

Alcatel **OmniPCX 4400**

Specifications



ARCHITECTS OF AN INTERNET WORLD

Alcatel's

OmniPCX 4400 offers innovative solutions

The Alcatel OmniPCX 4400 is a powerful new way to communicate with voice. Providing innovative solutions for today's business needs, the OmniPCX 4400 simplifies and enhances the workload of every person in the organization, every day that they're at work.

This is made possible by a range of services and solutions that address all of an enterprise needs. Alcatel divides these capabilities into the electronic workplace, mobility, and applications enabled by a converged network infrastructure (using IP as the underlying technology) and supported by a consolidated set of network services.

The advanced open system architecture of the Alcatel OmniPCX 4400 meets all of your communication needs today. And with its ability to integrate new technologies, it is uniquely able to rise to the challenges you will face tomorrow.

Electronic workplace: OmniDesktop and OmniMessage

The Alcatel OmniPCX 4400 is designed around the needs of the individual as well as the workgroup. Reflexes™ digital phones provide the ease of use needed to boost personal and group productivity. A range of PC-based telephony applications that simplify complex office communications complements them. Individuals, workgroups, telephone operators, call center agents, call center managers - all benefit equally.

General and individual greetings and messaging are based on telephone voice prompts, automated attendant, personal assistant voice mail, personal communication assistant, and directory applications.

Mobility: OmniMobility

The Alcatel OmniPCX 4400 effectively combines the benefits of wired mobility, cellular cordless based on PWT and DECT, wired and wireless telephone co-operation, and public cellular integration into a comprehensive mobile communication solution.

Applications: OmniTouch

Efficient, personalized call center capabilities take advantage of the Alcatel OmniPCX 4400's client/server configuration using a native Ethernet connection. The Alcatel OmniPCX 4400's automatic call distribution and interactive voice response features integrate with the enterprise's IT platforms and software using the standard CSTA protocol.

Infrastructure: Distributed Systems and Networking

The Alcatel OmniPCX 4400's networking capabilities are built on Alcatel Business Communication (ABC). ABC is a fail-safe protocol, based on QSIG, which provides a full set of advanced user features across a network of PCXs, as well as routing and network management services.

Supported over any type of network (IP, ATM, frame relay, PSTN, ISDN, or leased line), the ABC protocol allows the total distribution of an OmniPCX 4400 network across a campus or around the world. The networking capabilities are adapted to all topologies and transport infrastructures, and deliver all features across all network types. Heterogeneous configurations with traditional PBXs are enabled by QSIG, the standard multi-vendor protocol.

Network Services: OmniVista

The network services provided by the Alcatel OmniPCX 4400 include:

- network management accessible via any web-based browser or a Windows' interface
- security both authorization and authentication built in protection, with the network manager notified immediately of illegal access attempts
- IP address management using an embedded or external DHCP server, simplifying adds, moves, and changes
- directories automatically synchronized across the network
- broadcast reporting services for both billing and usage information by e-mail



Workplace

OmniDesktop

Reflexes™ range of telephones

The Alcatel Reflexes™ phones are easy to use and offer a rich set of features that simplify and empower communications. Alcatel offers a complete range of digital Reflexes™ telephones. The Reflexes™ phones are connected by an Alcatel high-speed digital interface at 256 Kbps (3B+D) using standard two-wire telephone cabling a standard Ethernet TCP/IP plug, or a radio link based on DECT technology.

- wired telephone sets
 - Alcatel Advanced Reflexes™
 - Alcatel Premium Reflexes™
 - Alcatel Easy Reflexes™
 - Alcatel First Reflexes™
 - Alcatel Advanced Reflexes™ IP Phone
 - Alcatel Premium Reflexes™ IP Phone
- wireless telephone sets (DECT)
 - Alcatel Mobile100 Reflexes™
 - Alcatel Mobile 200 Reflexes™
 - Alcatel Mobile 200 Ex Reflexes™

Modules adding keys to a telephone set

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

Reflexes™ plugware

- Alcatel 4095 AP device Z
- Alcatel 4093 ASY asynchronous V.24/CTI
 - communication protocols: V.25bis, Hayes
 - rate adaptation: V.110/V.14 E
- Alcatel 4097 CBL Cable-Less Device DECT/CTI
- Alcatel 4094 ISW device S0/CTI (2B+D)
- Alcatel 4091 CTI Interface for PC-based telephony
- Alcatel 4098 IP enabler Reflexes™ phone
 - Ethernet interface 10/100 Mbps
 - G711 packet algorithm
 - G723.1 & G729.A compression algorithms
 - SNMP agent (MIB2)
 - DHCP client
 - 10/100 mini LAN switch, for PC connection: Ethernet 10/100 Mbps/RJ 45 modular jack
 - QoS: RTP monitoring IEEE 802 p/q, Tos, Diffserv

