

ALCATEL-LUCENT OPENTOUCH MULTIMEDIA SERVICES RELEASE 2.1 AND ALCATEL-LUCENT OMNIPCX ENTERPRISE COMMUNICATION SERVER RELEASE 11.1

High-quality unified communications for large enterprises

The pace of change in the competitive landscape for enterprises is accelerating, thanks to global economic, social, and technological shifts; business cycles that used to take days now take hours. Today's business environment crosses traditional enterprise boundaries. Unified communications create new opportunities to increase employee productivity and customer satisfaction in this changing environment.



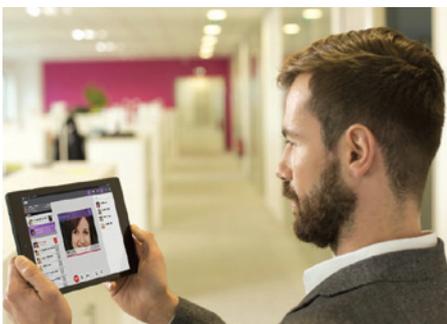
ALCATEL-LUCENT OPENTOUCH SUITE

The Alcatel-Lucent OpenTouch® Suite delivers high-quality unified communications. It is a modular software suite for large organizations that require professional business communications, multimedia collaboration at the office and on the go, customer service functionality and management services.

features that suit their office work style from the comprehensive features offered by the Alcatel-Lucent OmniPCX® Enterprise CS.

ALCATEL-LUCENT OPENTOUCH MULTIMEDIA SERVICES (MS)

OpenTouch Multimedia Services is an application server that makes the organization's business response faster by integrating real-time enterprise communications into PC desktop, smartphone and tablet environments. Employees who need better business communications on their smartphone or who need interactive visual communication benefit from OpenTouch Conversation – a software client that works on any device and offers an intuitive and unified interface to enjoy wideband audio, instant messaging, as well as HD video and document sharing collaboration at the office and on the go.



ALCATEL-LUCENT OMNIPCX ENTERPRISE COMMUNICATION SERVER (CS)

Employees who primarily work on company premises and use voice communications frequently benefit from OpenTouch Connection, the advanced business communications experience available on reliable desk phones, sturdy DECT or WLAN mobile handsets, and on software clients for PCs, tablets or smartphones. Users can pick the telephony

| ORGANIZATIONAL NEED | FEATURES | BENEFITS |
|--|--|---|
| OmniPCX Enterprise Communication Server | | |
| OpenTouch Connection experience | | |
| Enterprise-grade communication services, including state-of-the-art telephony and a wide range of professional terminals | Comprehensive, advanced business telephony services, including auto-attendant, screening, group, routing and messaging services | Instant business response: all important calls are identified and answered |
| | Rapid directory lookup and speed-dial | Save time when dialing contacts |
| | Multi-platform support: employees enjoy desk phones and software clients and can shift calls to another device | Flexible options: desk phones, wireless handsets or software clients for resident workers and increased mobility in the workplace |
| | Proven multi-site support with bandwidth control | Improved voice-over IP quality with centralized communications to improve operational expenditure |
| | High-availability options | Improved business continuity for communication services during network outages or server failures |
| | High scalability: 15,000 users per server or virtual machine; 250,000 users in network; more than 1 million users in supra-networks | Improve total cost of ownership (TCO) with centralized operations. Networking of servers to meet requirements for higher availability and demarcation points between networks |
| Integrated customer service applications | | |
| Best-of-breed customer interaction services to increase sales and customer loyalty | Professional welcome services, from greeting and group calls, to centralized attendant applications | Increased customer satisfaction by answering all calls - centrally or in branch offices |
| | Contact center services, including a patented visual distribution matrix | Accelerate first call resolution with a call distribution logic that can be adapted within days to evolving needs |
| | Integration with the OpenTouch Customer Service suite and the Genesys™ Suite | Increase customer satisfaction and brand e-reputation with multi-channel interactions |
| OpenTouch Multimedia Services | | |
| OpenTouch Connection application services | | |
| PC and smartphone integrations to boost productivity at the office and on the go | Remote call control and VoIP client that can be integrated with PC productivity applications | Single contact management: so office and remote workers can save time by controlling their phone from their PC |
| | PC-based ad-hoc and scheduled conference controls | Employees can share document information with peers and guests |
| | Single business identity, easy directory lookup, real-time presence and instant messaging, and on-call access to business services from smartphones and PC | Employees are reachable anywhere, with access to business communication services while at the desk and on the go |
| OpenTouch Conversation application services | | |
| Intuitive multimedia collaboration solutions that boost productivity, facilitate mobility and decrease travel costs | Single business identity with multi-device routing profiles and rapid session shift between desk phones, smartphones, tablets and PCs | Employees are reachable anywhere and on the device best suited for their location |
| | Unified interface for easy access and setup of multiparty conferences | Reduced travel expenses and efficient interactions between geographically-dispersed teams |
| | Intuitive interface for easy addition of HD video and content sharing | Better engagement with contextual video- and content-sharing interactions |
| Web conferencing with customers, partners and colleagues | | |
| New ways to communicate with customers, partners and colleagues | Integrated conferencing capabilities easily accessible from any phone or browser. | Customers, partners and colleagues can easily and securely join OpenTouch sessions from outside the enterprise firewall |

