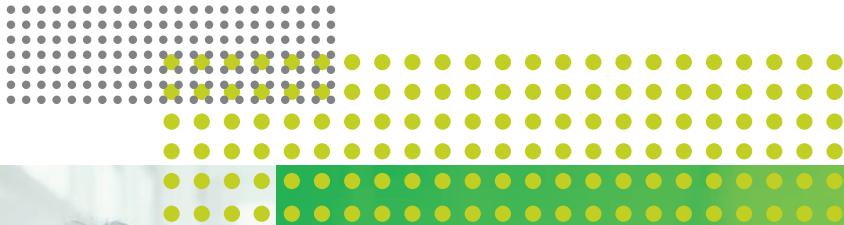


Alcatel-Lucent Business Communication Solutions
for enterprises with up to 1000 employees



SOLUTION
HANDBOOK

NOVEMBER 2008 UPDATE



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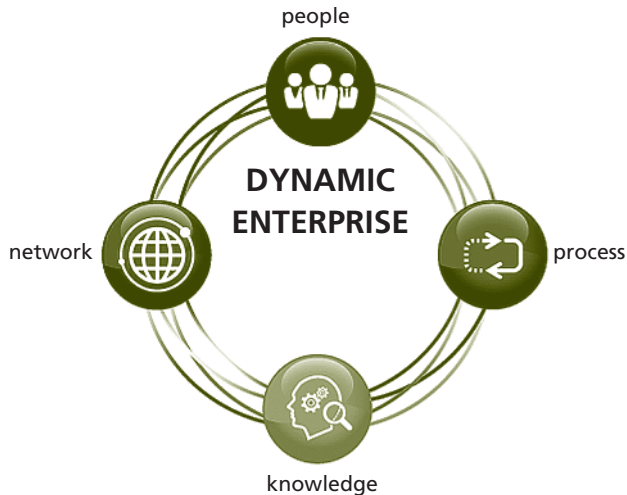
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Solutions for the Dynamic Enterprise Turning every Interaction into a Transaction

With the advent of Unified Communications (UC), “consumerization” of the enterprise and “social networking” (part of the phenomenon of Web 2.0), information and communications technology (ICT) is an integrated part of business and how it interacts with its customers. More than an enabler, ICT is the essential component of the “Dynamic Enterprise.”



**Bringing network, people, process
& knowledge together as one.**

The Dynamic Enterprise is constantly evolving and adapting to quickly changing market environments to differentiate itself from its competitors. The Dynamic Enterprise needs to simplify communications, strengthen relationships and improve business performance.

When enterprises connect their four key assets of network, people, processes and knowledge, they produce, innovate, perform and transform.

As the volume of information grows and communication methods change, organizations need the ability to link the structured information within their IT systems with unstructured knowledge of their employees, and apply it effectively. To enable the Dynamic Enterprise, Alcatel-Lucent provides context-aware, content driven, dynamic communications any time, anywhere, on any device.

The Alcatel-Lucent Business Communication Solutions (BCS) portfolio provides the mid-sized enterprises with all the infrastructure, applications, tools and expertise required to create the right information and communications technology environment for a Dynamic Enterprise.

How to use this addendum

This Solution Handbook Addendum is designed to be used in conjunction with the Alcatel-Lucent Business Communication Solutions for Mid-sized Enterprises Solution Handbook 2008.

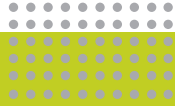
The addendum describes the evolution of the Business Communication Solutions (BCS) offer for 2008/2009, clearly highlighting the major enhancements, the new elements and key differences from the previous offer.

Following the structure of the original solution handbook, each chapter contains sections on:

- What's new
- Key benefits / Key information
- Architectural / feature description detail

The addendum does not attempt to describe in detail each element of the overall offer. It provides a delta of the BCS offer for quick reference. To have a view of the total offer portfolio, both the Solution Handbook and addendum are required.





1 - Architecture

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1 - Architecture

Business integrated Communication Solution (BiCS)

Business integrated Communication Solution (BiCS)

The underlying architecture of the Alcatel-Lucent communication solutions remains the same in the 2008/2009 Business Communication Solution offer. The main enhancements have been made to the Business integrated Communication Solution (BiCS) and are detailed below.

■ Business integrated Communication Solution (BiCS)

Introduction

The Alcatel-Lucent Business integrated Communication Solution (BiCS) is the mono-server, multi-service solution that simplifies the path to advanced communications. The BiCS has now been successfully launched worldwide and in this next phase of development will be further enhanced in terms of scalability and functionality.

The BiCS pre-integrates the following elements onto a single, industry standard hardware platform:

- Communication server
- Management application
- Unified Communications (My Instant Communicator, One number, Soft phones, call routing assistant, mobility...)
- Contact Center
- Integrated messaging
- Fax server
- XML API openness pack

Key Benefits

■ **Simplicity** in terms of purchasing, implementation and management

Base and user packs, automatically selected by Actis

All applications are provided in the base packs, pre-integrated. Users are simply provisioned by purchasing the required number of licenses.

■ **Affordability** "Pay as you grow"

- Users can be added simply by purchasing the relevant license at a consistent and predictable price up to the limit of the solution, without any major step changes
- Only pay for what you need, when you need it

■ **Flexibility** "Try before buying" key applications

- 5 free full licenses for My IC, remote extension, CCD, CCS
- Provided for the life of the solution, no time-out
- Reduces risk and allows users to make truly informed buying decisions

Any access infrastructure

- Consistent user experience whatever the underlying access technology or device
- Access to the required applications, wherever you are and whenever you want
- Migrate to IP at your own pace

Take advantage of all the enhancements of separate applications

- Each application upgradeable separately

■ **Fully Featured**

- Access to all the features and functionality of the Unified Communications and telephony applications
- My Instant Communicator - Unique, non-intrusive, blended multimedia communications giving the user real control

■ **Catalyst** for applications and services

1 - Architecture

Business integrated Communication Solution (BiCS)



What's New

■ Capacity

The number of users that can be provisioned is now up to 1000 users

■ Business Continuity – Spatial Redundancy

In addition to the RAID and PCS features, the BiCS now supports the OmniPCX™ Enterprise Spatial Redundancy feature for increased resilience

■ Application Enhancements

The individual applications will be updated to the following revision levels:

- OmniPCX™ Enterprise Release 9.0
- OmniVista™ 4760 Release 5.0
- OmniTouch™ Unified Communications Suite Release 5.1
- OmniTouch™ Standard Edition Contact Center Release 8.0.8.5

■ User Packs

Introduction of the "TDM 10 User" user pack in addition to the "IP 10 User" user pack

■ 2009 Enhancements

Enhancements in the BiCS Release 2 offer expected during the course of 2009 include

- IM and rich presence
- Encryption

■ Technical Details

- Quick reference

System Limits

Communication Server	1000 users
Nb of Media Gateway	16 x IP Media Gateway
Nb of Network Node	5 Nodes / 4 Links (1000 OXE users)
Voice Mail	
Access	16 ports
Recording	200 hours
IMAP4 server	400 sessions
Contact Center	
Agent	50 agents (incl. soft phone)
CCA	50 clients
CCS Supervisors	10 clients
A4760	
Users	1000
Clients	2 clients
Directory entries	6000 names (4760)
LDAP servers	5 (UC)
Accounting tickets	2 Million (3 months)
My Instant Communicator	1000 users (declared) 400 users (connected)*

Key Highlights

Phone sets

IP.....	✓
TDM.....	✓
Analog.....	✓
SIP.....	✓

Topologies

Multi-site.....	✓
PCS.....	✓
Redundancy.....	✓
SIP trunk.....	✓
IP Media GW.....	✓
Crystal HW.....	✓

1 - Architecture

Business integrated Communication Solution (BiCS)



■ Pack Content Reference

BiCS Core Packs

■ Alcatel-Lucent BiCS Mixed Technologies

Pack 80 / 150 / 350 / 500

Comm. Server & software including:

- Communication Server software for up to 500 users
- Business UA users licenses **80 / 100 / 210 / 240**
- Call by name user licenses **80 / 100 / 210 / 240**
- Analog users software licenses **40 / 70 / 180 / 200**
- 10 Business IP users, 5 SIP user software licenses
- A4645 voice mail engine & users for e-CS engine 500
- A4645 IMPA4 connector user licenses **40 / 50 / 100 / 120**
- ARS & Overflow licenses for 500 users
- Accounting, Configuration, Alarms & Directory licenses for 500 years
- Embedded voice guides, Multilingual voice prompt & guides recording form set licenses
- DISA service & 5 remote extension users
- A4760 start pack (Accounting, Configuration & Alarms) & Directory extensions **80 / 150 / 350 / 500**
- CCD Starter pack (5 agents & 1 Call Center Supervisor) + 5 IP agents softphone
- OmniTouch™ Unified Communications R5.0 (Messaging & One Number)
- 10 My IP Touch™ communicator (call log & UDA)
- 10 My IP Touch™ XML basic services users
- 5 OmniTouch™ My Instant Communicator users & 5 4980 softphone option

BiCS 10 Users Packs

■ BiCS IP 10 users

- 10 Business IP users + 10 Call by name
- A4645 IMPA4 connector 5 users
- 5 My IP Touch™ communicator (call log & UDA)
- 10 My IP Touch™ XML basic services users
- A4760 start pack (Accounting, Configuration & Alarms) & Directory for 10 extensions

■ BiCS TDM 10 users

- 10 Business UA users + 10 Call by name
- A4645 IMPA4 connector 5 users
- A4760 start pack (Accounting, Configuration & Alarms) & Directory for 10 extensions

Note: ACTIS selects these packs automatically to set the most cost-effective price

The Business integrated Communication Solution (BiCS) is available in ACTIS and ACTIS for Sales. Providing the overall offer is within the provisioning limits, BiCS should be selected as the base solution before choosing any of the options.

The initial software license pack(s) required is automatically selected by the system based on the number of users selected and related interface technology. As long as no TDM user is selected, ACTIS will default to the BiCS IP-based solution. When at least one TDM user is selected, ACTIS will choose the corresponding "mixed" pack.

The number of additional IP or TDM "BiCS 10 Users Packs" is selected automatically by ACTIS (these packs are only accessible if the BiCS server has been previously selected).

■ Individual application details

For more information on the individual applications, please review the following chapters of the Solution Handbook and the Solution Handbook Addendum:

- Chapter 02: 4645 Integrated Messaging,
- Chapter 03: OmniPCX™ Enterprise Architecture
- Chapter 06: Unified Communication, My Instant Communicator, Fax Server
- Chapter 08: Contact Center
- Chapter 09: Management

2 - Telephony and Voicemail Services

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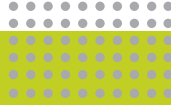
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2 - Telephony and Voicemail Services



The Alcatel-Lucent OmniPCX™ Enterprise Communication Server and the Business integrated Communication Server (BiCS) offer a standards-based open-distributed communications server for medium sized enterprises, managing both traditional (analogue and digital) and IP configurations. They are one of the world's most advanced business communication systems (Current Analysis March 2008).

Both systems are based on native IP packet technologies, but allow the customer to deploy mixed or classic solutions as required. Their flexibility and scalability allow customers to deploy their "traditional" telephony requirements today ready for a full unified communications environment in the future.

The end user telephony and voicemail experience remains consistent regardless of the underlying infrastructure choice, allowing customers to migrate their infrastructure at their own pace, when and where it makes sense.

Key Benefits

- All the 500+ features that the OmniPCX™ Enterprise release 9.0 provides
- Unique user interface and notification indication
- Powerful Unified Messaging solution based on Alcatel-Lucent 4645 voicemail provided with standard IMAP4 interface

What's New

- Email client application support now includes Microsoft Outlook®, Microsoft Outlook® Express*, Netscape (Mozilla)* and Thunderbird*



**Direct IMAP4 access. These browser interfaces will not be actively supported in future Omni Touch My Instant Communicator releases.*

Note: Lotus Notes 6.0 and Outlook® 2002 will no longer be supported in 2009.

