Alcatel **OmniPCX 4400**

ALCATEL

THE VISION

What if

What if a communication system could enhance the life of every person in your organization, every hour that they're at work?

What if a communication system could improve your ability to support your customers, and in turn make your organization grow?

What if a communication system could link your computers and telephones, offering you the mobility and access you want, with the reliability and simplicity you need?

What if a communication system could combine the applications and power of your computer network, the flexibility and ease of use of email and the web, and the reliability and quality of your telephone?

One system can.

It's called the Alcatel OmniPCX 4400 – the most powerful voice communications system in the world.

It's the enterprise communications network of the future, because it's built the way all systems will eventually have to be built to deliver the next ten years of voice communications.

And Alcatel can deliver it to you today.

Alcatel's Alcatel's OmniPCX 4400 makes voice communications simpler and more powerful for every person in your organization. With the Alcatel OmniPCX 4400…

… you can sit down at your desk every morning, turn on your PC, and look over a single list of all your email and voicemail messages – already sorted and prioritized.

… your phone has an integrated keyboard that lets you dial by name. Better yet, you can dial directly from a personal phone book on your PC – complete with individualized greetings, and a screen pop-up that identifies callers when your phone rings.

… people can reach you, anytime, anywhere – at your office, at a remote location – by dialing a single number.

… you can easily receive voicemail, email, and faxes at your desk or on your laptop, with a single connection across the Internet.

… the voice system can read email messages and fax headlines to you, wherever you are – even on your cell phone.

… your PBX interworks with other servers in your information system to send pictures and data directly to the contact center agent who's handling each customer making customer service and telemarketing more effective.

… your customers can communicate with you using whatever media works best for them -- the Web, the phone, fax, or email. And the Alcatel OmniPCX 4400 seamlessly integrates all of them.

… your teleworkers have exactly the same access from home – to both data and voice – that they'd have if they were sitting at their desk. On a single dial connection.

… you can save money by sending voice almost toll-free across an IP VPN, but still be guaranteed of toll quality voice when the Internet has problems.

The Alcatel OmniPCX 4400 does all this, managed from a single point of control, which is in turn linked and synchronized with all of your databases and directories.

The Alcatel OmniPCX 4400 does all this, and it's easy to install and use.

The Alcatel OmniPCX 4400 does all this, and it works over any network – on campus, over Gigabit Ethernet or ATM; across the wide area, over an IP VPN, ISDN, ATM, frame relay, traditional digital circuits, and traditional analog circuits. It can easily handle a campus with tens of thousands of users. It can easily handle a network with hundreds of locations.

And Alcatel's OmniPCX 4400 couples tightly with Alcatel's network switches and policy routers. You get the total technology you need to shift into IP telephony, including QoS monitoring, and prioritization for voice traffic. You can set up a virtual private voice/data network that gives you the features you need, with the security you want.

The Alcatel OmniPCX 4400 does all this, and it provides a strong return on investment. Its advanced contact center capabilities make both customer service and telesales more effective, helping retain existing customers and recruit new ones. It replaces the complexity of two wiring systems for voice and data with a single integrated system.

And it makes management of the entire network simpler in dozens of ways, using standards-based network management tools, directories such as LDAP, and networking protocols. The entire network – both voice and data – can be managed from a single workstation, using a Web or Windows interface. Alarms from both voice and data can be monitored for the entire network.

The heart of the Alcatel OmniPCX 4400 is a distributed client/server architecture, running on an IP core and based on open standards - the perfect model for the network of tomorrow.

The Alcatel OmniPCX 4400 empowers people every time they pick up a phone.

Then and now

Remember the Internet eight years ago? Theoretically you could communicate in all sorts of ways, but for most people that really wasn't possible. Why? Because we had to know a lot of mysterious commands and codes that most of us just couldn't remember.

The situation is exactly the same today with PBXs. Theoretically you can do all sorts of things. But the reality is that most people learn, at most, a half dozen commands. The Alcatel OmniPCX 4400 changes that. With soft keys on phones, with integrated PC applications, with customized toolbars for different kinds of workers, with voice guidance for traditional and cellular phones, Alcatel has made the power that's inherent in digital phone systems available to every user.

