



# Strategy White Paper

## Improving Business Processes with User-Centric IP Communications Solutions

In any enterprise, employees are at the heart of the business. It is crucial to categorize the different user profiles in an organization to implement the most effective communications applications, devices, and infrastructure. Alcatel provides a full set of user-centric IP communications solutions allowing businesses to reduce costs, accelerate business processes, maximize end-user efficiency, and generate more value.

# IMPROVING BUSINESS PROCESSES WITH USER-CENTRIC IP COMMUNICATIONS SOLUTIONS

**A user-centric approach that integrates IP communications tools and applications with business processes will help enterprises gain competitive advantage.**

In the internet economy, advantage is temporary. Only a competitive capability can meet the changing needs of customers, improve internal and external communication flows, and help face new challenges in mobility and responsiveness.

Implementing IP Communications solutions is at the heart of the new competitive enterprise. It addresses change effectively, not as a one-off solution, but as a capability that can be renewed and delivered constantly.

It helps deliver the best customer service, and integrates into business to deliver greater efficiency and value.

## ■ The working environment: increasingly complex

Attempts to improve the working environment and communication flow, shorten response time, and speed access to information have resulted in widespread user frustration. In January 2004 Alcatel surveyed more than 2000 end users. 20% receive over 100 e-mails, voicemails, and faxes daily. 38% use five or more communications devices, with 41% using at least two wireless devices when traveling.

64% want a single place to check all types of message, 56% want a single follow-me number, and 72% do not have contact details on hand when trying to reach someone urgently.

This represents massive wastage of resources, despite high infrastructure investment and communication costs. The only remedy is to integrate communication and data systems, while still accommodating the changing workplace.

IP Communications solutions have the capability to function as a fundamental application platform for all these changes.

## ■ Defining the different user profiles in the organization

In view of the increasing importance of mobility, it is key to categorize the different user profiles in an organization. Although each enterprise is a spe-

cial case, we can define three groups of users with seven main profiles in total:

### ■ Day extenders

#### Company managers

commonly spend a third of their time in their office, a third within the organization, and a third outside the company. They need real-time (telephony) and pseudo real-time (messaging) communication tools, and access to reporting applications, information portals, and knowledge-management platforms.

### ■ Mobile professionals

**Salespeople** spend most of their time on the road, must be constantly reachable, and able to access corporate resources, information, and databases. They also need real-time and pseudo real-time communication tools, plus collaborative tools and business applications such as Customer Relationship Management and Sales Force Automation, etc.

“Categorize workers in your organization and identify their needs and requirements, set policies to optimize costs/benefits, and choose architectures accordingly” Gartner November 2004

Figure 1: Defining the user profiles

Profiles	Examples	Mobility		
		Desk	On-site	Off-site
Executive	CxO, senior mgt			
Mobile sales	Sales			
Field forces	Field techs, Prof. services consultants, accountants			
Campus roamers	IT, security, maintenance, manufacturing			
Front office	Attendant, receptionists, help-desk			
Back office	HR, Finance, Logistics			
Teamers	R&D, Project mgt, Marketing			

**Field technicians**, professional services, consultants and accountants spend most of their time outside the company, must be constantly reachable, and able to access corporate resources. They use collaborative work tools, real-time communication tools, messaging services, and need access to business applications (Field Service Automation) and databases.

**Roamers** within the company (IT, security, maintenance, manufacturing), must be constantly accessible; they use communication systems with real-time notification capabilities. In some cases they need specific solutions providing personal alarms & security.

■ ■ **Deskbound employees**

**Front office** staff (receptionists, customer service, help desk, sales attendants) spend most of their time at their desk. Communication is their job, and they must be able to access central resources in real time to serve their customers.

**Back office** staff (HR, quality and finance, logistics) spend the majority of their time at a desk using task-specific business applications.

**Teamers** (R&D, project/product management, marketing, legal, training) must be able to interact, communicate, and collaborate with internal or external customers and suppliers while minimizing travel costs.

Figure 1 shows that every employee is mobile to some extent.

