



Notes of Meeting IPP-FAX Working Group PWG

October 24, 2001
San Antonio, Texas

Attendees:

Farrell, Lee	Canon
Hao, Janus	SerComm
Hastings, Tom	Xerox
Lewis, Harry	IBM
Pidduck, Patrick	PrinterOn
Pulera, John	Minolta
Rowley, Stuart	Kyocera
Songer, Gail	Peerless
Tronson, Ted	Novell
Uchino, Atsushi	Epson
Wagner, William	NetSilicon
Wang, Christy	SerComm
Whittle, Craig	Sharp
Wright, Don	Lexmark
Zehler, Peter	Xerox

Agenda

Tom Hastings and John Pulera, editors of the UIF and IFX documents, respectively, had proposed the following agenda.

1. UIF (Universal Image Format)
 - a. Review version 0.7 spec:
<ftp://ftp.pwg.org/pub/pwg/QUALDOCS/uif-spec-07.pdf>
 - b. Outstanding issues:
See John's two email messages on 10/18/01, 1:05 AM PDT
 - c. Adobe license to IEEE-ISTO
See Scott Foshee's email on 10/02/2001 10:52 PM PDT and attachments
2. IPPFAX Protocol spec
 - a. Review version 0.7 spec:
<ftp://ftp.pwg.org/pub/pwg/QUALDOCS/ifx-spec-07.doc>
 - b. Review changes and outstanding issues:
See Tom Hastings email message on 10/16/01, 10:21 PM PDT
3. IPP IPPGET Delivery Method
 - a. Review 10/17/01 version -05)
ftp://ftp.pwg.org/pub/pwg/ipp/new_NOT/ipp-notify-get-011017.pdf
 - b. See my email message 10/19/01 3:42 AM PDT

4. Review current schedule:

Mid-October, 2001	Specifications complete (next IPPFAX meeting)
April 2002	Bakeoff
July 2002	Revised specifications and possible implementers guide

5. IPPFAX Bake Off planning
 - a. Who can host?
 - b. Who can organize?
 - c. Who will participate?

UIF Discussion

John indicated that few substantive changes had been made to the document. Changes had included:

1. The TIFF FX profiles were aligned with the TIFF-FX extensions to be documented by the IETF IFAX working group in November. The applicable extensions start at number 20.

```
[Title           : Tag Image File Format Fax eXtended (TIFF-FX)
image/tiff-fx MIME Sub-type Registration
Author(s)       : L. McIntyre, G. Parsons, J. Rafferty
Filename        : draft-ietf fax-tiff-fx-reg-00.txt
Pages           : 7
Date            : 07-Nov-01
```

This document describes the registration of the MIME sub-type image/tiff-fx. The encodings are defined by File Format for Internet Fax [TIFF-FX] and its extensions.

<http://www.ietf.org/internet-drafts/draft-ietf-fax-tiff-fx-reg-00.txt>

2. The CONNEG sections were moved into the informational appendix. That is, the baseline is non- CONNEG. Printer needs baseline string but may use CONNEG to expose more features.

The most significant question on the UIF was related to the “Adobe” issue, where Adobe has maintained that the TIFF license granted to the IETF and ITU does not extend to the TIFF_FX variant. It was hoped that this issue would be resolved by the IETF meeting in December. If it is resolved, the IPP-FAX group will go ahead with UIF last call. The PWG will work with Adobe to secure the same TIFF license in effect with the IETF.

If the problem is not resolved between Adobe and the IETF within 2 months, the PWG must consider whether it proceeds with the objective of keeping IFAX format

compatibility, or if an IPP-FAX specific format is selected/defined. Candidates include PDFX (ISO std) as alternative.

Action Items

1. Gail and Tom will approach Adobe on Tiff License issues, including question of whether the standards group license applies to all implementers, or whether each implementing organization must get a separate license.
2. Harry Lewis will send PWG chairman response to Scott Froshee letter.

IFX Discussion

Tom Hastings observed that there were only 4 (minor) issues remaining in the document. The document changes reflected all 41 issues at the Toronto meeting and the subsequent IPP FAX telecons on August 11, 14, and 17. Tom had put the 4 issues and the changes into a separate document with the intent of reviewing them carefully at the San Antonio. (<ftp://ftp.pwg.org/pub/pwg/QUALDOCS/ifx-spec-07-issues-and-changes.pdf>). In addition, the several tables added to replace running text were to be checked. It was the intent to finish review and decide whether it is ready for IPP FAX WG Last Call. However, the review was not completed at the meeting. The changes will be documented in the new drafts. The following notes are on the discussions.

