

# ALCATEL-LUCENT OMNIPCX OFFICE RICH COMMUNICATION EDITION SMALL AND MEDIUM BUSINESSES

To compete and succeed in today's marketplace, small- and medium-sized businesses (SMBs) need enterprise-class products. With increased security, mobility, and an enriched user experience – all at a lower cost – the Alcatel-Lucent OpenTouch™ Suite for SMB helps businesses grow.



**OmniPCX Office RCE Compact Edition**



**OmniPCX Office RCE Small**



**OmniPCX Office RCE Medium**



**OmniPCX Office RCE Large**

The cornerstone of Alcatel-Lucent's SMB offering is the OmniPCX™ Office Rich Communication Edition (RCE). It offers an all-in-one, end-to-end converged solution for voice and data, with zero touch deployment. It's easy to order, install, use and maintain. The OmniPCX Office RCE is the perfect response to the social, mobile and visual forces driving the SMB market. And it's backed by a broad portfolio of compatible Alcatel-Lucent products for SMBs.

OpenTouch Suite for SMB includes the following features:

- Teamwork and collaboration to help teams work together
- Enhanced off-site mobility to keep users connected to their business anytime, anywhere
- Wireline/wireless phones and efficient desktops to increase productivity
- Customer welcome to provide a professional greeting and increase customer satisfaction
- Network infrastructure that reduces costs by using a single infrastructure for voice and data services

FEATURES	BENEFITS
All-in-one solution	Modularity, flexibility and scalability to meet the needs of SMBs from 4 to 200 people in size
Conversation services on application-enabled desk phones, PCs and smartphones	Offer next-generation enterprise communication experience
User-centric communications experience across devices and locations	Provides full-featured access to enterprise communications services across devices while on site or off
Business communications services, including attendant, routing and messaging services	Increased communication efficiency for employees with new opportunities to reach contacts
Embedded voice-centric customer service	Increase customer satisfaction by improving call resolution
IP telephony infrastructure flexibility and software scalability	Reduces communication costs and enables the choice of network configurations and IP, IP/TDM or TDM endpoints, minimizing additional investment and enabling a smooth migration
Simplified and unified management	Reduces total costs of ownership for business communication and conversation services
Plug and play and zero touch deployment	Easy installation in full voice environment and/or converged voice/data environment at reduced cost
SIP at the core	Optimized installation ready for next generation of communications

## TECHNICAL SPECIFICATIONS

### COMMUNICATION SERVICES

#### Conversation services

- Wideband VoIP, HD video
- Scheduled audio, video and web conferencing
- Enterprise presence, including conversation status
- Desktop phone and mobile phone control from PC
- Universal directory access
- Single-identity: routing profiles
  - User-defined routing rules
  - Route to one or several devices
- Visual mailbox access

#### Business communications services

- Unified Directory access, call by name
- Unified call log
- Unified Instant messaging
- Multiline telephony
- Call options, speed dial
- Audio conferencing
- Personal and enterprise call routing and forwarding
- Call-back features
- Multiline
- Call queuing
- Automatic route selection (ARS)
  - 3000 entries
  - Least cost routing
  - Multicarrier access
  - ARS overflow on busy carrier
  - Time range and calendar based
- Direct inward station access (DISA), substitution
- Call recording
- Call pickup
- Paging
- Call back
- Intrusion
- Call deflection
- Divert
- Joining
- Barring
- Paging
- Emergency call

#### Manager assistant

- Call filtering
- Hot line
- Multiple manager/secretary

#### Team and group

- Workgroup
- Key system
- Groupware supervision
- Audio notifications
- Group (broadcast, parallel, cyclical, sequential)

#### Desktop Communications

##### Alcatel-Lucent OmniTouch™ 8082

##### My IC Phone

- 7 inch capacitive and haptic touch screens
- Media player, screensaver and pictures
- Microsoft® Outlook™ sync
- Audio conversation services
  - Unified directory
  - Session history
  - Visual messaging
  - Favorites
- Manager conversations
- Video calls
- SIP and web services
- Third-party web-based applications support
- 10/100/1000 Ethernet
- Bluetooth® handset
- G722, G722.2 wideband audio
- 802.3 AF PoE (class 3)
- Maximum capacity: 20

