

Alcatel-Lucent OpenTouch Multimedia Services

Alcatel-Lucent OmniPCX Enterprise Communication Server

CONVERGED MULTIMEDIA COMMUNICATION FOR LARGE ENTERPRISES

Smartphones are everywhere. Employees are younger and more connected. The workforce is distributed across locations. Business cycles continuously accelerate. For enterprises, these converging trends demand communications solutions that help employees collaborate across devices, applications, processes and locations.

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The **Alcatel-Lucent OpenTouch™** suite turns traditional enterprise communications into rich conversations by making multi-device, multi-party, multimedia collaboration part of everyday business — and it's all provided on a platform that's easy to manage. When employees are more agile and productive, the business is more agile and productive.

The OpenTouch Suite delivers native multimedia (video, voice, instant messaging, content sharing) and multi-device conversation services to help users better engage with customers, partners and peers — and thereby improve their productivity at work. OpenTouch offers a seamless user experience, based on natural conferencing capabilities, across devices and locations over time.

As a key component of this suite, the **Alcatel-Lucent OmniPCX™ Enterprise Communication Server (CS) 10.0** is a communications platform that delivers world-class business telephony features for medium, large and very large-sized companies with a choice of either centralized or decentralized IP telephony solutions.

OpenTouch Multimedia Services 1.0 complements OmniPCX Enterprise CS and offers the new OpenTouch conversation services.

FEATURES	BENEFITS
Conversation services on screen-based devices ^[1]	Next-generation enterprise communications experience on touch-screen desk phone, PC and smartphones
User-centric communications experience across devices and locations ^[1]	Full-featured access to enterprise communications services across devices while on-site or off-site
Conversation services with integrated multimedia conferencing and presence from the desktop ^[1]	Enables virtual teams across sites with rich multi-party communications including Instant Messaging, Web sharing, HD video
Business communications services including attendant and least cost routing services	Increase employee communication efficiency. Reduce the on-net and off-net communication costs
Embedded voice-centric customer services, multimedia customer service integration	Increase customer satisfaction by improving call resolution while optimizing support resources
Centralized or decentralized IP Telephony infrastructure flexibility and software scalability	Enables a choice of network configurations and a choice of IP, IP/TDM or TDM endpoints, minimizing additional investment and enabling a smooth migration
Open SIP and video at the core ^[1]	Multimedia and standards-based openness
Open Application Programming Interfaces ^[1] using Web Services and REST technology	Easier agility when integrating communications with business processes
Simplified and Unified Management ^[2]	Reduced total cost of ownership of business communication and conversation services

Technical Specifications

Communication services

Conversation services ^[1]

- Wideband Voice over IP, HD video and Instant Messaging (IM) communications
- Ad-hoc audio, video, IM and Web conferencing using voice-activated video switching
- Scheduled audio, video, Web conferencing
- Enterprise presence including conversation status
- Desktop phone and mobile phone control from PC
- Universal directory access
- Call by name, by skill
- Unified call and messaging history across devices
- One-number routing
- Rapid session shift between devices
- Visual mailbox access
- Desktop integration

Business communication services

- Centralized directory, call by name
- Multiline telephony
- Call options, speed dials
- Audio conferencing
- Personal and enterprise call routing and forwarding
- Call-back features
- Lawful intercept
- Call history
- Contextual voice prompts
- Informal group features

Manager-assistant

- Teams
- Filtered lines, private lines
- Text Messaging, Instant Messaging, Voice Messaging
- Discreet listening

Teams and groups

- Hunting groups, queues
- Supervision

Multi-tenancy

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

Desktop communications

OmniTouch 8082 My IC Phone ^[3]

- 7" capacitive and haptic touch screen
- Media player, screensaver and pictures
- Microsoft Outlook sync
- Conversation services
- Manager – assistant conversations
- Hospitality mode
- SIP audio and IM, Web Services
- 3rd party Web-based applications support
- SDK, developer portal
- 10/100/1000 Ethernet
- Bluetooth®
- G722, G722.2 wideband audio
- 802.3 AF PoE (class 3)