All these user profiles have one thing in common: they need real-time communication tools and collaborative work tools that are integrated with their existing work environment and business applications.

Alcatel IP Communications solutions are **user-centric**: they provide a full set of telephony services and applications that recognize and service the various needs of these different users.

■ **IP Communications solutions**

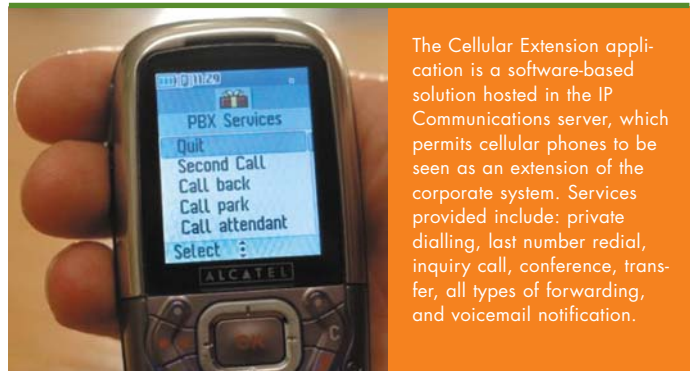
Alcatel Enterprise IP Communications solutions comprise a set of homogeneous and integrated platforms and applications. They include:

- An IP Communications server, **Alcatel OmniPCX Enterprise**, providing all the telephony and mobility services.

**Figure 4: IP application phone**



**Figure 2: Cellular Extension application**



The Cellular Extension application is a software-based solution hosted in the IP Communications server, which permits cellular phones to be seen as an extension of the corporate system. Services provided include: private dialling, last number redial, inquiry call, conference, transfer, all types of forwarding, and voicemail notification.

- A **Cellular Extension application**, embedded in the communications server, providing corporate telephony services on any mobile phone (Figure 2).

**Figure 3: Unified Communication software suite**



- An IP Unified Communications application suite: **Alcatel OmniTouch Unified Communication** comprises four mutually interacting application groups: *My Messaging*: a single multimedia inbox for voice, e-mail and fax, plus filters, alerts, and an Automated Attendant; *My Phone*: full phone services on PC and PDA including an IP Web Softphone; *My Assistant*: a vital One-Number facility to help people find you anytime, anyplace; and *My Teamwork*: a virtual meeting room for conferencing via audio, data and video, plus instant messaging and 'buddy lists' (Figure 3).

- IP application phones, called **Alcatel IP Touch**, which offer graphical display, alphanumeric keyboard, Bluetooth interface, 802.1x authentication, and XML openness (Figure 4).

- **IP WLAN and DECT/PWT phones** for on-site mobility, including handsets specially designed for critical mobility (Figure 5).

- **Communication Web Services:** a set of XML/SOAP APIs (Application Programming Interfaces), to integrate communications services into business applications and processes (see box).

Figure 5: DECT & WiFi phones



	DECT/PWT	VoWLAN
Normalization	***	***
Voice services	***	*
Voice quality	***	**
Voice & data convergence	*	***
Opex	€	€€
Capex (greenfield)	€	€€

**Definition of Web Services:** A service is a software component enabling heterogeneous applications to communicate. A Web Service is such a component that uses Internet standards:

- XML: (Extensible Markup Language): a language for data exchange on the Web.
- SOAP: (Simple Object Access Protocol): protocol to make a service request via XML messages.
- WSDL: (Web Service Description Language): a metalanguage to describe Web services.
- DDI (Universal Description Discovery Integration): a standard to list & register Web services.

■ **Mapping solutions to user profiles**

Users need tools and applications adapted to their particular requirements. Furthermore, the solutions must minimize costs and maximize efficiency: the challenge is to find the right compromise between user needs and cost. *Figure 6* outlines some recommended communication solutions by user profile.

