



Internet Printing Protocol Extensions BOF

IETF46 in Washington, DC

November 9, 1999

Agenda for Internet Printing Protocol Extensions (ippext)

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The intent of this work is to provide a number of extensions which were not covered by the original IPP WG charter, but for which there is industry demand.

Agenda for Internet Printing Protocol Extensions (ippext)

- ✓ Short summary of the work done in the IPP WG.(Final drafts currently with the IESG).
- ✓ Explanation of the three proposed extensions areas:
 - 1) **IPP Notifications** (already started)
 - 2) **IPP Optional Operations for Operators & Administrators**
 - 3) **IPP Extensions for Advanced Production Printing**

Agenda for Internet Printing Protocol Extensions (ippext)

- ✓ Discussion and checking the level of IETF interest for these extensions

IPP Notifications

✓ Draft Documents

- Internet Printing Protocol/1.1: Requirements
<draft-ietf-ipp-not-03.txt>
- Internet Printing Protocol/1.1: IPP Event Notification Specification
<draft-ietf-ipp-not-spec-01.txt>
- Internet Printing Protocol/1.1: HTTP-Based IPP Notification Delivery Protocol
<draft-ietf-ipp-not-http-delivery-00.txt>
- Internet Printing Protocol/1.1: Notifications over SNMP
<draft-ietf-ipp-not-over-snmp-00.txt>

IPP Notifications

✓ Goals and Requirements

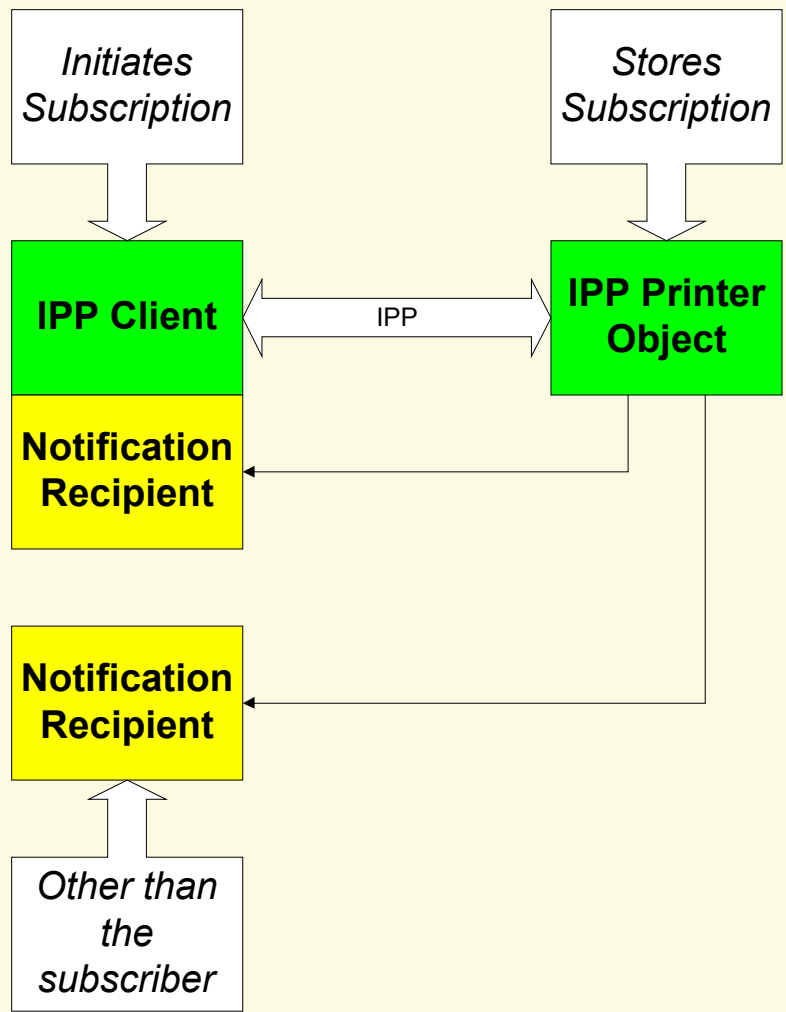
– Subscription model

- For print job events and printer events
- Different granularity of events, from per job to per page
- With the print job or separately

– Delivery

- To job submitter, but also to other parties
- One delivery method can't meet all requirements
- Human and Machine friendly notification format

IPP Notification Model



IPP Notification Operations

- ✓ Subscription using job submission operations
 - Print-Job
 - Print-URI
 - Create-Job
- ✓ Subscription using separate new operations
 - Create-Job-Subscription
 - Create-Printer-Subscription
- ✓ Other new operations
 - Get-Subscription-Attributes
 - Renew-subscription
 - Cancel-Subscription