OmniTouch 8600 My Instant Communicator ^[1]

- Conversation services on a PC desktop
- PC desktop integration
- Microsoft Windows XP, Vista, 7
- Citrix XenApp 4.5, 5.0

LifeSize® Passport (AAPP)

- Desktop audio/video appliance for office and remote workers
- HD video (720p30)
- SIP, H.261, H.263, H.264, H.460

OmniTouch IP Touch™ 8 and 9 Series Phones

- Business communication services
- Embedded alpha keyboard
- Display of participant name and contextual feature keys
- Hands-free, loudspeaker announcement
- Headset capability (Bluetooth®, etc.)
- Alcatel-Lucent NOE protocol, SIP or NOE over SIP
- Add-on supervision modules
- XML Kit/library for developers

PC Desktop integration ^[1]

- Desktop phone and mobile phone control
- One number control
- Unified Messaging control
- Microsoft® desktop
 - Outlook 2010
 - Exchange Server 2003, 2007, 2010
 - Office Communicator 2007 R2
- IBM® desktop
 - Lotus Notes 8.0.x, 8.5
 - Lotus Domino 8.0.x, 8.5
 - Lotus Sametime 7.5.1, 8.0.x, 8.5

Video rooms and telepresence

- Lifesize Conference, Room, Team, Express series (AAPP)
 - Full HD video (1080p30)
 - PTZ camera
 - Microphone pod
 - Continuous presence or virtual multiway
 - SIP, H.261, H.263, H.264, H.460

On-site mobility

OmniTouch 8118/8128 WLAN and 300/400/500 DECT

- Business communication services
- Hands-free
- Headset capability
- Integration with notification and location-based services (AAPP)

Off-site mobility

- One number and messaging
- Access to business services
- Software client with menu-driven interface

OmniTouch 8600 My Instant Communicator Mobile ^[1]

- Presence, instant messaging, list of participants on BlackBerry®
- Visual messaging for
 - BlackBerry
 - iPhone®
 - Android®
 - Windows Mobile®
- Easy deployment:
 - RIM BlackBerry Enterprise Server
 - Apple AppStore
 - Google Android Market
 - Windows Mobile Device Center

OmniTouch 8622 My Cellular Extension

- BlackBerry
- Windows Mobile
- Nokia Intellisync Call Connect

Hospitality communication services

- My IC Phone, 8 & 9 Series or analog phones
- Guest features
- Room service features
- Room directory features
- Billing and barring features

Attendant 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

- PC-based IP attendant
- PC-based 4059 EE attendant console
- IP Touch 4068 EE

Messaging Services

- Integrated or Unified Messaging ^[1]
 - Local storage, IMAP servers
- 4645 Voice Messaging Services
- Extended recording and playback control
- Message Waiting Indication and visual control
- Automated Attendant
- Personal Automated Attendant
- Distribution lists
- Record online
- Shared mailbox

Fax Services ^[1]

- Embedded software
- SIP, SIP/TLS, T.38 Fax over IP, SMTP
- Microsoft Outlook/Exchange 2003, 2007, 2010
- Microsoft desktop integration
- IBM Lotus/Domino 7, 8, 8.5
- Web access

Customer Services

OmniTouch Contact Center Standard Edition

OmniPCX embedded distribution

- Patented visual tool to manage configuration & design routing, to check call flow in real time and update
- Skill- and cost-based distribution
- Conditional pilot overflow on voice mail
- Pilot forwarding to other pilot
- Routing time schedule
- Expected and Remaining waiting time announcement
- Group selection: fixed head, cyclic, longest idle time

Outbound

- Preview, progressive, predictive
- Visual Agent Scripting for outbound quality dialog defined by non-programmers

Architecture

- Distributed Contact Center with ABC network
- HA and branch survivability with OmniPCX
- Home & mobile agent with analog telephone, DECT, GSM, IP Touch & 9 Series phones
- Optional integration with full featured IVRs

