



# The Printer Working Group

IPP Workgroup Session, Day 1

May 3, 2017

# PWG IP Policy



- "This meeting is being held in accordance with the PWG Intellectual Property Policy"
  - [http://www.pwg.org/chair/membership\\_docs/pwg-ip-policy.pdf](http://www.pwg.org/chair/membership_docs/pwg-ip-policy.pdf)
- TL;DR: Anything you say in a PWG meeting or email to a PWG address can be used in a PWG standard
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# Agenda



## May 3, 2017

When	What
12:30 - 1:30	IPP Workgroup Status and Updates
1:30 - 2:30	IPP System Service

## May 4, 2017

When	What
12:30 - 1:45	White Papers
1:45 - 2:15	PWG 3D Print Job Ticket
2:15 - 2:30	Next Steps



- Current charter:
  - <http://ftp.pwg.org/pub/pwg/ipp/charter/ch-ipp-charter-20151225.pdf>
- The Internet Printing Protocol (IPP) workgroup is chartered with the maintenance of IPP, the IETF IPP registry, and support for new clients, network architectures (Cloud, SDN), service bindings for MFDs and Imaging Systems, and emerging technologies such as 3D Printing
- In addition, we maintain the IETF Finisher MIB, Job MIB, and Printer MIB registries, and handle synchronization with changes in IPP
- Minor charter update in progress (talk about this later)



- **IPP WG Co-Chairs:**
  - Paul Tykodi (TCS)
  - Ira McDonald (High North)
- **IPP WG Secretary:**
  - Michael Sweet (Apple)
- **IPP WG Document Editors:**
  - Ira McDonald (High North) – IPP System Service (SYSTEM)
  - Michael Sweet (Apple) – IPP System Service (SYSTEM), PWG 3D Print Job Ticket and Associated Capabilities v1.0 (PJT3D)
  - Smith Kennedy (HP Inc.) – Various white papers



- PWG Specifications in development:
  - PWG 3D Print Job Ticket and Associated Capabilities v1.0 (PJT3D)
    - Stable Draft
  - IPP System Service (SYSTEM)
    - Interim Draft
- Recent Candidate Standards:
  - PWG 5100.1-2017: IPP Finishings 2.1 (FIN)
  - PWG 5100.20-2016: IPP Everywhere Printer Self-Certification Manual v1.0 (SELFCERT)
  - PWG 5100.21-2017: IPP 3D Printing Extensions v1.0 (3D)
- Recent IETF RFCs:
  - RFC 8010: Internet Printing Protocol/1.1: Encoding and Transport
  - RFC 8011: Internet Printing Protocol/1.1: Model and Semantics

# Status (2/2)



- Up-to-date pending IANA registrations online:
  - <http://www.pwg.org/ipp/ipp-registrations.xml>
  - Continue to maintain this in parallel for new specifications
  - Github repository: <https://github.com/istopwg/ippregistry>
- IPP Everywhere Printer Self-Certifications:
  - <https://www.pwg.org/printers>
  - 47 printers currently listed
  - 1.0 self-certification tools update released in October 2016
- IPP Sample Code:
  - Github repository:
    - <https://github.com/istopwg/ippsample>
  - Fork of CUPS code includes ippfind, ippproxy, ippserver, ipptool, ipptransform, and ipptransform3d



# IETF IPP/1.1 Updates

- RFCs 8010 and 8011 have been published which replace (obsolete) RFCs 2910, 2911, 3381 (deprecated job progress attributes), and 3382 (collection attribute syntax)
- Published RFCs:
  - <http://tools.ietf.org/html/rfc8010>
  - <http://tools.ietf.org/html/rfc8011>
  - *RFCs will eventually be advanced to IETF Internet Standard through status change (IESG process described in RFCs 2026 and 6410)*
- Proposed schedule:
  - Request IESG change of status in July 2017 (six months after the publication of RFCs 8010 and 8011)