#### Premium DeskPhones

##### IP Touch 8 Series Extended Edition IP phones, IP Touch 9 Series digital phones

- Business communication services
- Embedded alpha-numeric keyboard
- Back light
- Display of participant name and contextual feature keys
- Hands-free, loudspeaker announcement
- Headset capability, such as Bluetooth
- Alcatel-Lucent NOE protocol
- Add-on supervision & smart display modules

#### Pimphony

- Maximum capacity: 200
- Conversation services on PC desktop
- Click-to-call
- Visual mail box, call log
- Supervision (single/multi site)
- Assistant mode (operator)
- PIM/directory
  - Microsoft Outlook

- Act!®
- GoldMine®
- Microsoft Access™
- IBM® Lotus Notes™
- LDAP
- Microsoft Windows™
- VOIP softphone
- Routing rule configuration (unique number)

#### My IC Social Networks

- Maximum connections: 25 TAPI 2.0/200TAPI 2.1
- Try and Buy
- Outlook plug-in
- Call dialog window
- Directory federation
- Presence federation
- Supervision aggregation
- Pounce service
- Facebook®, Yahoo®, Skype™
- Toolbar and context menu: SMS, Call, conference, transfer, IM, E-mail, Presence, Forwarding Rules

#### Alcatel-Lucent OmniTouch™ 8600

##### My IC Web For Office

- Maximum capacity: 200
- Web-based client
- Dial by name
- Conversation services
- Conference & Call recording
- Instant messaging
- Visual voice mail
- Call log
- Routing rule configuration (unique number)

#### Mobility services

- One number service: up to three devices per user
- OpenTouch Conversation (OTCV) (iOS™ and Android™, DECT & WLAN)
- Unified access (from any devices)
- Nomadic to any phone
- Multiple/single call presentation
- Get call feature

#### On-site mobility

##### OmniTouch™ 8118/8128 WLAN and 500/500EX/8232/8242 DECT Handsets

- Business communication services
- Hands-free
- Headset capability
- Integration with notification- and location-based services through Alcatel-Lucent Application Partner Program (AAPP)

## **On-site and off-site mobility**

### **OpenTouch Conversation (OTCV)**

- Maximum capacity: 50
- Software client with intuitive graphical interface for following platforms:
  - Apple® iPhone™
  - Google® Android
- Single identity, business caller name presentation, communication history, on-call access to business services
- Easy deployment:
  - Apple AppStore
  - Google Play
- Services
  - conversation services
  - conference
  - unified instant messaging
  - unified call log
  - unified visual voice mail
  - unified directory access
  - Sip softphone (SIP companion IOS only)
  - fall back on cellular
  - one number, routing profile, mobility management

## **Hospitality**

- Integrated application (up to 120 rooms)
- Alcatel-Lucent OmniPCX Office Hospitality link (OHL) (Up to 200 rooms)
- Room management
- Wake up
- Phone booth

## **Metering**

- Metering counters
- Traffic counters
- Accounting link
  - Printout facilities
  - OHL driver
  - Over IP accounting
- Local call metering (XML/HTTP)
- Account code
- Duration-based forced disconnect

## **Conference**

- 6-party conference bridge
- 3-party conference
- SIP conference module 4135 (5 parties)
- Conference on SIP devices (3 parties)

## **Attendant Services**

- Call queuing
- Call overflow
- Alarm indication
- Attendant group features

- Busy lamp field
- Trunk and charging features
- User management features
- Add-on module
- Headset capability
- Attendant position (e.g., PC, Phone)
- Automatic attendant
- Visitor registration
- Normal/restricted mode control

## **Directory services**

- UDA services
- Dial by name
- Directory aggregation via My IC Social Networks plug-in
- Abbreviated numbers: 2200
- Connection to external LDAP server
- Individual repertories
- Up to 5000 names
- Contact synchronization
- CRM integration

## **Messaging services**

- Voice mail
  - Mailbox: 200
  - Max storage: 200 Hours
- IM
  - Unified IM among user's devices & Applications
  - Instant notification, Conversation, read status
  - System storage: Up to 5000, Up to 30 days
  - Up to 100 characters per IM
- Social network IM
  - via My IC Social Networks application
- Text messaging (does not cohabit with IM)
  - Free / preprogrammed
  - Texte message (32 characters)
- Unified messaging
  - Voice mail in e-mail
  - Call log in e-mail