3 - IP Telephony

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3 - IP Telephony

Services & Infrastructure



Services & Infrastructure

The Alcatel-Lucent IP telephony offering for mid-sized enterprises provides a full set of solutions and services to build a reliable, resilient, flexible, secure and scalable IP telephony infrastructure. It is a highly featured, enterprise IP telephony solution which can be integrated into carrier next-generation networks and IP Multimedia Subsystem (IMS) networks using SIP technology.

Enterprise networks are becoming more and more IP based and need an infrastructure that supports voice, data and applications in a converged environment. Alcatel-Lucent offers data networks solutions in a comprehensive portfolio that meet mid-sized enterprises needs in terms of simplicity, efficiency and security. Alcatel-Lucent provides the industry's best value in highly available, energy efficient, secure and easy-to-manage data networks solutions to ensure mid-sized enterprises business continuity.

Time and time again we hear from security experts who say that the main threat to any organization lies with its end users. In fact, according to Forrester Research, the majority of security breaches (some estimates are as high as 85 percent) involve internal employees.

Aside from obvious threats from disgruntled workers who may try to abscond with company secrets, an even more frustrating threat is that which comes from the end user who means no intentional harm but who is just unaware.

Security works best when it is part of the design of a system and when it is the very basis for policy. As technologies converge and become more complex, no company can afford to ignore the critical challenges of network security. Alcatel-Lucent's user centric approach to security offers a coherent, comprehensive security strategy around the diverse challenges associated with networks, mobile technologies and business applications. By building security into the way you work, you can be confident that your business is built on firm foundations.

Together these elements provide the foundation for a comprehensive IP communications solution.

What's New

■ IP Telephony Services

- Alcatel-Lucent OmniPCX™ Enterprise Communication Server (CS) native SIP controller
- Alcatel-Lucent OmniVista™ 4760 Network Management System (NMS) SIP Device Management
- IP Touch™ 8 Series Phones Extended Edition dual protocol stack support
- AutoQoS for IP telephony in OmniSwitch CLS core and access switches, centralized bandwidth control in OmniPCX™ Enterprise CS

■ LAN

- OmniSwitch 9000 CLS product family: New modules; traffic anomaly detection for post admission control; VLAN stacking support
- OmniSwitch 6850 SLS: New transceivers; traffic anomaly detection for post-admission control
- OmniSwitch 6855
- OmniSwitch 6400 SLS

■ Wireless LAN

- OmniAccess 4000, 4505, 4604, 4704 WLAN Switches
- OmniAccess Access Points
- Wireless bridging and meshing, advanced wireless telephony support for SIP
- IEEE 802.11n draft 2.0 support



Services

■ WAN

- OmniAccess 740 Unified Service Gateway

■ Security

- Alcatel-Lucent OmniVista™ 4760 NMS Audit Operation application
- 802.1X multient and RADIUS authentication
- Embedded pre and post-admission control, traffic anomaly detection

■ Session Initiation Protocol

Introduction

Session Initiation Protocol (SIP) is an IP signaling protocol designed to establish, maintain and end multimedia sessions between different parties, called endpoints. Today, SIP is gaining prominence as a reference technology for unifying multimedia, real-time communications in a common, standards-based framework for both enterprises and carriers. Defined as an RFC standard offering versatile technical capabilities, SIP is highly extensible, allowing it to accommodate multiple features and services over any real-time, IP-based wireline or wireless networks.

Emerging Voice over IP (VoIP) protocols typically undergo a long maturation process, particularly in terms of features offered and interoperability levels. However, the Alcatel-Lucent SIP vision and strategy can help medium enterprises benefit immediately from a communications solution built on a standardized, SIP-based framework, which offers the following standardized SIP deployment strategies, benefits and endpoint support:

- **Public SIP Trunking:** New off-net offers with IP carriers and service providers
- **Applicative SIP Trunking:** Takes advantage of the growing SIP ecosystem for user-centric services anywhere, anytime, on any device
- **SIP Peering:** Bridges communications systems across enterprise networks for a richer overall user experience
- **SIP Endpoints**

Benefits

- SIP wired phones for entry-level, all-purpose use or for specific verticals, such as the hospitality industry
- Mobility across wireless LAN (WLAN) networks on customer premises, in hotspots or at home with WLAN mobile devices or dual-mode phones
- Alcatel-Lucent IP Touch™ 8 Series Phones Extended Edition dual SIP stack for cost-effective survivability in small branch offices and for future investments

What's New

- Alcatel-Lucent OmniPCX™ Enterprise Communication Server (CS) SIP controller
- Alcatel-Lucent OmniVista™ 4760 Network Management System (NMS) SIP Device Management
- Alcatel-Lucent IP Touch™ 8 Series Phones Extended Edition dual SIP stack

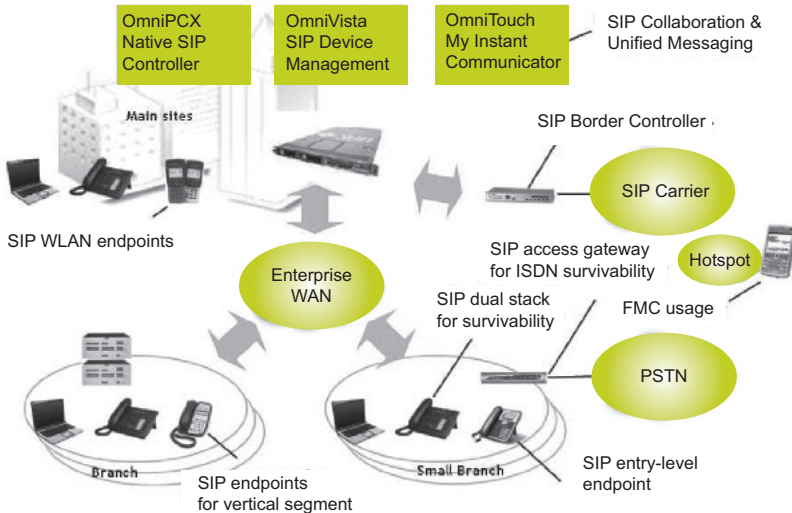
3 - IP Telephony

Services



■ Architecture and Scalability

SIP signaling is processed by the Alcatel-Lucent OmniPCX™ Enterprise CS. Voice flows are exchanged directly between endpoints or IP media gateways and carrier equipment. The Alcatel-Lucent OmniVista™ 4760 NMS supports a SIP device management module that allows SIP endpoints to automatically retrieve their binaries and configuration. The provisioning is fully integrated in the OmniVista™ 4760 NMS. Alcatel-Lucent 8600 OmniTouch™ Unified Communications collaboration and messaging services are connected to the OmniPCX™ Enterprise CS through SIP.



■ The System Scales Up To:

- OmniPCX™ Enterprise CS:
 - 2500 SIP trunks – 60 to 992 trunks per trunk group, 4 to 64 trunks per mini SIP trunk group
 - 5000 endpoints per server
- BiCS:
 - 500 SIP trunks – 60 to 992 trunks per trunk group, 4 to 64 trunks per mini SIP trunk group
 - 1000 endpoints per server
- OmniVista™ 4760 NMS:
 - 16000 endpoints per server
 - 1000 endpoints when integrated in BiCS

3 - IP Telephony

Services



■ SIP Deployment Strategies

■ Public SIP Trunking

Public SIP trunking allows enterprises that have a PBX to communicate using Voice over IP (VoIP), inside and outside their network, using the same Internet connection.

Benefits

- Replaces Time Division Multiplexing (TDM) interconnection to public operators with IP trunks
- Lowers TCO by centralizing trunk resources
- Creates new business models and off-net offers
- Enables a future evolution to unified communications

Standard Conformance

The following RFCs are supported (<http://www.ietf.org>)

- Authentication: RFC 1321, RFC 2617
- DNS SRV: RFC 2782
- SIP, SDP primitives: RFC 2327, RFC 2822, RFC 3261, RFC 3262, RFC 3263, RFC 3264, RFC 3323, RFC 3324, RFC 3325, RFC 3398, RFC 3725, RFC 3966, RFC 4028
- Media flows: RFC 2833, T.38 (an ITU-T recommendation for real-time, Group 3 fax over IP)

■ Applicative SIP Trunking

Applicative SIP trunking enables unified communications services by linking IP telephony servers to multimedia collaboration and unified messaging servers.

Benefits

- Native multimedia interactions
- Servers that fit in heterogeneous IP PBX environments

■ Standard Conformance

Same as public SIP trunking plus the following:

- RFC 3261 (302 response code), RFC 3515, RFC 3842, RFC 3891, RFC 3892

■ SIP Peering

SIP peering bridges multi-vendor communications products over several networks, including enterprise WLAN, carrier networks and the Internet, for a richer overall user experience

Benefits

- Extend the reach of BiCS over IP by networking with OmniPCX™ office in small branch offices
- Enabling small branch offices with IP by connecting SIP-to-analog gateways to BiCS
- Integrate BiCS in future large centralized NGN enterprise networks by using SIP peering between the OmniPCX™ Enterprise CS and softswitches or Media Gateway Controllers

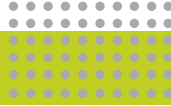
■ Standard Conformance

Same as public SIP trunking plus the following:

- RFC 3261 (302 response code), RFC 3515, RFC 3891, RFC 3892

3 - IP Telephony

Features



Trunking and peering

TRUNKING AND PEERING FEATURES	NOTE
Incoming & outgoing call with number and name display or presentation restriction	Public trunking, application trunking and peering
Call forwarding unconditional, on busy, on no answer	Joined calls for public SIP trunking interface. 302 response in peering & applicative trunking interfaces
Call hold, enquiry, broker conference	The conference takes places in the OmniPCX™ Enterprise CS
Call transfer	Optimized RTP. Use of REFER message in peering & applicative trunking interfaces
DTMF dialing and T.38 fax support	
Authentication, SIP Keep-Alive	
User & system services; ARS, Call Admission Control, ISDN call handling (DDI, differentiated ringing, parking, charging, overflows, etc.)	

■ SIP Endpoints

■ Entry-level or dedicated SIP endpoints

All-purpose, entry-level IP sets or dedicated sets for vertical segments act as a substitute for TDM analog phones and deliver specific ergonomic benefits from the OmniPCX™ Enterprise CS native SIP controller and OmniVista™ 4760 NMS SIP Device Management.

Benefits

- Choice between entry-level or application-specific IP phones
- Mobility across IP networks
- Fully communicate with devices controlled by the Alcatel-Lucent OmniPCX™ Enterprise CS, including TDM, analog and IP sets
- Benefit from a large range of business telephony features available on the Alcatel-Lucent OmniPCX™ Enterprise CS using the appropriate prefix or suffix on the SIP set
- CSTA monitoring services that provide call events and call control processes, such as make or release a call

■ Alcatel-Lucent OmniPCX™ Enterprise CS SIP controller

The OmniPCX™ Enterprise CS comes with a native SIP controller that supports the following SIP functions:

- The controller deals with the inter-working functions between SIP and OmniPCX™ phones or trunks.
- The proxy deals with SIP routing and SIP endpoint (phones) location. The proxy looks up the internal database in order to locate the IP address of the SIP endpoints.
- The registrar receives registration from SIP endpoints, and stores mapping of SIP phone numbers and associated IP addresses in an internal database.

