

MAKING THE CASE FOR IP PBX SYSTEMS

The small-to-medium business communications market is changing considerably because of major ongoing development in core networking technology. Voice communications have been migrating from time-based to packet-based switching. An IP PBX is likely to be the standard design platform of the future for enterprise communications systems. The benefits to customers who select an IP PBX exceed the drawbacks.

Performance Value of an IP PBX:

Converged network

Packet-switched LANs today carry telephone-generated voice communications in addition to computer system data traffic. From the perspective of a data communications network designer, the telephone is viewed as just another client, and voice features and functions are just other applications supported by a LAN-based server. LAN bandwidth capacity continues to increase. This means more point-to-point video communications traffic will be carried between desktops, and there is a decreasing dependence on larger, more expensive, room-based videoconferencing systems.

University of the transport protocol

Internet Protocol (IP) control and transmission is the standard for data communications networks. The concept of a LAN and WAN is a fact of network operation across all industry sectors. The client-server communication model is a dominant mechanism. For a customer searching for an IP PBX system solution, the current data networking infrastructure is favorable.



Hybrid PBX & VoIP Gateway

Network bandwidth

Now that IP has become the transport mechanism to carry both voice and data, using the same communications network for both traffic types reduces overall bandwidth requirements. The two traffic streams could be interleaved, and QoS levels can be engineered and programmed to satisfy real-time voice communications requirements. As customers migrate from circuit-switched to packet-switched communications, there will be cost savings and increased network efficiency from economies of scale. Cost savings are attributed to off-premises communications because PSTN trunk carrier facility requirements are reduced with the introduction of IP.

Simplified management

The primary elements on an IP PBX, IP phones and call servers, are indistinguishable to a data network management system. All voice system management is performed from the data network management workstation. A single management system costs less to operate and is more easily administered than separate phone systems for voice and data communications.

Rapid deployment

An IP PBX lends itself well to rapid deployment of new technology because there are fewer hardware elements in the system architecture than a traditional PBX. It is far easier to implement a technology upgrade for an IP PBX because there are hardly any proprietary switching elements.

Distributed network design

The client-server scheme of an IP PBX defines a distributed network design. A single telephony call server can support premises and off-premises IP stations. Premises stations can be distributed across a campus. Multiple server designs can be programmed to support redundant emergency call processing. Servers can be colocated or distributed. LAN and WAN concepts alleviate the prospects of a single point of failure.

Highly scalable

IP PBX client-server design is highly scalable because IP telephones are easily added to the system using an Ethernet medium. Port capacity can be expanded through the addition of servers. A customer can continually add switches and routers to the LAN and WAN infrastructure resulting in virtually boundless switching and transport limits.