## **CUSTOMER SERVICES**

### **Architecture**

- All-in-one, fully integrated solution
- Phone (Analog, Premium DeskPhones, IP Touch 8 and 9 series, SIP, mobile, DECT, WLAN)
- Mixed configuration: ACD, MLAA, SCR and communication services
- ACD/MLAA/SCR ports: up to 16

## **Smart Call Routing (SCR)**

- Maximum entries: 10000
- Routing criteria (customer code, CLI, DDI)
- Routing destinations
  - ACD, MLAA, any destination
  - 2 per entry, planning based
- Planning: 10

## **OmniTouch Call center Office (ACD)**

### **ACD services**

- ACD group: up to 8
- Group selection: longest idle time, rotating priority, fixed priority
- Priority levels between groups: 8
- Group overflow
- Queue: 1 per group
- Voice guidance: 7 per group
- Customer code

### **Agents features**

- Maximum 32
- Agent application
- PC agent application (optional)
- Local application on IP Touch 8 and 9 series
- Agent status (logged out, wrap-up time, pause, log in)
- Free seating
- Call classification
- Personal statistics
- Screen pop ups/CRM
  - Embedded database
  - API to external CRMs
- Waiting time in queue for call
- Visual queue control
- Outbound call: free dialing, copy and paste, dial by name, LDAP

### **Supervision**

- PC application
- Up to 8 simultaneous connected supervisors
- Real time ACD activity monitoring (agent and group)
- Three presentation modes (modular, grid, tool bar)

### **Statistic**

- PC application
- System retains data for 14 months
- Automatic printing of predefined reports
- CSV export

## **Welcome greeting**

### **Personal assistant**

- Transfer options: 5

### **Automated attendant**

- 2 levels (customizable)
- General mail box
- Welcome service
- Information service: 50 information boxes
- Company greeting remote customization - opening and closing hours

### **Attendant group**

- Maximum attendant group: 8
- Maximum attendants per group: 8
- Night greeting
- Restricted mode
- Time range (daily, weekly, bank holidays)

### **Attendant console**

- PC-based application

### **Multiple automated attendant (MLAA)**

- Maximum languages per tree: 4
- 5 different trees
- 3 level per tree
- Voice prompts per language: 100
- Time range: 10
- Greeting messages
- Maximum greeting : 20
- Total duration: 320 s
- Individual, group, company
- Music on hold
- 16 seconds Default
- Customized up to 10 minutes
- External source
- Multiple company welcome
- Maximum entities (groups of users): 4
- 10 minutes music on hold per entity

## **External Applications**

### **Video**

- Doorphone, SIP, My IC Phone peer-to-peer video

### **Fax services**

- G3, super G3 fall-back
- Automatic fax detection
- ITU-T T.38 UDP fax call (trunk)
- Fax over ITU-T G.711
- Fax ECM option

## **OPERATIONS**

### **Management**

- OMC (PC-based application)
  - Access level ( administrator, admin, operator)
  - Connectivity
    - IP (HTTPS)
    - ISDN (1 or 2 B)
    - Call back
  - Platform
    - Window,
    - Windows server
  - Unique management access point
  - Customer database backup and migration
- Web-based portal
  - Diagnostic
  - Simple actions
- Local administration (from the phone device)

### **Serviceability**

- NTP server/client
- Alarming
  - Urgent/non urgent
  - Alarming in email
- History event
- Zero touch
  - DHCP
  - Plug-and-play
  - OmniSwitch auto provisioning
  - SIP profile import

## **INFRASTRUCTURE**

### **Capacity**

- 200 users (IP and-or TDM)
- BHCA 1500

### **Architecture**

- All-in-one call server
- Switching: TDM and IP + hybrid

### **Software**

- Linux: Linux Kernel 2.6.29.6

### **Hardware**

#### **CPU board**

- PowerCPU EE (PowerPC e300)
  - Covers
    - Chassis (compact, S, M, L)
    - All requirements and options
  - Memory Storage Daughter Board (MSDB) : 8GB ( EMMC)
  - Hardware watchdog
- 16 VoIP DSP channel (option of up to 48)

- Daughter board
  - AFU: CD-player, door phone, loudspeaker
  - HSL1 or HSL2 : for multiple cabinet interconnection (S,M,L chassis)
  - MiniMIX 2/0/2 (compact chassis only)