# IPP Everywhere Self-Certification

- Resources:
  - <http://www.pwg.org/ipp/everywhere.html> (for tools/info)
  - <https://www.pwg.org/ippeveselfcert> (submission form)
  - <http://www.pwg.org/printers> (printer list)
  - <https://github.com/istopwg/ippeveselfcert> (Github repo)
- Released v1.0 Update 1 of self-certification tools on October 28th, 2016
- Planning future 1.1 errata update for manual and tools in 2017:
  - More tests (Cancel-My-Jobs, Close-Job, Identify-Printer)
  - Other necessary changes that are not simple bug fixes in the tools/submission portal
- Proposed Schedule:
  - 1.1 errata update: Q3 2017



# IPP WG Charter Update

- Current (interim) draft at:
  - <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ipp-charter-20170501-rev.pdf>
- Changes:
  - Move IPP Everywhere Multifunction to potential projects list
  - Move maintenance tasks to new "ongoing" section
  - Add ongoing PWG Semantic Model schema maintenance via IANA IPP Registry tools
- Proposed schedule:
  - PWG Steering Committee approval in Q3 2017



# IPP System Service (SYSTEM)

- Current interim draft at:
  - <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippssystem10-20170314-rev.pdf>
- Combines and implements a concrete IPP binding of the following abstract Semantic Model 2.0 services and objects:
  - PWG 5108.06: System Object and System Control Service
  - PWG 5108.03: Network Resource Service
  - PWG 5109.1: Cloud Imaging Requirements and Model
- Proposed Schedule:
  - Prototype draft in Q3 2017



# The Printer Working Group

IPP Workgroup Session, Day 2

May 4, 2017

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# "Get-User-Printer-Attributes" Proposal

- White Paper:
  - <http://ftp.pwg.org/pub/pwg/ipp/whitepaper/tb-userop-20170404.pdf>
- Get-User-Printer-Attributes Operation
  - Provides a Get-Printer-Attributes response filtered by the most authenticated user
  - Useful for things like limiting which users can print in color, use a particular letterhead, etc.
  - Clients that support the operation will only show available print options to the user instead of reporting an error (or having the options silently overridden by the Printer) when the user submits the job
  - Needed because Get-Printer-Attributes is not defined as an authenticated operation (so no clients support it), nor does it include the "most authenticated user identity" as a filter criteria (which isn't something we can expose using "printer-get-attributes-supported")



# "IPP Presets" Proposal

- White Paper:
  - <http://ftp.pwg.org/pub/pwg/ipp/whitepaper/tb-ipp-preset-20170418.pdf>
- "presets-col" and "presets-col-set" Printer Description attributes
- Provides a way for Clients to know that selection of one Job Template attribute value should also select others, e.g., selecting 4x6 media should also trigger "print-quality" getting set to 'high'.