- AC power pack: 117V/230V
- remote power feeding 802.3 AF (phantom power feeding)

Data adapter

- Alcatel 4093 ASP/SYX Sync./Async. V.24/CTI
 - communication protocols: V.25 bis, Hayes
 - rate adaptation: V.110/V.120/V.14 E
- Alcatel 4083 Synchronous X21/CTI
 - rate adaptation: V.120
- Alcatel 4084 IS/ISW: S0/CTI

Reflexes™ phone extenders

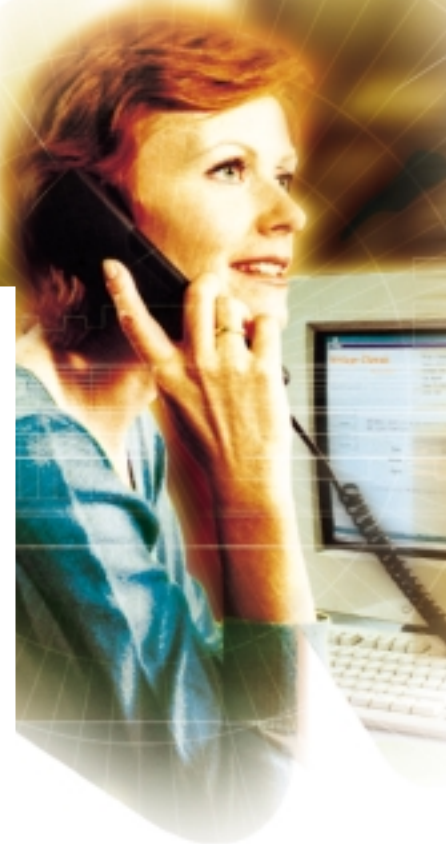
- Alcatel 4051/4052 ISDN Reflexes™ extenders
 - remote connection of Reflexes™ telephone set
 - terminal services:
 - compatible with Alcatel Advanced Reflexes™
 - full access to Reflexes™ services
 - data services:
 - remote RS232 or Ethernet port for PC connection
 - dial-up networking support
 - communication services: call on demand, dial back

Data services

- asynchronous/synchronous communications
- auto adaptation for speed and flow control
- automatic passwords or sequences
- data server call barring
- internal/external menu data session
- modem pool
- packet communication in ISDN/D-channel
- permanent links from 64 Kb/s to 30 x 64 Kb/s
- S0 data groups
 - receiving data calls only
 - sequential or cyclic distribution mode
 - overflow on busy on data equipment or other S0 data group
 - compatibility control
- V.24 inter-working with S0 terminal

Telephony enabled PC

- Alcatel 4980 PC telephony application
 - call log (history call files)
 - call planning
 - call related notes



- directory pop-up IP client switching
- dynamic information displayed in tooltip
- G711 voice coding
- G723.1 & G729.A compression algorithms
- GroupWare services
- incoming/outgoing call management phone tool bar "Windows Office like"
- kit/library for developers (SDK)
- manager/assistant
- multi-line mode
- personal and group phonebook
- QoS: Diffserv procedure
- soft keys
- speech on PC, Reflexes™ set, analogue set or cellular set (user choice)
- TAPI, MAPI, DDE, OLE.com, LDAP
- twinset compliant
- universal call-by-name (LDAP)
- visual mailbox
- Alcatel 4980 integration with Lotus Notes
 - 4980 in window, toolbar or icon mode
 - automatic memo on forwarded call
 - automatic personal contact creation on incoming call
 - basic Alcatel 4980 telephony services directly in Notes client (make call, hang-up, hang-on, transfer, conference)
 - call by name in address book of Notes
 - call back e-mail sender
 - calls logging view in e-mail base
 - call planning in Notes agenda base (reminder)

