IPP FAX - Meeting Minutes

January 26, 2001
Ka'anapali Beach, Hawai'i

Attendees:

Ron Bergman	Hitachi Koki
Lee Farrell	Canon Info Systems
Satoshi Fujitani	Ricoh
Koichi "Hurry" Izuhara	Minolta
Harry Lewis	IBM
Toru Maeda	Canon
Paul Moore	Netreon
Jason Oliver	Kodak
John Pulera	Minolta
Stuart Rowley	Kyocera
Gail Songer	Netreon
Shigeru Ueda	Canon
Bill Wagner	NetSilicon
Don Wright	Lexmark
Peter Zehler	Xerox

Minutes:

TIFF-FX Support Specification (UIF):

A new MIME type "Application/UIF" must be registered. A formally approved RFC will be required if it is to be registered in the IETF space. It could also be registered in the vendor unique space faster and without an RFC. It was suggested that there could be a different perception if this was a vendor unique vs official IETF registration. It was agreed to make this a "PWG" vendor unique registration.

The TIFF-FX support section will be reworded to clarify the support of options.

CONNEG:

The use of CONNEG was discussed with some concern over it's complexity and potential of combinatorial explosion. Several alternatives to CONNEG were suggested.

Harry Lewis volunteered to investigate the capabilities of JDF (Job Description Format), which is a job ticket and job discovery protocol. JDF may offer some clues as to how avoid the complexities of CONNEG.

The use of IPP attributes with possibly a new operation was also discussed. Peter suggested that a "Test Attributes" operation may provide a reasonable approach. Peter Zehler will see if anyone in Xerox is willing to research this area.

An XML representation of CONNEG is another alternative. Paul Moore will study this approach.

CONNEG does have the requirement to return potential very large strings. We can either define a new data type "Big String" that allows for 64K of data to returned or define a new operation "Get CONNEG Data" that then expects a large amount of data to be returned. It was agreed to use "Big String".

Resolution:

Tom Hastings did not provide any input regarding the degradation of color at resolutions lower than 600 dpi. Raymond Lutz at the last meeting stated that color pictures could be at a much lower resolution than text to be comparable with 600 dpi text.

The spec must be clarified so that the 600 dpi resolution requirement does not apply to the actual output of the printer. The printer only needs to be able to accept and process a 600 dpi image. The actual output may be at a higher or lower resolution.

Profiles:

The TIFF-FX specification provides several profiles that define the minimal requirements of a device that states it meets that profile. The need for profiles was discussed in light of the ability for better negotiation capabilities. John Pulera volunteered to research what would have to change in the TIFF-FX to remove the profile requirements

Scaling:

Does the client need to know that an image larger than the drawing surface was scaled or truncated? The job status code and job state reasons could be used to provide this information. Paul will add further text to discuss the related potential problem if the pages in the TIFF file are not properly paginated.

IFX Protocol review:

How the user obtains the address of the printer is undefined. The protocol will not specify a discovery mechanism.

All new IFX elements will use the prefix "ippfax-". The alternatives "ifx-" or "fax-" was not determine to be sufficiently descriptive.

Per Tom Hastings comment, only one job (document set) can be sent per IFX session.

What does "successfully delivered" really mean? For example, this could be an enterprise "fax-to-email" system. A two stage process is anticipated. The first stage is confirmation of the receipt of the data and the second (optional) is the actual reading or printing of the document.

The sender can detect that an IPP printer is IFX capable by the retrieval of the "ippfax-receiver" attribute. Gail questioned if the IFX version number would be desirable to also be returned. (agreed!)

vCard is specified to be used for identity of the sender and user. Tom commented that these identities be changed to a "MUST" requirement in the specification, rather than a "SHOULD". It was agreed that this would be difficult form some implementations and would not provide sufficient adequate value. It was also agreed that "SHOULD" is fairly strong requirement as is.

The spec requires that every device has a unique number, but does not define how the number is generated. It was suggested that the MAC address be used. There was then significant discussion including software applications, LAA (locally administered addresses), and other situations. It was finally agreed to change the specification to require that the address "MUST uniquely identify the device."

It was recommended that the requirement to use the "ipp" scheme include a reference to the new IPP Scheme Specification.

"Job description" attributes will be removed and replace with "operation" attributes in section 5.2, per a comment from Tom. Other sections have this same problem and will be corrected.

For notifications, Tom has recommended polling the attributes rather than using the "ippget" method. The consensus was that the notification method was developed to prevent polling. It was also pointed out that the notification mechanism was determined to be a key feature for IFX. Further comments voiced that "ippget" could possibly require some additional changes after it is incorporated into real implementations.

Harry Lewis commented that the ability of an IFX user to subscribe to notifications may allow a user access to too much data from the printer. Paul Moore pointed out that the purpose of IFX is provide public access to an IPP printer. IFX can limit the notification subscription access and only allow a subscription with the submission of the job.

The date and time must be included as a part of the identity stamp and will be added to the document.

Which end should send the identity stamp? In legacy fax, this information is provided by the sender within the image. IFX is proposing that the receiver must include the identity stamp. It was agreed that this will be changed to "the sender MUST provide the identity stamp."

It was suggested that the sender always transmit a cover page and this page will have the identity stamp included by the receiver. Or we could require every page is to include an identity stamp. The final agreement was to remove the requirement that the receiver provide a cover page.

Will change "ifx-return-address" to "ifx-return-uri" per Tom's comment.

The requirement that a send/receive device have the same identity for both channels will be removed. There appears to be no significant advantage for this requirement. Paragraph 5.6 will be changed "Combined Devices" to "Return Address".

For job information, the specification will restrict the information available to an IFX client. This requirement does not apply to administrators or other non-authorized users. The text regarding this subject will be revised by Paul.

It was suggested that two levels of security could be provided. The higher security level would use digital certificates and would have a legal standing significantly above that of legacy fax. The digital certificate could be associated with either the device or the user sending the device. It was proposed that the IFX receiver must only accept jobs using TLS and a digital certificate.

The terms used in the specification for On-Ramps and Off-Ramps were determined to be reversed and will be revised in the document. Bill Wagner proposed that the discussion of On/Off-Ramps should be ignored completely. Paul commented that the proposal is simply defining two attribute slots to support Ramps and their exact contents can be further defined. It was agreed to not remove this section.

It was proposed and agreed that the vCard parameter should be the BigString data type.

The ifx-sender-identity and ifx-receiver-identity will be defined to be human readable strings.

The ifx-receiver attribute will be changed from a Boolean to an integer to present the version number.

Next Meeting:

The next meeting will be March 6 (Tuesday), at the Tampa Marriott Westshore (Tampa, Florida).

 Paul will have new documents with the agreed changes from the January meeting.