Evolution

The time has come for your PBX – one of the key components of your enterprise information system – to move from its traditionally centralized, proprietary architecture to a client/server model using open operating systems, public protocols, and industry-standard server platforms. It's a better way to deliver the information integration you need today.

Your data network must grow and change as opportunities and challenges come up, and your data applications will grow and change as well. Information systems that can't easily morph and grow quickly become a problem instead of a tool.

It's exactly the same with voice because voice and data are now integral parts of the same system. Your voice network and your voice applications must change too. A system that can do that needs a powerful, current, open architecture.

This natural successor to the PBX is the private communication exchange (PCX). The Alcatel OmniPCX 4400 is the first system of its kind that's a true PCX:

- UNIX-based client/server architecture
- distributed and scalable hardware and software
- embedded mobility

- transparent network connectivity options
- IP in the core design
- flexible connectivity options (IP, FR, ATM, and ISDN)
- standard computer/telephony integration
- complete, intuitive voice services

One more thing. An advanced architecture is not by itself sufficient. A PCX must do everything that a traditional PBX does and it must do it very well. There is no way to shortcut years of experience in meeting customer needs. Voice managers know that they've always needed a powerful toolkit to do their jobs. The Alcatel OmniPCX 4400 provides this.

The Alcatel OmniPCX 4400 enhances the life of every person in your organization every hour they are at work.

TRANSPARENT
CONVERGENCE

Alcatel Alcatel has an implementation program for your enterprise communication system that will allow you to build – at your own pace – a cost-effective and easy-to-manage network. A network that will give your people easy-to-use, powerful communication tools (workplace). A network that supports your users anytime, anywhere (mobility). A network that will accelerate your sales through powerful new customer interaction centers (applications). A network that reduces transmission costs and still guarantees toll-quality voice (networking). A network that is always running, and is easily managed (network services). It's called Transparent Convergence.

Transparent Convergence is Alcatel's philosophy of change. It requires that the integration of voice and data empower new applications, simplify network management, and makes the telephone/PC combination an extension of the person. It requires that all of this happens with no reduction in quality or availability. And the transition to these capabilities must occur transparently, seamlessly, and without requiring users to learn complex codes and commands.

It's easy to transparently converge voice and data at the packet level. There are dozens of companies offering packetized voice today. It takes a lot more effort – and the expertise of one of the world's largest companies -- to converge at the application level. But that's exactly where the real benefits of convergence lie.

The building blocks

Transparent Convergence revolves around five building blocks addressing both user and enterprise perspectives:

The Electronic Workplace – A multimedia toolkit based on the PC, the telephone, and a set of communication applications, giving each user power combined with ease of use.

Mobility – Wireless systems for total on-site and off-site flexibility, providing full access to information for people on the move.

Applications – Handling all types of traffic (voice, data, fax, and video) and offering customers interactive, multimedia access to the enterprise.

Networking – Based on IP and other data technologies, enabling the coexistence of many types of applications – web-based information systems, telephony, data transmission, and many others.

Network Services – To optimize operational costs and provide consolidated network management, security, quality of service, and guaranteed bandwidth.

The building blocks

Workplace

The electronic workplace

The Alcatel Reflexes™ phones offer a rich set of features that simplify and empower communications. They have an intuitive user interface that guides the user through each feature.

The Reflexes™ – a complete range of analog and digital handsets – streamline communications. For example, managers can define a selected list of callers who can reach them directly without going through an assistant. And it works the other way around too: they can specify that calls from selected outside phone numbers be sent automatically to their assistant. An assistant and a manager can code small text messages to be sent to each other directly on the telephone's display, even during a phone call. In fact, the Alcatel OmniPCX 4400 offers more than 500 features designed to streamline information flow.

