Comparison of IPP Notification Delivery Methods

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File: ipp-notification-delivery-method-table.doc

In the following list of requirements, if the opposite of the requirement is not clear, the opposite is indicated after an arrow (->), suggesting the other end of the range.

The value in the box means:

3 = meets requirement well,
2 = meets requirement somewhat,
1 = doesn't meet requirement very well,
0 = doesn't meet the requirement at all, if the opposite is indicated, it behaves as the opposite (CON).
? = I wasn't sure.
shaded number indicates for a variant the deltas from a previous method.

Abbreviations: NS = Notification Source; NR = Notification Recipient; UR = Ultimate Recipient

Requirement - PRO -> CON	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Variant of:				3	3,4	3	3	7	7			11		13
	poll	in-band								http	SNMP		UDP	
1. Fits notification model [ipp-not]	0	3	1	1	1	0	1	1	1	3	3	3	3	3
2. Fits current IPP Model [ipp-mod]; changes existing operations	3	0	2	2	2	2	2	2	2	0	3	3	3	3
3. Likely to go through firewalls	2	2	2	2	2	2	2	2	2	1	0	0	0	0
4. Fewer connections left open -> one per pending job	3	0	0	0	0	0	0	0	0	3	3	3	3	3
5. Fewer connection setups to send/receive a notification	3	3	2	2	2	2	2	0	2	3	3	3	3	3
6. Reduces network traffic, events can be batched into one Notification	2	0	0	0	0	0	0	0	0	3	0	0	0	0
7. Works with HTTP servers -> multiple responses needed	3	0	0	0	0	0	0	3	0	3	3	3	3	3
8. Don't miss events after subscribing	0	3	3	0	3	3	3	3	3	3	3	3	3	3
9. Per-Job and Per-Printer Subscription; Per-Job only	0	0	3	3	3	3	3	3	3	3	3	3	3	3
10. End users and operators -> end users only or operators only	0	0	0	0	0	0	0	0	0	3	1	1	1	1
11. Good for all events -> not good for page level or complete only	3	2	3	3	3	3	3	0	3	3	3	3	3	3
12. Good when only job complete event wanted	3	0	0	0	0	0	0	0	0	3	3	3	3	3
13. Human Consumable and Machine Consumable	0	3	3	3	3	3	3	3	3	3	0	0	0	0
14. No limit to size of content	3	3	3	3	3	3	3	3	3	3	1	1	1	1
15. Same owner on different workstations can get notification from selective	3	3	0	3	3	0	0	0	0	3	3	3	3	3

Requirement - PRO -> CON	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Variant of:				3	3,4	3	3	7	7			11		13
subscriptions														
16. Easy for NS to implement	0	2	1	1	1	3	0	0	0	1	3	3	3	3
17. Easy for NS cleanup when subscriptions no longer wanted	3	3	2	2	2	3	2	2	2	3	3	3	3	3
18. Anyone can be NR -> only subscriber can be NR	0	0	0	0	0	0	0	0	0	3	3	3	3	3
19. Any NR can cancel subscription -> only owner can	3	1	1	1	1	1	1	1	1	3	0	0	0	0
20. Transport is reliable	3	3	3	3	3	3	3	3	3	3	1	3	1	3
21. Transport widely deployed	3	3	3	3	3	3	3	3	3	3	3	1	3	3
22. Transport is fast	3	3	3	3	3	3	3	3	3	3	3	3	3	3
23. NR already deployed (2 = easy to deploy)	1	1	2	2	2	2	2	2	2	2	3	1	0	0
24. NR already does further filtering	0	0	0	0	0	0	0	0	0	0	2	2	2	2
25. NR already has interface to UR	1	1	1	1	1	1	1	1	1	1	3	3	3	3
26. Easy to implement NR	2	2	2	2	2	2	2	2	2	1	2	2	2	2
27. NR can receive from multiple NS	2	0	0	0	0	0	0	0	0	3	3	3	3	3
28. UR doesn't need Internet connection	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29. UR always reachable	?	2	1	1	1	1	1	1	1	1	1	2	1	1
30. Server in middle can easily pass thru client subscriptions	3	0	0	0	0	0	0	0	0	3	3	3	3	3
31. Can use 'application/ipp' -> needs new MIME type	3	3	3	3	3	3	3	3	3	0	0	0	0	0
32. No new port is needed -> new default port is needed	3	3	3	3	3	3	3	3	3	0	3	3	3	3
33. Likely to be accepted by IETF	2	3	3	3	3	3	3	3	3	2	3	3	1	1
Totals:	60	52	50	50	53	52	49	47	49	72	71	70	66	68