Voice announcement

- External /external voices guides
- From audio station or IPTouch phones

Agent features

- Free seating agent position
- Logon/logoff, withdraw, Wrap-up (manual or CTI-based)
- Private call barring
- Transaction code (with reporting)
- Supervisor Help / monitoring
- Agent direct call with statistics
- CCA applications: IP Touch 8 & 9 Series phones on toolbar providing personal statistics

Supervision and statistics

- Real-time statistics
- Alarm handling
- Customizable alarms and reports
- Discrete call listening and monitoring
- Predefined and customizable Microsoft Excel-based statistics and reporting
- Export of communication reports (ASCII files)
- Statistics download (FTP)
- Free seating supervisor position

- Wallboard display control for LED & TV
- Genesys Workforce Management
- Openness to other WFM

Genesys Compact Edition

Segmented media distribution

- Visual Contact Center reuse of popular/patented CCS matrix concepts applied to blended e-mail / voice routing.
- Windows drag-and-drop configuration capabilities
- Contact segmentation based on qualification and type of service
- Skill- and cost-based distribution
- Queue management: waiting, dissuasion, overflow
- Conditional overflow
- Estimated waiting time information with options
- Look ahead contact routing
- Multi-stage and multi-level prioritized queuing
- Multimedia group, queue and agent selection
- Scheduled time-of-day routing
- Agent skills and group levels
- Group selection: cyclic, top down, longest available

Visual IVR

- Embedded in VisualCC reusing OmniPCX resources, no additional hardware
- Used for interactive qualification or when in queue or as a group
- Icon selected from Visual CC

E-mail

- Auto-acknowledgment and redirection
- Keyword classification
- Backlog and work-bin management

Outbound

- Preview, progressive, predictive
- Visual Agent Scripting for outbound quality dialog defined by non-programmers

Voice announcement

- Agent tutorial voice guides
- Routing voice announcement updates
- Redirection, closing, opening announcements
- From audio station or IPTouch phones

Agent features

- Free seating agent position
- Logon/logoff, withdraw, Wrap-up (automatic or manual)
- Private call barring

- Transaction code (with reporting)
- Supervisor Help / monitoring
- Agent desktop VoIP and IP plug-in
- Multimedia Genesys Agent Desktop (GAD) with screen-pop and contact history
- IP Touch 8 and 9 Series phone support
- Home & mobile agent with analog telephone, DECT, GSM, mobile

Supervisor features

- Object including both voice and e-mail – real-time statistics monitoring
- Call monitoring barge in and discrete listening
- Service-level management and monitoring
- Overrun option automatically increases agent licenses during 10-day peak period by 30%

Supervision and statistics

- Enhanced, easy-to-use customization of historical predefined Microsoft Excel®-based reports
- Scheduling and generation of historical reports
- Voice and e-mail object alarm monitoring
- Alarm/alert customization
- Unicode supporting multiple languages
- Wallboard display control for LED & TV

Openness options

- End-to-end detail statistics reporting
- Optional integration with full featured IVRs
- Genesys Workforce Management
- Workforce management interface
- CRM Gplus Adapters – Microsoft Dynamics® business software, SAP® software

Professional services provided options

- Interface to Remedy, Salesforce, Pivotal and others
- CC Teamer real-time communication with presence status, conferencing and collaboration via OmniTouch My Teamwork™ Conferencing and Collaboration desktop integration

OmniTouch 4625 CCIVR

- Short deployment time and easy access to autonomy with packaged IVR including Application Generator
- 65 Building Blocks and debug mode
- Outbound applications

- ASR, TTS, Voice Mailboxes, Fax
- Advanced integration with OTCC Standard Ed., Genesys Compact Ed. and Genesys

Genesys suite integration

- OmniPCX Routing Service Intelligence (RSI)
 - Optimization by leveraging OmniPCX features and resources
 - Database synchronization
 - CCD backup on OmniPCX
- 8 & 9 Series agent display