Unified user management and operations

Decrease TCO while maximizing service continuity

Unified user management across OmniPCX Enterprise CS and OpenTouch MS applications

Improved daily move, add, change and delete operations

Advanced, real-time thresholds and alerts

Instant notification of changes to communications quality, service availability and service-level-agreements

TECHNICAL SPECIFICATIONS

User experience

OmniPCX Enterprise Communication Server

OpenTouch Connection: Business telephony services

- Centralized directory with call by name
- Multi-line telephony
- Call options, including speed dial
- Audio conferencing
- Personal and enterprise call routing and forwarding
- Call shift of current session from desk phone to mobile device of choice
 - Automatic shift with Near Field Communication (NFC) smartphones
- Call-back and call history features
- Contextual voice prompts
- Informal group features
- Desk-sharing for shared offices
 - Alcatel-Lucent Premium DeskPhones (IP)
 - Alcatel-Lucent OpenTouch Connection for Alcatel-Lucent OmniTouch® 8082 My IC Phone®
 - Logon, logoff, re-logon
 - Automatic logoff

Manager/assistant

- Teams
- Filtered lines and private lines
- Text messaging, IM and voice messaging
- Discreet listening

Teams and groups

- Hunting groups and queues
- Supervision

Multi-tenancy

- Services per entity:
 - Speed dial
 - CLIP/CLIR
 - Auto attendant
 - Greeting message
 - Music on hold
 - Night service

Telephony at the desk

Alcatel-Lucent OmniTouch 8082 My IC Phone

- 17.78 cm (7 in) capacitive and haptic touch screen
- OpenTouch Connection experience
 - Business communication services
 - Digital dial-pad or keyboard
 - Hands-free loudspeaker announcement
 - Alcatel-Lucent New Office Environment (NOE) protocol
- Hospitality application (SIP)
 - XML kit/library for developers
- 10/100/1000 Ethernet
- Bluetooth® or corded handset

Alcatel-Lucent Premium DeskPhones

- Business telephony services
- Vivid backlit screens
- Embedded alphabetical keyboard
- Display of names and contextual feature keys
- Wideband VoIP
- Hands-free loudspeaker announcement
- Headset capability, such as Bluetooth
- Alcatel-Lucent NOE protocol (IP and TDM), SIP or NOE over SIP
- Add-on supervision modules
- XML kit/library for developers

Alcatel-Lucent 8012 DeskPhone

- Essential SIP telephony services
 - Multi-line support
 - Display of names and contextual feature keys
- Unified directory
- Hands-free loudspeaker
- Gigabit Ethernet

Alcatel-Lucent 8001 DeskPhone

- Essential SIP telephony services
 - Display of names and contextual feature keys: 5-line display
 - Built-in 3-party conference
- Lightweight Directory Access Protocol (LDAP) directory
- Hands-free loudspeaker
- Hold, conference, transfer, redial physical keys

Telephony on the go and at the desk

Alcatel-Lucent OmniTouch 8118/8128

WLAN handsets

- Support 802.11a/b/g/n
- Business communication services
- High voice quality using standardized 802.1 Quality of Service (QoS)
- Support for wireless security Wireless Encryption Protocol (WEP), Wi-Fi® Protected Access (WPA) and WPA2

Alcatel-Lucent 500/500EX DECT handsets and 8232/8242 DECT handsets

- Full range of DECT Handsets from Business to Industrial and Ex version
- Business communication services
- Hands-free option
- Headset capability
- Integration with notification and location-based services through Alcatel-Lucent Application Partner Program (AAPP)

Alcatel-Lucent IP Desktop Softphone

- Premium DeskPhone user interface
 - Microsoft® Windows® 7, Windows 8.1 operating system
 - Apple Mac, Apple iPad and Apple iPhone
 - Tablets and smartphones using the Google® Android™ platform

OpenTouch Multimedia Services

OpenTouch Connection application services for office workers at the desk and on the go

- Software client with intuitive GUI
 - Background mode notifications
- Place, answer and manage voice and instant messaging (IM) sessions and conferences
- Business caller ID and picture presentation
- On-call services: deflect, enquiry, hold, broker, transfer, conference, record, call-back request, dual-tone multi-frequency signaling (DTMF)
- Universal directory access
 - View the picture, real-time presence and availability of a contact
 - Call or IM in one tap or click
 - Add a contact to a unified favorites list across devices

