



Alcatel OmniPCX Enterprise



Summary Specifications

What does it take

to become the *most awarded IP Telephony system in the world?*



It takes a century of engineering excellence and listening to customers to deliver the *Alcatel OmniPCX Enterprise*, a communications solution that...

... empowers everyone in your business through **architectural flexibility**. The OmniPCX Enterprise provides consistent features to all users over all media, whether they're working on your premises, on the road, or even from home.

... offers a contact center with **intelligent networking** and **superior customer interaction** through multimedia tools.

... enables an **agile workplace** with distributed knowledge, flexible deployment of new applications, and cost savings all in one.

... offers **simplified management** that is always on and is accessible from any Web browser. It has the ability to manage users, resources, and services across the entire Enterprise.

... delivers **headquarter survivability to the branch**.

... provides *moveable software licenses* that allow you to move your licenses anywhere, anytime, across your enterprise.

... is a *highly scalable (6 to 50,000 users) and flexible system* that allows you to evolve your legacy systems as your needs dictate protecting your existing investment.

Alcatel IP Telephony has won the most awards because in addition to all of these benefits it offers hundreds of other features and capabilities. The *Alcatel OmniPCX Enterprise* is the world's most advanced, future-proof communications system that offers risk-free migration to IP without compromising on features.



Alcatel OmniPCX Enterprise



Software	
Client-server	UNIX System V compliant
Chorus MIX micro kernel operating system	Linux LILO/GRUB compliant*
SQL/CQL database	Linux Red Hat* & Mandrake 7.2

Hardware	
Alcatel Enterprise technology offers:	Native Ethernet connectivity
Distributed hardware	Main CPU duplication available in all configurations (inside Media Gateway or LAN attached)
Processing	
Switching	
Power supply	Optimized hardware for IP only and multiple remote site designs
Auxiliary	

Cabinets	
Alcatel OmniPCX Enterprise RM1 (19" rack)	Alcatel OmniPCX Enterprise M2 (cabinet)
Three modular slots (stackable up to 3 with RM3)	1 ACT 28 or 2 ACT 14
Takes optimized hardware modules (or/and e-CS communication server)	Depth 10.04 in./255 mm
Depth 15.75 in./400 mm	Height 29.13 in./740 mm
Height 2.60 in./66 mm	Width 22.44 in./570 mm
Width 17.40 in./442 mm	Weight 154.32 lb./70 kg
Alcatel OmniPCX Enterprise RM3 (19" rack)	Alcatel OmniPCX Enterprise M3 (cabinet)
Nine modular slots (stackable up to 3 with RM1)	2 ACT 28 or 2 ACT 14
Takes optimized hardware modules (or/and e-CS communication server)	Depth 20.31 in./516 mm
Depth 15.75 in./400 mm	Height 59.05 in./1500 mm
Height 6.06 in./154 mm	Width 22.4 in./570 mm
Width 17.40 in./442 mm	Weight 242.5 lb./110 kg
Alcatel OmniPCX Enterprise Voice Hub (19" rack)	Alcatel OmniPCX Enterprise WM1 (cabinet)
ACT four slots, expandable to eight	Width 12.72 in./458 mm
Integrated power supply	Height 27.95 in./710 mm
Integrated maintenance modem	Depth 10.04 in./255 mm
Depth 14.17 in./360 mm	Weight 55.11 lbs./25 kg
Height 6.30 in./160 mm	Power supply: 110 V/48 V, 220V/48V
Width 17.72 in./450 mm	
Weight 33.06 lb./15 kg	
	Norms
	UL/CSA
	FCC/IC compliance
	Part 68
	CS-03



*Release 5.0 Linux supported using Optimized Hardware or Appliance Server (IBM, etc.).

All information relates to Alcatel's OmniPCX Enterprise's UNIX and Linux based architectures. For more information on any functionality differences, please contact local sales representatives.



Reflexes Telephones

The Alcatel Reflexes telephones are easy to use and offer a rich set of features that simplify and empower communications. Alcatel offers a complete line of IP and digital Reflexes telephones. The digital Reflexes phones are connected by an Alcatel high-speed digital interface at 256 Kbps (3B+D) using standard two-wire telephone cabling.