### **Chassis**

- Compact (C) Edition
  - AC/DC power supply: external
  - Backup battery: external (optional)
- Installation: office environment, wall-mounted
  - 1 free modular slot
  - No fan
  - Height: 70 mm (2.75 in.)
  - Width: 345 mm (13.58 in.)
  - Depth: 340 mm (13.38 in.)
  - Weight (unpacked): 5.1 kg (11.24 lb.)
  - Power maximum/typical: 40 W / 25W
  - Noise level: 0
- Chassis: racks S, L, M
  - Standard in S, M, L Editions
    - Fan
    - Rack (19-inch rack)
    - AC/DC power supply: Integrated
    - Backup battery: Internal / external (Option)
    - Installation: stack, rack, wall-mounted
    - Combination: up to 3 chassis, maximum of 27 free slots
  - Small (S) 1U
    - 2 free modular slots
    - Height: 66 mm (2.60 in.)
    - Width: 442 mm (17.40 in.)
    - Depth: 400 mm (15.75 in.)
    - Weight (unpacked): 6 kg (13.22 lb.)
    - Power maximum/typical: 70W/28W
    - Noise level: maximum 40dBA
  - Medium (M) 2U
    - 5 free modular slots
    - Height: 111 mm (4.37 in.)
    - Width: 442 mm (17.40 in.)
    - Depth: 400 mm (15.75 in.)
    - Weight (unpacked): 11 kg (24.25 lb.)
    - Power maximum/typical: 88W/40W
    - Noise level: Max 41dBA
  - Large (L) 3U
    - 8 free modular slots
    - Height: 154 mm (6.06 in.)
    - Width: 442 mm (17.40 in.)
    - Depth: 400 mm (15.75 in.)
    - Weight (unpacked): 13 kg (28.7 lb.)
    - Power maximum/typical: 108W/57W
    - noise level: Max 45dBA

## Interface boards

- Terminals
  - Digital Interfaces UAI 4, 8, 16
  - Analog Interfaces SLI 4, 8, 16
- Network
  - BRA boards (T0) 2, 4, 8
  - PRA boards (T1, T2) 1
  - Analog trunk(1) 2,4
  - Mixed boards T0/UA/SL 2/4/4, 4/4/8, 4/8/4
  - Analog mixed boards APA/UA/SL 4/4/4-1, 4/4/8-1, 4/8/4-1
  - Mini-MIX2/0/2
- LAN
  - Ethernet LANswitch LanX 16 10/100/1000 BT auto-sense unmanaged

## Application partner interfaces (AAPP)

- SIP
- CSTA, TAPI 2.0, TAPI 2.1
- Alcatel-Lucent Hospitality Link
- Local call metering application (LCMA)
- Alcatel-Lucent OmniVista 8770 Accounting and VoIP Ticket Collector, call detail records
- QSIG
- Urgent alarm (SIP/ISDN trunk)

## SIP: Session Initiation Protocol

- SIP public trunk
- SIP private trunk
- SIP peering
- SIP end points (local users)
- Alcatel-Lucent SIP devices
- Third-party devices (AAPP)
- SIP capabilities
  - RTP direct
  - Multiple RTP flow
  - SIP notification (IM)
  - Video (RTP direct)
- Public configurable SIP number format
- Static NAT (SIP ALG/ SBC less topology)
- Header to routing based
- Support for multiple SIP registrars (Per DDI, per range)
- Backup proxy (immediate swap)

## IETF standards

- SIP RFC
    - Trunk standards compliance
- |          |           |           |
|----------|-----------|-----------|
| RFC 3261 | RFC 3261  | RFC 3262  |
| RFC 3264 | RFC 2327  | RFC 2833  |
| RFC 2822 | RFC 3515  | RFC 360   |
| RFC 3966 | RFC 3398  | RFC 3323  |
| RFC 3324 | RFC 3325  | RFC 3892  |
| RFC 1321 | RFC 2617  | T38 ITU-T |
| RFC 3263 | RFC 4244  | RFC 3326  |
| RFC 3840 | RFC 4028  | RFC 3581  |
| RFC 4916 | TS 24.229 |           |

