

# TELECOMMUNICATIONS®

Service Provider Technologies and Applications

July 1999

Data+Image+Voice+Networks

## FAX over IP: New Revenue Source for ISPs

ISPs must be able to retain current users, leverage their current equipment setup and deliver mission-critical services for which subscribers are willing and able to pay. Fax over IP (FoIP) is a value-added service that IFSPs are positioned to deliver. They have the phone lines, the equipment and the Internet access. They also have the business customers for whom fax is a necessity and a significant part of their business communications strategy. IFSPs are perfectly situated to deliver this service today.

Making FoIP a service that business customers will want to deploy requires an understanding of customer needs. The following issues factor highly into most organizations' decision processes:

- *Simplifying workflow.* The solution must emphasize that FoIP will embrace a business-as-usual attitude. Seamless integration into the company's e-mail systems, existing back-office servers, client desktops and other mission-critical, business-specific applications is necessary. Application programming interfaces (APIs) may be required to make this work.
- *Local control.* Business customers are used to managing the costs and administration of their general communications infrastructures. Outsourcing some aspects of their communications strategy is likely to be welcome, but system control must always lie in business's hands.
- *Access to savings.* Since features like simplifying workflow and maintaining local control are already available from traditional LAN fax servers, a successful FoIP solution must offer real cost savings

in long-distance fax and in the outsourcing of hardware and telco resources.

Whatever IFSPs offer in the way of FoIP services needs to fit tightly into the general business applications that are in use at their prospective business customer's establishment. Convergence of messaging has taken the information technology world by storm. Users are demanding a single interface for the reception (and even transmission) of email, voice and fax messages. Video messaging may soon be added to that list. The most logical place for this to happen is in e-mail-messaging centers - what is often referred to as unified messaging. By letting users send and receive faxes

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from their existing e-mail client software, the amount of training and extra software implementation to desktops is minimized. In some cases it may only mean adding a "Fax To" button to the email client software. The key for Internet fax service providers (IFSPs) is to ensure that their users will benefit from the convergence by delivering a variety of truly integrated business solutions. This may include the ability to fax from a variety of applications as well as from e-mail. Ease of use and ease of installation/implementation are also important.

### A Truly Global Fax Network

The criterion by which any new FoIP solution will be judged, at least initially, will be its ability to deliver faxes any-where in the world at the lowest possible cost. It is a given that the solution must offer discounts relative to the local telco's rates. However, few (if any) IFSPs can cover every fax destination inexpensively.

But give IfSPs the ability to join a network that includes the nodes of other IfSPs, allowing them to "peer" with one another, and a truly global offering is possible. Such a virtual network enables the ISP to join an inter-ISP world-wide network of IfSPs. This means that no single ISP has to set up points of presence (POPs) everywhere to be a global service provider. IfSP members will be assured that their subscribers will be able to use any node available world wide and always have access to the least-cost route every time they send a fax. Providers use each other's nodes as on-ramps

and off-ramps, so that individual IfSPs benefit by creating revenue on outbound faxes initiated by other service providers.

When an ISP acts as an on-ramp, it provides an invaluable service to customers. Plus, a large variety of on-ramps ensures traffic through the ISP's site. A wide variety of on-ramp software solutions are available. Each solution integrates neatly into the customer's work-flow and gives the provider the ability to capture the fax traffic of the heaviest fax users. Currently available on-ramp software solutions include:

- Java Client
- MS Exchange/Outlook
- Lotus Notes/Domino
- SMTP/POP3 Mail
- Windows NT
- Personal Edition
- Thin client/Server Computing
- API
- Standalone fax machines

Each node that the service provider deploys also becomes a revenue engine for outbound faxing. Not only does the IfSP benefit from the faxes that its customers submit, but it also profits by being the off-ramp for faxes submitted by other IfSPs anywhere in the global network. By publishing the rates at which they wish to be compensated for outbound long-distance and/or local faxes, service providers can turn idle modems into revenue producing assets. In the end, the savings from using the Internet for fax transmissions are passed on to the consumer.

For a global FoIP network or Virtual Fax Network (VFN) to work successfully, four foundation blocks must be in place:

- *Least cost routing (LCR)*. The system must find the most cost-effective POP to send a fax from and also add the ability to balance the least cost with the subscriber's choices, such as "Send by" deadlines and other priorities.
- *Cost tracking and billing*. The

system must be able to account for actual costs as well as the value-add that is entered into the end-customer's billing system.

- *Inter-IfSP billing and account reconciliation*. The system must be designed to allow multiple IfSPs to send each other faxes to transmit. Billing can be based on posted rates in the LCR system. Reconciliation can be based on the accurate tracking, monitoring and accounting of each transmission for each account and can be totally managed by a third party.

- *Currency conversion and stabilization*. IfSPs, and even specific POPs in a particular IfSP, must be able to post rates in their own currencies. This allows a POP to know its exact faxing cost from any point in the system.

### From ISP to IfSP

Being part of a VFN enables any size ISP to immediately become a global IfSP simply by listing its rates. Even a large IfSP can benefit by leveraging POPs in alternative areas that may be considered less strategic for a national IfSP yet an important presence for a smaller, local MP. Each has an important role to play and can generate revenues from the other. Corporate customers benefit thanks to the cost savings and solutions-based

services.

By leveraging existing infrastructure, IFSPs can quickly and painlessly turn much of their existing remote access hardware into devices that offer valuable revenue-producing services. Open systems-based FoIP software and dial-up modems that many IFSPs have available for dial-in remote access connections can also be used for outbound faxing. As fax becomes a more important part of the IfSP's revenue makeup, additional hardware can be added. For high volume faxing, intelligent fax devices may also be considered.

By participating in a global fax network, an ISP can benefit from a new revenue stream and provide a valuable, cost-saving service to customers. The service can also act as a chum buster by enhancing customer loyalty through assigned inbound fax numbers held by each account or user.

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