

From: Hastings, Tom N [hastings@cp10.es.xerox.com]
Sent: Wednesday, July 05, 2000 12:58
To: kugler@us.ibm.com
Cc: ipp@pwg.org
Subject: RE: IPP> 'any' out-of-band value [Last Call comment on the Set spec]

Carl,

I'm interpreting your comments as WG Last Call comments on the IPP Set Operations document.

I have several questions about the requirements for your proposal:

1. Are you looking for a way to represent that any "document-format" value will be acceptable in a Job Creation operation for ONLY that attribute? In other words, only the "document-formats-supported" Printer Description attribute needs a way to indicate that any value will be acceptable.

2. For the "document-format-supported" Printer attribute, then there would only be a single "special" value that indicates any and that no other values would be included as well, correct?

3. Why wouldn't the Job Repository application that you indicate need the same mechanism for any "xxx-supported" attribute?

4. Would any other "xxx-supported" attributes only need a SINGLE value and would not need any other values as well?

So we could either take your suggestion for using 'unknown' or define a new 'any' out-of-band value, but restrict it to be the ONLY value of an "xxx-supported" Printer attribute. The advantage of 'unknown' is that current clients should know what that out of band value means. Because the out-of-band value would NOT be used in combination with other values in any "xxx-supported" attribute returned by Get-Printer-Attributes to an existing client, there is not an interoperability problem.

The next issue that comes up is how does the Set-Printer-Attributes operation know whether or not to accept a 'unknown' out-of-band value as a value to be set?

The simplest solution would be for the Set spec to say that the Set-Printer-Attributes operation MUST always accept the 'unknown' value for an "xxx-supported" attribute, as long as it is the only value being set for that attribute. Then the Get-Printer-Supported-Values operation would not be affected and would NOT return 'unknown' as one of the values that can be set.

A more complicated alternative would be to require that the 'unknown' (or 'any') value be ONE OF the values among others returned by the (new) Get-Printer-Supported-Values operation. Then it would be clear whether a Set-Printer-Attributes operation could set the 'unknown' value or not.

I favor the simpler alternative. I also favor overloading the 'unknown' value as you suggest, rather than introducing a new 'any' out-of-band value that old clients wouldn't recognize.

58 Comments?
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60 Tom
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64 -----Original Message-----
65 From: kugler@us.ibm.com [mailto:kugler@us.ibm.com]
66 Sent: Wednesday, June 28, 2000 12:52
67 To: ipp@pwg.org
68 Subject: Re: IPP> 'any' out-of-band value
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73 In today's telecon, nobody liked my proposal for an 'any' out-of-band
74 value. I have an alternative solution, using the existing 'unknown' OOB
75 value. We could amend the IIG to specify that if the Printer's
76 "document-format-supported" is 'unknown', this indicates that all
77 document-formats are acceptable.
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79 This checking, from section 3.2.1.5, Validate the values of the REQUIRED
80 Operation attributes, would have to be modified:
81
82 document-format (mimeMediaType)
83
84 IF NOT a single non-empty 'mimeMediaType' value, REJECT/RETURN
85 'client-error-bad-request'.
86 IF the value length is greater than 255 octets, REJECT/RETURN
87 'client-error-request-value-too-long'.
88 IF NOT in the Printer object's "document-format-supported" attribute,
89 REJECT/RETURN 'client-error-document-format-not-supported'
90 IF NOT supplied by the client, the IPP object assumes the value of the
91 Printer object's "document-format-default" attribute.
92
93 to :
94
95 document-format (mimeMediaType)
96 IF NOT a single non-empty 'mimeMediaType' value, or 'unknown',
97 REJECT/RETURN 'client-error-bad-request'.
98 IF the value length is greater than 255 octets, REJECT/RETURN
99 'client-error-request-value-too-long'.
100 IF NOT in the Printer object's "document-format-supported" attribute,
101 REJECT/RETURN 'client-error-document-format-not-supported',
102 unless "document-format-supported:" is 'unknown'.
103 IF NOT supplied by the client, the IPP object assumes the value of the
104 Printer object's "document-format-default" attribute.
105
106 Since this proposal only changes implementation guidance, not the spec
107 itself, I don't think it should break any existing implementations.
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109 -Carl
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112 --- In ipp@egroups.com, kugler@u... wrote:
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114 >

115 > At one time, I believe the Set 2 Ops proposal included an 'any'
116 out-of-band
117 > value. But I don't see it in the spec anymore. 'Anyway', I'd like to
118 > raise this issue again, since we have run into this problem again in
119 > product development.
120 >
121 > The key place where we need the 'any' out-of-band value is in
122 > "document-format-supported". Some IPP Printers are actually proxy
123 gateways
124 > to downstream print services of some kind. It's not always possible to
125 > know what document-formats are supported downstream. One example comes
126 > from the IPP model document itself: a Printer can represent a logical
127 > device such as "a gateway into an online document archive or repository".
128 > The archive or repository may "support" any document format. But there
129 is
130 > no way to indicate this in IPP.
131 >
132 > Lacking an 'any' value, the best solution (hack) we have come up with is
133 to
134 > respond with "document-format-supported" (if applicable) containing
135 > 'application/octet-stream' plus whatever "document-format" the client
136 might
137 > have supplied in the request. But this could be confusing to some
138 clients,
139 > and is in direct violation of the spec: "The values of all other Printer
140 > object attributes (including "document-format-supported") remain
141 invariant
142 > with respect to the client supplied document format..."
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144 > Could you discuss this in San Fran? I will try to make at least part of
145 > the telecon tomorrow.
146 >
147 > -Carl