Reflexes phones

Alcatel 4035 Advanced Reflexes	Alcatel 4035 IP Advanced e-Reflexes
Alcatel 4020 Premium Reflexes	Alcatel 4020 IP Premium e-Reflexes
Alcatel 4010 Easy Reflexes	Alcatel 4010 IP Easy e-Reflexes
Alcatel 4004 First Reflexes	

Modules adding keys to a telephone set

Alcatel 4090 M: 20 keys
Alcatel 4090 L: 40 keys

Reflexes plugware

Alcatel 4095 analog line plugware
Alcatel 4093 ASY asynchronous V.24/CTI Communication protocols: V.25bis, Hayes Rate adaptation: V.110/V.14 E
Alcatel 4098 IP Reflexes phone enabler gives you a simple upgrade to digital Reflexes

IP Services

G.711 voice coding
G.723.1 & G729a compression algorithm
H.323 compliant
SNMP agent (MIB2)
DHCP client
10/100 switch function (allows PC to be attached to phone)
QoS: RTCP monitoring IEEE 802.1p/Q, ToS, DiffServ
Power AC or 802.3af
SIP gateway and H.323 internal Gatekeeper services
Integrated in optimized hardware or appliance server (IBM etc.)
Supports the use of Alcatel UA based IP phones, third party SIP phones and any H.323 devices
SIP Proxy and SIP Client registration using embedded URL
H.323 Gateway registration and translation of E.164 into IP

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Telephony enabled PC – Alcatel 4980 PC / Web based telephony software

Incoming/outgoing call management	Soft keys
Personal and group phonebook	Call planning
Universal call-by-name by automatic directories overflow	Call related notes
Directory pop-up	Groupware services
Call log (history call files)	NetMeeting compliant
Visual mailbox	TAPI, MAPI, DDE, OLE.com, LDAP
Multi-line mode	Inter-working with Lotus Notes & M/S Outlook
Manager/assistant	Kit/library for developers such as Alcatel's XML Telephony API v1.0
PWT compliant	

CTI (Computer telephony integration)

Alcatel 4961 TAPI Middleware for PC workstation
Alcatel TAPI Premium Server: TAPI 2.1 / 3.0

Reflexes phones advanced services (IP, Wireless, Analog, or Digital)

Absence message	Interactive guidance with soft keys
Adjustable handset volume	Language synchronization: display, voice prompts, and voice mail
Call-by-name: internal and external user	Loudspeaker announcement
Centralized directory, spelling and syntax adjustment	Multi-line: multi-appearance and multi-numbers
Call-by-name can be used in all communication contexts (direct call, inquiry, and more)	Multilingual (user choice)
Caller name display	Macro commands
Conditional/unconditional differentiated forwarding of multiple directory numbers	Message waiting indication
Contextual voice prompts	Mini-text messages
Fixed function keys	Personal password for consultation of non-reply personal calls log
Hands-free	Programmable function key
Headset capability	Supervision of user/trunk/bundle
Help key	
Individual customization	
Informative icons	



ISDN services

Calling line identification presentation/restriction (CLIP/CLIR)

Digit-by-digit dialing mode

End block dialing (digit correction possible)

ISDN identification (CLIP) converted into name

ISDN mini-text messages (carrier dependent)

Malicious call identification

Storage of unanswered calls with date, time, and callback

Sub-addressing

Manager-assistant team

Access to manager's voice message headers from assistant's telephone

Filtering scenario allocation to designated assistant

Flexible configuration: multiple manager/assistant team

Forwarding of private line

Immediate forwarding of manager telephone to assistant activated by manager or assistant

Manager-assistant specific on-line text-messaging

Manager discreet listening (on filtered lines only)

Overflow assistant in case of main assistant absence

Private lines

Main assistant absence notification and overflow assistant

Selective filtering (scenarios)

