

ALCATEL-LUCENT OMNIPCX ENTERPRISE COMMUNICATION SERVER

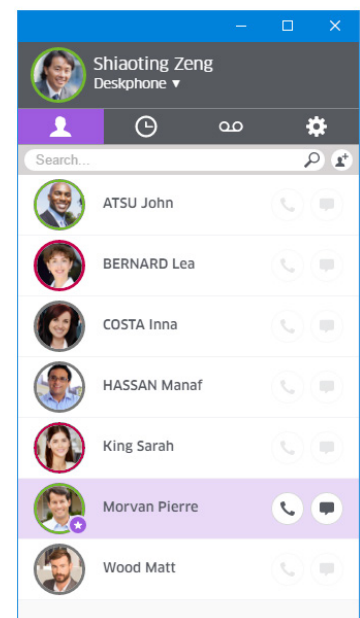
RELEASE 11.2 AND

ALCATEL-LUCENT OPENTOUCH MULTIMEDIA SERVICES

RELEASE 2.2

Unified communications applications to offer expert business interactions for enterprises

Today's organizations want to improve responsiveness to the business, and to offer employees more flexibility in the way they work. The OmniPCX® Enterprise Communication Server (CS) helps people connect in real time whatever their location, and experience quality business calls with co-workers and customers. The OpenTouch® Multimedia Services (MS) application server offers teams a fast business response by delivering unified messaging, visual automated attendant, enterprise instant messaging, click-to-call, and visual collaboration to all employees in a unified user interface on the devices of their choice.



OMNIPCX ENTERPRISE COMMUNICATION SERVER AT A GLANCE

FEATURES	BENEFITS
Expert business communications from desk phones, mobile handsets and softphones	
Comprehensive, advanced business telephony services, including flexible auto-attendant, screening, group, routing and messaging services	Instant business response: All important calls are identified and answered. Intuitive management of multi-line calls by individuals or teams for a quality response to customer calls
Rapid directory lookup and speed-dial	Save time when dialing contacts
Outstanding enterprise mobility: Employees enjoy the devices that suit their needs; they can shift calls among devices when moving to and from their desks	Flexible mobility options: Business communications on desk phones, wireless handsets or software clients Easy multi-device communications for more confidentiality and focus in open plan offices
Optimized communication costs and operations in multi-site companies	
Proven multi-site support with bandwidth control	Improved voice-over-IP (VoIP) quality in multi-site organizations, with centralized communications to improve operational expenditure
High-availability options	Improved business continuity for communication services during network outages or server failures
Flexible deployment options: Networked appliances or virtual machines for centralized private clouds	Networking of servers to meet requirements for higher availability and demarcation points between communication networks Improved total cost of ownership (TCO) with centralized operations from a private cloud
Integrated customer greeting and contact center	
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	Accelerated first call resolution with a call distribution logic that can be adapted to evolving needs
Integration with the OpenTouch Customer Service suite	Increased customer satisfaction and brand e-reputation with multi-channel interactions

OPENTOUCH MULTIMEDIA SERVICES AT A GLANCE

Unified messaging and visual automated attendant	
Unified messaging: Voicemails are accessed from any email client in a single mailbox	Faster business response: Voicemails can be forwarded by email or accessed on a smartphone while employees are on the go or outside business hours
Visual automated attendant offers quality vocal guidance and instant call routing to customer calls	Improved customer satisfaction: Voice guides and routing for customer greetings are always up-to-date as the visual application makes it possible for non-IT staff to update voice guides and routing rules in a few minutes
Unified communications on PC, Mac and smartphones	
Unified user interface for PC, Mac, smartphones with fast directory lookup, click-to-call, real-time presence and instant messaging, communication history	Faster business response at the office and on the go: Employees are easier to join with real-time presence indication showing the most convenient medium to use - voice or instant messaging
Instant desktop screen sharing	Instant team response to the business: Employees can escalate a call or an instant messaging session to visual collaboration session in two clicks
Single business identity, on-call access to business services from smartphones and computer, rapid session shift between desk phones, smartphones, and computer	Employees are reachable anywhere and can select most convenient device for business communication at any time
Remote call control and VoIP client that can be integrated with leading productivity applications	Single contact management: Employees click to escalate an e-mail thread into a real-time collaboration session using their desk phone or their computer for voice
Borderless collaboration to better communicate with customers, partners and colleagues	
Intuitive interface for easy addition of multimedia, including HD video and content sharing	Better engagement with contextual video and content-sharing interactions Reduced travel expenses and efficient interactions between teams
Integrated conferencing capabilities easily accessible from any phone or browser	Customers, partners and colleagues can easily and securely join OpenTouch voice and content-sharing sessions from outside the enterprise firewall