- pop-up information in Notes bases on incoming call
- Lotus agenda management for 4980 GroupWare (ex. Appointment)
- Alcatel 4980 integration with Outlook
 - 4980 in window, toolbar or icon mode
 - automatic personal contact creation on incoming call
 - automatic mail on forwarded call
 - call back e-mail sender
 - calls logging in Journal
 - basic 4980 telephony services directly in Outlook toolbar (Make call, hang-up, hang-on, transfer, conference)
 - pop-up info in Outlook contacts on incoming call
 - telephone call from Outlook contacts (TAPI Make Call)

CTI (Computer Telephony Integration)

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

Reflexes™ phones advanced services

- absence message
- adjustable handset volume
- call-by-name: internal and external user
- centralized phone book, spelling and syntax corrector
- call-by-name can be used in all communication contexts (direct call, inquiry, and more)
- caller name display
- charging pulse or cost display
- conditional/unconditional differentiated forwarding of multiple directory numbers
- contextual voice prompts
- distinctive ringing according to hierarchical level
- fixed function keys
- hands-free
- headset capability
- help key
- individual customization
- informative icons
- info center services:
 - absence message activation/edition

- multiple absentee messages by user
- interactive guidance with soft keys
- language synchronization: display, voice prompts and voice mail
- last call and total calls pulse or costs charging display
- loudspeaker announcement
- multi-line: multi-appearance and multi-numbers
- multi-line selective forwarding
- multilingual (user choice)
- macro commands
- message waiting indication
- mini-text messages
- personal password for consultation of non reply personal calls log
- programmable function key
- supervision of user/trunk/bundle
- twinset multimode

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
- main assistant absence notification and overflow 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
- selective filtering (scenarios)

Teamwork configuration

- common/exclusive hold
- group call pick-up
- hunting groups
- log-on, log-off
- manageable ring indicator
- manageable waiting queue

Standard telephone features

- 911 for US
- account code charging
- appointment reminder
- associate (definition, modification by user)
- automatic call-back on busy trunk/bundle/network link
- automatic call-back on free/busy extension
- automatic DISA, user authentication by:
 - CLIP
 - installation number
 - caller DDI number
- broker's call
- call forwarding unconditional on busy/no reply to extension, hunting group, voice mail, operator, paging, etc.
- call pick-up
- call waiting indication
- calling line identification restriction for internal calls
- camp on busy telephone/hunting group voice mail
- conditional external forwarding (busy or no reply)
- conference corner
- controlled private call by Pin code and password (optional)
- do not disturb
- general night service
- hunting group (fix head, cyclic, longest idle time, parallel)
- immediate forwarding
- individual hold

- individual directory
- internal/external music on hold
- internal/external inquiry call
- intrusion
- last internal/external number redial
- local and external call
- mastered conference
- moving service
- multiple call protection
- multi-tenant services:
 - speed dialing numbers per entity
 - calling line identification
 - integrated auto attendant services per entity
 - presentation (CLIP) per entity
 - greeting message per entity
 - music on hold per entity
 - night service per entity
- over dialing
- personal code modification
- priority call
- speed dialing
- store and redial external number
- substitution
- three-party conference
- transfer in conversation on free/busy telephone
- twenty-nine party meet me conference, direct or indirect access
- voice prompts on/off per telephone
- voice message deposit on forwarded telephone
- waiting call
- waiting call consultation

Attendant console

- abbreviated dialing
- activation/deactivation of DND
- add-on module
- alarm indication
- attendant groups
- automatic answer
- attendant specialization options (individual or group)
- busy lamp field
- call-by-name in all communication situations
- call charge request
- centralized or distributed attendant in network

- call queuing with indication
- call routing depending on class of traffic, DID, company, or called service (entity)
- call waiting with indication
- called party resources
- call pick-up
- charging recall service
- chained call
- choice of system status
- conference
- creation, cancellation and modification of abbreviated number with name
- creation, cancellation and modification of subscribers (name, rights, and more)
- discrete call offer
- discrete call offer by mini-text messages on busy/free Reflexes™ telephone
- directory services Integration
- drag & drop with automatic dialing
- DTMF over dialing
- large busy lamp field
- flexible attendant routing time out overflow based on caller waiting time
- headset capability
- hold individual or multiple
- create/delete of directory items
- internal call name/number displayed
- ISDN VIP monitoring
- last number redial
- line reservation
- malicious call identification
- manual reservation mode
- mini-text messages
- multi-tenant services
- override on directory number
- paging
- password
- personal call
- priority call (internal/external)
- receipt and read charging units and costs
- record on line on associated entity
- status of calls routed to operator
- store and number redial
- synchronized multi node routing (entity)
- time and date displayed
- transfer with/without announcement
- trunk allotting with barring
- universal call by name
- VIP telephone monitoring