■ **Accelerating business processes with IP Communications**

Companies set up costly and sophisticated business processes with the aim of improving reactivity to market changes and customer demands. Sub-

“By 2009 the average lifetime of an enterprise’s business processes will fall by 50 percent” (0.8 probability)  
Gartner, November 2004

stantial improvements have been made during the last decade in business efficiency. However, the challenge is to find further areas of improvement in business processes. The critical areas where substantial progress is yet to be made are in the management of exceptions, and connecting corporate knowledge silos.

■ **Managing exceptions**

Core business processes run fine - until they hit an ‘exception’. The most common way to resolve a problem quickly is to ask colleagues, a manager, or partners for help (*Figure 7*).

■ **Untapped knowledge value**

The most valuable information that employees can share concerns customers and their service history. Most of this knowledge also tends to be stored in an unstructured way: employees’ memories, personal PC files, etc. Gartner Group estimates that this represents 80% of a company’s most valuable knowledge, inaccessible to others, and vulnerable to loss.

Alcatel IP Communications solutions ensure that employees remain in contact, and can access information or get advice and decisions when needed.

■ **Voice: reinventing a major business resource**

Voice communication is still by far the most common medium for everyday operations. It is unequalled for speed and contextual flexibility (e.g., adding persuasion or reassurance).

Having invested massively in business applications, companies now must ensure that voice is fully integrated into those applications to provide real-time capability in the business process. Since corporate users are at the heart of business processes, collaborative and communication applications are also key to delivering real-time capability.

This is why Alcatel’s global IP communications solutions, including communications Web services and unified communication applications, are so innovative.

“By 2010, 80% of companies will have integrated communications into some business applications or processes”  
Gartner November 2004

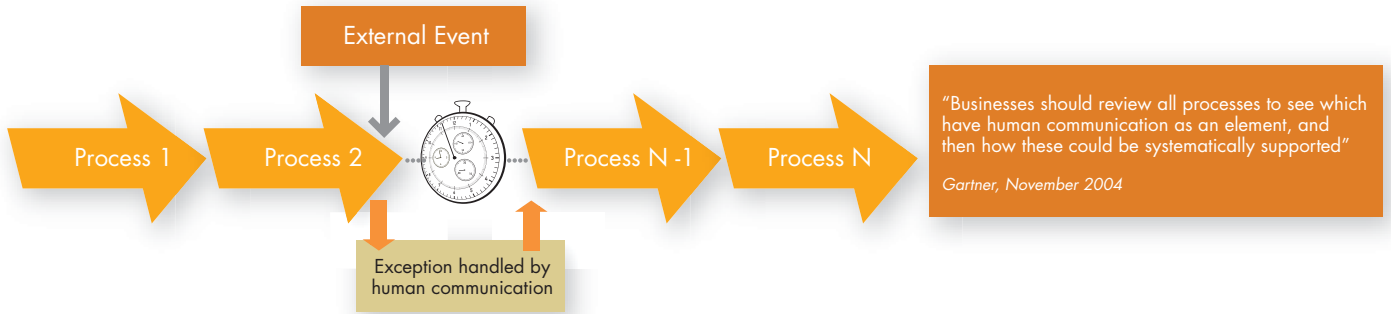
■ **Improving the customer experience with IP Communications**

The communication fragmentation noted previously has its counterpart for customers and other contacts outside the company:

Figure 6: Mapping solutions with user profiles

Profiles	Communication Devices	Communication Applications	Benefits
Executive	IP application phone & GSM/Cell or PDA	Unified Communication Cellular extension	Better business control On the spot info access
Mobile sales	GSM/Cell or Smart phone, PDA	Cellular extension UC integrated in IS apps	Always accessible for VIP customers Access to associates
Field forces	Laptop or wireless PDA, GSM/Cell	Unified Communication integrated in IS apps	Timely notification Smoother interactions
Campus roamers	Voice only: DECT/PWT Converged: WiFi	Standard telephony	Always accessible Faster problem resolution
Front office	IP application phone	Power user telephony Unified Communication	Better service to key customers Smoother interactions with back office
Back office	Standard phone set	Business class telephony UC integrated in IS apps	Quicker access to colleagues Smoother interactions with front office
Teamers	IP application phone	Unified Communication	Reduced travel Better team interaction

Figure 7: Business process and exception management



- 38% have sent an e-mail but the company had no record of it.
- 68% have encountered an agent who had no record of their prior transactions.
- 65% of callers will not hold for longer than 5 minutes.
- 56% have stopped doing business with a company due to a poor experience with a contact center (Alcatel survey –January 2004).