Teamwork configuration

Common/exclusive hold

Group call pick-up

Hunting groups

Log-on, log-off

Manageable ring indicator

Manageable waiting queue

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Standard telephone features

Speed dialing	Intrusion
Account code charging	Last internal/external number redial
Appointment reminder	Local and external call
Associate (definition, modification by user)	Moving service
Automatic call-back on busy trunk/bundle/network link	Multi-line selective forwarding
Automatic call-back on free/busy extension	Multiple conference call
Broker's call	Multiple call protection
Call forwarding unconditional on busy/no reply to extension, hunting group, voice mail, operator, paging, etc.	Multi-tenant services:
Call pick-up	Speed dialing numbers per entity
Call waiting indication	Calling line identification
Calling line identification restriction for internal calls	Integrated auto attendant services per entity
Camp on busy telephone/hunting group/voice mail	Presentation (CLIP) per entity
Conditional external forwarding (busy or no reply)	Greeting message per entity
Waiting call	Music on hold per entity
Controlled private call by PIN code and password (optional)	Night service per entity
Distinctive ringing according to hierarchical levels	Over dialing
Do not disturb	Personal code modification
General night service	Priority call
Hunting group (fix head, cyclic, longest idle time, parallel)	Store and redial external number
Immediate forwarding	Substitution
Individual hold	Three-party conference
Individual directory	Transfer in conversation on free/busy telephone
Internal/external music on hold	29 party meet me conference
Internal/external inquiry call	Voice prompts on/off per telephone
	Voice message deposit on forwarded telephone
	Waiting call consultation



Wireless Reflexes – PWT services

Caller's name display	Multi-line
Dial by name	Range of gain antenna
Encrypted communications	Roaming
Hand-over	PWT service
ISDN services	Voice mail notification/consultation
Mini-text messages	

Optimized radio base station

Six simultaneous communications
Connectivity 2 x UA interfaces
Inline powered

Paging

Connections handled by the Alcatel OmniPCX Enterprise: ESPA 3 protocol

External caller waiting on voice prompt

Internal and external calls transferred to pager:

On selection

Immediate forward

No reply or busy

Paging by prefix or suffix

Ubiquity services

Integration of public cellular phone

One number concept, forward call on caller choice:

Voice mail

Cellular phone

Attendant/assistant

Remote access secured by CLIP, access to:

Call by name

Office set management

Alcatel OmniPCX Enterprise regular telephone services

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Attendant station	
Attendant station	Large busy lamp field
Abbreviated dialing	Flexible attendant routing time out overflow based on caller waiting time
Activation/deactivation of DND	Headset capability
Add-on module	Hold individual or multiple
Alarm indication	Create/delete of directory items
Attendant groups	Internal call name/number displayed
Automatic answer	ISDN VIP monitoring
Attendant specialization options (individual or group)	Last number redial
Busy lamp field	Line reservation
Call-by-name in all communication situations	Malicious call identification
Call charge request (carrier dependent)	Manual reservation mode
Centralized or distributed attendant in network	Mini-text messages
Call queuing with indication	Multi-tenant services
Call routing depending on class of traffic, DID, company, or called service (entity)	Override on directory number
Call waiting with indication	Paging
Called party resources	Password
Call pick-up	Personal call
Charging recall service (carrier dependent)	Priority call (internal/external)
Chained call	Receipt and read charging units and costs (carrier dependent)
Choice of system status	Record on line on associated entity
Conference	Status of calls routed to operator
Creation, cancellation, and modification of abbreviated number with name	Store and number redial
Creation, cancellation, and modification of subscribers (name, rights, and more)	Synchronized multi-node routing (entity)
Discrete call offer	Time and date displayed
Discrete call offer by mini-text messages on busy/free	Transfer with/without announcement
Reflexes telephone	Trunk allotting with barring
DTMF over dialing	VIP telephone monitoring