OmniMessage

Integrated greeting

Personal automated assistant:

- 4 fixed/installation choices per menu: waiting, voice mail, attendant, integrated automatic attendant
- caller rights per trunk group or on ISDN caller identification
- called party status indication: no reply or busy
- caller rights per trunk group or on ISDN caller identification
- caller and called party rights for greeting messages and choices per menu
- different greeting messages depending on caller and called party rights
- different greeting messages depending on status of installation and caller ID
- dissuasion voice prompt for subscriber calling attendant
- first DTMF key detection for set decade to DTMF switching
- possibility to cancel attendant greeting message if attendant console idle and/or busy
- voice guidance on DDI set call on no reply or busy
- voice guide with DTMF choice (one digit) automated attendant
- caller rights per trunk group or on ISDN caller identification
- different access trees depending on installation status and caller ID
- listening again the voice guide
- mono language
- pre-programmed choices on time-out
- routing per entity
- routing to:
 - set
 - attendant
 - attendant group
 - hunting group
 - abbreviated number
 - voice mail
 - voice guides
- step by step back function
- voice guide for information with automatic routing
- voice guide with DTMF choice: one digit or directory number selection

Voice and fax mail Alcatel 4635

- automated attendant
- audiotext service
- call transfer
- direct reply on receipt message
- extended recording, and playback control function
- fax broadcast, on demand, overflow, store, and forward
- general distribution lists
- greeting message according to user status
- immediate or supervised transfers
- integration with Microsoft Outlook or Lotus Domino
 - user-friendly interface via Universal Messaging Client on PC
 - play a voice message
 - view a fax message
 - sort a message
 - search a message
 - tag a message
 - archive a message
 - delete a message
 - create a new message
 - reply to a message
 - forward a message
 - call the sender
- message acknowledgement
- message attributes: urgent, normal, private
- message notification via light, display, dialing tone, voice prompt, outgoing
- multi-language
- multi-user password
- networking protocols: Octelnet, Amis and VPIM
- private distribution lists
- record on line
- shared mailbox: home, guest and assistant mailbox
- user-friendly interface on Reflexes™ telephones via soft keys
- visual messenger application
 - user-friendly interface via Universal Messaging Client on PC
 - personal password
 - greeting messages management
 - personal group lists

- voice and fax messages reviewing
- addressing voice and fax messages per list
- delivery options

Unified messaging Alcatel 4000

- integration with Microsoft Exchange and Lotus Domino
 - advanced Text to Speech engine (Real speak)
 - administrative reports
 - alphabetic directory
 - archived messages
 - compound messages: voice, fax and e-mail
 - call back sender via the telephone set
 - clean up tool for Exchange
 - corporate fax cover page editor
 - deleted message folder access (Exchange/Outlook)
 - delivery options
 - direct file translation in format .tiff
 - event notification tool
 - fax on demand
 - fax detect, route and notify
 - fax status
 - fax restriction tables
 - greeting messages management
 - integration with corporate portals
 - message forward
 - message stack per type of message
 - message waiting indicator on telephone set
 - multilingual application
 - multiple addressing
 - multiple directories
 - pause
 - print to fax
 - public distribution list
 - restriction tables
 - subscribers list
 - subscriber management tool
 - speed message control
 - self enrolment via a touch tone telephone set
 - text to speech standard
 - volume control
 - WAP access based on Alcatel WAP portal
- auto-attendant/audiotext
 - 64 system schedules
 - call holding, screening, announce and confirmation
 - day, night, alternate, busy and internal greetings
 - DTMF use inter-digit timeouts
 - error greeting and action per box
 - holidays for up to 10 years in advance
 - lock touch-tone keys to prevent user error
 - one-key dialing, including the ability to map # and *
 - operator assistance request
 - single auto directory
 - supervised and unsupervised transfer
 - system call handler provides operator boxes, opening line greetings and transaction box functionality
- personal web assistant
 - directory change
 - fax delivery message delivery options
 - personal distribution lists
 - password change
 - record/edit
 - set conversation options
 - transfer options change