This represents massive dissatisfaction and lost revenue. The underlying weakness is a ‘contact gap’: not getting through, or getting through but having no relevant information available. A prime feature of better employee-customer interaction then has to be **real-time communication**.

■ ■ ■ **Going real time means business**

Alcatel IP communications solutions support three capabilities vital to real-time communication with customers:

■ ■ ■ **Proximity**

Ensuring customers can get close enough to enjoy your service, anytime/anywhere.

- Personal contact, via voice and video.
- More contact points across different types of locations and all media, via the unified multimedia inbox.
- Real-time response and relevant answers, aided by pop-up guide menus.

■ ■ ■ **Interaction**

Enabling your teams to interact better, to serve customers quicker.

- Availability of relevant caller information at moment of call.
- Quality of teamwork, via multimedia conferencing.
- Creating an efficient work environment.

■ ■ ■ **Continuity**

Leading employees to a common goal of better service.

- Record and maintain full customer history.
- Prevent service disruptions.
- Give full access to HQ expert teams, even in remote agencies.

■ **The overall economic impact**

Integrated voice and data communications offer enormous opportunities for economies and value across the enterprise.

■ ■ ■ **What can you expect from deploying Alcatel IP Communications solutions?**

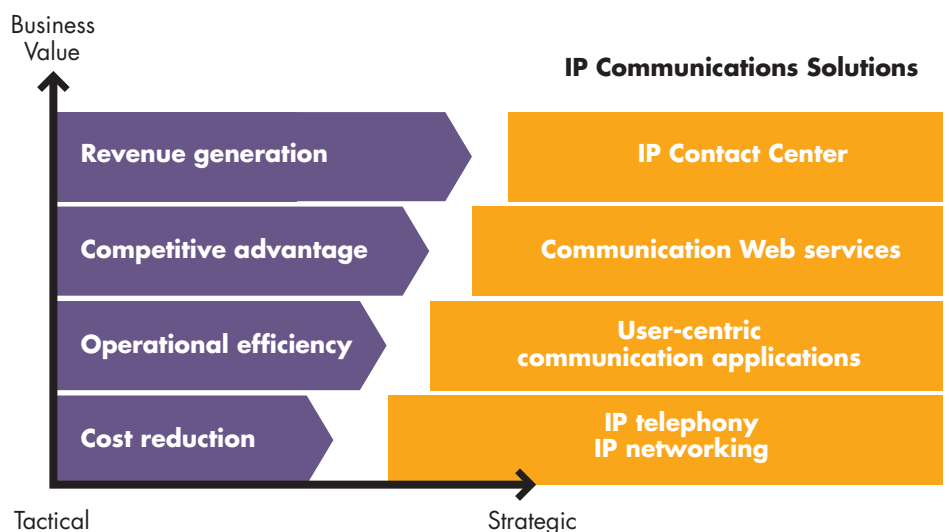
The benefits of IP Communications solutions can be quantified at several levels of business value for an organization: revenue generation; competitive positioning; operational efficiency; and the cost reductions that such a solution can generate (Figure 8).

The choice of an IP Communications solution becomes not only a tactical choice, but also a strategic one.

■ ■ ■ **Revenue generation**

This is clearly the mission of IP Contact Center applications, by providing end users with a gateway to the business. Companies that have implemented Contact Centers are able to provide fast answers, first-call resolution, live support, and self-services, and can:

Figure 8: Business value of IP Communications solutions



- Generate more business;
- Improve customer preference;
- Increase customer profitability.

#### ■ ■ ■ *Competitive advantage*

Communication Web Services are the most important element for mapping communications and IT applications. All companies that integrate real-time communication services into their business applications and processes will have a clear competitive advantage in the market by:

- Accelerating business processes;
- Treating exceptions faster;
- Reducing process cycle time;
- Providing faster answers and services.