Integrated greeting

- Integrated automated attendant

- Personal automated assistant with context-sensitive greeting

- Synchronized greeting message

Voice and fax mail

- | | |
|--|---|
| <ul style="list-style-type: none"> Automated attendant <hr/> Call transfer <hr/> Direct reply on receipt message <hr/> Extended recording, and playback control function <hr/> Fax broadcast, on demand, overflow, store, and forward <hr/> General distribution lists <hr/> Greeting message according to user status <hr/> Immediate or supervised transfers <hr/> Message acknowledgment <hr/> Message attributes: urgent, normal, private <hr/> Message notification via light, display, dialing tone, voice prompt, outgoing <hr/> Multi-language <hr/> | <ul style="list-style-type: none"> Multi-user password <hr/> Networking protocols: Octelnet and Amis <hr/> Private distribution lists <hr/> Record on line <hr/> Shared mail box: home, guest, and assistant mailbox <hr/> User-friendly interface on Reflexes telephones via soft keys or via PC-client visual messenger <hr/> Voice message attached to a fax <hr/> Voice and DTMF forms <hr/> Web access to voice and fax messages <hr/> Embedded software based voice mail for small/medium sites (branch autonomy) known as the Alcatel 4645 <hr/> |
|--|---|

Automatic call distribution (ACD) – Alcatel OmniPCX Enterprise OmniTouch

Active matrix call distribution

- Call flow based on pilot
- Skill and cost based distribution
- Conditional pilot overflow on voice mail
- Look ahead call routing
- Pilot forwarding to other pilot
- Pilot routing to waiting queue according to priority
- Routing time schedule
- Types of queues: waiting, help, and dissuasion
- Virtual pilot
- Intelligent routing
- Outbound call management
- Direct agent call management
- Remaining wait time announcement
- Genesys Contact Center direct interface using RSI

Voice guidance

- External voices guides
- Synchronized internal voices guides
- Storage from audio station or Reflexes telephone

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Automatic call distribution (ACD)/Alcatel OmniPCX Enterprise OmniTouch (cont.)

Agent features

Administrative withdrawal
Agent break
Agent direct call with statistics
Agent can belong to different groups
Call recording
CCA applications: Reflexes telephone on toolbar providing personal statistics
Group selection: fix head, cyclic, longest idle time
Free sitting agent position
Help supervisor
Home agent with analog telephone or Reflexes telephone
Log-on/log-off
Open or close pilot from agent position
Personal call barring
Suspension of group waiting queues
Transaction code
Wrap-up (automatic or manual)

Supervision and statistics

Alarm handling
Call level information
Customizable alarms
Customizable reports
Detailed communication reports
Reports based on communication events
Discrete call listening for supervisor
Excel based statistics and reporting
Export of communication reports (ASCII files)
Free sitting supervisor position
Full Windows user interface
Native Windows management look and feel
Predefined reports
Real-time service level per pilot
Real-time statistics
Statistics compilation and archive (FTP)
Wallboard display control



Network configuration

Analog and digital Alcatel networking protocol (ABC) based on QSIG	RM1/RM3
Line, star, meshed configuration	Multi vendor networking: QSIG BC, GF, and supplementary services (SS)
Remote shelf (ACT)	

Packet voice networking

Built-in compression engine

Compression algorithm G 723.1/G729.A
 Compression rate 6.4 Kbps/8 Kbps
 G3 fax supported
 End-to-end compression/decompression
 Pooled IP/FR compression resources
 Multiple direction per compression board

Voice over IP (using Universal IP Board)

Compression algorithm: G 723.1, G729.A
 Compression rate 6.4 Kbps/8 Kbps
 G711 supported
 G3 fax supported
 Media gateway over IP support
 Full ABC services supported
 Ethernet connectivity
 H.323 v2 (e.g., third party trunks)
 New call routing in case of QoS or network failure

Voice over frame relay

Compression algorithm: G723.1, G729.A
 Compression rate: 6.4 Kbps/8 Kbps
 G3 fax supported
 Full ABC services supported
 Interface Internet X24/V11 or V36
 New call routing in case of network failure

Voice over ATM

ATM adaptation layer AAL1
 Compliant with integrated compression engine
 Full ABC services supported
 Interface ATM OC-3 155 Mbps
 Eight directions per interface
 Unstructured mode service (CES 1.0)
 UNI 3.1

ABC on demand

ABC via public ISDN, QSIG	Five conversations on 56 Kbps B channel
Dynamic virtual leased line	Call barring for applications
Six conversations on 64 Kbps B channel	Full ABC services

