
    - Q: Can we evangelize this with developers?
      - Cura and other slicers? Probably not since they are generating G-code
      - Other open source developers? Need to identify
      - Printer manufacturers/3D print service providers Ultimaker, PWG members, others?
  - Next steps:
    - Approve process for formal vote in Steering Committee
    - Approve editorial changes in IPP WG
    - Anne Price: Engage to get the word out that IPP 3D has been published
    - Also talk with 3MF consortium (WRT Print3d job ticket schema)
    - Make IPP sample code more visible, Raspberry Pi print server documentation
      - Action: Mike to document ippserver setup on Raspberry Pi for 3D
    - Develop ipptool test file(s) for testing conformance and simulating a client.
      - Action: Mike to develop ipptool tests for IPP 3D
      - Talk further in Steering Committee
  - Change requests:
    - "print-rafts" to "print-base": Approved
    - "printer-bed-temperature" to "platform-temperature": Approved
    - Additional printer-state-reasons: Approved
  - Print3d Schema
    - Still need to annotate elements
    - Q: What about job receipts?
      - A: Should be in the schema, but don't think 3MF has considered that yet?
    - Mike will post named version to PWG FTP server for review at

subsequent IPP WG meetings once annotations are complete

- Please send feedback to IPP WG list
- Other standards bodies:
  - Focus should be on reaching out and raising awareness, but with the understanding that we are addressing different kinds of printers
    - Consumer/office printers
    - Commercial print services
    - Not large-scale manufacturing hardware
- Next steps:
  - How to import/use other material type databases with IPP 3D?
    - Import names into IANA registry, or develop a naming scheme like MSN?
    - Naming scheme seems the most scalable solution, e.g., 'isoNNNN\_material-name'
    - Something to add in IPP 3D v1.1
  - Need to add service counters
    - Come up with way to express work/usage per material
    - Also for IPP 3D v1.1
  - Need subunit status/configuration
    - Also for IPP 3D v1.1
  - MFD Alerts update
    - Ira and Mike are available as editors
    - Should be a simple editorial/registration update in the new document template
    - Do before IPP Transform
    - Start in Q2 2017
  - · IPP Transform Service
    - Ira and Paul are available as editors
    - Will use an informative reference to the last working draft of SM Transform, but the document will be free-standing
    - Focus is on simple file format transforms for v1.0
    - Start in Q4 2017
  - Defer FaxOut and State errata updates until 2018 unless editors/ volunteers appear.
  - Print3d schema is a medium priority item for 2017
  - Also IPP sample code updates
  - Consensus: Move IPP WG meetings to Thursdays from 3:00-4:30pm ET

## Next Steps / Open Actions

- Next IPP WG conference call is Thursday, March 2, 2017 from 3:00-4:30pm ET
- Action: Mike to post deprecation template for 'jog-offset' finishings/finishingtemplate values, with reasons.
- Action: Mike to document ippserver setup on Raspberry Pi for 3D

- Action: Mike to develop ipptool tests for IPP 3D
- Action: Mike to locate IPP/1.1 RFC announcement and forward to IPP mailing list (DONE)
- Action: Mike to add document-format-accepted (1setOf mimeMediatype) from IPP INFRA to registry (DONE)
- Action: Mike to look at document template to fix level 3 headings which are not bold (ONGOING template was correct, Mike will look at the System Service document instead)
- Action: Mike to send IANA IPP registry updates to Ira (DONE)
- Action: Mike to add output-bin registration to IANA IPP registry (DONE)
- Action: Mike to fix registration of job-constraints-supported and job-resolverssupported to include "resolver-name (name(MAX))" member attribute (DONE)