#### ■ ■ ■ *Operational efficiency*

(User productivity and group efficiency)

All IP Unified Communication mobile and collaborative applications deliver efficiency improvements:

- Users: knowing they have proper tools improves morale and motivation;
- Fast, intuitive access to advanced telephony services (10-20% time saving);
- Fast, intuitive management of all media (up to 45% saving in interaction time);
- Better reactivity to requests (up to 45%);
- Improved off-site mobility (up to 25% saving in call management time);
- Better team interaction.

#### ■ ■ ■ *Cost reduction*

IP telephony provides a rapid and measurable return on investments. It can reduce operating costs by up to 20%, mostly by eliminating unnecessary inter-site line charges and calls, as well as by centralizing network management of all media.

Some example of cost savings:

- Internal calls routed over existing WAN (up to 40% saving);
- Shared cellular routing allows high volumes and reduced prices (up to 15%) and avoids the purchase of mobile infrastructure for low mobile user density;
- International calls routed via head office gateway (up to 20%);
- Web and audio conferencing applications reduce teleconferencing charges and travel costs (up to 75%).

#### ■ ■ ■ *Full openness to protect your investment longevity*

Alcatel IP Communications solutions easily integrate with existing IT resources to protect existing investments, while adding enormous value to business applications.

The use of open Internet standards makes it compatible with existing IP multimedia network standards, future-proofed, and compatible with third-party applications. Therefore existing infrastructure investments can be exploited, while permitting the choice of the most affordable path for growth.

"Businesses should examine emerging Internet telephony related standards as they may provide technical and business advantages"  
Gartner, November 2004

#### ■ ■ ■ **Where real value lies**

The focus of the one-off buy/sell transaction is being replaced by the value of relationships – between colleagues and across networks with customers, strategic partners, and suppliers. Even companies that primarily sell products compete on delivering greater perceived service.

Whatever industry a company operates in, its main business is information management. This has become strategically acute: most critical corporate information is locked in people's heads, and in business application data-bases. It is vital to open up people and data to manage information relationships.

The initial race to set up real-time communications has fragmented enterprise communications into multiple contact points across the business at all levels, using different kinds of device and application. Few users enjoy satisfactory communications, many are increasingly frustrated – and real-time response remains elusive. The answer is communication integrated into business processes.

Employee mobility is now one of the major work parameters. Business relationships and transactions are increasingly conducted between front- and back-office people, interacting with other employees (sales/field forces) who are not at their desks.

This creates tension that requires more than simple flexibility of mindset or organization. Flexibility must be hard-wired into how people work and interact. Consequently, user-centricity should drive corporate communication systems design.

At the same time, communication and IT costs continue to rise: managing these new dispersed and heterogeneous networks is becoming more complex; fragmentation is feeding security threats. Strategic, agile control is paramount.

Alcatel IP Communications solutions support all the above requirements, by empowering the real-time integration of information and applications, personal interfacing, and collaboration.

#### ■ **Conclusion**

The key to new competitive capability is envisioning the enterprise in terms of business-wide relationships to improve user experience across the network; exploit knowledge; and enhance and accelerate core processes.

Alcatel IP Communications is the catalyst for this capability. It enhances the value of the user experience, exploits knowledge value, and increases the value of business processes.

