

NATIVE VOIP

Alcatel **OmniPCX Office**

> Your company can avoid costly voice calls between their various sites in the world by sending voice over your existing worldwide data connections. You can benefit from new Service Provider offers using public IP trunking. You can simplify your in-site cabling infrastructure by connecting telephones to the same cable as PCs. And you can deliver a consistent level of voice features whatever the location or the user - headquarters, branch offices, home workers or mobile workers - by incorporating a voice server on your data network.

Native VoIP

Alcatel **OmniPCX Office** is a server. More precisely, it is an appliance server, meaning that the software is preloaded, therefore allowing easy installation and maintenance as well as unmatched reliability.

Alcatel **OmniPCX Office** offers native feature-rich IP call management either for internal calls, private network calls or public calls.

Lower Costs

With Alcatel **OmniPCX Office**, your company can reduce long-distance charges for internal-company calls by integrating voice into your WAN data network or by subscribing to voice-data convergence offers from service Providers

Extend your reach

assuming a managed data link between sites (leased lines, IPVPN, ...etc)

- Benefit of remote IP Phones with full feature transparency wherever they are located.
- Benefit for a node connected thru a SIP interface with a high level of features in your private network.
- Benefit for mobile workers or home workers who are connected to your company thru the Internet, whether associated or not to a set (nomadic) of call server telecommunications features.

IP ON THE NETWORK SIDE

OmniPCX Office offers SIP and H323 compliance to build a private IP network or to be connected to a service provider's IP offer.

- Offering IP trunking for up to 96 IP trunks.
- Offering a large number of telecommunications features

- DTMF transparency
- T38 capabilities
- H323: V2, V4 supported
- SIP: complies with RFC 3261, RFC 2327, RFC 2833, RFC 2617
- QoS level 2: 802.1 p/q
- QoS level 3: TOS and DiffServ
- Congestion control: **OmniPCX Office** uses a Random Early Detection mechanism (RED) on the Lower Priority queue to inform packet sources to decrease their transmission rate.
- VoIP shares bandwidth with **OmniPCX Office** Internet applications (e-mail, VPN, etc.).

Interoperability

Alcatel **OmniPCX Office** can operate with any product that complies with H323 V4.

Network architecture

A private network could be fully meshed taking advantage of the 3000 routing tables or in star architecture including an H323 gatekeeper or a SIP proxy.

Overflow, Backup and Optimization

Whatever the connection method, Alcatel **OmniPCX Office** provides overflow and backup mechanisms through ISDN, as well as IP trunking optimization.

- Overflow: when VoIP calls exceed a given limit.
- Backup to IP direction or ISDN in case of IP link failure.
- Backup to redundant gateway (if any).
- Optimization: thanks to H450-based mechanisms, IP resources and number of compressions/decompressions are optimized, as a result QoS is improved for transfer and forwarding within the WAN.

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IP ON THE SETS SIDE

OmniPCX Office offers feature-rich call management for up to 200 IP users.

Fixed phones: Alcatel 8 Series sets

- Offering a high level of telecommunications services (e.g. dial by name, text messaging multiline, supervisor, secretary, etc.)
- Color display
- 2 port Ethernet switch (10/100BT)
- G711, G723.1 and G729a voice compression
- Voice Activity Detection (VAD) and Comfort noise generation
- Level 2 QoS: 802.1 p/q
- Level 3 QoS: TOS and Diffserv.

Mobile phones

Mobile IP Touch 300 and 600

Soft Phone: IP PIMphony

Alcatel's PIMphony is a client server software package providing user-friendly access to **OmniPCX Office** telecommunications features from a PC (refer to PIMphony for the Alcatel **OmniPCX Office** datasheet). It includes:

- VoIP protocol stacks, G711 and G723.1 voice compression
- PIMphony client software to load onto PCs
- CTI server software embedded in **OmniPCX Office**
- 3 feature levels: Basic, Pro or Team
- Level 3 tagging and prioritization
- handsets or headsets are available for increased comfort.



H323 Devices

OmniPCX Office supports standard H323 (V2,V4) devices such as PCs with Microsoft NetMeeting.

FoIP (Fax over IP)

OmniPCX Office supports the T38 protocol that allows fax calls to be routed over the IP network, as well as interoperability with other T38 devices.

Easy IP Phone Modification

With the Alcatel **OmniPCX Office** DHCP server, an IP phone can be moved or added in seconds.

NETWORK ACCESS METHODOLOGIES

VoIP benefits from the **OmniPCX** WAN

- VoIP shares bandwidth with **OmniPCX Office** Internet applications (e-mail, VPN, etc.).

Direct WAN Access via a Router

IP phones can access the WAN via a router directly connected to the LAN.

- Policing, queuing, shaping and congestion control are managed directly by the router.

WAN Access through Alcatel OmniPCX Office

VoIP benefits from the **OmniPCX** WAN QOS mechanism.

- Policing: Based on TOS/Diffserv header, **OmniPCX Office** puts Voiceover IP in its high priority queue.
- Queuing/Shaping: **OmniPCX Office** manages 2 queues in a buffer memory - a High Priority queue and a Lower Priority queue.
- Congestion control: **OmniPCX Office** use a Random Early Detection mechanism (RED) on the Lower Priority queue to inform packet sources to decrease their transmission rate.
- VoIP shares bandwidth with **OmniPCX Office** Internet applications (e-mail, VPN, etc.).