Operations ^[4]

- Centralized or distributed management via OmniVista 8770 NMS
- Comprehensive application suite to manage OmniPCX Enterprise CS from 8.0 and OpenTouch
- 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
- Evolution path from OmniVista 4760

Infrastructure

Capacities

- OpenTouch Multimedia Services
 - Single server: 1,500 users with conversation services, 3,000 My IC devices
- OmniPCX Enterprise CS
 - Single server: 15,000 IP users/5,000 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
 - >1 million users in a supra-network
 - BHCC per server: 300,000

Architecture

- Centralized or distributed CS
- CS and database duplication
- Main-standby seamless communications fail-over
- Passive CS for business communications full-featured branch-office survivability
- Backup signaling link for branch-office survivability
- TDM or IP switching

Software

- Red Hat® Linux® and Linux Kernel 2.4.17

Business process

- TAPI, MAPI, DDE, OLE.com, LDAP

Application partner interfaces (AAPP program)

- 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

Session Initiation Protocol (SIP)

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

IETF standards

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

SIP best practices: RFC 4504

Voice over IP

- G722, G722.2 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), 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

Video

- SD/HD video
- H.263, H.264

- Voice-activated video switching for ad-hoc conferences ^[1]
- Continuous presence ^[1] (requires additional MCU)
 - RADVISION Scopia, Scopia Elite
- ISDN gateways (AAPP)
- Video Center (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)

Messaging networks

- 4645 VMS: IMAP4, VPIM, Octel-net and Amis

Trunks

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 H.323 for VoIP
 - SIP, H.323v2
 - ABCVPN for networking over ISDN/PSTN network
- TDM:
 - ABC
 - QSIG BC, QSIG GF, DPNSS

Security

Global security certification

- Common criteria EAL2+

Authentication

- Local, RADIUS, LDAPS authentication
- NTLM Single Sign-On ^[1] (My IC Desktop)
- Client/device (IP Touch) network access
 - IEEE 802.1X MD5/TLS

Traffic filtering

- OmniPCX Enterprise CS
 - Trusted hosts file
 - TCP wrapper function
- Client/device (IP Touch)
 - ARP spoofing protection
 - PC port switch VLAN filtering

Encryption

- Secure SIP/SRTP
 - 4028, 4038, 4068 (NOE over SIP mode)
 - SIP trunks

- SSHv2 for secure sessions (Telnet, FTP, etc.)
- 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)

Integrity

- Media gateway and IP Touch binaries signatures
- System maintenance and access
 - Dual port (hot standby mode)
 - Local and remote logging (syslog)
 - Serial console port for local and remote (call back modem dialup) access
 - Network time protocol (NTP) server and client for network wide time synchronization

User authorization to communication services

- Call monitoring feature
- Internal toll fraud protection by class of services
- PIN codes for calls
- Barring categories
- PIN for DISA

Hardware

Appliance Servers or Blade Centers

- OpenTouch Multimedia Services
 - Software distribution
 - HP DL Appliance Server
- OmniPCX Enterprise CS
 - IBM x appliance servers
 - IBM Blade Center
 - HP DL appliance servers
 - HP BladeSystem Blade Center

Racks

OmniPCX Enterprise RM1 (19-in. rack)

- 3 modular slots (stackable up to 3 with RM3)
- 2.60 in x 17.40 in x 15.75 in
- 66 mm x 442 mm x 400 mm (HxWxD) - weight: 22 lb (10 kg)

OmniPCX Enterprise M2 (cabinet)

- 1 ACT 28 or 2 ACT 14
- 10.04 in. (255 mm)
- 29.13 in. (740 mm)
- 22.44 in. (570 mm)
- Weight: 154.32 lb (70 kg)

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

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

OmniPCX Enterprise RM3 (19-in. rack)

