

1 IPP Notification New Model Attribute Summary

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3 Date: 8/11/99

4 File: ipp-notification-attr-summary-990811.doc

5 Making this table showed some inconsistencies between the Job and Subscription objects. These are
6 highlighted like this and a "?" added.

7 This document is a one page summary of the new proposal to simplify the IPP Notification Model. The
8 Subscription object is defined only for use as Per-Printer subscriptions. Per-Job subscriptions are done
9 entirely with Job attributes and use an exclude event mask (like SNMPv3 trap subscriptions) in order to
10 allow different recipients to get different events. I've also included conformance requirements for
11 operations and attributes in the summary, so that we can more properly reason about the model, before
12 updating the specification document.

13 The Model document is available at:

14 ftp://ftp.pwg.org/pub/pwg/ipp/new_NOT/ipp-notification-new-model-990811.pd

15 This most recent IPP Notification Specification (July 22, 1999) is at:

16 ftp://ftp.pwg.org/pub/pwg/ipp/new_NOT/ipp-notification-990722.pdf

17 Review of this object model before updating the complete spec will help speed up the production of the
18 spec and will also help with the understanding of the semantics. I suggest that this summary be kept in the
19 final spec in some form similar to this paper.

20 ***NOTE - Throughout this model document, the notation [] indicates that the sender (client in a***
21 ***request, IPP object in a response, Notification Sender in a notification) MAY omit the attribute***
22 ***inside the square brackets if there is not data to send. In addition, IPP Printer conformance***
23 ***requirements for operation and attribute support are indicated in this document with the words and***
24 ***codes:***

25 ***REQUIRED (R) to support notification at all***

26 ***CONDITIONALLY REQUIRED (C) - REQUIRED if Per-Printer subscription is supported***

27 ***OPTIONAL (O) - not required for either Per-Job or Per-Printer Subscriptions.***

28 ***Therefore, the [] do NOT mean OPTIONAL support and should not be confused with support***
29 ***requirements.***

30

31 1 New IPP Notification Operations

32 This new proposed IPP object model add the Subscription object (to the [Job and Printer objects](#)), but only
33 for the Per-Printer subscriptions.

34 The following operations are defined for Per-Job Subscriptions and Per-Printer Subscriptions:

35 1.1 Per-Job Subscriptions - new model

Job object related:	salient inputs besides printer-uri
job creation operations	recipients, [events,] [user-data,] [exclude-event-mask,] [natural-languages]
Get-Job-Attributes	job-id, [requested-attributes]
Set-Job-Subscription	job-id, [recipients,] [events,] [user-data,] [exclude-event-mask]

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37 1.2 Per-Printer Subscriptions - new model

Printer object related:	salient inputs beside printer-uri:
Get-Printer-Attributes	[requested-attributes]
Subscription object related:	salient inputs besides printer-uri:
Create-Printer-Subscription	recipients, [events,] [user-data,] [exclude-event-mask,] [natural-languages,] [lease-time-requested,] [persistence]
Get-Printer-Subscription-Attributes	subscription-id, [requested-attributes]
Get-Printer-Subscriptions	[my-printer-subscriptions,] [requested-attributes]
Renew-Printer-Subscription	subscription-id, [lease time-requested]
Cancel-Printer-Subscription	subscription-id

Attributes	Objects		Notification content		Job operations		Subscription operations		
	Job object	Subscription object	Job Notification Content	Printer Notification Content	Job Creation Validate -Job	Set-Job-Subscription	Create-Printer-Subscription	Renew - Subscription	Cancel - Subscription
notify-recipients (1setOf uri)	R	C			R	[R]	C		
notify-events (1setOf type2 keyword)	R	C			[R]	[R]	[C]		
notify-user-data (octetString(63))	R	C			[R]	[R]	[C]		
notify-exclude-event-masks (1setOf octetString(8))	R	C			[R]	[R]	[C]		
attributes-charset (charset)	R	?	R	R	R	R	C	C	C
attributes-natural-language (naturalLanguage)	R	?	R	R	R	R	C	C	C
notify-natural-languages (1setOf naturalLanguage)	O	O			[O]	[O]	[O]		
notify-lease-time-requested (integer(0:MAX))							[C]	[C]	
notify-lease-time-granted (integer(0:MAX))							Return	Return	
notify-lease-time (integer(0:MAX))		C					Return	Return	
notify-persistence (boolean)							[O]		
job-trigger-event (type2 keyword)	R?	?	R						
printer-trigger-event (type2 keyword)				R					
job-trigger-time (integer(MIN:MAX))	R?	?	R						
printer-trigger-time (integer(1:MAX))				R					
job-trigger-date-time (dateTime)	O?	?	[]						
printer-trigger-date-time (dateTime)				[]					
request-id (integer (1:MAX))			R	R					
notify-request-ids (1setOf integer(0:MAX))	R	C							
subscription-id (integer(1:MAX))		C	Per-Pr	Per-Pr			Return	C	C
subscriber-user-name (name(MAX))		C							
notify-request-ids (1setOf integer(0:MAX))	R	C							
delivery-failure-count (integer(0:MAX))		C							

- 38 Legend: "R" - REQUIRED for Printer to support; "C" - CONDITIONAL; Printer MUST support if support Per-Printer subscriptions;
39 "O" - OPTIONAL for Printer to support; "[]" - OPTIONAL for sender to send; Return - Printer MUST return; "Per-Pr" -
40 REQUIRED if Notification from a Per-Printer subscription; "Per-Job" - REQUIRED if Notification from a Per-Job subscription

Attributes	Objects		Notification content		Job operations		Subscription operations		
	Job object	Subscription object	Job Notification Content	Printer Notification Content	Job Creation Validate-Job	Set-Job-Subscription	Create-Printer-Subscription	Renew-Subscription	Cancel-Subscription
version-number (integer (0:32767))			R	R					
status-code (integer (0:32767))			(600)	(601)					
job-printer-uri (uri)	R		R						
printer-uri (uri)		?		R	R	R	C	C	C
printer-name (name(127))			R	R					
job-id (integer(1:MAX))	R		R	Per-Job					
job-name (name(MAX))	R		R	Per-Job					
job-state (type1 enum)	R		R						
printer-state (type1 enum)		R		R					
job-state-reasons (1setOf type2 keyword)	R		R						
printer-state-reasons (1setOf type2 keyword)		R		R					
printer-is-accepting-jobs (boolean)		R		R					
job-impressions-completed (integer(0:MAX))	O		[] comp						
job-media-sheets-completed (integer(0:MAX))	O		[] comp						
job-collation-type (type2 enum)			[] prog						
sheet-completed-copy-number (integer(-2:MAX))			[] prog						
sheet-completed-document-number(integer(-2:MAX))			[] prog						
impressions-interpreted (integer(-2:MAX))			[] prog						
impressions-completed-current-copy (integer(-2:MAX))			[] prog						

- 42 Legend: "R" - REQUIRED for Printer to support; "C" - CONDITIONAL; Printer MUST support if support Per-Printer subscriptions;
43 "O" - OPTIONAL for Printer to support; "[]" - OPTIONAL for sender to send; Return - Printer MUST return; "Per-Pr" -
44 REQUIRED if Notification from a Per-Printer subscription; "Per-Job" - REQUIRED if Notification from a Per-Job subscription;
45 "[] comp" - OPTIONAL in a 'job-completed' notification; "[] prog" - OPTIONAL in a 'job-progress' notification.