Mobility

OmniMobility

Wireless Reflexes™ - services

- alarms messages display
- alarms acknowledgement
- caller's name display
- dial by name
- encrypted communications
- GAP service
- hand-over
- ISDN services
- mini-text messages
- multi-line
- multi PARI
- programmable keys
- range of gain antenna
- roaming
- supervision of wired telephones
- terminal authentication
- twinset multimode
- voice mail notification/consultation

Advanced radio base station

- high traffic capacity: 12 simultaneous communications
- indoor/outdoor/explosion proof

Optimized radio base station

- connectivity 2 x UA interfaces
- six simultaneous communications

Paging

- connections handled by the Alcatel OmniPCX 4400: 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
- automatic remote access by CLIP, installation number, DDI directory number, access to:
 - call by name
 - office set management
 - Alcatel OmniPCX 4400 regular telephone services



Applications

OmniTouch

Alcatel OmniPCX 4400 Contact Center

- agents features
 - business withdrawals
 - agent break
 - agent direct call with statistics (business/personal)
 - agent can receive different type of calls (skill)
 - call recording management
 - group distribution: 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
 - transfer call to another agent with or without supervision
 - wrap-up (automatic or manual)
- CCagent server (middleware) for integration with CRM applications
- CCagent: desktop application for agent
 - personal statistics
 - partner bar
 - telephony Reflexes™ on screen
- CCdistribution
- active matrix call distribution
 - conditional pilot overflow to other directions or devices
 - call distribution to the most skilled agent
 - call distribution to the last agent call by customer
 - call distribution to a given agent
 - call distribution to a “black list” or “white list” of agents
 - call redirection or redistribution
 - call distribution driven by third-party application
 - call queuing position announcement
 - local call to a pilot
 - look ahead call routing
 - multimedia call flow based on pilot
 - outbound call management
 - pilot forwarding to other pilot
 - pilot routing to waiting queue according to priority
- routing based on time schedule or calendar
- types of waiting queues: waiting, help, and dissuasion
- virtual pilot
- expected waiting time announcement
- voice guidance
 - internal/external voices guides
 - record from Reflexes™ telephone or PC audio station
 - synchronized internal voices guides
- CCsupervision and statistics
 - advanced call routing configuration (ACR)
 - ACR real time statistics
 - ACR Excel statistics
 - alarm handling
 - call level information
 - customizable alarms
 - customizable reports
 - detailed communication reports
 - discrete call listening for supervisor
 - emergency closure
 - Excel based statistics & reporting
 - export of communication reports (ASCII files)
 - free sitting supervisor position
 - last received call statistics window
 - native Windows management look and feel
 - predefined reports
 - real-time service level per pilot
 - real-time statistics
 - real time statistics over Monitoring Sampling Period (MSP)
 - real time agent breakdown per criteria or per media
 - reports based on communication events
 - statistics compilation and archive (FTP)
 - wallboard display control
- CCemail
 - advanced real time monitoring and reporting tools into CCsupervision
 - automatic acknowledgement with tracking identifier
 - automatic answers to the most frequently asked questions
 - e-mail classification
 - intelligent distribution to a skilled agent (email with suggested answer)
- Spam filtering & automatic redirection fax response and distribution with CCfax
- CCoutbound
 - dialing modes: preview, progressive & predictive
 - inbound/outbound call blending
 - integrated desktop agent
 - integrated call classification (voice detection)
 - simplified installation and configuration through wizards
 - unique management from CCsupervision
- CCivr
 - automatic speech recognition
 - centralized management
 - call characterization for Advanced Call Routing
 - incoming fax for blended distribution (as CCemail)
 - natural language understanding
 - support of Nuance large vocabulary
- CCweb: e-commerce application
 - call-back
 - call-through (voice over IP)
 - collaborative browsing
 - chat
 - e-mail

Infrastructure

Distributed Systems and Networking

Network configuration

- analog and digital Alcatel networking protocol (ABC) based on Q-SIG
- line, star, meshed configuration
- remote shelf (Crystal) on digital leased line
- remote self (Crystal) on IP
- multi vendor networking
 - DPNSS
 - Private DSS1
 - Q-SIG BC, GF, and supplementary services (SS)

