New fax of life: Internet-based machines bridge paper and bits
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(04-19) 14:37 PDT SAN JOSE, Calif. (AP) --

At Boeing Co., workers no longer spend hours hovering over a fax machine. Instead, the aerospace giant uses the Internet to send 18,000 faxes and receive 15,000 each month via e-mail.

A new crop of sophisticated, networked fax products is gaining ground as corporate technology managers begin to appreciate the convenience and savings.

Internet faxing can involve a fax machine hooked to the Internet, a PC with a fax modem or an Internet connection or, in Boeing's case, a fax service that uses computer servers to do all the heavy lifting and give users remote access to faxing via the Web.

The most compelling feature of the new breed of Internet-ready fax machines is their ability to send or receive faxes as e-mail attachments, catering to the world's deepening shift to digital documents created and stored on computers.

Using the Internet rather than traditional voice telecommunications lines, a single fax can reach any number of people anywhere in the world faster and more cheaply. A fax sent from an Internet-enabled machine can eliminate completely the need -- and cost -- of a long-distance phone call.

"We are a global company with offices in 60 countries. Our work force is increasingly mobile, and we need abilities to support that global, mobile work force," said Bev Clark, a Boeing spokeswoman.

Boeing first tried Internet faxing last year and liked it.

The change was part of Boeing's larger goal of being able to access and manage, within five years, all business communications, including e-mail, voice mail and faxes, from a unified messaging system.

The venerable facsimile machine -- first used by the government in the 1930s -- scans the image of a document and sends it using an analog telephone connection from point A to point B.

With faxing over the Internet, the image is transformed into a digital file that can be processed by a computer or an Internet-enabled fax machine.

Fax traffic peaked in 2000 and is now on the decline as e-mail becomes a more prevalent form of document exchange and communication, analysts say.

Fax machine makers are responding: Market consulting firm CAP Ventures Inc. predicts that in 2005, more than 60 percent of all 200-page-plus-capacity office fax machines sold will be Internet-enabled, up from less than 5 percent in 2001.

"E-mail will continue to increase, and telephone fax transmissions will continue to decrease, and this is the great bridging product that combines the phone and e-mail lines," said Paul Wharton, a Panasonic marketing manager.
Internet fax machines, such as Panasonic’s newest Panafax DX-800, can receive image files via a phone line while also sending them over a network connection. Scanned paper documents can be sent to e-mail addresses over the Internet. Users can program e-mail addresses into the “autodial” list of machines.

In most cases, if the sender of a fax -- whether it's a hard copy from a fax machine or a digital file from a computer desktop -- is transmitting to an old-fashioned analog fax machine, they must still address it correctly to a fax phone number.

Some higher-end machines never even print out a fax, converting all documents to digital files instead. Time-consuming manual deliveries of faxes are thus replaced by electronic delivery over corporate networks.

All Internet fax machines also handle traditional faxing.

Panasonic, the leading provider of Internet fax machines, plans to expand its I-fax line from two to nine models -- or half of its fax product line -- this year.

Still, analysts don't see paper facsimiles becoming extinct.

Many people still rely heavily on paper records -- from warehouse purchase orders to local police reports -- and many companies remain concerned about the legality of digital documents.

A contract that is signed and faxed is considered legally binding. But if the document is e-mailed, it requires an authentic digital signature, a technology analysts say has yet to pass muster in the courts.

Though the 750 attorneys at San Francisco-based Brobeck, Phleger & Harrison LLP are big e-mail users, critical documents still wind through the law firm’s central fax processing center at the rate of up to 1,000 faxes a day.

Jonathan Wong, Brobeck’s chief information officer, nevertheless predicts his and other big law firms will try Internet faxing within a year.

Internet fax providers are adding security measures such as the encrypted passwords enabled by Panasonic’s newest machine for e-mail faxes.

Fax technology consultant Maury Kauffman has this take on the fax evolution:

"In the long run, regardless of how much outbound faxing we do, all of our faxes will come in our e-mail box."