IPP Fax Project

IPP Fax transport requirements

Revision	Date	Author	Notes
1	10/16/00	Paul Moore, Peerless Systems Networking	Initial version

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This document captures the requirements for the transport component of IPP Fax. This document assumes that the reader is familiar with IPP 1.1.

Glossary

Sender – A piece of hardware and / or software that sends IPP fax documents to an IPP Fax receiver

Receiver – A piece of hardware and / or software that receives IPP Fax traffic.

Sending user – The human that initiates the transmission of an IPP Fax

Receiving user – The intended human recipient of an IPP Fax

Public access

The fundamental extension that needs to be made to IPP 1.1 is that there needs to be strictly defined behavior for anonymously accessed printers. This is a fundamental characteristic of PSTN fax that IPP does not provide. An administrator of a IPP Fax receiver needs to be able to make it publicly available on the Internet (or an intranet) but also needs to be informed of the identity of the sending user and equipment.

The typical IPP Fax machine will therefore be setup to not allow anonymous access via 'plain' IPP but will permit IPP Fax use. The printer might also be set up to allow regular secure IPP access.

Basic requirements met by IPP 1.1

- Synchronous and timely delivery
- Carried on the Internet or in-house
- Can be secure – both encryption and authentication are supported

Basic rules

- A receiver is specified by an ipp: URL.
- Any form of data security supported by IPP 1.1 may be used

IPP extensions

- A sender can identify a job as being an IPP Fax Job. The intention being that the receiver can then engage the extended rules of IPP Fax.
- A sender can discover whether or not a given receiver supports IPP Fax. *Need to define exactly what this means – what features are allowed if IPP Fax is not supported?*
- Anonymous access is allowed if the sender identifies a job as an IPP Fax job.
- A sender may indicate a return URI

Identity exchange

- Senders and receiver have a unique name- their ‘identity’. This should typically be derived from the hardware of the device (MAC address, UPN + serial number, etc.)
- A sender must be able to discover the receiver’s identity
- The receiver must be able to discover the identity of the sender.
- Sending and receiving users have structured descriptions – their identity. This data is machine-readable. It contains name, email, mail, phone, etc.
- The receiver must be able to discover the sending user’s identity
- The sender should specify the receiving users identify.

IPP restrictions

- An IPP Fax receiver should not allow anonymous users to access job information
- An IP Fax receiver should not allow an anonymous user to cancel or modify jobs.

Notifications

- An IPP Fax receiver must support ippget notifications

Gateways

- A sender must be able to specify an ultimate destination for a document if the receiver is not the intended final destination (forwarding address)
- A sender must be able to discover what types of forwarding addresses a receiver supports.

Logging

- A sender must log its IPP fax transactions
- A receiver must log its IPP Fax transactions
- A receiver must mark the sender identity on at least the first page of an IPP Fax document

Document format

- A receiver must support UIF. It may support other document formats