With the Alcatel OmniPCX 4400 you can dial people (inside or outside the organization) by name using a QWERTY keyboard that's built right into the phone. Instead of having to dig through a phone list to find someone's number and then keying the number into the phone, you simply type the person's name until the system recognizes it, just as you do with email. This dial-by-name feature, combined with access to a central directory, makes phone dialing rapid and error-free.

The Advanced Reflexes™ include a set of soft keys, each with its own LCD display, which can be customized to the needs of the organization. Their use and labels change dynamically supporting whatever PBX capability you're using at the moment covering a wide range of functions. As a result, the features of the PBX are available to every user in a way that's never been possible before. And the soft keys make it easy for system managers to introduce new features with little or no user training.

You can access all PCX features from any telephone. On basic handsets, automatic voice guidance replaces the soft keys to support every important function – not just for voicemail as on other systems.

The Reflexes™ also pioneer new flexibility and openness with the unique

Plugware concept. Plugware is a system connector that sits between the wall plug and the telephone. With Alcatel's Plugware, the telephone set and the PC function together as an integrated personal communication assistant, combining the PC's ease of use of with the powerful voice capabilities of the telephone. And Plugware can transform existing Reflexes™ into best-of breed IP phones.

Advanced PC telephony

Alcatel's OmniPCX 4400 integrates your telephone with your PC environment quickly and easily without compromising reliability. Through a graphical user interface Alcatel gives the PC user full access to advanced telephony features, such as multi-party communication, manager/assistant team, and group telephony. It interoperates seamlessly with other business applications including Lotus Notes, NetMeeting, Outlook, and the Microsoft Office family of applications. It allows direct calls, screen pop-up, synchronization of personal directories, and much more.

Alcatel's OmniPCX 4400 can also make PCs function as telephones, using unique add-on handsets that provide the level of voice quality you've come to expect in the workplace. In fact, we provide a complete range of these add-on handsets, for every user need. PC telephony users need real telephony, not a cheap microphone from the local electronics store.

Complete access to the Alcatel OmniPCX 4400 feature set is available from any Windows or NT PC on the campus or at a remote site.

The Alcatel OmniPCX 4400 integrates directly with office applications using LDAP, MAPI, TAPI, and OLE. You can use your own PC-based directory in programs like Lotus Notes, Excel, Outlook, ACT, and many others, to dial users. And the Alcatel OmniPCX 4400 will automatically search multiple directories (for example, first a personal directory in your PC, then a division directory, then an enterprise directory).

You can see – on your PC – who is calling you, who has called you, and a broad range of other information. You get a special groupware toolbar that lets you see who is connected in a conference call; even if someone is at their desk, using their PC! You can automatically see photos of the people you want to speak to, if the meeting you've scheduled is posted on their groupware calendar, and if they're available now. It's as easy to set up lists of people to receive voice messages as it is to set up an email list.

And this integration with the desktop extends to operators as well as users. The Alcatel OmniPCX 4400 operator uses a graphical PC-based application, as well as a multimedia keyboard; either or both provide complete control of the system. Unlike PC-based systems full control would still be available even if the operator's PC were to stop working.

Workplace

The Alcatel 4980 is a new generation of communication tools that integrates voice and other business applications.

The Alcatel 4980 offers many unique features such as advanced telephony, groupware tools, voice and fax messaging.

Mobility

New tools for changing work patterns

Check your email from a hotel room. Take an important call while away from your desk. Browse the Internet while waiting for your flight. The mobile office is an important part of today's work environment.

Fast decision making helps keep your organization ahead of the pack. People make work decisions on the road and while working at home. They need the same communication facilities they would have in the office.

Alcatel has tailored its solutions to the different profiles of mobility patterns in an enterprise:

• somewhere on the organization's premises
• at another of the organization's sites
• on the road
• at home

As a result, Alcatel can offer complete mobility solutions drawing on a full range of technologies – on-site wireless phones, off-site cellular phones, PCs, modems, DSL, and others.

On-premise mobility

Does your staff move around a lot? Eighty percent of your employees will need mobile support at one time or another. Using an Alcatel on-site wireless system, your people are always available to take customer calls. This improves customer service and leads to higher productivity.