OMNIVISTA 8770 NETWORK MANAGEMENT SYSTEM AT A GLANCE

FEATURES	BENEFITS
Unified user management and operations	
Unified user management across OmniPCX Enterprise CS, OpenTouch MS applications and devices	Improved daily move, add, change and delete operations
Centralized directory, metering, performance monitoring capabilities	Lower maintenance cost and enhance reactivity through centralized management interfaces

TECHNICAL SPECIFICATIONS

User experience

OmniPCX Enterprise Communication Server

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 between desk phone and 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 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
- OmniPCX business telephony service:
 - 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

- OmniPCX 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 8018 DeskPhone

- OmniPCX business telephony services
- Backlit screen
- 7 fast-dial keys
- USB headset support
- Wideband audio
- Alcatel-Lucent NOE protocol (IP), SIP or NOE over SIP
- Gigabit Ethernet

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
- OmniPCX 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 500EX DECT handsets and 8212/8232/8242/8262 DECT handsets

- Full range of DECT Handsets from Business to Industrial and Ex version
- OmniPCX 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® OS: Windows® 7, Windows 8.1, Windows 10
 - Apple Mac, Apple iPad and Apple iPhone
 - Tablets and smartphones using the Google® Android™ platform

OpenTouch Multimedia Services

Common OpenTouch 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, instant messaging and conference sessions
- See the real-time availability of colleagues within and outside the enterprise network, and publish the presence status
- Business caller ID and picture presentation
- On-call services: deflect, enquiry, hold/retrieve, broker, transfer, conference, record, call-back request, dual-tone multi-frequency signaling (DTMF)
- Universal directory access
 - Search for local or corporate contacts
 - View the picture and availability of a contact
 - Add a contact to a unified favorite list across devices
 - Start a conversation in one tap or click
- Single identity across devices
 - Select user-defined routing rules
 - Route to one or several devices
- Use a rapid session shift between devices
 - up to 5 (*)
- Toggle Group supervision and Manager/Assistant rules (*)
- See past conversations, check your missed events and use the visual voicemail
- View and join scheduled OpenTouch meetings
- VPN-less connectivity through reverse proxy and OpenTouch Session Border Controller

(*) Conversation SIP mode

Conversations on the go and at the desk

Alcatel-Lucent OpenTouch Conversation for PC - Microsoft Windows OS

- Common OpenTouch application services
- Phone control
- Softphone mode
 - Secure SIP, secure RTP and web services
 - Wideband audio
 - HD video (*)
- Group supervision and call pick-up (*)
- Start with a simple one-to-one chat and add people, voice, video (*) and content sharing
- Schedule and manage meetings on-the-go using predefined meeting profiles
- Manage ad hoc conversations with an unlimited number of participants (audio and video) (*)

- Instantly add contents to a session
 - View, deliver, and annotate presentations
 - View and share screens
 - Grant sharing and annotation privileges to guests
- Desktop integrations
 - Microsoft: Office 2010/2013/2016, Lync 2013, Skype For Business 2015/2016, Office 365 (Exchange Online, Skype for Business Online)
 - IBM: Notes 8.5.x/9, Sametime 9
 - Google: unified messaging (Gmail), click-to-call (Gmail, Google contacts and Chrome™ web pages)
- Microsoft OS: Windows 7, Windows 8/8.1, Windows 10
- Unified Messaging: Microsoft Exchange Server 2010/2013, IBM Domino 8.5.x/9, Google Gmail
- VDI: Citrix XenDesktop 7.6+ (without VoIP)