3 - IP Telephony

Features



OmniPCX™ Enterprise CS SIP controller provides the following services to SIP endpoints:

- Endpoint registration and authentication
- Full communication with devices controlled by the Alcatel-Lucent OmniPCX™ Enterprise Communication Server (e.g. TDM and IP sets)
- A large range of business telephony features available on the Alcatel-Lucent OmniPCX™ Enterprise Communication Server (using the appropriate prefix/suffix on the SIP set)
- A large range of system services (ARS, barring, hunt groups, voice messaging, etc.)
- Monitoring by CSTA services and provide call events and call control processes (e.g. make call, release call, etc.)
- Call Admission Control for a better voice quality
- Communication Server call redundancy options in case of WAN failures

■ Survivability

■ Alcatel-Lucent IP Touch™ 8 Series Phones Extended Edition

The IP Touch™ 8 Series Phones Extended Edition supports two protocol stacks – a standard SIP and a New Office Environment (NOE) protocol stack. The NOE protocol stack is used when the Alcatel-Lucent IP Touch™ phone is connected to the Alcatel-Lucent OmniPCX™ Enterprise CS. If the terminal loses the connection with the remote communication server, it automatically switches to "Rescue SIP Proxy". A customer can use the Alcatel-Lucent IP Touch™ phone endpoint in any SIP context if needed, and can, at any time, change the endpoint back to the NOE protocol.

Benefits

- Cost-effective survivability in small branch offices without a media gateway or passive communication server
- Guaranteed smooth migration to OmniPCXTM Enterprise CS services in SIP networks
- Unrestricted access to all of the Alcatel-Lucent OmniPCXTM CS communication features with best-in-class user experience
- Investment protection with Alcatel-Lucent IP Touch™ phones standard SIP stack

3 - IP Telephony

Features



■ Alcatel-Lucent OmniVista™ 4760 NMS SIP Device Management

To make it easier to choose and deploy a SIP terminal, the Alcatel-Lucent OmniVista™ 4760 management platform provides a provisioning service called SIP Device Management, delivered via the SIP Manager.

The SIP Manager module provides creation, deletion and modification of SIP devices and users, and a link between a SIP user and one or more SIP devices. Mass provisioning of SIP users, devices or links is available in SIP Manager through a .csv file import.

When an administrator wants to deploy new software, or new parameters, on a device, they simply schedule deployment. Using HTTP(s) transport, the SIP Manager automatically updates devices by transferring software and file configuration to the devices. The devices initiate the transfer.

Benefits

- Remote configuration, automatic deployment and mass provisioning using the OmniVista™ 4760 NMS SIP Device Management server dramatically decreases the time it takes to configure and manage SIP devices
- Open to third-party SIP endpoints (Thomson)
- Manage SIP devices and users all within one application
- Automatically retrieve OmniPCX™ Enterprise CS SIP parameters

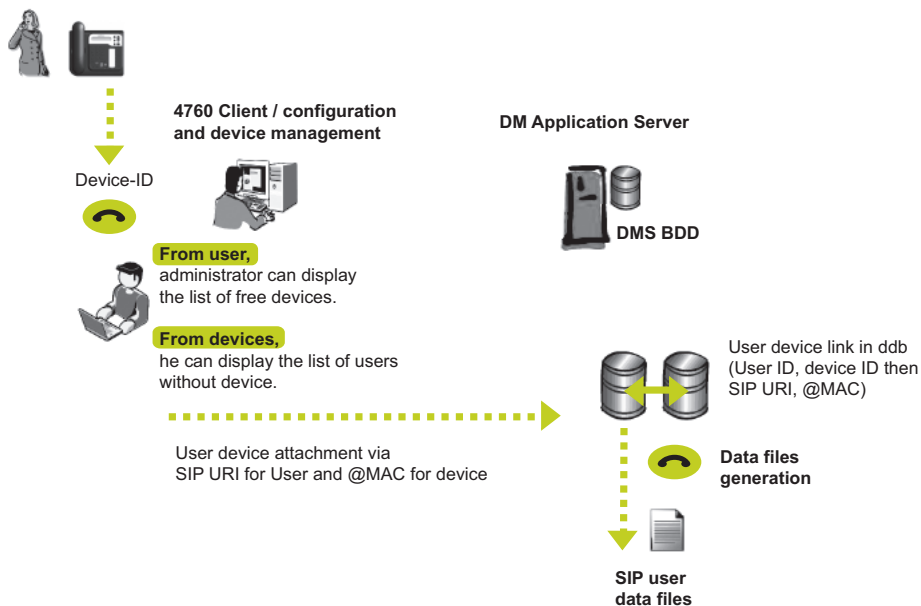


3 - IP Telephony

Features



4760 Client / configuration and device management



■ Alcatel-Lucent Application Partner Program

Alcatel-Lucent solutions use standard SIP and are open to all standard SIP endpoints and servers. Moreover, the Alcatel-Lucent Application Partner Program provides customers with a list of SIP equipment partners who deliver a proven, tested satisfactory user experience. The program deals with third-party SIP endpoints, third-party messaging servers and interconnections to SIP service providers and carriers.

3 - IP Telephony

IP Infrastructure Solutions



IP Infrastructure Solutions

To meet your IP infrastructure needs, Alcatel-Lucent provides the most comprehensive LAN, WLAN, WAN portfolio that addresses most data networks challenges for the Dynamic Enterprise. Each element of the portfolio is optimized to consume as little energy as possible and play their part of an eco-sustainable IT environment.

All devices are engineered with open standards support for seamless interoperability with the overall communications environment.

There are three main categories of products to help you build your data network:

■ LAN

- Alcatel-Lucent OmniSwitch 9000 Chassis LAN Switch (CLS)
- Alcatel-Lucent OmniSwitch 6850 Stackable LAN Switch (SLS)
- Alcatel-Lucent OmniSwitch 6400 SLS (*new*)
- Alcatel-Lucent OmniStack 6200 SLS

■ Wireless LAN

- Alcatel-Lucent OmniAccess 4000 WLAN Switch
- Alcatel-Lucent OmniAccess WLAN Access Points

■ WAN

- Alcatel-Lucent OmniAccess 700 Unified Service Gateway (*new*)

Key Benefits

■ Simplicity

- Easy operation and maintenance with a common operating system
- Complements existing network access control without additional client/servers
- Seamless interoperability with open standards support

■ Efficiency

- Comprehensive, robust, competitively-priced LAN, WLAN, WAN portfolio to address data networks challenges
- Efficient and manageable security
- Optimized equipment to consume little energy as part of an eco-sustainable IT environment

■ Security

- Embedded security for access, management and operating systems
- Embedded resiliency for continuous business operation
- High availability with resilient switches, links and topology to secure operations continuity

3 - IP Telephony

IP Infrastructure Solutions



What's New

■ For LANs

- OmniSwitch 9000 CLS product family:
 - Fast Ethernet module upgradeable to Gigabit
 - 48-port RJ-45 Gigabit module double access ports
 - Traffic Anomaly Detection for post admission control
 - VLAN stacking support

- OmniSwitch 6850 SLS:
 - New transceivers
 - Traffic Anomaly Detection for post admission control

- OmniSwitch 6855:
 - Industrial Gigabit with enterprise features

- OmniSwitch 6400 SLS:
 - Advanced L2 with basic routing
 - GigE fixed configuration stackable LAN switches
 - Advanced triple-play services,
 - PoE
 - L2/L3 performance
 - Extensive network security

■ For Wireless LANs

- OmniAccess 4000, 4505, 4604, 4704 WLAN Switches
- OmniAccess Access Points
 - OmniAccess AP 120/121 (Q4 2008), OmniAccess AP 124/125, OmniAccess AP 85
- OmniAccess WLAN main features
 - Wireless bridging and meshing
 - Advanced wireless telephony support for SIP and OmniPCX™ Enterprise Draft IEEE 802.11n support

■ For WANs

- OmniAccess 740 Unified Service Gateway

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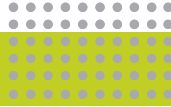
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3 - IP Telephony

IP Infrastructure Solutions



■ LAN Product Family

<p>OmniSwitch 9800 9700 9600 CLS</p> 	<p>High-end modular core switches</p> <ul style="list-style-type: none"> ■ Availability, performance ■ 10 GigE, IPv4 and IPv6 ■ Advanced routing and QoS ■ PoE, fiber 	<ul style="list-style-type: none"> ■ Campus core ■ Data center ■ High-density distribution
<p>OmniSwitch 6850 6850L SLS</p> 	<p>Advanced stackables</p> <ul style="list-style-type: none"> ■ Virtual chassis ■ 10/100 and 10/100/1000 ■ PoE, fiber ■ 10/100 upgradeable to GigE 	<ul style="list-style-type: none"> ■ Converged wiring closet ■ Aggregation and data center ■ Metro Ethernet
<p>OmniStack 6200 SLS</p> 	<p>Entry-level stackables</p> <ul style="list-style-type: none"> ■ Wire-speed L2+ services ■ 10/100, 10/100 PoE 	<ul style="list-style-type: none"> ■ SMB and / branch office ■ Residential Ethernet Access
<p>OmniSwitch 6855</p> 	<p>Ruggedized, hardened GigE switch</p> <ul style="list-style-type: none"> ■ Copper 12 and 24 10/100/1000 ports + 2/4 SFPs ■ Fiber 8 and 24 SFP 100-FX/1000-X ports + 2 Copper RJ-45 	<ul style="list-style-type: none"> ■ Verticals such as transportation, utilities and defense
<p>OmniSwitch 6400 SLS</p> 	<ul style="list-style-type: none"> ■ 24 and 48 ports 10/100/1000 PoE and non-PoE 	<ul style="list-style-type: none"> ■ Small and mid-size enterprise ■ Metro Ethernet services

■ Alcatel-Lucent OmniSwitch 9000 CLS product family

Target Markets

- Mid- to large enterprise core
- L3 aggregation/distribution switches

The award-winning Alcatel-Lucent OmniSwitch 9000 CLS family is a line of full-featured, high-performance 10 GigE chassis LAN switches that include a low-cost, entry-point chassis. It delivers solutions with advanced security and QoS features, converged, enterprise networks ranging from medium to large enterprise cores, as well as in the aggregation layer and in wiring closets with flexible Power over Ethernet (PoE) support.

3 - IP Telephony



The Alcatel-Lucent OmniSwitch 9000 CLS products are designed to anticipate future network needs with wire-rate processing for IPv4/IPv6 and support for unicast and multicast applications, such as VoIP and video collaboration. The switches support edge requirements as GigE to the desktop becomes more common and demand for PoE capability increases.

Key Information

> Layer 2/ Layer 3 Chassis

- Highly available and secure
 - Resilient switches, links, power supplies and topology to secure operation continuity
- Investment protection
 - IPv6, 802.1X, PoE, 10 GigE, "Lite Modules"
- High and flexible capacity
 - 10 GigE architecture, Gigabit to the desktop for investment protection
- Optimized power consumption
 - Adaptable power: First to market with standard and high PoE, replaceable and redundant power supply, green power with 30% less power consumption
- The scalability of Alcatel-Lucent OmniSwitch 9000 CLS products can simplify the architecture design and reduce the complexity created by network aggregation. In existing buildings, this limits the need to set up optical links.
- Smart Continuous Switching (SCS) on a redundant configuration provides non-stop operation even if a management module is disabled.

■ Alcatel-Lucent OmniSwitch 6850 SLS Product Family

Target markets

- Small-to-mid-enterprise core
- Mid-to-large enterprise edge
- From access layer to workgroup or core switching or mid-sized enterprises
- L3 aggregation/distribution switches
- Metro Ethernet Access (MDU and advanced CPE)

The Alcatel-Lucent OmniSwitch 6850 SLS series consists of a suite of advanced fixed configuration switches that deliver line-rate switching and routing performance along with extensive network security features and optimal QoS. These versatile switches are ideal for use in enterprise workgroups, LAN wiring closets, edge deployments, L3 aggregation, distribution layer switches in three-tier networks, and Ethernet access for metro and triple-play applications.