On-site cellular capabilities are fully integrated into the Alcatel OmniPCX 4400, and have the same features as their desktop phones: dial-by-name, multi-line, groupware, voice guidance, etc. And remember, with Alcatel's on-site cellular phones, internal calls are free.

Wireless office

Office moves occur quite frequently. Alcatel's wireless office eliminates the upheaval and maintenance costs associated with moving a wired phone. The Alcatel OmniPCX 4400 associates a user's on-site mobile phone with his/her PC, so from anywhere on the campus the employee has complete access to the full range of telephony services.

Mobility on the road

Your sales representatives and technical support people spend most of their time travelling or with customers. The Alcatel OmniPCX 4400 allows each of your people to have a single phone number. It automatically routes calls to an off-site cellular, on-site cellular, or wired phone wherever they are when the call comes in. And off-site mobile users increasingly have access to voicemail, fax mail, email, and Web-based applications and information.
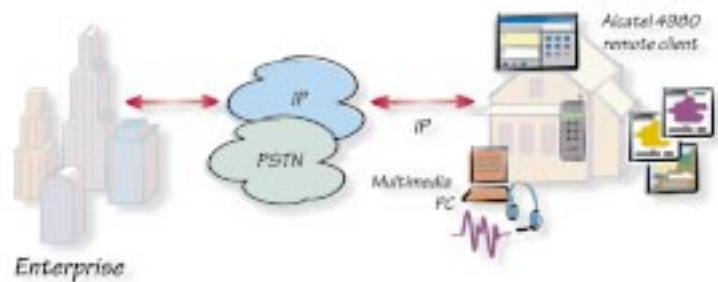
Keep working off-site

Employees working from home or at a customer location have full access to the enterprise network, using wired or off-site cellular phones. Even call forwarding is available. People at remote sites are provided with a host of ways to stay in touch:

- dial access to the enterprise network
- dial-by-name
- real-time call routing to least-cost resources
- unified voice/fax mailbox with remote access and more

People who work at home can be fully integrated into the organization's workflow with devices ranging from a simple modem, to an ISDN router, to a high-speed DSL connection. Using a multimedia PC they can send and receive data and have access to the same telephony services that they would have if they were sitting in the office. These include automatic phone directories, call by name, direct inward dialing, manager/assistant features, and many more.

The Alcatel 4980 offers secure, full voice and data services to remote workers.

Wire-free office gives mobility to your people and your organization.

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Applications

Unified messaging for streamlined communication

The Alcatel OmniPCX 4400 combines voicemail, email, and faxmail into a single application; we call this unified messaging. You can scan through your voice calls and take care of the most important ones first, just as you can with your email. You won't need to write down names and phone numbers to return the calls; instead, you just click.

The Alcatel OmniPCX 4400 offers unified messaging integrated with your enterprise email system. Each user gets a single electronic mail box, capable of handling a mixture of emails, voicemails, and faxes. The power and ease of use of the PC enable voicemail and faxes to be managed just as easily as email from standard email clients such as Microsoft Outlook. And now, multimedia messages are possible – email combined with fax, voicemail attached to email -- allowing the most efficient combination of information.

Employees on the move can exploit the full potential of unified messaging from their mobile phone or from any other telephone. Naturally, they can record and listen to their voice messages. And they can even listen to emails and fax headlines, thanks to the text-to-speech function, and retrieve written documents (like email) on any fax machine.

Connecting your customers to your experts

With the help of advanced communication applications, your employees can deliver the quick responsiveness and high service level your customers expect. Customers appreciate being directed immediately to the right person, especially when that person has all the information needed to satisfy their request. Customer care depends on efficient call routing to the right person in the enterprise – who already has all the vital facts on-screen.

The Alcatel OmniPCX 4400 includes a new generation of automatic call distributor. Its patented matrix-based distribution model manages call flow and resources based on agent skills and cost. It offers global, flexible network call routing and virtual call distribution.