- Phone standards complianceRFC 3261
- |          |          |          |
|----------|----------|----------|
| RFC 2327 | RFC 3515 | RFC 4733 |
| RFC 3891 | RFC 3420 | RFC 3265 |
| RFC 3550 | RFC 3551 | RFC 3264 |
| RFC 3842 | RFC 3966 | RFC 3892 |
| RFC 1321 | RFC 2616 | RFC 2617 |
| RFC 5373 | RFC 3398 | RFC 3323 |
| RFC 3325 | RFC 4028 |          |
- RTP RFC: 1889, 1890, 2198, 3550, 3551, 3711, 3362
  - SIP best practices: RFC 4504

## VoIP

- G722, G722.2 audio wideband
- G.711 A-law and  $\mu$ -law, G.723.1A, G.729, AB audio
- G711, G722, G723.1, G729, G.722.2
- 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
- In band DTMF (Q1 2015)
- Generic signal qualification and modem transport
- Anti-saturation mechanism; backward and forward automatic gain control
- Embedded signal quality diagnostic tool
- Quality of service: TOS or DiffServ tagging, 802.1 p/Q

## Video

- Codec path through (RTP direct)
- LifeSize Video Center (AAPP)
- Door phone(s) integration
- Peer-to-peer (SIP device/trunks)

## Networking

### Private networking protocols

- SIP networking
- H323 networking
- ISVPN ( T0/T2)
- QSIG-BC (DLT0 DLT2)

### ARS (automatic route selection)

- Maximum of 3000 entries
- Multi-carrier access

### Multisite

- Up to 5 sites
- PC-based supervisor application
- Directory synchronization (OMC)

## Security

### Authentication

- User authentication: login/password (4 or 6 digits)
- Management authentication: login/password (8 characters)
- HTTPS: server certificate self-signed
- System certificate export
- System certificate import from Public authority

### Traffic filtering

- Cal server
  - ARP spoofing protection
- Client/device (IP Touch / MyIC 8082)
  - ARP spoofing protection
  - PC port filtering

### SIP perimeter defense

- SIP method authentication (RFC 2617) for SIP phones and public SIP trunking
- Quarantine/blacklisting due to abnormal traffic (too many messages in a short time)
- Automatic blacklist for hostile IP addresses
- Thresholds for identifying hostile IP addresses
- Connection tracking

### Encryption

- SSLv3 for secure HTTP session
- HTTPS: 2048 bits RSA keys

### User authorization to communication services

- User account lock notification (alarm, e-mail)
- Management account lock notification (alarm, e-mail)
- 4 or 6 digit password (user)
- PIN codes for calls (barring and substitution)
- Barring categories
- PIN for remote substitution (DISA)
- Remote access locked after repeated authentication errors
- Normal/restricted modes, based on time ranges
- User rights to service

### Miscellaneous

- Network time protocol (NTP) server and client for network-wide time synchronization
- Remote access by modem:
  - List of authorized CLI
  - Call back to configured number
- HTTPS for management and end-user applications

### Alarm server

- Live and notification call services with location information
- Periodic live call for proactive security
- Alarm calls with specific alarm button, man down, shock, “no movement” detection
- Key events calls for end user signaling task progress
- Status call for updating handset status to central server
- Alarm server
  - T2 connectivity
  - SIP connectivity
- Isolated worker protection device (PTI)
- DECT

### DECT radio

- Radio DECT/GAP/AGAP
- 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 (United States) with power adaptation
- 4070 DECT Base Station
  - Six simultaneous communications
  - 2 UA interfaces
  - Maximum devices registered: 120
  - Inline powered
- 8340 IP DECT Access Point
  - 11 simultaneous communications per AP
  - 16 AP
  - Maximum devices registered: 50
  - POE or POE injector
  - Outdoor versions
  - Integrated DAP manager for automated configuration and handset roaming
  - Over-the-air synchronization
  - Mixed DECT and IP DECT configuration

### WLAN

#### OmniAccess WLAN access points and WLAN controllers

- IEEE 802.11a/b/g/n
- IEEE 802.11i
- Radio frequency (RF) range
  - 2.4 GHz to 2.4835 GHz (“b” and “g”)
  - 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

### International directives

#### EC Directives

- 94/9/EC: ATEX
- 1999/5/EC: R&TTE
- 1999/519/EC: SAR
- 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

### 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 and E

### 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