Requirement - PRO -> CON	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Variant of:	13	14		17	17	17		21		23	24	25	1-3	
	TCP		email				IM	paging	configured paging					esc
1. Fits notification model [ipp-not]	3	3	3	3	3	3	3	3	0	0	0	0	0	
2. Fits current IPP Model [ipp-mod]; changes existing operations	3	3	3	3	3	3	3	3	3	3	3	3	3	
3. Likely to go through firewalls	0	0	2	3	2	2	3	3	3	3	3	3	2	
4. Fewer connections left open -> one per pending job	3	3	3	3	3	3	3	3	3	3	3	3	3	
5. Fewer connection setups to send/receive a notification	3	3	3	3	3	3	3	3	3	3	3	3	3	
6. Reduces network traffic, events can be batched into one Notification	0	0	0?	0?	0?	0?	0	0	0	0	0	0	2	
7. Works with HTTP servers -> multiple responses needed	3	3	3	3	3	3	3	3	3	3	3	3	3	
8. Don't miss events after subscribing	3	3	3	3	3	3	3	3	3	3	3	3	0	
9. Per-Job and Per-Printer Subscription; not both	3	3	3	3	3	3	3	3	0	0	0	0	3	
10. End users and operators -> operators only	3	3	3	3	3	3	3	3	0	0	0	0	0	
11. Good for all events -> not good for page level or complete only	3	3	0	0	0	0	0	0	0	0	0	0	3	
12. Good when only job complete event wanted	3	3	3	3	3	3	3	3	3	3	3	3	3	
13. Human Consumable and Machine Consumable	0	0	3	0	3	3	0	0	0	0	0	0	0	
14. No limit to size of content	1	1	3	3	3	3	1	0	0	0	0	0	3	
15. Same owner on different workstations can get notification from selective	3	3	3	3	3	3	3	3	3	3	3	3	3	

Requirement - PRO -> CON	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Variant of:	13	14		17	17	17		21		23	24	25	1-3	
subscriptions														
16. Easy for NS to implement	3	3	3	2	1	1	3	3	3	3	3	3	0	
17. Easy for NS cleanup when subscriptions no longer wanted	3	3	3	3	3	3	3	3	3	3	3	3	3	
18. Anyone can be NR -> only subscriber can be NR	3	3	3	3	3	3	3	3	3	3	3	3	0	
19. Any NR can cancel subscription -> only owner can	0	3	0	0	0	0	0	0	0	0	0	0	3	
20. Transport is reliable	3	3	2	2	2	2	2	3	3	3	3	3	3	
21. Transport widely deployed	3	3	3	3	3	3	2	2	3	3	3	3	3	
22. Transport is fast	3	3	0	0	0	0	2	2	3	3	3	3	3	
23. NR already deployed (2 = easy to deploy)	0	0	3	3	3	3	2	3	3	3	3	3	1	
24. NR already does further filtering	2	2	3	3	3	3	3	3	2?	2?	2?	2?	0	
25. NR already has interface to UR	3	3	3	3	3	3	3	3	3	3	3	3	1	
26. Easy to implement NR	2	2	3	3	3	3	3	3	3	3	3	3	2	
27. NR can receive from multiple NS	3	3	3	3	3	3	3	3	3	3	3	3	2	
28. UR doesn't need Internet connection	0	0	2	2	2	2	2	2	3	3	3	3	0	
29. UR always reachable	1	1	2	2	2	2	2	3	3	3	3	3	?	
30. Server in middle can easily pass thru client subscriptions	3	3	3	3	3	3	3	3	3	3	3	3	3	
31. Can use 'application/ipp' -> needs new MIME type	0	0	3	2	3	3	2	2?	2?	2?	2?	2?	3	
32. No new port is needed -> new default port is needed	0	0	3	3	3	3	3	3	3	3	3	3	3	
33. Likely to be accepted by IETF	3	3	3	3	3	3	1	2	2	2	2	2	2	
Totals:	69	72	83	79	81	81	76	77	68	68	68	68	63	