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
 - mutual help between compression resources
 - multi direction per compression board
- voice over IP
 - compression algorithm: G 723.1, G729.A
 - compression rate 6.4 Kbps/8 Kbps
 - Ethernet connectivity
 - full ABC services supported
 - G3 fax supported
 - 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
 - full ABC services supported
 - G3 fax supported
 - interface Internet X24/V11 or V36
 - new call routing in case of network failure
- voice over ATM
 - compliant with integrated compression engine G729.A
 - full ABC services supported
 - interface ATM 2M/bps
 - switched virtual circuits AAL1 CBR, AAL2 VBR-RT and AAL5 VBR-nRT
 - UNI 4.01

Virtual private networks (VPN)

- ABC VPN via public ISDN, or QSIG
- dissociating signaling
 - analog leased line
 - digital leased line
 - IP data networks
 - X.25 packet in ISDN D-channel

- five conversations on 56 Kbps B channel
- full ABC services
- six or eight conversations on 64 Kbps B channel

ABC on demand

- ABC via public ISDN, or QSIG
- call barring for management applications
- dynamic virtual leased line
- five conversations on 56 Kbps B channel
- full ABC services
- six or eight conversations on 64 Kbps B channel

Private networking features (ABC protocol)

- 3 party conference
- 29 party conference
- Alcatel Hospitality/Healthcare Link (AHL)
- auto assignment for guest/patients
- automatic call-back on busy private link
- associated user
- broker's call
- call-back on busy or free extensions
- call deflection
- call forwarding
- call intrusion
- call offer
- call waiting indication
- camp on
- centralized/distributed attendant groups
- data communication
- distinctive ringing
- do not disturb
- DTMF
- inquiry call
- flexible numbering plan
- hold
- hunting groups
- intrusion
- ISDN Services
- large busy lamp field
- manager/assistant team
- master conference
- meet me conference
- mini text messages
- network wide mobility
 - roaming
 - guest services
- number and name identification
- priority calls
- remote forwarding
- substitution
- supervision
- transfer (with route optimization)
- transit
- voice mail services
- unified messaging services

ABC network routing

- adaptive routing
- automatic route selection (ARS)
 - ARS server centralized or distributed
 - ARS time dependant
 - access to alternative route
 - cost limit barring per user
 - multi-tenant
 - multiple carrier access-direct or indirect
- break-in/out
- break-in via secured DISA
- data re-routing
- forced on net
- IP domains
- overflow if leased line failure or saturation according to user rights
- transfer, forwarding with route optimization
- voice/data differentiation

ABC network management

- audit mechanism
- broadcast of configuration data
- centralized or distributed management from external applications
 - alarm domains and alarm centralization
 - call accounting
 - configuration
 - directory
 - graphical user interface
 - performance management
 - security
 - remote management
 - topology map
- communication tickets with VPN and LCR tag
- management from attendant
- multiple DDI translators
- multiple call barring translators
- remote maintenance access
- remote software downloading
- SNMP traps
- VT 100 local management





Network Services

OmniVista

Alcatel Directory

- database updated in real time with Alcatel OmniPCX 4400
- directory LDAP V3 based on Netscape Directory Server
- directory clients
 - market browser
 - PC Windows 95, 98, 2000 and NT4 client
 - standard LDAP client
- directory server
 - Windows NT4 (server or workstation)
- directory services
 - automatic dialing after directory search
 - create, delete, modify directory entries
 - multi-criteria search
 - multiple items associated to a name
 - pop-up function for attendant
 - pop up for predefined type of calls
 - printing of directory booklets
 - quick dial by name
- entry data coming from Alcatel OmniPCX 4400 and data template
- export/import from service
- export ASCII files to spreadsheet (Excel etc...)
- import administrative parameter with time schedule
- interactivity with configuration, metering and performance applications
- synchronization with other LDAP directories
- user profiles (access rights)

Security

- DISA protection
 - password control and access blocked after n wrong attempts
 - alarm generated in case of wrong attempt
 - automatic substitution on CLIP
 - strong authentication via secured ID

- controlled access to the OmniPCX 4400 database
 - call-back procedure (PSTN)
 - history file of the management operations
 - identification of a management platform by name and password
 - Internet/intranet access protection
 - trusted host: IP address control
 - TCP wrapper: secured exchange control
 - protection by password
 - remote management access controlled by CLIP (ISDN)
- internal toll fraud protection
 - PIN code for business calls
 - PIN code for personal calls with/without call barring transfer/forwarding barring categories