1. Supporting both IPP and IPPFAX protocols in a single implementation

A printing system supporting IPPFAX may also support the IPP protocol. There are two ways to define the handing of this situation:

Method 1 - Separate Printer objects: two distinct Printer objects (which each have their own URL Contexts by definition) with completely separate attributes, although some may have same value.

Method 2 - Shared Printer object: only one Printer object, in which case the values of certain attributes must be made dependent upon the URL Context (Attribute Coloring by URL).

If all attributes are shared, can use one printer object. Can use two URL's to one printer object for limiting access by URL. That is, all attributes supported are the same but ability to change may be limited to certain URLs. Allows ability to administer one object via distinct URLs.

If there are different attributes supported, then there must have two printer objects. If the IPP and IPP-FAX capabilities are to be managed separately, then one must use two separate objects. IPP/IPP-FAX have different objects, different semantics. No context coloring of attribute values is necessary.

There was an objection to the term “implementation” in the original statement of the issue. Print System was suggested as a substitute.

The decision was that a print system may contain multiple printer and fax objects but printer and fax objects must be separate. That is, method 1 was selected. There are several ramifications of this decision.

- IPP fallback to IPPFAX fallback is no longer possible.
- The printer-alternate-uri (uri) operation attribute is eliminated
- The separate ippfax-version-number and ippfax-versions-supported attributes are eliminated
- The Dependencies on Effective URL Context in tables 1, 2 and 8 are eliminated

Handling access to jobs in multiple object print systems.

An IPP-FAX object may include history from other objects in the GET-JOBS report.

Prevention of sending a IPP-FAX job to a non-compatible receiver

Sender must send GET Printer Attributes for at least IPP FAX. Sender must do validate job.

Drop last sentence of first paragraph in 3.1. IPP-FAX receiver must check that the uri in the payload has the IPP FAX scheme. If not, it is a bad request.

Relation between IPP and IPP FAX versions :

By the decision that IPP and IPP-FAX are handled by different objects, there is no need to include both IPP and IPP FAX version numbers. However, it is understood that IPPFAX 1.0 is based upon IPP 1.1. There was a discussion of slaving numbers (so that the IPP-FAX version based on IPP 1.1 is called IPP-FAX 1.1. However, this was considered impossible to maintain because a change in the IPP-FAX would then necessitate a definition of a new IPP version.

Fidelity Questions – Issue 1

Question of constraining document format. Tradeoff of flexibility versus guaranteed copy image and “Fax-like” behavior. The decision was to restrict this version of IPPFAX to TIFF document formats to ensure fidelity of received document. No sniffing!

Other Attribute Considerations – Issue 2

Copies? Are multiple copies proper? This is considered a sender function rather than receiver attribute. . Decision was to allow multiple copies to be supported and requested.

IPP-GET Job progress notification may be a problem in that you cannot get access to the channel until the data is sent.

Eliminate per job printer notification events

There was no general decision on the issue 2 suggestion to address attributes that may affect fidelity, operability or security by limiting values rather than by not allowing them to be changed.

Supported Operations - Table 11, 12

Should administration capability be a mandatory part of the protocol? Need to restrict printer notifications and information, yet provide for operator setting. Decision was that all operator access via this protocol is optional. There may be different mechanisms for supporting operator/administrator actions.

Basic guidelines:

- FAX by reference is disallowed (e.g., no Print-URI, Send-URI)
- Operator may hold jobs but may not destroy them (No Operator Cancel or Purge)
- A sender must do a Validate-Job to ensure that the job will not be rendered improperly

Issue 3 - Security Questions – Table 13-16

Can TLS be configured to operate in the clear, without a certificate?

Receiver needs certificate to accept data with integrity check.

Sender needs certificate as well as receiver for authentication.

TLS allows negotiation to NTLM or Kerberos

There was discussion of impact/cost of requiring certificates for all devices. This is affected by loss of IPP as fallback. Decision to allow client non-authenticated mode.

The discussion of security issues was not completed.

Schedule: Objective dates

Next Teleconferences:

Subject:	When	Duration
IPP GET	Friday, Nov 2, 10: PST	2 Hours
IPP FAX	Friday, Nov 9, 10 PST	2 Hours

Specs complete: start of last call after Jan/Feb meeting

Bakeoff: Tiff FX bakeoff in March?

Revised Specs: TBD