- View the presence and availability of favorite contacts
- Single identity across devices
 - Select twinset rules
 - Toggle supervision rules
 - Toggle manager-assistant rules
 - View and manage a unified call and messaging history across devices
 - Consult and manage a unified visual voicemail across devices
- View and join scheduled OpenTouch meetings

Alcatel-Lucent OpenTouch Connection for PC

- OpenTouch Connection application services
- Remote call control of desk phone
- Softphone
 - Wideband VoIP
- Schedule meetings or instantly add contents to a session
 - View, deliver, and annotate presentations
 - View and share the PC screen
- Microsoft Lync® 2010, Microsoft Lync 2013:
 - Client-based control pane
 - Server-based RCC openness (AAPP)
- Microsoft Outlook® 2010, Outlook 2013 messaging software:
 - Conference scheduling add-in
 - Click-to-call, record and consult messages add-in
- IBM® Sametime® 8.5.x, IBM Notes® 8.5.x: PC integration
- Microsoft Windows 7, Windows 8.1 operating system
- Citrix XenApp®, Microsoft Windows Server® 2008 R2 Remote Desktop Services support for remote call control
- VPN-less connectivity through reverse proxy and OpenTouch Session Border Controller

Alcatel-Lucent OpenTouch Connection for iPhone, Alcatel-Lucent OpenTouch Connection for Android

- OpenTouch Connection application services
- Cellular mode
- Download from the Apple App Store and Google Play Store

OpenTouch Conversation application services

- Software client with intuitive GUI
 - Background mode notifications
- Place, answer and manage wideband voice, HD video and instant messaging sessions and conferences
- Business caller ID and picture presentation

- On-call services: deflect, add participants, remove participants, DTMF
- Universal directory access
 - View the picture, real-time presence and availability of a contact
 - Place an audio, video or IM session in one tap or click
 - Add a contact to a unified favorites list across devices
 - View the picture, presence and availability of favorite contacts
- Single identity across devices
 - Select user-defined routing rules
 - Route to one or several devices
 - Rapid session shift between up to 5 devices
 - Toggle supervision rules
 - Toggle manager-assistant rules
 - View and manage a unified call and messaging history across devices
 - Consult and manage a unified visual voicemail across devices
- View and join scheduled OpenTouch meetings
- VPN-less connectivity through reverse proxy and OpenTouch Session Border Controller

Conversations on the go and at the desk

Alcatel-Lucent OpenTouch Conversation for PC

- OpenTouch Conversation application services
- Remote call control of desk phone
- Softphone
 - SIP, secure SIP, SRTP and web services
 - Wideband VoIP
 - HD video
 - Group call supervision and pick-up
- Start with a simple one-to-one chat and add people, voice, video and content
- Single identity across devices
 - Edit and select routing rules
- Schedule meetings or instantly add contents to a session
 - View, deliver, and annotate presentations
 - View and share the PC screen
 - Grant sharing and annotation privileges to guests
- Microsoft PC desktop integration
 - Microsoft Office 2010, Office 2013: click to call and IM, see OpenTouch presence
 - Microsoft Exchange Server 2010, Exchange Server 2013
 - XMPP federation with external Microsoft Lync 2013 servers
- Microsoft Windows 7, Windows 8.1 operating system

Alcatel-Lucent OpenTouch Conversation for iPad

- OpenTouch Conversation application services
- Softphone
 - SIP, secure SIP and web services
 - Wideband VoIP
 - HD video
- Start with a simple one-to-one chat and add people, voice, video and content
- Schedule meetings or instantly add contents to a session
 - View, deliver, and annotate presentations
 - View a shared PC screen
- Download from the Apple App Store

Alcatel-Lucent OpenTouch Conversation for Android Tablet

- OpenTouch Conversation application services
- Softphone
 - SIP, secure SIP and web services
 - Wideband VoIP
- Start with a simple one-to-one chat and add people, voice and content
- Schedule meetings or instantly add contents to a session
 - View, deliver, and annotate presentations
 - View a shared PC screen
- Download from Google Play Store

Alcatel-Lucent OpenTouch Conversation for iPhone, for Android Smartphone

- OpenTouch Conversation application services
- Dual cellular/enterprise VoIP mode
 - Choose to call in private or business mode
- Cellular mode with on-call services: deflect, enquiry, hold, broker, transfer, conference, record
 - Secure web services
- Softphone
 - SIP, secure SIP, SRTP and web services
 - Wideband VoIP
- Download from the Apple App Store, Google Play Store