(*) Conversation SIP mode

Alcatel-Lucent OpenTouch Conversation for PC - Mac OS

- Common OpenTouch application services
- Phone control
- Softphone mode
 - Secure SIP, secure RTP and web services
 - Wideband audio
- Group supervision and call pick-up (*)
- Start with a simple one-to-one chat and add people, voice, and content sharing
- Schedule and manage meetings on the go using predefined meeting profiles
- Manage ad hoc conversations with an unlimited number of participants (*)
- Instantly add contents to a session
 - View, deliver, and annotate presentations
 - View a screen sharing
 - Grant sharing and annotation privileges to guests
- Desktop integration
 - Google: unified messaging (Gmail)
- Apple OS: Mac OS X 10.10 (Yosemite), 10.11 (El Capitan)
- Unified messaging: Microsoft Exchange Server 2010/2013, IBM Domino 8.5.x/9, Google Gmail

(*) Conversation SIP mode

Alcatel-Lucent OpenTouch Conversation for iPhone, for Android Smartphone

- Wideband VoIP (*)
- Cellular or VoIP mode with on-call services: deflect, enquiry, hold, broker, transfer, conference, record

- Choose to call in private or business mode
- Create/delete/select a call routing profile
- Create/update/delete/join a scheduled or reservationless meeting
- Start with a one-to-one chat and escalate to group chat
- Secure SIP (*) and Web Services
- Download from Apple App Store, Google Play

(*) Conversation SIP mode

Alcatel-Lucent OpenTouch Conversation for iPad, for Android Tablet ()*

- Wideband VoIP
- HD video (iPad only)
- Create/delete/select a call routing profile
- Create/update/delete/join a scheduled or reservationless meeting
- Start with a one-to-one chat and add people, voice, video and contents
- View and annotate presentations
- View a shared PC screen
- Mirror your tablet display via AirPlay, via Chromecast
- Secure SIP and Web Services
- Download from Apple App Store, Google Play

(*) Conversation SIP mode

Alcatel-Lucent OpenTouch Conversation One

- Freemium for all subscribers
- Engage peer-to-peer conversations:
 - Place audio calls via a desk phone
 - Start a chat
 - Share content (document, screen), annotate
- Use favorite contacts
- Search for corporate contacts
- Publish and see presence information
- Maintain a single business identity
- See past conversations, check new voice messages
- VPN-less connectivity
- Multi-OS Google Chrome app

Conversations at the desk

Alcatel-Lucent 8088 Smart DeskPhone ()*

- 17.78 cm (7 in) capacitive and haptic 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 Power over Ethernet (PoE) (class 3)
- (*) Conversation SIP mode

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
 - Edit and 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
- (*) Conversation SIP mode

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
- (*) Conversation SIP mode

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
 - Dial-in or dial-out to any phone
 - See who is talking
 - Mute/unmute, drop, add participant
 - View, present and annotate documents
 - View and share screen
 - Exchange instant messages
- Multi-platform technology (Microsoft Windows, Mac OS X, Google Chrome OS, Linux)
- Web-based zero-touch client (except for screen sharing):
 - Microsoft Internet Explorer® browser
 - Google Chrome browser
 - Mozilla® Firefox™ browser
 - Apple Safari™ browser

Video rooms

- Alcatel-Lucent 8088 Smart DeskPhone SIP video-capable device on OmniPCX Enterprise
- OpenTouch Conversation registered endpoints:
 - One-to-one or multi-party 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, 8018 DeskPhone, 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

- Extended recording and playback control
- Message waiting indication and visual control
- Internet Message Access Protocol (IMAP) access to voice messages
- Automated attendant
- Record online
- Shared mailbox

OpenTouch Multimedia Services

Messaging services

- Integrated or unified messaging
 - Local storage with IMAP access
 - Microsoft Exchange and IBM Domino-based unified storage
- Extended recording and playback control
- Message waiting indication and visual voicemail
- 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 Center

Messaging services

- Local storage with IMAP access
- Extended recording and playback control
- Message waiting indication and visual voicemail
- 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 voice 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