Real versatility through integration

We don't always have the best solution for every need. That's what open systems are all about – recognizing that our customers are sometimes best served by integration with other vendors' best-of-breed systems.

We've made it simple to connect the Alcatel OmniPCX 4400 to external, third-party workforce management software. So the next time you plan a telemarketing campaign, you can precisely target the number of agents you'll need.

If you need to log and store calls in a data warehouse, so that information and call content can be reviewed later, we've made that integration easy as well.

And we integrate easily with contact center wallboards providing agents summary information about the group's current work status.

To be efficient, contact center agents need the right mix of computer application functionality and ease of use. The Alcatel OmniPCX 4400 enables call center agents to operate Automatic Call Distribution (ACD) functions directly from their workstations.

The contact center supervisor needs effective management tools. For the first time, supervisors can manage contact center operations in real time with just one mouse click. In addition to real-time statistics, the Alcatel OmniPCX 4400 provides detailed information based on an automatic and embedded invocation of Excel for customizable spreadsheets and graphs. These reports are based on the capture of a large number of elemental communication events providing both extensive analysis and immediate interpretation. This is essential for effective contact center management.

E-commerce made easy

The Internet is exploding in importance as a vehicle for distributing and promoting products and services. But Web browsing is still an unpredictable way to turn casual Web visits into real sales. The Alcatel OmniPCX 4400 addresses that. It provides a variety of mechanisms that allow Web visitors to communicate with the enterprise in ways that are comfortable for them, such as call through, call back, text chat, email, and collaborative browsing.

Call processing

You want to handle calls according to your organization's particular priorities. Maybe you need to automate standard customer inquiries so that your people don't have to spend time answering simple questions. Maybe you need to reduce the cost of providing basic information to your customers. Maybe you need to deliver information to your customers 24 hours a day. Up-front identification of callers and their needs is key to assigning priorities and creating individualized service.

Alcatel's call processing server is a customizable solution integrating voice processing, interactive voice response, and contact center functions. The interactive voice response communicates with your customers by voice recognition providing and collecting information. The user-friendly graphical application generator enables your customer service staff to rapidly tailor call routing to meet your precise needs.

Manage and access your messages anytime from anywhere over any media.

The Alcatel OmniPCX 4400 allows you to set up multimedia contact center.
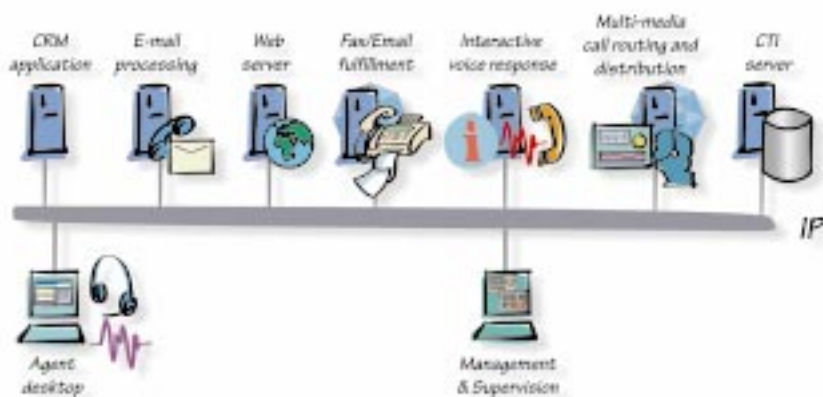
Networking

The push for convergence

Depending on your organization's direction and enterprise network operations, Alcatel can provide you a broad range of ways to converge your enterprise communication system. When integrating voice and data applications within a single communication system, it is essential to ensure that there is no compromise to reliability. Let's look at how the Alcatel OmniPCX 4400 delivers more advanced networking power than any voice system in the world and actually increases system availability.