Key Information

> L2/L3 GigE Stackable Solutions

- Flexible and extensive offering:
 - 4/48 ports 10/100/1000, Fiber
 - PoE capability with or without 10 Gig uplink for server connection or network core connection
 - Evolutive: Lite models 10/100 upgradeable to 10/100/1000 with a single software upgrade
 - Redundant and replaceable AC, DC, standard or high PoE power

3 - IP Telephony



- Comprehensive AOS edge features set
 - Embedded security and high availability: Access Guardian (Network Access Control), virtual chassis architecture for chassis-like availability
 - Common Alcatel-Lucent Operating System (AOS) software for optimized operations
 - Quality of Service (QoS), external power supply and redundant power supply allowing always-on activity in case of power failure
 - Investment protection: IPv6 ready, 802.1x, 10 GigE, low power
 - Metro Ethernet services ready (MEF certified)
 - Managed by OmniVista™ Network Management System

The OmniSwitch 6850 SLS is a versatile switch family that can be positioned from access layer to workgroup or core switching or mid-sized enterprises.

■ Alcatel-Lucent OmniSwitch 6855 SLS (New)

The OmniSwitch 6855 SLS is a hardened, fully managed GigE LAN switch designed to operate under a wide range of operating temperatures and harsh industrial electromagnetic environments. Its superior hardware design, complemented by the advanced AOS, makes the OmniSwitch 6855 SLS an excellent choice for industrial and carrier-grade applications. The OmniSwitch 6855 SLS inherits all of the feature richness of the OmniSwitch 6850 SLS via AOS support.

■ Alcatel-Lucent OmniSwitch 6400 SLS (New)

Target Markets

- Small-to-mid-enterprise edge and core
- Branch office workgroups
- Advanced L2 + GigE switch
- Metro Ethernet access for residential and metro triple-play applications

The Alcatel-Lucent OmniSwitch 6400 SLS is an extension of the existing OmniSwitch SLS product family, which supports triple speed, L2+ and GigE features. The OmniSwitch 6400 SLS addresses the needs of service providers and SMEs by providing a feature set that can be used in metro Ethernet services and is flexible, scalable and cost-effective for smaller enterprise sites.

The OmniSwitch 6400 SLS comprises five stackable models that offer built-in security, high availability and enhanced OAM management capability — making them ideal for any networking environment. This latest Alcatel-Lucent product offering supports the familiar and field-proven AOS functionality for effortless deployment within our customer base and offers new, extended features to address new customer requirements. The OmniSwitch 6400 SLS is the right fit for customers looking for low price, high performance, high availability, integrated security with easy deployment and management all in one platform.



Key Information

- Availability and performance:
 - Wire-rate switching and routing performance
 - High availability with redundant stacking links, primary/secondary unit failover, hot swappable power options and configuration rollback
- Security and QoS:
 - Auto-sensing network access control through Access Guardian framework (802.1x, MAC, rules)
 - Advanced QoS and access control lists (ACLs) for traffic control
 - Automated containment and quarantine with Alcatel-Lucent Quarantine Manager
- Unmatched flexibility and simplified manageability:
 - Choice of 24 ports, 48 ports PoE or non-PoE, and fiber models
 - Scalable from 24 to 380 ports via high-speed stacking
 - AOS management through Web interface (Webview)
 - Supported by Alcatel-Lucent 2500/2700 Network Management System

■ Alcatel-Lucent OmniStack 6200 SLS Product Family

Target Markets

- Edge deployments, small-to-mid-sized enterprises and branch offices
- Enterprise workgroups/LAN wiring closets

The Alcatel-Lucent OmniStack 6200 SLS audience includes enterprise network managers and service operators who need to deploy new services and require a lower price per port. The family of 10/100 copper or 100Base-X fiber L2+ Ethernet workgroup switches offers tremendous value in a complete, out-of-the-box solution. It includes built-in SFP and copper Gigabit uplinks, fault-tolerant dedicated stacking and PoE.

Key Information

- Industry standards
 - Simplified stack management using standard Ethernet cabling
- Scalable and flexible
 - 12, 24 or 48 Fast Ethernet ports that support 10/100 copper or 100BaseX fiber layer 2
 - Stackable using standard Ethernet cabling, which extends the single stack across multiple workgroup closets, and simplifies installation and configuration, which reduces operating expenses
- Multi-service operator
 - Interoperability with MPLS/VPLS core network architecture to provide advanced VLAN and multicast classification
- Convergence ready
 - Wire-rate Layer-2 forwarding and advanced Layer 2-4 services support secure advanced QoS with advanced VLAN user and traffic classification

The Alcatel-Lucent OmniStack 6200 SLS offers a cost-effective solution which perfectly matches small company and branch office needs.

3 - IP Telephony

IP Infrastructure Solutions



■ Wireless LAN

The enterprise WLAN market has been growing significantly for the last 3 years and will continue to show double-digit growth for the next 5 years. With security and QoS issues addressed, WLAN is now seen as a reliable enterprise-grade media that has to cover an entire enterprise to support business-critical applications. The Alcatel-Lucent OmniAccess WLAN product family offers the best-in-class support for VoWLAN thanks to optimized end-user experience with advanced QoS, easy trouble-shooting and leading security. It is based on a centralized architecture with embedded security and light access points. It is a comprehensive set of mobile LAN products that automatically identifies and authenticates users as they connect to the network.

Wireless Local Area Networking	<p>OmniAccess 4504, 4604 4704, 4324 WLAN Switches</p>	<p>Building networks</p> <ul style="list-style-type: none"> ■ 16, 48 access points ■ Integrated firewall, IDS/IPS ■ Centralized encryption 	<ul style="list-style-type: none"> ■ High availability <ul style="list-style-type: none"> ■ Controller redundancy ■ Access point failover ■ Security <ul style="list-style-type: none"> ■ Identity based ■ Intrusion prevention ■ Integrated firewall, IDS, pinholing ■ Optimised for voice & data <ul style="list-style-type: none"> ■ Fast hand-over between subnets ■ User roaming based on «follow-me» privileges ■ 802.11e QoS for VoWLAN ■ Location tracking
	<p>OmniAccess 4308, 4304 4302 WLAN Switches</p> 	<p>Remote office</p> <ul style="list-style-type: none"> ■ 4, 6 access points ■ Integrated firewall, IDS/IPS ■ Centralized encryption 	
	<p>OmniAccess WLAN Access Points</p> 	<p>Access points</p> <ul style="list-style-type: none"> ■ Adaptive personality ■ Rogue AP detection / containment ■ Support for Voice over WLAN (VoWLAN) ■ Indoor / outdoor APs ■ Multiple antenna options ■ 802.11a, 802.11b/g, 802.11a and b/g, 802.11n draft 	

3 - IP Telephony



Target Markets

- Small-to-mid-to large enterprise edge and core

Key Information

- Scalability and flexibility
 - From 3 to 1000's of access points
 - IEEE 802.11b, .11g , .11a,11.n draft
 - Easy to manage: Access points connect to central switch
- Security
 - Consolidate voice, data and security
 - Auto-sensing access control
 - Resilient switch and access point operation
 - Hardened operating system
 - Embedded firewall and IDS/IPS (Intrusion Detection System/Intrusion Prevention system)
- High availability
 - WMM + AutoQoS for IP telephony
 - Access point failover

Key Advantages

- Complete, multi-layered security: Alcatel-Lucent OmniAccess Access Points function as thin access points. Upper layer MAC processing functions, such as encryption and authentication, are integrated into Alcatel-Lucent OmniAccess WLAN switches, making Alcatel-Lucent OmniAccess Access Points cost-effective, and easy to deploy and manage, scalable, centralized wireless LAN switching
- Advanced Radio Frequency (RF) management: Alcatel-Lucent OmniAccess Access Points can simultaneously service wireless users and act as wireless monitoring devices. This eliminates the need for a separate overlay of RF sensors to troubleshoot and optimize the wireless environment
- QoS for latency-sensitive applications
- Standards-based enterprise mobility: the IEEE 802.11n standard heralds a new world for enterprise wireless networks. 802.11n brings higher data rates, longer range and more reliable coverage than previous Wi-Fi® technology.

What's New

The new Release 3.3 brings two key improvements to the product line:

- **IEEE 802.11n draft 2.0 support.** 802.11n increases the performance of the WLAN media by a factor of five. With the new release, one WLAN cell can support up to 300 Mb/s of traffic.
- **Wireless mesh support.** Typically, enterprise access points are connected to a cable for power and connectivity to the rest of the network. With wireless mesh, this requirement is no longer necessary. It means that an outdoor campus can be covered by a WLAN even if no wires are available to connect the access points. The mesh access points offer WLAN connectivity with one radio while the second radio is used to backhaul the traffic to the wired network. Wireless mesh support can also be used to establish point-to-point links between two buildings.

3 - IP Telephony



■ WAN

Limited IT budgets and resources are also affecting branch offices, forcing centralization of most applications and services within the headquarters. Security is critical for enterprises as the threats from the Internet become more sophisticated and complex. The main challenge lies in keeping deployed equipment operational, secure and available at all times with limited IT resources.

OmniAccess 740 Unified Service Gateway (USG) addresses these issues with an integrated, simplified solution for enterprise customers that have networked branch or regional offices. It comes from a new generation of routers with a performance and modular architecture built to simplify enterprise operations by supporting multiple consolidated services on one platform.

Key Information

Purpose built solution for branch offices:

- Simplicity:
 - One unit for multiple services like firewalls, routers, IDS/IPS systems
 - Reduce the cost and complexity of the WAN access network infrastructure
- Flexibility:
 - Allows new services to be implemented quickly and easily
 - Hitless upgrade and hot-swap operation
- Security:
 - Embedded security starting from WAN connectivity: Firewalling + IDS/IPS¹ + virus checking before routing protects LAN and WAN traffic
- More than just connectivity:
 - Multiple WAN connectivity: public, private, MPLS services
 - SIP proxy for Alcatel-Lucent IP telephony resiliency²
 - QoS for IP telephony

1- IDS/IPS: Intrusion Detection System / Intrusion Prevention system

2 - Check with Alcatel-Lucent local representative the availability

3 - IP Telephony

IP Infrastructure Solutions



OmniAccess 740 SG



■ Deployments	Regional office
■ Number of users	200 - 500

■ Interface slots	2
■ GigE ports	2
■ Packet forward rate	930,000 pps
■ 10/100/1000 Ethernet ports	8
■ T1/E1 ports (channelized and unchannelized)	4
■ ISDN PRI ports	4
■ Serial card (X.21/V.35) ports	2
■ ADSL/ADSL2/ADSL2+ ports	2
■ ISDN BRI ports	2

Routing services	RIP, OSPF, BGP, GRE for IP, VRRP, VRF-CE, PIM
LAN switching services	802.1Q VLANs, STP, PVSTP, IRB
WAN services	PPP, MLPPP, Frame Relay, MLFR, cHDLC
Branch office services	DHCP Relay/Server, DNS client, TFTP/FTP, Telnet
Convergence services	QoS, rate limiting, shaping, CAC, DSCP/TOS marking, SIP passthru support for voice ALGs and QOS
Security services	Firewall, IDS/IPS, VPN

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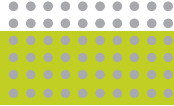
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3 - IP Telephony

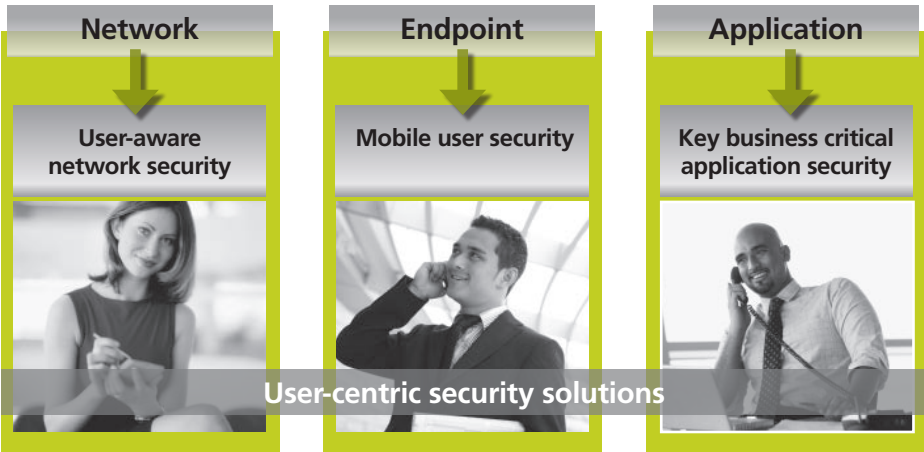
IP Infrastructure Solutions



■ Security

User-centric security preserves the integrity of the enterprise network and its assets. User-centric security is almost like protecting the network from the user - securing it against vulnerabilities that users introduce.