#### ■ **References**

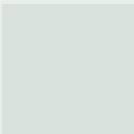
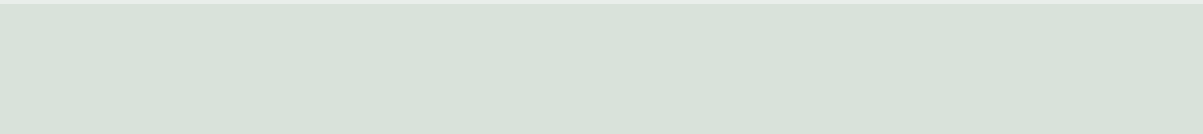
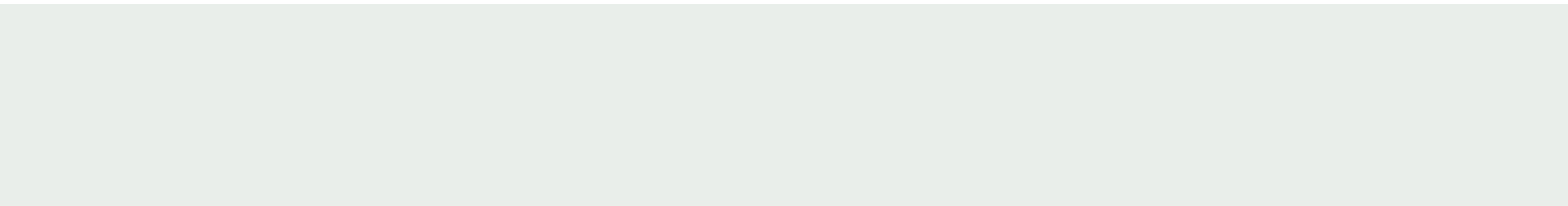
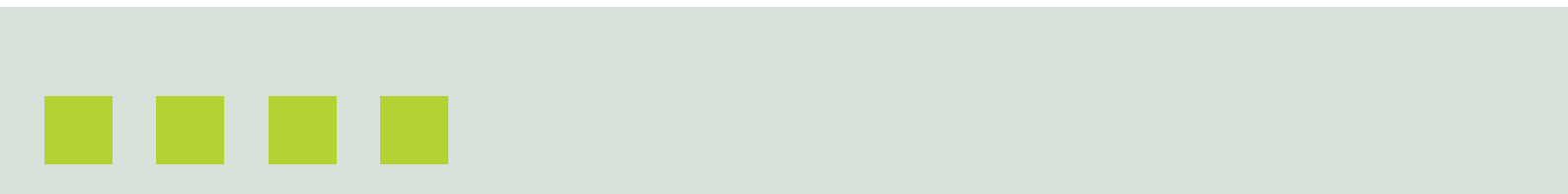
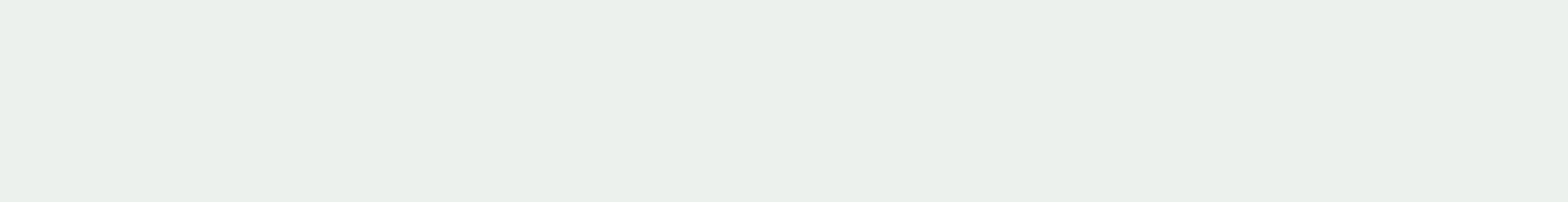
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## ■ Glossary

<b>IS</b>	Information System
<b>CIO</b>	Chief Executive Officer
<b>COO</b>	Chief Operation Officer
<b>CIO</b>	Chief Information Officer
<b>CFO</b>	Chief Financial Officer
<b>XML</b>	eXtensible Mark-up Language
<b>SOAP</b>	Simple Object Access Protocol
<b>API</b>	Application Programming Interface
<b>VxML</b>	Voice eXtensible Mark-up Language
<b>ERP</b>	Enterprise Resource Planning
<b>SCM</b>	Supply Chain Management
<b>CRM</b>	Customer Relation Management
<b>SFA</b>	Sales Force Automation
<b>PLM</b>	Product Life cycle Management



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