Conversations at the desk

Alcatel-Lucent OmniTouch 8088 Smart DeskPhone

- 17.78 cm (7 in) capacitive touch screen
- Built-in HD camera
- Supports an external USB camera
- Video can be displayed on an HDMI monitor

- Bluetooth handset option
- Media player, screensaver and pictures
- Contacts sync for Microsoft Outlook messaging software
- OpenTouch Conversation application services
 - SIP, secure SIP, SRTP and web services
 - Wideband audio
 - Video escalation
 - On-call services: deflect, enquiry, hold, broker, transfer, conference controls, DTMF
 - Presence-based manager-assistant screening and supervision
 - Group call supervision and pick-up
- 10/100/1000 Ethernet PC-through port
- Bluetooth or corded handset
- 802.3 AF PoE (class 3)

Alcatel-Lucent 8068 Premium DeskPhone

- Color-screen with contextual keys
- Bluetooth handset option
- External keyboard
- OpenTouch Conversation application services
- Place, answer and manage wideband voice sessions and conferences
 - On-call services: deflect, enquiry, hold, broker, transfer, conference controls, DTMF
- Business caller ID and picture presentation
- Universal directory access
 - View the picture of a contact
- Single identity across devices
 - Select routing rules
 - Rapid session shift between up to 5 devices
 - View and manage a unified call and messaging history across devices
 - Consult a unified voicemail across devices
- Hands-free loudspeaker
- 10/100/1000 Ethernet PC-through port

Alcatel-Lucent 8012 DeskPhone

- Essential SIP telephony services
 - Multi-line support
 - Display of names and contextual feature keys
- Universal directory access
- Single identity across devices
 - Select routing rules
- Hands-free loudspeaker
- 10/100/1000 Ethernet PC-through port

Web conferencing with customers, partners and peers

Alcatel-Lucent OpenTouch Conversation for Web

- Web conferencing user interface
 - Secure access for guests outside the enterprise firewall
 - OpenTouch Conversation or Connection users schedule meetings from Outlook
 - Dial-in or dial-out to any phone
 - See who is talking
 - Mute/unmute
 - View, present and annotate documents
 - View and share screen
 - Exchange instant messages
- Multi-platform technology
Microsoft Windows 7, Windows 8.1, Google Android tablets, Apple iPad
- Web-based zero-touch client:
 - Microsoft Internet Explorer® browser
 - Google Chrome™ browser
 - Mozilla® Firefox™ browser

Video rooms

- LifeSize® 220s, Icon™ 600, Icon™ 800
- OpenTouch Conversation registered endpoints:
 - One-to-one or multiparty conversations with other OpenTouch endpoints
 - Routing profiles
 - Rapid session shift
 - SIP, H.264

Attendant services

OmniPCX Enterprise Communication Server

Greeting services

- Call queuing services
- Alarm indication
- Attendant group features
- Busy Lamp Field
- Multi-tenant services
- Record online
- Trunk and charging features
- VIP line features
- User management features
- Add-on module
- Headset capability

Attendant positions

Alcatel-Lucent 4059 Extended Edition Attendant Console

- PC-based console
 - Directory and presence look-up
 - Busy Lamp Field
- 8068 Premium DeskPhone

Hospitality communication services

OmniPCX Enterprise Communication Server

- 8088 Smart DeskPhone, Premium DeskPhones, or analog phones
- Guest features
- Room service features
- Room directory features
- Billing and barring features

Messaging

OmniPCX Enterprise Communication Server

Messaging services

Alcatel-Lucent 4645 Voice Messaging Services

- Integrated or unified messaging
 - Local storage
 - IMAP servers
- Extended recording and playback control
- Message waiting indication and visual control
- Automated attendant
- Personal automated attendant
- Record online
- Shared mailbox

OpenTouch Multimedia Services

Messaging services

- Integrated or unified messaging
 - Local storage
 - IMAP servers
- Extended recording and playback control
- Message waiting indication and visual control
- Automated attendant
- Personal automated attendant
- Record online
- Shared mailbox

Fax services

- Embedded software
- SIP, SIP/TLS, T.38 Fax over IP and SMTP
- Microsoft Exchange 2010, Exchange 2013
- Lotus Domino® R8, R8.5, R8.5.3
- Any SMTP-compliant mail server
- Web access

OpenTouch Message Center¹

Messaging services

- Integrated or unified messaging
 - Local storage
 - IMAP servers
- Extended recording and playback control
- Message waiting indication and visual control
- Automated attendant
- Record online

- Multiple time zones
- High scalability
- High availability (HA)

Customer services

OmniTouch Contact Center Standard Edition¹ Embedded OmniPCX Enterprise voice distribution

- Patented visual tool to manage configuration and design routing, to check call flow in real time and update
- Skill- and cost-based distribution
- Routing time schedule
- Expected and remaining waiting time announcement
- Group selection options