- 9 modular slots (stackable up to 3 with RM1)
- Takes optimized hardware modules (or/and e-CS communications server)
- Depth: 15.75 in. (400 mm)
- Height: 6.06 in. (154 mm)
- Width: 17.40 in. (442 mm)
- Weight: 38 lb (17 kg)

OmniPCX Enterprise M3 (cabinet)

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

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

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

DECT

- Radio DECT/GAP
- 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 (U.S.) with power adaptation
- Optimized Radio Base Station (IBS)
 - Six simultaneous communications
 - 2 x UA interfaces
 - Inline-powered

- Advanced Radio Base Station (RBS)
 - 12 simultaneous communications
 - Dedicated DECT8 board
 - External power supply
 - Outdoors versions

WLAN

OmniAccess WLAN access points and WLAN controllers

- IEEE 802.11a/b/g/n
- IEEE 802.11i
- Radio frequency range
 - 2.4 GHz to 2.4835 GHz
 - 5.150 ~ 5.250 GHz (low band)
 - 5.250 ~ 5.350 GHz (mid band)
 - 5.470 ~ 5.725 GHz (Europe)
 - 5.725 ~ 5.850 GHz (high band)

Automated radio coverage

- Dynamic RF management for AP channel power and channel optimal setting
- Self-healing around failed access points

Wireless security

- WEP, WPA, WPA-PSK, WPA2 and WPA2-PSK
- Integrated stateful firewall
- Rogue access point detection and containment
- Wireless IDS/IPS

Quality of service

- Standardized
 - Over-the-air QoS: 802.11e - WMM (EDCA)
 - 802.11e Power Save (U-APSD)
 - 802.11e Traffic Specification (TSPEC)

- SRP mode
- Connection Admission Control with graceful load balancing
- 802.1p DiffServ marking

Call persistency

- Proxy mobile IP for Layer 3 handover
- Fast handover – WPA2 opportunistic key caching
- Voice-aware scanning
- Voice-aware 802.1x re-authentication

Telephony protocols

- Alcatel-Lucent OmniPCX (NOE)
- SIP

Paging

- ESPA 3 protocol
- External call waiting on voice prompt
- Internal and external calls transfer to pager features

International directives

- EC Directives
 - 94/9/EC: ATEX
 - 1999/5/EC: R&TTE
 - 1999/519/EC: SAR
 - 2002/95/EC: ROHS
 - 2002/96/E: WEEE
 - 2004/108/EC: EMC
 - 2005/32/EC: Ecodesign
 - 2006/95/EC: LVD
- #### **Safety**
- IEC 60950-1
 - UL 60950-1

SAR

- Cenelec EN50360
- Cenelec EN50385
- FCC OET 65 and IEEE 1528

EMC

- IEC-CISPR22 Class B
- Cenelec EN55022 Class B
- FCC Part 15B
- IEC-CISPR24
- Cenelec EN55024
- IEC-EN61000-3-2
- ETSI-EN 301 489-06: DECT
- ETSI-EN 301 489-17: Bluetooth and WLAN

Radio

- ETSI EN 300 328: 2.4 GHz
- ETSI EN 301 893: 5 GHz
- ETSI EN 301 406: DECT
- FCC Part 15 Subpart C and D

EX Environment

- Cenelec EN 60079-0
 - Cenelec EN 60079-11
- #### **Miscellaneous environments**
- Cenelec EN 50121-4: Railway applications
 - 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 TBR 021, 010, 022, 003, 033, 004, 034, 008, 038
- ITU-T H.323
- FCC Part 68
- Canada CS03

Over voltage and over currents

- ITU-T K.21, K.22

^[1] This feature requires both OmniPCX Enterprise CS and OpenTouch Multimedia Services

^[2] This feature requires OmniVista 8770 Network Management Software

^[3] My IC Phone requires both OmniPCX Enterprise CS and OpenTouch Multimedia Services except when deployed in specific industries and verticals, such as hospitality, where only OmniPCX Enterprise CS is required.

For further information about the complete feature list, please contact your Alcatel-Lucent reseller.

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