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ABC network routing

Adaptive routing	Automatic route selection (ARS)
Break-in/out	ARS server centralized or distributed
Break-in via secured DISA	ARS time dependant
Data re-routing	Access to alternative route
Forced on net	Voice prompts
	Multiple carrier access – direct or indirect
	Multi-tenant
	Cost limit barring per user
	Overflow if leased line failure or saturation according to user rights
	Transfer, forwarding with route optimization
	Voice/data differentiation

Private networking features (ABC protocol)

Automatic call-back on busy private link	Hold
Broker's call	Hunting groups
Call-back on busy or free extensions	Intrusion
Call deflection	ISDN services
Call forwarding	Large busy lamp field
Call intrusion	Mini text messages
Call offer	Number and name identification
Call waiting indication	Associate telephone
Camp on	Priority calls
Centralized/distributed attendant groups	Remote forwarding
Data communication	Substitution
Network wide mobility	Supervision
Roaming	Manager/assistant team
Guest services	Three-party conference
Distinctive ringing	Transfer (with route optimization)
Do not disturb	Transit
DTMF	Voice mail services
Inquiry call	Unified messaging services
Flexible numbering plan	



Voice based Virtual private networks (VPN)

ABC VPN via overflow to public ISDN, QSIG	Five conversations on 56 Kbps B channel
Dissociating signaling over IP network (lower bandwidth)	Full ABC services
Six conversations on 64 Kbps B channel	

ABC network management

Management from attendant	Audit mechanism
Multiple DDI translators	Broadcast of configuration data
Multiple call barring translators	Remote maintenance access
VT 100 local management	Remote software downloading
	CDRs with VPN and LCR services

Centralized or distributed management from external applications

- Topology map
- Configuration
- Alarm management
- Call accounting
- Directory
- Traffic analysis
- Security
- Graphical user interface
- Remote management
- Alarm domains and alarm centralization

Security

Internal toll fraud protection	Strong authentication via secured ID
PIN code for business calls	Controlled access to the OmniPCX Enterprise database
PIN code for personal calls with/without call barring	Protection by password
Transfer/forwarding barring categories	Identification of a management platform by name and password
DISA protection	Management operations history file
Password control and access blocked after several wrong attempts	Remote management access controlled by CLIP (ISDN)
Alarm generated in case of wrong attempt	Call-back procedure (PSTN)
Automatic substitution on CLIP	Internet/intranet access protection
	Trusted host: IP address control
	TCP wrapper: secured exchange control

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Management

Centralized or distributed management via Windows NT application

Client-server architecture (Windows 95/98/NT client)

Web-based management for full access

Embedded "expert tool" in new optimized hardware via browser

Move, add, and change

Unified graphical interface

Profiles for creation/modification

Import/export from text files

Moveable software licenses across nodes*

Faults and alarms

Alarms filtering

Alarm list with colors according to severity

Alarm display on topology maps

Call accounting

Organization map

Time-based cost calculation

Carrier cost simulation

Predefined/customizable graphical reports

Reporting services

Multiple report formats (csv, html)

Reports distribution by e-mail

Performance

Traffic analysis per: trunk, bundle, attendant/attendant group, on-site wireless installation DDI number

Convergence with HP OpenView

Topology map animated by OmniPCX Enterprise

SNMP traps Access to OmniPCX Enterprise node from topology maps

Vertical applications – Hotel/hospital services

All types of phones: analog, Reflexes, wireless

Check-in/check-out individual or group

Pre check-in/partial check-out

Cyclic DDI

Multi occupant room

Room allocation from the telephone

Do not disturb

Guest/patient personal code

Internal call barring

DDI call barring according to time schedule

Wake-up service (up to four wake-up calls per room)

Room service

VIP

Guest number or name

Called service identification

Guest language

Room status

Multi-language voice prompts (eight simultaneous languages)

Room directory

Call by name

Prepayment (deposit)

Flexible suites

Alcatel hotel/hospital link (AHL)

Secret identity for calls between rooms

Public booth

Guest personal identification number

Manual CDR creation

Mini-bar

Billing

*Supported using Linux architecture only.

www.alcatel.com/enterprise

Alcatel

26801 West Agoura Road
Calabasas, CA 91301 USA

Contact Center

(800) 995-2612 US/Canada
(818) 880-3500 Outside US

www.alcatel.com/enterprise

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