Unified multimedia interactions

- OpenTouch Customer Service add-on for multimedia handling

Architecture

- Up to 2000 connected and 5000 declared agents
- VMware® ESXi™ compliant
- Distributed contact center with ABC network
- HA and branch survivability with OmniPCX Enterprise
- Business, home, and mobile agents

Voice announcement

- External/Internal voices guides
 - From audio station, Premium DeskPhones
 - From audio file in Supervision Desktop

Agent features

- Free seating agent position
- Logon/logoff, withdraw, wrap-up (manual or CTI-based)
- Private call barring
- Transaction code (with reporting)
- Supervisor help
- Agent direct call with statistics
- IP Agent Softphone (PC desktop, tablets, iPhone)
- Agent greeting (automatic welcome prompt)

Supervisor features

- All agent features
- Discrete call listening and monitoring

Agent Desktop

- CCA toolbar providing personal statistics
- CCA partner bar providing groupware facilities
- CCA API for CRM integration
- CCA native OmniPCX Record or NICE integration (native record on demand button)
- CCA nomadic mode
- CCA H.323 softphone
- OpenTouch Customer Service Unified Desktop for multimedia blending

Supervision and statistics Desktop

- Up to 120 connected and 250 declared supervisor desktops
- Real-time statistics
- Customizable alarms and reports
- Automatic emailing reports
- Discrete call listening and monitoring
- Predefined and customizable Microsoft Excel® spreadsheet-based statistics and reporting
- Statistics download (FTP)
- Free seating supervisor position
- Wallboard display control for LED and TV
- Openness to other workforce management software

OpenTouch Customer Service¹

Architecture

- VMware ESXi compliant
- HA disaster recovery

Unified multimedia interactions

- Voice (inbound/outbound)
- E-mail, web chat
- Web and voice callbacks
- Virtual hold
- Facebook®, Twitter®
- Social media integration
- Fax
- SMS, MMS
- Open media (with monitoring and reporting)

Unified multimedia routing/queuing

- Platform (PBX) independent
- Multi-site
- Unified multimedia queuing across campaigns
- Workload overflow
- Virtual routing
- Pre-routing
- Pre-defined default routing strategies

- Rules-based and intelligent routing
- Blending with outbound dialing

Unified Dialer

- Multiple dialing modes (power, preview, predictive)
- Filter support
- Regulation compliance: UK, US
- Calling number per campaign
- Fax and voice-mail answering machines detection on predictive calls

Voice Portal

- Commodity hardware
- SIP inbound and outbound
- Voice prompts (audio files)
- DTMF collection
- Integrated with ASR/TTS
- Integrated with business applications

Management Portal

- Profile-based interface
- Configuration: campaign creation, workforce management
 - Business data support
 - Alarms
 - Routing rules
 - Gateways
 - Recording rules
 - Pacing rules
 - Compliance rules
 - SLA
- Management
 - Live configuration update
 - Start/stop campaign
 - Load contacts lists
 - Broadcast messages
 - Scoring
- Real-time monitoring and historical reporting
 - Built-in reports
 - Custom reports
 - Excel-based reporting
 - Web-based reporting
 - Multi-time zone support
 - Custom monitoring views
 - Agents, teams, campaign states and performance monitoring
 - Queues monitoring
 - Outbound call classification
 - Outcomes reporting
 - Strategy manager (Outbound calls)
 - Performance indicators
 - Operational and business alarms
- Wallboard display control for LED and TV

Unified Desktop

- Free seating agent position
- Single workspace
 - Live interactions
 - Logged interactions
 - Tasks
- Optimized control of all multimedia interactions
- Deep integration with CRM
- Banner mode
- Windows PC thick client
- Windows PC web client
- Citrix compliant
- Knowledge management
- Answer templates (e-mail, IM, Facebook, Twitter)
- Multi-language
- Customizable user interface (scripting)
- Quick script editor (rapid desktop customization)
- Agent scripting
- Agent motivator (agents, campaign monitoring)
- Native OmniPCX Record integration (native record on demand button)
- Telephony toolbar
- Ready/not ready and wrap-up
- Outcomes (with reporting)
- Supervisor call
- Supervisor features
 - Discrete call listening
 - Call monitoring
- Softphone

Workflow

- Centralized definition and distribution of processes
- Priority management
- Single view of all pending work
- Integration with business processes

Design Studio

- Text and graphical environment
- Auto-completion
- Support for all solution components
- Enhanced debugging
- Templates
- Rapid Application Development (RAD)
- Automatic campaign definition

