Small Telephone Network With Peer-to-Peer

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Siemens has developed a telephone system that doesn't require a switchboard. The HiPath BizIP telephones are directly connected to one another and communicate much like participants in an Internet file-sharing service (peer-to-peer, P2P), where computers exchange data without detours through a central server. Designed for up to 16 telephones, the solution is intended primarily for small companies and will make costly installations and maintenance work on telephone systems a thing of the past.

The developers at Siemens shifted the switchboard function to the telephones themselves. Users simply connect BizIP-410 model phones to an existing network. The phones recognize one another via the integrated peer-to-peer protocols and automatically configure themselves. New telephones connected to the network will send an electronic notice to the

other phones.

Finally, each telephone receives the next free internal telephone numbers. The configuration data is stored on the telephones. The P2P protocol requires only 400 kilobytes of memory. If one telephone fails, the data that was stored on it is provided by other phones, which makes the system very reliable.

The telephones offer the usual functions, including three-line conferencing, call forwarding and call hold. Users can also place calls with voice-over-IP. An Access Device from Siemens connects the existing company network with the Internet, making it possible to download updates onto the individual phones. This small box called BizIP AD 20 provides an Ethernet connection for broadband Internet access.

In addition to a VoIP-compatible router that gives all phones access to a VoIP provider, the BizIP Access Device also features two ISDN ports, allowing users to place and receive calls via a conventional fixed-line network. Analog devices also can be hooked up to the system: Two ports are available for connecting a fax machine or a door intercom.

At the CeBIT 2006, HiPath BizIP earned Siemens the "Best of CeBIT Award" presented by the trade magazine TeleTalk.