# PWG 3D Print Job Ticket

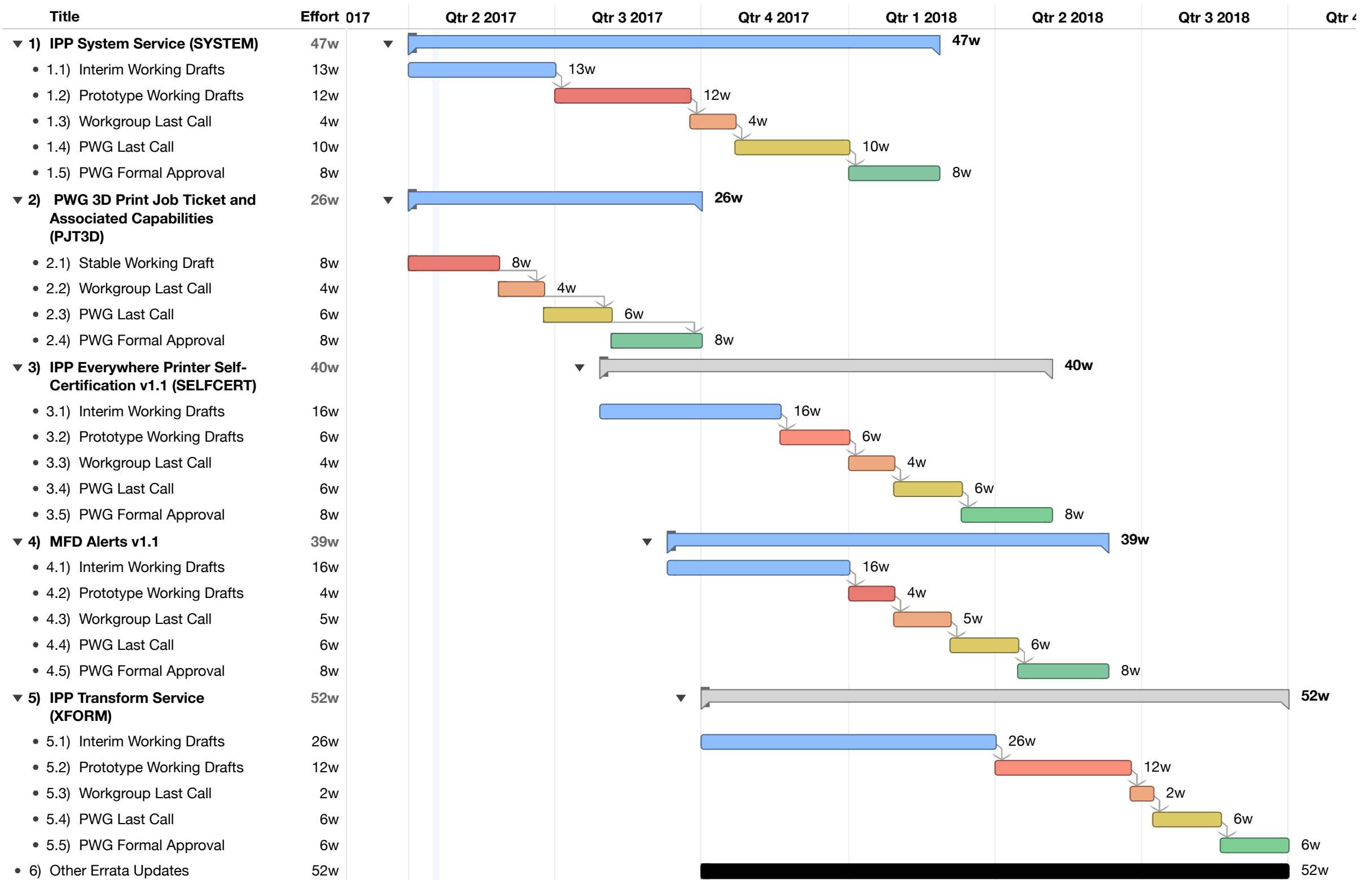
- Current stable draft:
  - <http://ftp.pwg.org/pub/pwg/ipp/wd/wd-smpjt3d10-20170420-rev.pdf>
- Current schema:
  - <https://istopwg.github.io/ippregistry/smpjt3d10-current>
- Proposed schedule:
  - WG Last Call Q2 2017
  - PWG Last Call and Formal Vote Q3 2017



# The Printer Working Group

## Next Steps

# Next Steps





# Next Steps

- Advance IPP/1.1 to IETF Internet Standard
  - Request change of status in July 2017
- PWG 3D Print Job Ticket and Associated Capabilities v1.0 (Mike)
  - Start WG Last Call
- IPP System Service (Ira/Mike)
  - Prototype working draft in Q3 2017
- IPP Everywhere Printer Self-Certification Manual v1.1 (Mike/Smith)
  - Interim working draft in Q3 2017
- MFD Alerts v1.1 (Ira/Mike - Errata Update)
  - Initial working draft in Q3 2017
- IPP Transform Service v1.0 (Ira/Paul)
  - Initial working draft in Q4 2017



# More Information

- We welcome participation from all interested parties
- IPP Working Group web page
  - <http://www.pwg.org/ipp/index.html>
- Subscribe to the IPP mailing list
  - <https://www.pwg.org/mailman/listinfo/ipp>
- IPP WG holds bi-weekly phone conferences announced on the IPP mailing list
  - Next conference calls scheduled for Thursday, May 11, 2017 and May 25, 2017 at 3pm ET