Integration server and connectors

- Native connectors: CRM, QM, WFM
- Homogeneous API layer
- Open standards

OmniPCX Enterprise integration

- OmniPCX Routing Service Intelligence (RSI)
 - Optimization by leveraging OmniPCX features and resources
 - CCD backup on OmniPCX
- Distributed topology over ABC network
- HA and branch survivability with OmniPCX
- Agent features:
 - Premium DeskPhones agent display
 - IP agent softphone (PC Desktop, iPhone, iPad, Android tablets)
 - Business, home
 - Free seating agent position
 - Withdrawal (Ready/Not Ready)
 - Private call barring
 - Supervisor help
 - Agent greeting (automatic welcome prompt)
- Supervisor features:
 - All agent features
 - Discrete call listening and monitoring

Collaboration

- Microsoft Lync integration

OmniTouch 4625 Interactive Voice Response¹

- Short deployment time and easy access to autonomy with packaged IVR, including application generator
- Outbound applications
- TTS, voice mailboxes, fax

Genesys suite integration¹

- OmniPCX Routing Service Intelligence (RSI)
 - Optimization by leveraging OmniPCX features and resources
 - Database synchronization
 - CCD backup on OmniPCX
- Premium Deskphones agent display

Operations

Serviceability toolkit

- Virtual machine silent installation tool
- Data collection tool

Alcatel-Lucent OmniVista 8770 Network Management System (NMS)¹

- Comprehensive application suite to manage OmniPCX Enterprise CS, OpenTouch MS and OpenTouch MC
- Centralized, hosted or distributed management
 - Meta-profiles: simplified user creation
 - Microsoft Active Directory® integration

- Real-time performance monitoring, including MOS and R-factor
- Advanced proactive real-time thresholding and alerting with versatile reporting capabilities
- Tailored and animated topology maps
- Multi-carrier metering
- Unified web and LDAP corporate directory
- Company directory
- Device management
- Evolution path from OmniVista 4760 NMS

Infrastructure

OpenTouch Multimedia Services

Capacity

- Single server: 3000 users with applications, 6000 monitored devices
- VMware delivery: 5000 users with applications, 10,000 monitored devices

OpenTouch Message Center¹

Capacity

- Single server or VMware delivery: 15,000 users, 255 voice ports
- 10-server network: 150,000 users

OmniPCX Enterprise Communication Server

Capacity

- Single server or VMware delivery: 15,000 IP users or 5000 TDM users
- 100 servers in a single network
- Fully networked servers, 100,000 IP/TDM users with single image
- 250 servers in a supra network
- More than 1 million users in a supra network
- BHCC per server: 300,000
- 4645 Voice Messaging Services: 5000 users, 30 ports per server

Architecture

- Centralized or distributed CS
- CS and database duplication
- Seamless communications failover
- Ethernet redundancy on INTIP-3, GD-3 and GA-3 boards
- Full-featured branch office survivability
- Backup signaling link for branch office survivability
- TDM or IP switching
- IPv4 support
- IPv6 support
- Rack-based media gateways
- Software media services
 - IP, SIP, ABC network deployment
 - Up to 120 ports per virtual machine

- G.711, G.729.AB, G.722
- Transcoding
- Ad hoc, meet-me and mastered audioconferencing
- Dynamic voice guides

Business process integration

- TAPI
- MAPI
- DDE
- OLE/COM
- LDAP

Interfaces for Alcatel-Lucent Application Partner Program (AAPP)

- SIP
- XML web services
- CSTA, TSAPI Premium Server, TAPI Premium Server, RTI, WMI
- DR-Link
- Alcatel-Lucent Hospitality Link, InfoCenter
- OmniVista Tickets Collector, CDR
- QSIG, Paging Interface

SIP

- SIP proxy/registrar/redirect server and SIP gateway
- Server redundancy (active/passive)
- Branch office survivability

IPv6

- IPv6 and IPv4 dual stack
 - Communication server
 - RM1 and RM3
- IPv6/IPv4 proxy
 - RM1 and RM3
- IPv6 or IPv4 stack
 - Premium DeskPhones (IP)

IETF standards

- SIP RFC: 1321, 2327, 2617, 2782, 2833, 3261, 2543, 3262, 3263, 3264, 3265, 3311, 3323, 3324, 3325, 3327, 3515, 3725 (partial), 3842, 3891, 3892, 3398, 3608, 3903, 3960 (partial), 3966 (partial), 4028, 4497, 4568, 4733, , 5009, 5806
- RTP RFC: 1889, 1890, 2198, 3362, 3550, 3551, 3711

VoIP

- G.722 audio wideband
- G.722.2 for peer-to-peer and conference sessions with OpenTouch Conversation applications and devices
- G.711 A-law and μ -law, G.723.1A, G.729.AB audio
- Call admission control