Total flexibility

The Alcatel OmniPCX 4400 networking capabilities provide organizational flexibility that fundamentally improves the way your teams work together. Virtual teams of users from different sites – or even different countries – can be interconnected as if they were at the same site, with features such as:

• completely distributed contact centers

• on-site wireless phones that can be used at any of the organization's locations

• optimized team interaction through specialized telephone and PC capabilities

Savings in the WAN

As a first step toward convergence, you may want to focus on reducing transport costs. The Alcatel OmniPCX 4400 helps cut carrier costs and administrative expenses. It also supports access to all types of networks: circuit, packet, or cell. Its major innovation is the use of packet technology to transmit voice. This gives you greater network choice – voice over IP, voice over frame relay, voice over ATM, or even compressed voice packets over traditional telephony circuit-based networks.

An integrated compression engine that dramatically reduces voice bandwidth – without compromising quality or reliability – makes all this possible. A complete set of services is maintained across any network infrastructure. You also gain significant savings with time-based network selection, allowing least-cost transmission based on the time of day and day of the week.

Packet voice networking technology

But the benefits of packet voice technology in the Alcatel OmniPCX 4400 go beyond simple cost savings on long distance.

For example, voice over IP gives you smooth communication between dissimilar devices – from a phone to a PC, for example. The Alcatel OmniPCX 4400 guarantees quality of service. The integrated IP board monitors voice packet loss and delay and automatically re-routes via another network if the quality deteriorates. So you get the cost savings of voice across the Internet plus the quality and reliability of a digital PSTN.
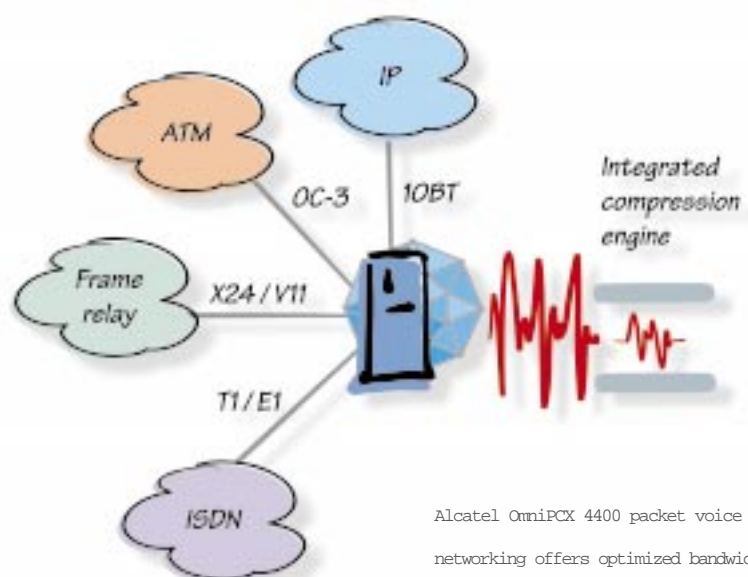
With the Alcatel OmniPCX 4400, communication paths are automatically managed according to the type of service. For example, faxes can be forced over IP resulting in significant cost savings even though the delay may be a little longer.

Packet voice networking on demand across ISDN allows you to really take advantage of virtual private networks. You get cost-effective communication and a network that links all of your people from headquarters all the way to your smallest branches.

A full range of IP technology options

The Alcatel OmniPCX 4400 IP capabilities link your staff across the entire organization, but leave user habits unchanged. It is now easy to use IP to support mission-critical voice services at any of your organization's locations. And we offer a broad range of IP connectivity options:
• customized IP Reflexes™ phones
• PCs with voice-over-IP
• Alcatel phones with IP adapters
• IP voice workgroup switches

Alcatel OmniPCX 4400 packet voice networking offers optimized bandwidth through an integrated compression engine across all network types.

Good communications depends on good management

The success of your enterprise depends on the quality of its communications. So it is fundamental to run management applications that measure quality of service and analyze communication quality and responsiveness. Analyzing communication flows makes the process of improving service quality effective.