- Contact Center Agent (CCA) toolbar providing personal statistics
- CCA partner bar providing groupware facilities
- CCA API for Customer Relationship Management (CRM) integration

- CCA native OmniPCX Record or NICE integration (native record on demand button)
- 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)
- Email, web chat
- Web and voice callbacks
- Virtual hold
- Facebook®, Twitter®
- Social media integration
- Fax
- Short Message Service (SMS), Multimedia Messaging Service (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 voicemail answering machines detection on predictive calls

Voice Portal

- Commodity hardware
- SIP inbound and outbound
- Voice prompts (audio files)
- DTMF collection
- Integrated with Automatic Speech Recognition (ASR)/Text-to-Speech (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
 - Service level agreement (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 (email, 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, Quality Management (QM), Workforce Management (WFM)
- Homogeneous API layer
- Open standards

OmniPCX Enterprise integration

- OmniPCX Routing Service Intelligence (RSI)
 - Optimization by leveraging OmniPCX features and resources
 - Contact Center Distribution (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 smartphone and tablet)
 - 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
- 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 and OpenTouch applications and devices
- Centralized, hosted or distributed management
 - Meta-profiles: simplified user creation
 - Microsoft Active Directory® integration
- Performance monitoring, including Mean Opinion Score (MOS)
- 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
- Busy Hour Call Completion (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

- Telephony Application Programming Interface (TAPI)
- Messaging Application Programming Interface (MAPI)
- Dynamic Data Exchange (DDE)
- OLE/COM Object Viewer
- LDAP

Interfaces for Alcatel-Lucent Application Partner Program (AAPP)

- SIP
- XML web services
- Computer-Supported Telecommunications Applications (CSTA), Telephony Server Application Programming Interface (TSAPI) Premium Server, TAPI Premium Server, Real-Time Interface (RTI), Workforce Management Interface (WMI)
- Dedicated Recording Link (DR-Link)
- Alcatel-Lucent Hospitality Link, InfoCenter
- OmniVista Tickets Collector, Call Detail Record (CDR)
- Q signaling (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.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), voice activation detection (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: Type of Service (TOS) or DiffServ tagging, 802.1 p/Q

Messaging networks

- 4645 Voice Messaging Services: IMAP4, Voice Profile for Internet Mail (VPIM), Octel® OctelNet™ and Audio Messaging Interchange Specification (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, E.164 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 audio wideband 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, 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)

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, Remote Authentication Dial-In User Service (RADIUS), LDAP authentication
- NT LAN Manager (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 Controller¹

- SIP deep packet inspection against SIP denial of service (DoS) attacks
- Certified with SIP service providers
- Secures OpenTouch Conversation and Connection software clients outside the enterprise
- VMware delivery
- Dedicated appliance: up to 6000 RTP 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

- Secure Shell v2 (SSHv2) for secure sessions (such as Telnet, FTP)
- Secure Sockets Layer v2/v3 (SSLv2/v3) for secure HTTP sessions
- Simple Network Management Protocol (SNMP) v1/v2c/v3 for complete NMS integration
- Client/device confidentiality (signaling protocol and media)
- IPsec and Secure Real-time Transport Protocol (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® 6.0

OmniPCX Enterprise Communication Server

- IBM System x® servers
- HP ProLiant DL servers
- VMware vSphere 6.0
- 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 integrated base station (IBS)/radio base station (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

- 6 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 access point (AP)
- 256 APs (750 project-mode)
- Power over Ethernet (PoE) or PoE injector
- Outdoor versions
- DECT access point (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 (2.4 GHz)
- IEEE 802.11a/n & 802.11ac (5 GHz)
 - Automatic channel assignment and power level setting with Adaptive Radio Management (ARM)
 - Self-healing around failed access points

Wireless security

- Wired Equivalent Privacy (WEP), Wi-Fi Protected Access - Pre-Shared Key (WPA-PSK), WPA2-PSK
- WPA and WPA2 Enterprise mode (802.1X)
- Integrated stateful firewall
- Rogue access point detection and 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