IPP Notification Delivery Options

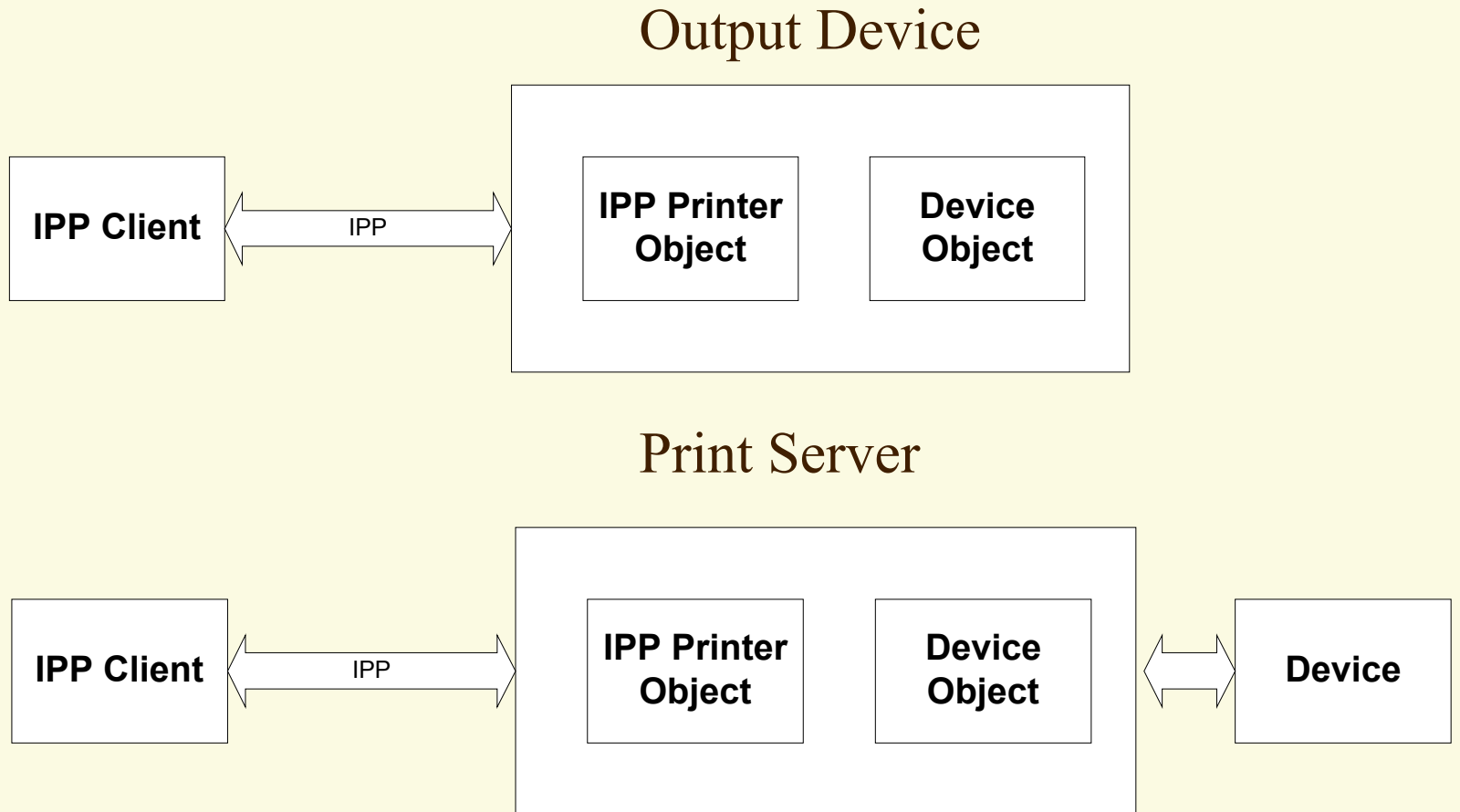
- ✓ Over email, with the possibility to gateway into other services such as instant messaging or pagers
- ✓ Over SNMP traps
- ✓ Over IPP using a new operation and getting notifications in multi-part MIME responses
- ✓ Over new IPP Notification Protocol running over HTTP (client in printer, server in work station)

IPP Optional Operations

✓ Draft Document

- Internet Printing Protocol/1.1: Set 2 Operations
<draft-ietf-ipp-ops-set2-00.txt>
- Plan to split this up into two documents, one for printer objects and one for device objects

IPP Optional Operations



IPP Optional Operations

✓ Operations on IPP Printers

- Printer Object

- Set-Printer-Attributes
- Enable-Printer
- Disable-Printer
- Restart-Printer
- Shutdown-Printer
- Resume-Job
- Promote-Job

- Job Object

- Set-Job-Attributes
- Reprocess-Job
- Cancel-Current-Job
- Pause-Current-Job

IPP Optional Operations

✓ Operations on Devices

- Get-Device-Attributes
- Set-Device-Attributes
- Pause-Device
- Reset-Device
- Restart-Device
- Shutdown-Device

IPP Production Printing Extensions

- ✓ Professional production printing requires more detailed control over complex print jobs:
 - Document level control
 - Page range or single page control
 - Different capabilities and attributes for different interpreters (e.g. Postscript vs. PCL, vs. TIFF)
 - More attributes for post processing (binding, enveloping etc.)

Proposed Milestones for ippext

✓ 1) IPP Notifications

– a) Requirements

» first I-D

Done

» WG Last Call

December 1999

– b) Notification Model & Subscription

» first I-D

Done

» WG Last Call

December 1999

– c) Notification Delivery (several)

» first I-Ds

November 1999

» WG Last Call

February 2000

Proposed Milestones for ippext

✓ 2) IPP Optional Operations, mainly for Operators & Administrators

- first I-Ds October 1999
- WG Last Call March 2000

✓ 3) IPP Extensions for Advanced Production Printing

- first I-Ds March 2000
- WG Last Call August 2000