To realize user-centric security, medium-sized enterprises must create a secure environment within which end users can go about their business. End users must be surrounded by security solutions that are integrated into their working environment, as opposed to intrusive, reactive security measures that can reduce productivity and limit mobility. This approach requires user-centric security management, and reinforcement of security at enterprise network connection points and for mobile user communications as well. All of which must be simply and easily managed and enforced.



■ **Alcatel-Lucent user-centric security solutions** are focused on three fundamental elements of enterprise security: network, endpoint and application security. Alcatel-Lucent has developed a portfolio of solutions that incorporate these elements to help enterprises secure their network and mobile infrastructure.

3 - IP Telephony

IP Infrastructure Solutions



■ User-aware network security:

The Alcatel-Lucent network security portfolio covers authentication, HIC, role-based access, intrusion prevention, firewalls, VPN and more.

Embedded security features within the Alcatel-Lucent OmniAccess WLAN, Alcatel-Lucent OmniSwitch LAN, and the Alcatel-Lucent OmniPCX™ Enterprise CS portfolios provide extensive authentication, access controls, as well as quarantine and remediation capabilities as described in the individual product portfolio sections above.

Pre-admission and post-admission control solutions are integrated within the OmniAccess WLAN and OmniSwitch LAN infrastructure products to provide granular access controls and end-to-end quarantine and remediation services – without the need of additional servers.

■ Application security:

With our solutions, you gain complete control over data, access to information and IP telephony calls with secure, encrypted VoIP communications using the Thales IP Touch™ security module.



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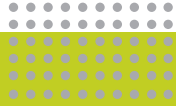
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4 - Multi-site Networking

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Multi-site Networking

Most mid-sized enterprises operate from a number of physical locations; from the central headquarters, through regional and branch facilities, to small and home offices. This is done with different types of operational sites, including office and production facilities, warehouses, and logistics departments. Each of these has its own specific requirements to communicate to the rest of the business, as well as its customers. Whether businesses operate from a single building, a campus or geographically separate locations, the goal is to provide the same level of service, communications and corporate applications to each user. Alcatel-Lucent has all the elements required to create converged enterprise-wide networks to ensure that all elements of the business have access to the communications and applications they need to thrive, while controlling telecommunications costs and management expenses.

Key Benefits

- Same level of features and functionality, regardless of location
- Reduce or eliminate inter-site communication costs
- Centralized applications, administration and management tools to reduce complexity and expense
- Robust resiliency mechanisms to handle WAN link failure
- Open standards protocols to interconnect third party equipment

What's New

- Network up to five BiCS systems
- SIP Networking
 - Interconnect OmniPCX™ Enterprise / BiCS and OmniPCX™ Office systems
 - Connect to third-party PBXs
- OmniAccess 740 Unified Service Gateway
 - Provides multiple WAN connectivity: public, private, MPLS services
 - QoS for IP telephony
 - SIP proxy for Alcatel-Lucent IP telephony resiliency¹
- **Alcatel-Lucent Business integrated Communications Server (BiCS) in Network**

The Alcatel-Lucent Business integrated Communication Server (BiCS) can now be connected in a network of up to 5 BiCS servers, to a maximum of 1000 users. The ABC-F protocol enables a high level of feature transparency between nodes. If the WAN connections fail, each BiCS operates as a standalone node with all local applications.
- **SIP Networking**

The Alcatel-Lucent OmniPCX™ Enterprise and the BiCS can now be networked to the OmniPCX™ Office using the SIP protocol on an IP connection. Third-party PBXs can also be connected in this way (as well as through QSIG / DPNSS for legacy systems) to enable a seamless migration for users.
- **WAN Resiliency**

The OmniAccess 740 Unified Service Gateway provides a flexible, secure, quality-of-service (QoS) connection to the branch office (See Chapter 3). It also provides an unsurpassed level of resiliency for remote sites. Several choices are available for WAN connectivity, from private leased lines, MPLS services through to public Internet links. Furthermore, the OmniAccess 740 Unified Service Gateway automatically fails-over to a backup connection if the main link fails. All of this is transparent to the end user. If backup WAN links are not available, the OmniAccess 740 Unified Service Gateway will, in an upcoming release, act as a SIP proxy for the Alcatel-Lucent IP telephones to maintain telephony services onsite, as well as through local PSTN connectivity.

¹ - Consult with the Alcatel-Lucent local representative to determine availability

5 - Mobility Solutions

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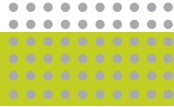
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5 - Mobility Solutions

Mobility Solutions



Mobility Solutions

No matter what the size and activity of a company, mobile communications have become an indispensable application in a business environment.

To meet this important business requirement, Alcatel-Lucent offers a global mobility application portfolio for enterprises. This product line of mobility applications provides businesses with unique organizational and working environment flexibility, allowing constant adaptation to ongoing changes and developments in business practices. Enterprises can now offer employees a virtual office with all the associated benefits and advantages, wherever they are located.

■ Alcatel-Lucent Mobility Solutions

- Enabling on-site and off site mobility: be reachable everywhere on any device with a consistent user experience



Free Desktop



Notification & Location



My Instant Communicator



Device Management*



PAN



DECT
R300(Ex)
MR400

VoWLAN
-WLAN
MIPT310
MIPT610



ICC
Dual
Mode



ICC
Cellular



ACE
RIM



ACE
Windows

Office

On-Site(s)

On & Off-Site

* Through our eco system of business partners

5 - Mobility Solutions

Mobility Solutions



■ On-site Mobility

- Bluetooth handsets on 4068 (Limited distance roaming)
- Free desktop environment provides full, virtual office telephony services
- DECT voice mobility, GAP compliant
- WiFi® – Converged voice and data mobility, with Voice over Wireless LAN (VoWLAN) handsets and “dual mode” WiFi/GSM devices

■ On-site and Off-site Mobility Alcatel-Lucent Advanced Cellular Extension (ACE) Windows Mobile® based:

- for Blackberry® devices
- for Nokia® devices (Intellisync Call Connect - ICC)

Dual-mode GSM and WiFi® devices

OmniTouch™ 8600 My Instant Communicator one number services

Key Benefits

■ Increased Employee Connectivity

- Ability to work anywhere, on the preferred device and with the same level of services available within the office

■ Enhanced Customer Interaction

- Always reachable and able to prioritize incoming callers

■ One number services

- Single number, single voicemail, whatever the device you want to use at the time
- Mobile device has same service level as fixed phone

■ Reduce And Control Mobile Worker Costs

- Converged voice and data infrastructure
- Use most cost effective call solution, choice of DECT, VoWLAN or GSM where appropriate

■ Compliance Control And Security

- Ability to force mobile conversations through the OmniPCX™ Enterprise

■ Virtual Office

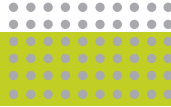
- Free desktop environment provides full telephony services for “hotdesks”, roaming workers and home workers

What's New

- Alcatel-Lucent Advanced Cellular Extension (ACE) Release 2.3 for Microsoft Windows Mobile® 6
- ACE for Blackberry® devices
- ACE for Nokia® (Intellisync Call Connect - ICC) Release 2.1
- ACE for Nokia® (Intellisync Call Connect - ICC) available through eBuy / Actis
- Alcatel-Lucent Advanced Cellular Extension (ACE) client activation through Alcatel-Lucent, part number in catalog
- OmniTouch™ 8600 My Instant Communicator one number services
- OmniTouch™ 8600 My Instant Communicator licenses issued on a per user basis include rights for fixed and mobile usages
- Alcatel-Lucent IP Touch™ 310 and 610 WLAN Handset support for OmniAccess WLAN radio-meshed architecture

5 - Mobility Solutions

On-Site Mobility



On-Site Mobility

■ **Dect & VoWLAN Key Benefits**

- Reached anywhere
- Scalable solution from small configuration to multi-sites
- Wireless call for free

■ **VoWLAN: Fully Converged WLAN Solution (cf. Data networks part)**

- Centralized and scalable data and VoWLAN infrastructure, with a thin access point for simplified deployment and management
- Voice-aware WLAN infrastructure: Fast handover, over-the-air QoS, voice-aware RF scanning, ARP proxy for battery savings of voice devices, centralized call admission control (CAC)
- Radio-meshed architecture decreases implementation costs

■ **What's New Alcatel-Lucent IP Touch™ 310 and 610 WLAN Handset**

- Refined ergonomics — lighter, smaller, enhanced processor and more memory
- Enhanced durability — IP53, Restriction of Hazardous Substances (RoHS)
- Simplified interface — five navigation keys, dial by name
- Improved productivity — improved battery life of up to 160 hours in stand-by mode, speaker phone, mini-messaging, push-to-talk with “never busy” feature for emergencies
- Security — Wired Equivalent Privacy (WEP), Wi-Fi® Protected Access (WPA), WPA2
- Interoperability — IEEE 802.11 a/b/g standards, notification and alarm support — key for verticals like healthcare and retail
- Lower TCO — No SpectraLink SVP Server required; WLAN standards of QoS (WMM/802.11e + U-APSD + Tspec)

■ **DECT: What's New: Alcatel-Lucent 300 and 400 DECT Handsets**

- Refined ergonomics — smaller and lighter weight, color and icon display on 400 DECT Handset, integrated antenna, vibrate mode
- Enhanced durability — one product worldwide, RoHS compliance
- Improved productivity — multiline handling, improved battery life, better audio, dial by name and speaker phone on 400 DECT Handset
- Alcatel-Lucent IP Touch™ 300 Ex — intrinsic explosion-proof handset for use in critical environments, such as in the chemistry, oil and gas industries

5 - Mobility Solutions

On-Site/ Off-Site Solution



On-Site / Off-Site Solution

■ Alcatel-Lucent Advanced Cellular Extension (ACE)

The Alcatel-Lucent Advanced Cellular Extension (ACE) for Windows Mobile® provides advanced services on Windows Mobile® smartphones and PDA.

■ Unique Number Solution Key Benefits: ACE

- Single number
- Use the same phone/device for on-site and off-site mobility

■ It Improves Productivity Of The Users:

- One number, one voicemail, one GUI for Alcatel-Lucent services, such as second call with back and forth, transfer, call attendant, call back, call recording, message deposit, three-party conference, direct call-to-voice mail, call forward control, reverse call
- Seamless integration into native dialer
- Choice between business and private mode
- Twin set support (Fixed + Mobile)

Alcatel-Lucent Advanced Cellular Extension (ACE) for Windows Mobile® 6, Release 2.3

ACE for Windows Mobile® 6 provides a menu-driven interface on mobiles devices, such as PDAs and smartphones, to access OmniPCX™ Enterprise CS services.