The Alcatel OmniPCX 4400 brings with it a powerful range of management platforms so you can control networking locally, nationally, or globally. Alcatel management tools are based on open standards and object-oriented design. That means you can easily integrate new technologies to meet your evolving enterprise requirements:

• A web-based Java application allowing universal access via your existing intranet.

• Reporting and billing in standard formats (e.g., HTML, PDF) and automated email distribution of management information to streamline internal mailings.

• Applications designed to monitor traffic and provide billing information.

The management of convergence

Many companies today give preference to communications suppliers who can deliver converged networks and applications. But, as always, management is also crucial. Convergence management systems that logically integrate the voice system with the enterprise communication infrastructure are key. For example, Alcatel's OmniPCX 4400 IP address management is based on negotiation with the enterprise DHCP server.

Mission-critical voice applications demand a guaranteed level of performance. So the Alcatel OmniPCX 4400 supports standardized quality of service parameters at different protocol layers. This enables voice calls to be identified and tagged with a selected priority as they travel across the network. And integration with other management systems via HP OpenView, SNMP traps, and MIB 2 allows a unique topology and management control point for converged enterprise communication systems.

Users: the heart of convergence

Change is a constant. Working patterns are always evolving, with employees working in teams and task forces which often last only for the duration of the current project. Every user needs tools that provide information and communication across multiple environments. Alcatel's OmniPCX 4400 telephony services ensure immediate and error-free dialing, relying on an LDAP-based directory which interoperates with other corporate databases. And it works everywhere in your network, synchronized across multiple PCXs and multiple locations.

Summary

Integrating convergence

We are now entering the converged generation of communications and management systems. To meet the needs of any given organization, a value-added supplier will integrate best-of-class systems and applications from a variety of sources. Alcatel and its partners, who are world-class experts in both voice and data, offer you a single point of purchase, including system integration and support.

Self-paced evolution

For today's organizations, full voice and data integration is both a challenge and an opportunity; integration can heighten efficiency, reduce costs, and maintain a competitive edge.

The opportunity to reduce costs by sending voice across the Internet is one of the most obvious convergence drivers. But integration will go far beyond toll bypass, with the deployment of other applications:
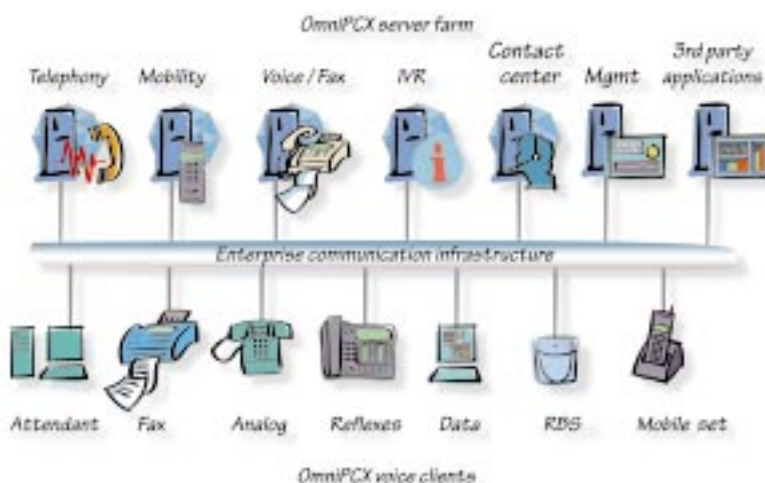
• local and remote collaborative communication tools
• video conferencing
• unified messaging
• Web-based contact centers

The Alcatel OmniPCX 4400 is designed and built by one of the leading suppliers of voice communication systems. Thanks to its open, forward-looking architecture, it combines state-of-the-art voice with advanced communications services that bridge the gap between the worlds of data and voice.

The innovative architecture of the Alcatel OmniPCX 4400 is the cornerstone of the evolution to transparent convergence and offers your enterprise a smooth transition to a full IP-based architecture.

As technologies mature and as the standardization of IP telephony progresses, you will be able to introduce Alcatel's integrated solutions at your own pace, without compromising services and quality.

Alcatel. The future of networking now.

ALCATEL