- Automatic compression algorithm allocation
- Dynamic jitter buffer, echo cancellation, packet loss concealment (PLC), VAD: silence suppression and comfort noise generation
- DTMF Q23, robust DTMF relay, RFC 2833
- Generic signal qualification and modem transport
- Anti-saturation mechanism; backward and forward automatic gain control
- Embedded signal quality diagnostic tool
- QoS: TOS or DiffServ tagging, 802.1 p/Q

Messaging networks

- 4645 VMS: IMAP4, VPIM, Octel® OctelNet™ and Amis

Fax

- G3, super G3 fall-back
- Automatic fax detection
- G.711 transparent (Alcatel-Lucent protocol) and T.38 (Alcatel-Lucent protocol, H.323 and SIP)

Public networking protocols

- SIP, SIP/TLS, E164 support
- TO ISDN
- T1-CCS ISDN (T2)
- E1-CAS
- T1 CCS (PRI)
- T1 CAS
- DID/DDI or NDDI/non-DID analog networks

Private networking protocols

- Alcatel-Lucent ABC
 - User feature transparency
 - Network-wide management
 - Network-wide routing
 - Centralized applications
- IP
 - ABC based on enhanced QSIG (tunneling) and SIP for VoIP
 - SIP, H.323v2
 - ABC VPN for networking over ISDN/PSTN network
- TDM
 - ABC
 - QSIG BC, QSIG GF, DPNSS

OpenTouch Multimedia Services

VoIP

- G.722.2 for peer-to-peer and conference sessions with OpenTouch Conversation applications and devices
- G.711 A-law and μ -law, G.729.AB audio

- Call admission control
- Automatic compression algorithm allocation
- Dynamic jitter buffer, echo cancellation, packet loss concealment (PLC), VAD: silence suppression and comfort noise generation
- DTMF Q23, robust DTMF relay, RFC 2833
- Anti-saturation mechanism; backward and forward automatic gain control
- QoS: TOS or DiffServ tagging, 802.1 p/Q

Video

- SD/HD video
- H.264
- Voice-activated video switching for ad hoc and scheduled conferences
- ISDN gateways (AAPP)
- Continuous video presence integration: LifeSize UVC Multipoint™

Fax

- G3, super G3 fall-back
- Automatic fax detection
- G.711 transparent (Alcatel-Lucent protocol) and T.38 (Alcatel-Lucent protocol, H.323 and SIP)

Security

OmniPCX Enterprise Communication Server Authentication

- Local, RADIUS, LDAP authentication
- NTLM Single Sign-On
- IEEE 802.1X MD5/TLS

Traffic filtering

- OmniPCX Enterprise CS
 - Trusted hosts file
 - TCP wrapper function
- Premium DeskPhones
 - ARP spoofing protection
 - PC port switch VLAN filtering

SIP perimeter defense

- *OpenTouch Session Border Controller*¹
- SIP deep packet inspection against SIP DoS attacks
- Certified with SIP service providers
- Secures OpenTouch Conversation and Connection software clients outside the enterprise
- VMware delivery
- Dedicated appliance: up to 6000 audio sessions, 3000 video sessions
- Active - standby redundancy

Guest access

- OpenTouch Edge Server¹
 - Front-end server in DMZ
 - Enables guests to access OpenTouch conferences
 - Software or VMware delivery

Encryption

- SSHv2 for secure sessions (such as Telnet, FTP)
- SSLv2/v3 for secure HTTP session
- SNMP v1/v2c/v3 for complete NMS integration
- Client/device confidentiality (signaling protocol and media)
- IPsec and Secure RTP (AES 128 bits)
 - Premium DeskPhones (IP)
 - GD-3 and GA-3 boards
 - Server Security Module
 - Media Security Module
- Secure SIP/SRTP
 - SIP trunks

Integrity

- Media gateway, Premium DeskPhones binary signatures

User policy enforcement

- Call monitoring and barring
- Internal toll fraud protection by class of services

Platforms

OpenTouch Multimedia Services

- Software distribution
- HP ProLiant DL servers
- VMware vSphere® 5.5

OmniPCX Enterprise Communication Server

- IBM System x® servers
- HP ProLiant DL servers
- VMware vSphere 5.5
- Linux Kernel-based Virtual Machine (KVM)

OmniPCX Enterprise RM1 (19-in. rack)

- 3 modular slots (stackable up to 3 with RM3)
- Hot-swappable boards
- Height: 66 mm (2.60 in)
- Width: 442 mm (17.40 in)
- Depth: 400 mm (15.75 in)
- Weight: 10 kg (22 lb)

OmniPCX Enterprise RM3 (19-in. rack)

- 9 modular slots (stackable up to 3 with RM1)
- Hot-swappable boards
- Height: 154 mm (6.06 in)
- Width: 442 mm (17.40 in)
- Depth: 400 mm (15.75 in)
- Weight: 17 kg (38 lb)

OmniPCX Enterprise M2 (cabinet)