■ ACE for Nokia® (ICC Client)

The Nokia® ICC for Alcatel-Lucent client is loaded on the Nokia® E series business range of phones and provides the following features:

- ACE features
- Dual-mode:
 - On- and off-site mobility and capability to use Nokia® E series (cf. Table p. 42) provided on both private WLAN and mobile operator infrastructures
- VoWLAN phone inside the company
- GSM phone outside the company
 - A single, consistent user interface when on-site using the WLAN network, or off-site using a mobile carrier

Nokia® (ICC) for Nokia® E-series, Release 2.1, dual-mode GSM/VoWLAN

The dual-mode GSM/VoWLAN will enable the end-user to benefit from advanced telephony services inside and outside the company using the same device and telephone number. The dual mode is provided through the Nokia® E-series using the Nokia® ICC for Alcatel-Lucent designed through Nokia® partnership.

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5 - Mobility Solutions

On-Site/ Off-Site Solution



■ ACE for Blackberry®

Only for Blackberry® infrastructure:

One number, one voicemail, one GUI for Alcatel-Lucent services, such as second call with back and forth, transfer, call attendant, call back, call recording, message deposit, three-party conference, direct call-to-voice mail, call forward control, reverse call.

- Corporate directory search
- Mono or dual ring
- Twin set support (Fixed + Mobile)
- Device management

Mobile Device Connectivity

Device Type	WiFi®	Operating System		
		Blackberry®	Windows Mobile® 6	Nokia® E-Series
Single Mode	NA	•	•	•
Dual Mode	•	NA	NA	•



6 - Unified Communications

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Unified Communications

The Alcatel-Lucent OmniTouch™ Unified Communications Application Suite is the first unified communications application that integrates multimedia, multisessions, media blending and multidevices. It is an innovative approach that integrates all unified communications services and ensures a consistent user experience whatever the device, regardless of the underlying infrastructure. Openness of the solution guarantees straightforward integration into all business processes, including desktop, business applications, and fixed or mobile devices.

Benefits

- True unified communications solution with media-blending capabilities, whatever the underlying infrastructure
- Non-intrusive, intuitive user interface gives control of communications back to the user
- Consistent interface regardless of the device, improves user adoption and experience
- Complements and enriches the IBM® and Microsoft® user desktop environment
- Fully adaptable to enterprise business through easy customization in key applications

What's New

- Alcatel-Lucent OmniTouch™ Fax server integrated into the BiCS platform
- Alcatel-Lucent 8600 My Instant Communicator provides visual control of all active communications sessions through a single window.
- The Genesys® Enterprise Telephony Software (GETS) platform for Microsoft Office® Communicator 2007 is now orderable through Actis.
- Enrichment of services Integration in IBM Lotus® Sametime® 7.5 and IBM Lotus® Sametime® 8
 - Telephony presence and full audio conferencing within IBM Lotus® Sametime® interface
 - IBM Lotus® Sametime® instant messaging (IM) launches from My Instant Communicator multimedia blending interface
- Alcatel-Lucent 8600 My Instant Communicator rated "Top Performer" by Miercom (6/2/2008).

■ OmniTouch™ 8600

My Instant Communicator

Alcatel-Lucent OmniTouch™ 8600 My Instant Communicator is a multimedia, multi-session, unified communications solution that integrates enterprise communication tools to create a homogeneous end-user experience across different devices and channels, whatever the underlying infrastructure.

With My Instant Communicator, end users can easily control and manage their entire communications environment, including voice and video calls, instant messages (IMs) and multimedia collaboration applications.





My Instant Communicator is part of the Alcatel-Lucent OmniTouch™ Unified Communications suite of next-generation, IP-based applications for enterprises. It includes telephony, messaging, collaboration, one number and presence services in a single user license. It also offers optional audio, data, video conferencing services, as well as fax and redundancy services.

Benefits

- Consistent, intuitive user interface across all devices, including computers, mobile devices and IP phones, improves customer experience and productivity
- Consistent user experience regardless of the underlying access infrastructure, whether analog, digital (TDM), IP, DECT, GSM or WiFi®
- Range of optional services allows end users to easily adapt the unified communications experience to their preferences
- Non-intrusive graphical elements, such as desktop alerts and pop-ups, help end users to manage daily communications, and quickly access and share information



- Support for Microsoft® and IBM® desktop applications complements customers' desktop environment, and provides employees with immediate access to their contacts, settings and applications

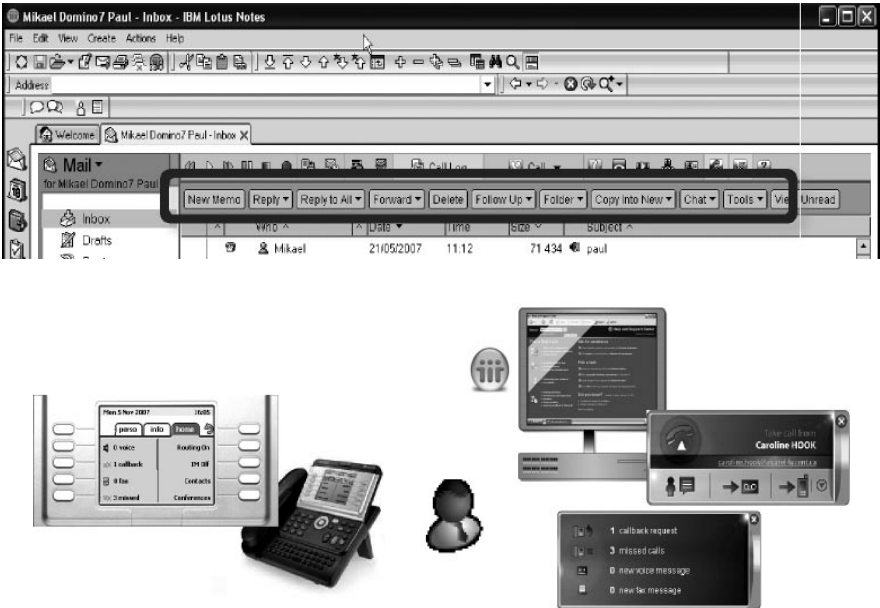
6 - Unified Communications



Example of Microsoft Outlook® integration



Example of IBM Lotus® Notes integration

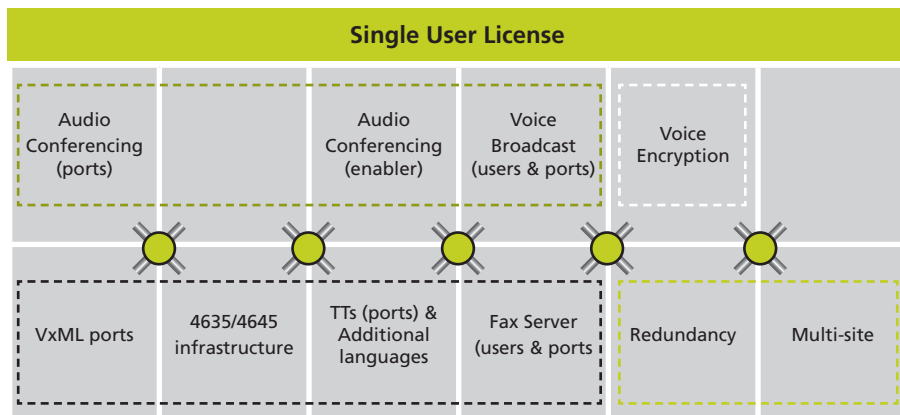
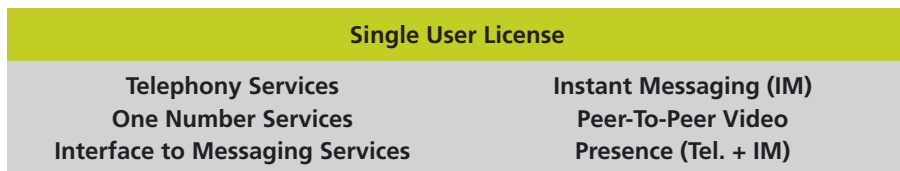




■ Simplified Licensing Model

Single user license for:

- **Telephony Services** (formerly My Phone): IP stack for the PC is included; IP licenses for the OmniPCX™ Enterprise CS need to be purchased separately
- **One Number Services** (formerly My Assistant): Access to call routing and screening interfaces
- **Messaging Services** (formerly My Messaging): Infrastructure needs to be purchased separately: Either VxML ports for a software-based messaging system or Alcatel-Lucent 4635/4645 VMS with corresponding resources
- **Collaboration Services**: Access to instant message services without audio or data conferencing capabilities; access to peer-to-peer (P2P) video collaboration capabilities associated with a VoIP channel
- **Presence**: Access to presence information (telephony and IM)
- **Optional Services**: Audio, data, and video conferencing services, as well as fax and redundancy services



Collaboration

Messaging

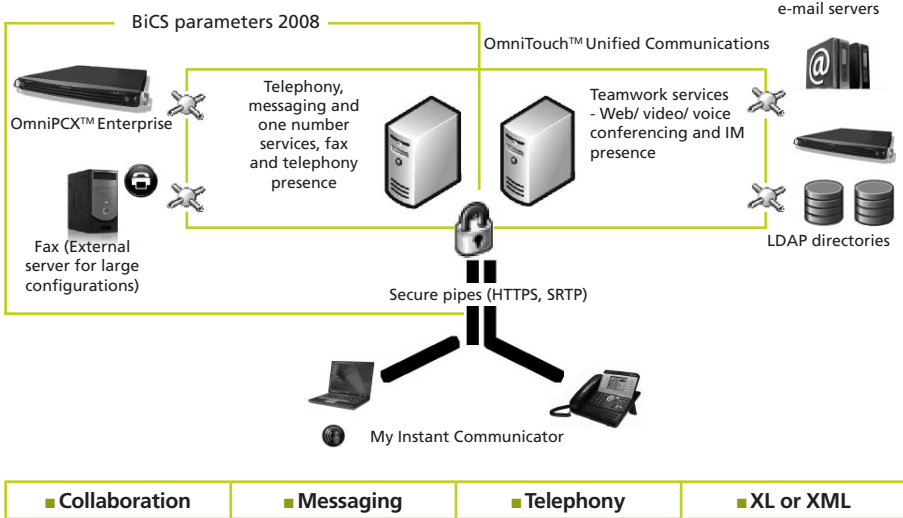
Telephony

XL ou XML

6 - Unified Communications



■ Architecture



My Instant Communicator is a thick client installed on the end user's PC and built on the Alcatel-Lucent OmniTouch™ Unified Communications Application Suite applicative framework.

■ Alcatel-Lucent OmniTouch™ My Teamwork

Alcatel-Lucent OmniTouch™ My Teamwork is part of the Alcatel-Lucent OmniTouch™ Unified Communications suite of applications. Alcatel-Lucent OmniTouch™ My Teamwork Conferencing and Collaboration is a premises-based, multimedia communications solution with full-feature access to audio, Web, video, presence-driven IM, presentation, application sharing, and document management — all from a single, software-based server.

Peer-to-peer video is a natively embedded implementation with Alcatel-Lucent OmniTouch™ My Teamwork while video conferencing is achieved through partnerships with leading video conferencing vendors such as RADVISION and Tandberg, which enlarges the reach to video endpoints from vendors, such as Aethra, Polycom, Sony and Tandberg.

■ GETS for Microsoft® Office Communicator

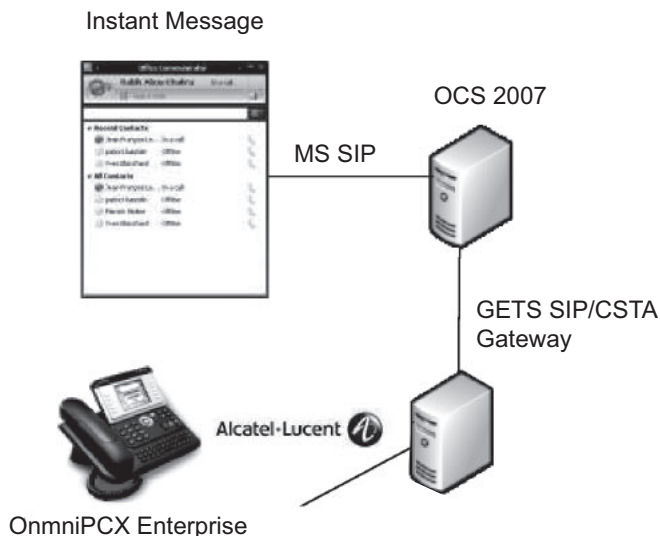
The Genesys® Enterprise Telephony Software (GETS) platform provides telephony services, such as call transfer, click to call, forwarding, caller ID, do not disturb, missed call notification, telephony presence and many more to all Microsoft® Office Communicator and Microsoft® Office users.

6 - Unified Communications



This solution, based on the proven and market-leading Genesys CTI platform, integrates the complete and reliable Alcatel-Lucent OmniPCX™ Enterprise Communication Server within the Microsoft® Office Communicator desktop.

This solution also integrates a multivendor telephony infrastructure, including both IP and TDM environments, and delivers a multivendor gateway that aggregates telephony and presence. This integration guarantees a homogeneous and rich service level across the enterprise and extends the reach of Microsoft® Office Communicator users to all telephones — internal or external, TDM or IP, fixed or mobile, Alcatel-Lucent or other vendor.



Components of a GETS deployment



■ OmniTouch™ Fax Server

The Alcatel-Lucent OmniTouch™ Fax Server is an economical, fast, secure and robust IP fax server solution that delivers market-leading, boardless (software-only) T.38 Fax over IP (FoIP). For five consecutive years, OmniTouch™ Fax Server has ranked number one in the global IP fax market, and won numerous IP telephony awards.

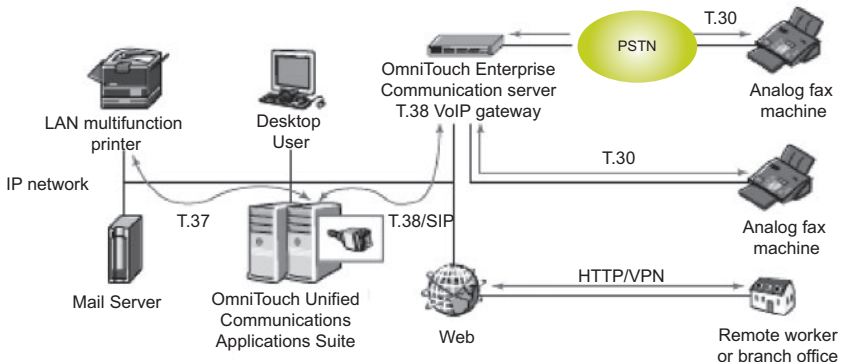
Benefits

- Manages large fax volumes and delivers high levels of scalability, reliability and availability
- Provides seamless IP PBX integration and virtual machine support through the Alcatel-Lucent Business integrated Communication Solution (BiCS) (up to 4 channels and 500 users)
- Shares the same server as the OmniTouch™ Unified Communications Application Suite (up to four channels and 500 users)
- Delivers faxes quickly and efficiently via e-mail. Fax messages can be sent from any SMTP-based messaging system and are displayed in the end user's mailbox.
- Reduces hardware, maintenance, consumables and administration costs and dramatically

■ Technical Characteristics

- IP faxing using SIP/T.38 and SIP stateless and stateful proxies
- Group 3 fax and transmission speed of up to 9600 b/s
- 100 x 200, 200 x 200, 300 x 300 and 400 x 400 resolutions
- Up to four simultaneous fax communications when embedded into BiCS and up to 30 when running on a dedicated server

■ Architecture



■ Individual Application Details

For more information on the individual applications, please review the Unified Communications chapter (Chapter 6) of the Solution Handbook.

7 - Greeting Solutions

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Greeting Solutions

The Alcatel-Lucent OmniPCX™ Enterprise Communication Server and the Business integrated Communication Server (BiCS) offer a wide range of solutions to welcome the customer. Starting with entry-level phone-based greetings to multimedia professional console attendants, through to the “EasyContact” OmniTouch™ Contact Center-based greeting center, Alcatel-Lucent provides the right solution to fit the needs of any mid-sized enterprise.

Benefits

- Eliminate lost calls and route callers to the right person, first time
- Cost-effective, fully embedded call distribution solutions
- Easy to configure, use and manage
- Simple to upgrade to more formal contact center environment

What's New

IP Agent Softphone licenses included in the Alcatel-Lucent Business integrated Communication Solution (BiCS) base packs.

■ IP Agent Softphone

The Alcatel-Lucent IP Agent Softphone is an IP softphone running on a Windows® multimedia PC that provides the same level of features as an IP Touch™ A4068 IP phone, configured as a call distribution (CCd) agent.

It has the same telephone layout and display as the IP Touch™ phone for the same user look and feel, including the context-sensitive programmable keys. It is also QoS compatible. Using the IP Agent Softphone multi-extension agent / user mode, together with the greeting center solution, enables a specialist or knowledge worker to manage both business and greeting center calls.

In the Alcatel-Lucent Business integrated Communication Solution, there are five IP Agent Softphone licenses included in both the IP and “mixed” base packs.



8 - Contact Centers

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8 - Contact Centers



Contact Centers

Contact centers have become an integral part of most organizations and are often the first point of contact with their potential and existing customer base.

Alcatel-Lucent provides a full range of contact center solutions, from the Alcatel-Lucent Enterprise Greeting Center (EasyContact) for companies with advanced greeting needs, through to the Alcatel-Lucent OmniTouch™ CC Standard Edition for voice-centric contact centers and the new Alcatel-Lucent OmniTouch™ CC Premium Edition, which addresses the needs of mid-sized contact centers with up to 150 agents.

Benefits

- Packaged solution embedded in the OmniPCX™ Enterprise CS and BiCS (Standard Edition)
- Better customer experience, utilizing features such as expected wait time notification
- Call distribution and enhanced features, such as IVR and wallboard
- Single competency for administration, supervision and reporting telephony desktop and integration tools
- Power of the Genesys routing engine accessible to the medium enterprise

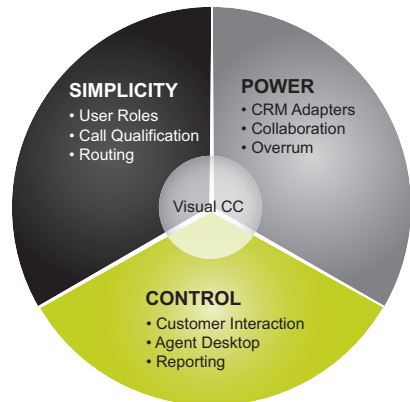
What's New

- Alcatel-Lucent CC Premium Edition becomes part of the Business Communications Solution (BCS) Offer
- Support for connection to the Alcatel-Lucent CC Premium Edition added to the BiCS

■ OmniTouch™ Contact Center Premium Edition

The award-winning Alcatel-Lucent OmniTouch™ Contact Center Premium Edition is an all-in-one application designed for contact centers with 30 to 150 agents. It provides mid-sized enterprises with advanced multimedia contact center capabilities within a user-centric, graphical management environment.

The OmniTouch™ Contact Center Premium Edition simplifies deployment and increases customer value with advanced features, such as an embedded solution for call qualification, real-time business conditions management, and innovative collaboration capabilities that link agents, experts and customers. The OmniTouch™ Contact Center Premium Edition delivers simplicity, control and unrivalled power, helping agents react instantly to any request.





Benefits

User-Centric Solution

The OmniTouch™ Contact Center Premium Edition provides a simple, intuitive user interface that meets the needs of all four user profiles within a typical contact center operation. With its role-oriented architecture, the OmniTouch™ Contact Center Premium Edition helps users operate effectively and efficiently with tools that are best suited to their tasks. The following comprise the user profiles:



Contact Center Manager is a key decision maker focused on high-level information and performance indicators.



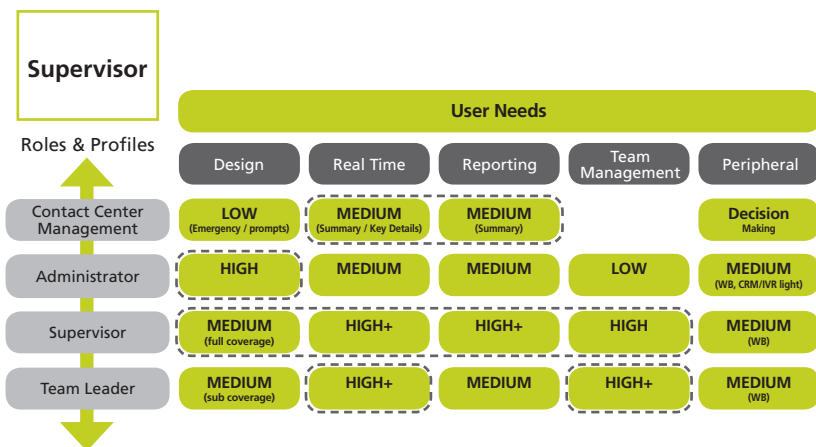
Administrator is responsible for contact center configuration, including interaction flows, alerts and historical report templates.



Supervisor(s) is responsible for efficient contact center operations, including traffic forecasting and number of agents.



Team Leader(s) is responsible for contact center operations for a specific group of agents organized into teams.



8 - Contact Centers



■ Smart Routing Techniques

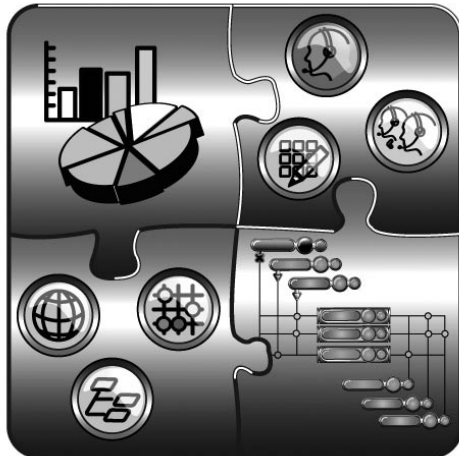
The OmniTouch™ Contact Center Premium Edition, together with the powerful Genesys routing engine, provide a predefined set of routing mechanisms that are directly accessible from Contact Center entry points, and can be activated with a few mouse clicks – no programming required.