- 1 ACT 28 or 2 ACT 14
- Hot-swappable boards
- Height: 740 mm (29.13 in)
- Width: 570 mm (22.44 in)
- Depth: 516 mm (20.31 in)
- Weight: 70 kg (154.32 lb)

OmniPCX Enterprise M3 (cabinet)

- 2 ACT 28 or 4 ACT 14
- Hot-swappable boards
- Height: 1500 mm (59.05 in)
- Width: 570 mm (22.4 in)
- Depth: 516 mm (20.31 in)
- Weight: 110 kg (242.5 lb)

OmniPCX Enterprise ACT 14-in data rack format (19-in. rack)

- 48 V power supply and battery backup
- Hot-swappable boards
- 1 ACT 14
- Height: 264.4 mm (10.41 in)
- Width: 486.3 mm (19.15 in)
- Depth: 383.4 mm (15.09 in)
- Weight: 30 kg (66.14 lb)

OmniPCX Enterprise ACT 28 in data rack format (19-in. rack)

- 48 V power supply and battery backup
- Hot-swappable boards
- 1 ACT 28
- Height: 530 mm (20.87 in)
- Width: 486.3 mm (19.15 in)
- Depth: 383.4 mm (15.09 in)
- Weight: 70 kg (154.3 lb)

DECT infrastructure

OmniPCX Enterprise Communication Server DECT radio

- DECT/GAP/Alcatel-Lucent GAP
- Hybrid IBS/RBS and IP DECT networks
- Radio frequency range
 - 1.88 GHz to 1.90 GHz (Europe)
 - 1.91 GHz to 1.93 GHz (South America)
 - 1.92 GHz to 1.93 GHz (US) with power adaptation

Advanced Radio Base Station (RBS)

- 12 simultaneous communications
- Dedicated DECT8 board
- External power supply
- Outdoor versions

Alcatel-Lucent 4070 DECT Base Station

- Six simultaneous communications per BS
- Radio coverage from 50 m (55 yd) to 300 m (328 yd)
- Indoor, outdoor models
- ATEX model (Europe only)
- Remote power feeding on digital cables

Alcatel-Lucent 8340 IP DECT Access Point

- 11 simultaneous communications per AP
- 256 AP (750 project-mode)
- POE or POE injector
- Outdoor versions
- DAP manager for automated configuration and handset roaming
- OmniPCX Enterprise CS duplication and full-featured branch survivability

WLAN infrastructure

Alcatel-Lucent OmniAccess® WLAN access points and WLAN controllers

Radio

- IEEE 802.11b/g/n (2.4GHz)
- IEEE 802.11a/n & 802.11ac (5GHz)
 - Automatic channel assignment and power level setting with Adaptive Radio Management (ARM)
 - Self-healing around failed access points

Wireless security

- WEP, WPA-PSK, WPA2-PSK
- WPA & WPA2 Enterprise mode (802.1X)
- Integrated stateful firewall
- Rogue access point detection & containment
- Wireless Intrusion Detection/Protection System (IDS/IPS)

QoS

- 802.11e
 - Wireless Mobility Manager, WMM (Enhanced Distributed Channel Access, EDCA)
 - Power Save (U-APSD)
 - Traffic Specification (TSPEC)
- 802.1p DiffServ marking

VoWLAN

- Connection Admission Control with graceful load balancing
 - Proxy mobile IP for Layer 3 handover
 - Fast handover -opportunistic key caching
 - Voice-aware scanning
 - Voice-aware 802.1x re-authentication

International directives

OmniPCX Enterprise Communication Server

EC Directives

- 1999/5/EC: R&TTE
- 2011/65/EU: ROHS
- 2012/19/EU: WEEE
- 2004/108/EC: EMC
- 2009/125/EC: Ecodesign
- 2006/95/EC: LVD

Safety

- IEC 60950-1
- UL 60950-1

EMC

- IEC CISPR 22 Class B
- CENELEC EN 55022 Class B
- FCC Part 15B
- IEC CISPR24
- CENELEC EN 55024
- IEC EN 61000-3-2

Miscellaneous environments

- ACT:
 - CENELEC EN 50121-4: Railway applications
- RM1, RM3:
 - DNV certificate: Maritime
 - IEC 60945: Maritime

Environmental conditions

- ETSI - ETS 300 019 Part 1-1: Storage
- ETSI - ETS 300 019 Part 1-2:Transportation
- ETSI - ETS 300 019 Part 1-3: In Use

Telecom

- ETSI EG 201 121
- ETSI ES 203 021
- ETSI ES 203 038
- ETSI TBR 010, 022, 003, 033, 004, 034, 008
- ITU-T H.323
- FCC Part 68
- Canada CS03

Over voltage and over currents

- ITU-T K.21

¹ This feature requires additional software modules