Routing Techniques include:

- **Group skill mapping:** Agents are organized into groups and each group represents a skill combination.
- **Individual skill mapping:** Routing logic is defined, and can be refined for each individual agent using a skill expression.
- **Multi-stage queuing:** Depending on the specific service requested or after a defined amount of time, the number of agents and resources is expanded to better serve the customer
- **Expected Waiting Time (EWT) announcement:** Improves callers' visibility while waiting
- **Pre-qualification:** Either based on Automatic Number Identification (ANI), Dialed Number Identification Service (DNIS), database lookup or after Visual IVR interaction
- **E-mail routing:** in Premium V7.1 (in later release)

■ Visual Simplicity

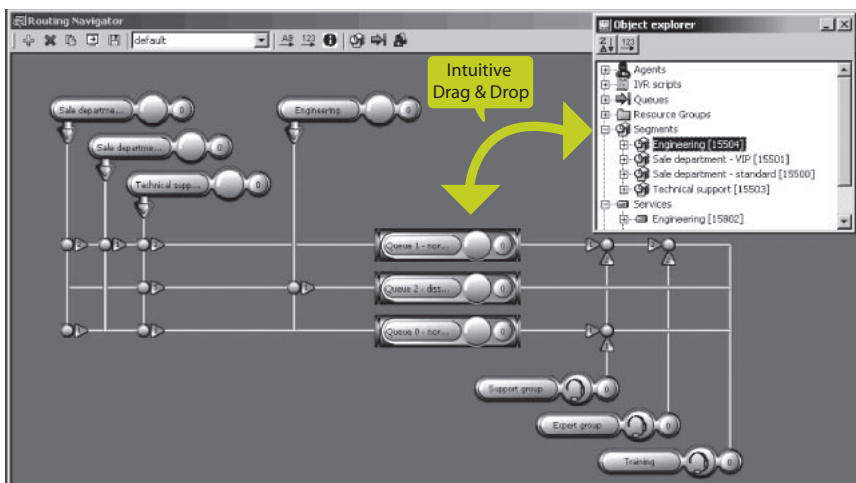
Visual CC is an integrated supervision application, designed by the roles of the users that can be accessed by all user profiles. Through its unique, intuitive user interface, Visual CC significantly reduces time-to-customer value by enabling agents to collect information, configure routing rules and set reporting indicators.





What's New

- GUI easily customized according to user roles
- Drag-and-drop interface offers a wide range of shortcuts, such as object cloning or the mouse "tool tip" help function
- Consistent vocabulary reduces learning time
- Advanced online search and help functions improve productivity
- Visual paradigm replaces the need for a proxy translator and IT specialist to hard code interaction flows, allowing the business owner to lead the contact center design



8 - Contact Centers



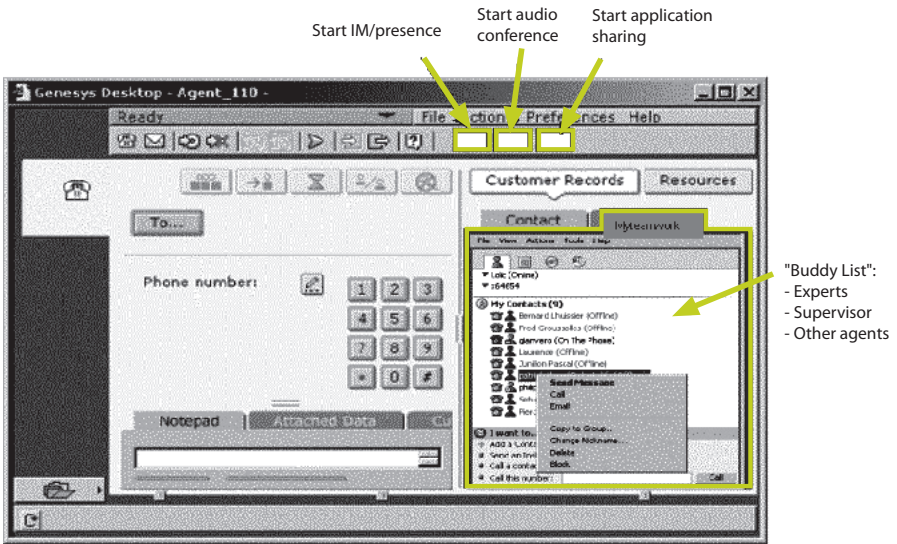
■ Adapts to Changing Business Environments

The OmniTouch™ Contact Center Premium Edition provides a high level of flexibility to respond to temporary constraints and unplanned external events that create variations in call volumes. Using its Overrun function, the OmniTouch™ Contact Center Premium Edition allows additional overflow licenses, which absorb the increase in activity and allows users to react faster to customer demands.

■ Faster Call Resolution

The OmniTouch™ Contact Center Premium Edition significantly improves first call resolution with CC Teamer. CC Teamer monitors the presence of skilled staff so that an agent can contact the relevant expert in real time, wherever they are, inside or outside the company. Instant collaboration with experts is done using:

- Instant messaging (IM) with presence awareness
- Immediate conferencing functions
- Real-time application sharing

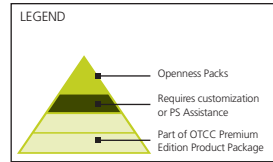
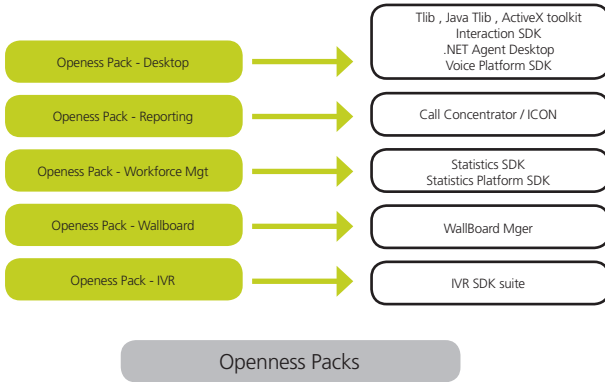
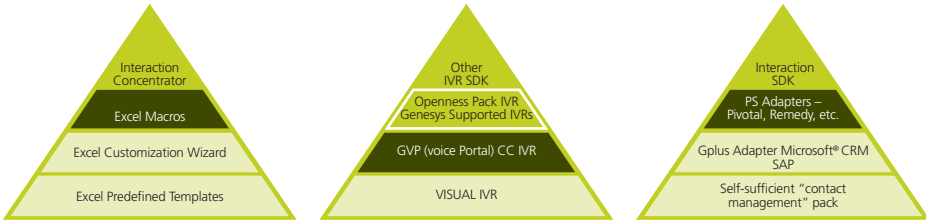


8 - Contact Centers



■ Easy Integration

To ensure fast and easy integration with any customer environment, the OmniTouch™ Contact Center Premium Edition offers a series of Openness Packs and other customization capabilities, which are described below.



The OmniTouch™ Contact Center Premium Edition openness capabilities

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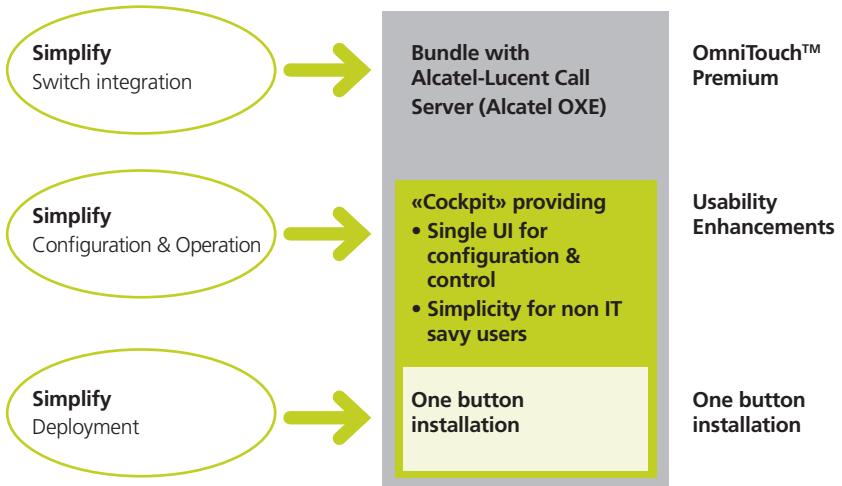


■ Architecture

The OmniTouch™ Contact Center Premium Edition is a server-based, converged solution built on proven Genesys® Contact Center technology.

Benefits

- Easy download and upgrade
- Zero footprint deployment
- One-button installation
- Transparent versioning upgrade
- Proven scalability



9 - Management Solutions

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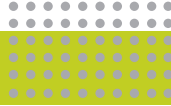
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Management Solutions

Alcatel-Lucent Business Communication Solutions include end-to-end management solutions, from device to network and application performance management.

Mid-sized enterprises need cost-effective management solutions that simplify day to day operations and people management.

These tools must also increase overall network and application efficiency and profitability through effective performance management.

Key Benefits

- End-to-end solutions
- Better control of network and business operations
- Secure, Web-based network management
- Highly scalable and centralized solutions to minimize costs

What's New

- Alcatel-Lucent OmniVista™ 2500 and 2700 Network Management Systems (NMS) support for new switches, more scalability and Web services
- Alcatel-Lucent OmniVista™ 4760 NMS: scalability improvements and two new applications.
 - Audit Operations provides global and detailed information on all the operations made on the Alcatel-Lucent OmniPCX™ Enterprise Communication Server (CS)
 - SIP Device Management provides SIP device configuration on devices such as the Thomson® 2022 and 2030 VoIP phones
- **Alcatel-Lucent OmniVista™ 4760 and 2500, 2700 NMS** are platforms that manage Alcatel-Lucent LAN/WLAN/WAN, IP telephony and IP communication solutions. These solutions can be seamlessly integrated with third-party management platforms.
 - The OmniVista™ 4760 application suite focuses on providing centralized, local or remote network management for OmniPCX™ Enterprise CS solutions, for reduced operation costs and better availability.
 - The OmniVista™ 2500 and 2700 NMS provide a comprehensive set of applications and tools that simplify the management of Alcatel-Lucent networking solutions and third-party devices through a user-friendly GUI.
- **Management Converged Solution**

With Alcatel-Lucent network and performance management software, you will find it easier than ever to manage your converged network solution. Alcatel-Lucent provides the following end-to-end solutions to ease the management of fully converged Alcatel-Lucent IP communication networks and reduce the total cost of ownership (TCO):

 - Centralized management platforms with a single network topology



- **The OmniVista™ 4760 NMS** provides centralized management for OmniPCX™ Enterprise CS solutions. It is designed to help telecommunications managers and administrators make strategic decisions about their converged networks. Its Web-based architecture simplifies network administration and maintenance, and helps lower the enterprise's TCO. It includes:
 - Tailored and animated topology maps to monitor the status of systems and applications
 - Direct access to alarms with real-time notification
 - User-friendly configuration for OmniPCX™ CS family and enterprise applications
 - Automatic creation and notification of accounting and performance reports (including VoIP reports)
 - LDAP company directory
 - Security: role-based management, RADIUS support, IPSec, redundancy
- **Operation Audit**

This new application is available in OmniVista™ 4760 Release 5.0. It provides centralization and follow-up of the recorded operations performed in the OmniPCX™ Enterprise network, as of Release 7.1.14. The operations can be recorded in a number of ways, through OmniVista™ 4760 Configuration, Telnet/Manager, etc.
- **Security Enhancement**

The Operations Audit option enhances enterprise security with:

 - Specific analysis of the operations performed during a range of time in case of a security threat
 - e-Mail distribution of monthly reports provides the list of the operations made for a customer or department by the administrators in charge of the Service Level Agreement
 - Audit grid and tree: Summary of all the operations and operational details
 - Statistics on Operations Audit: Follow-up of the configuration actions performed in the OmniPCX™ Enterprise with three predefined reports delivered
- **SIP Device Management**
 - SIP Device Management provides SIP devices (like Thomson® 2022 and 2030) firmware/configuration download, and link with OmniPCX™ Enterprise users, as of 9.0.
- **OmniVista™ 2500/2700 NMS** gives administrators a unified view of the network infrastructure as well as the necessary functions and services required to support next-generation devices and applications. It features centralized management, bulk operations through simplicity and scalability of essential network management functions, such as:
 - Discovery of any SNMP network device
 - Topology maps
 - Alarms management
 - Statistics
 - Inventory reports
 - Troubleshooting tool
 - Backup and restore services
 - Device software version upload across the network
- **The OmniVista™ 2700 NMS** offers supplemental, optional software applications that provide flexibility, and help automate and manage complex data, voice, security and a northbound interface setting.

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