Management

- centralized or distributed management via Windows NT or UNIX application
- client-server architecture
- clients:
 - market browser
 - PC Windows 95, 98, 2000 and NT4 client
- configuration
 - import/export from text files
 - move, add, and change
 - profiles for creation/modification
 - unified graphical interface
- call accounting
 - carrier cost simulation
 - organization map
 - predefined/customizable graphical reports
 - time-based cost calculation
- faults and alarms
 - alarms filtering
 - alarm list with colors according to severity
 - alarm display on topology maps
- convergence with HP OpenView
 - access to OmniPCX 4400 node from topology maps

- IP address management (DHCP server or client)
- performance management
 - multiple report formats (CSV, Html)
 - reports distribution by e-mail
- performance traffic analysis per:
 - attendant/attendant group
 - bundle
 - DDI number
 - on-site wireless installation
 - trunks
- web based management

Alcatel OmniSolutions for Hospitality

Hospitality Services

- Alcatel Hotel/Hospital Link (AHL)
- attendant services
 - individual wake up activation
 - individual DND activation
 - suite wake up activation
 - wake up cancellation
 - unsuccessful wake up notification
- auto assignment
- billing
- check-in/check-out individual or group
- cyclic DDI
- do not disturb
- DDI call barring according to time schedule
- dual line Reflexes™ set with conference
- flexible suites
- guest/patient personal code
- guest personal identification number
- guest internal/external call forwarding
- guest call forwarding on no answer
- guest call by name
- guest multiple passwords
- hospitality sets: analog, Reflexes™, wireless DECT
- internal call barring
- itemizing billing
- manual ticket creation
- mini-bar
- multi occupant room
- multiple wake-up service: four wake-up calls per room
- multiple room service:
 - VIP identification
 - guest number or name
 - called service identification
 - guest language
- multi-language voice prompts: eight simultaneous languages
- pre check-in/partial check-out
- prepayment (deposit)
- priority to forward in DND mode

- public booth
- room allocation from the telephone set
- room status
- room directory
- room service simple/multiple
- secret identity for calls between rooms
- several names on GPIN
- voice mail check-in/check-out

Architecture

Hardware

- call server
 - real time operating system: Chorus mix
 - native circuit-switching
 - native packet switching
 - native CPU redundancy
 - client-server model
 - embedded Ethernet bus in back panel
 - embedded TCP-IP communication stack in CPU
- circuit based switching: Alcatel Crystal technology
 - distributed hardware on boards
 - processing
 - switching
 - power supply
 - auxiliaries
 - distributed architecture, Crystal shelf over:
 - copper cable cat 5
 - fiber optics mono/multi mode
 - digital leased lines 64K, E1, or fractional E1
- packet based switching
 - Crystal shelf over IP
 - Ethernet connection 10/100 M/bps
 - H 323 gateway
 - IP trunking
 - peer to peer switching
 - Qos: RTCP monitoring, IEE 802.1Q/p, TOS-Diffserv
 - SNMP agent (MIB 2)
 - VoIP: G 711, G 723.1, G 729.A

Software

- client-server
- Chorus MIX micro kernel operating system
- SQL/CQL database
- UNIX System V compliant

Cabinets

- voice workgroup switch (Rack 19")
 - ACT 4 slots, expandable to 8 slots
 - integrated power supply
 - integrated maintenance modem
 - depth 12.6 in./360 mm
 - height 6.30 in./160 mm
 - width 17.72 in./450 mm
 - weight 33.06 lb./15 kg
- Alcatel OmniPCX 4400 WM1 (Wall Mounted)
 - ACT 9 slots, expendable to 18 slots
 - depth 10.04 in./255 mm
 - height 27.95 in./710 mm
 - width 18.03 in./458 mm
 - weight 55.11 lb./25 kg
- Alcatel OmniPCX 4400 M2 (cabinet)
 - 1 ACT 28 slots, or 2 ACT 14 slots
 - depth 10.04 in./255 mm
 - height 29.13 in./740 mm
 - width 22.44 in./570 mm
 - weight 154.32 lb./70 kg
- Alcatel OmniPCX 4400 M3 (cabinet)
 - 2 ACT 28 slots, or 2 ACT 14 slots
 - depth 20.31 in./516 mm
 - height 59.05 in./1500 mm
 - width 22.4 in./570 mm
 - weight 242.5 lb./110 kg

Norms

- EN 5502, EN50082-X
EN 60950 (IEC950)
- UL/CSA
 - FCC/IC compliance
 - Part 68
 - CS-03



ARCHITECTS OF AN INTERNET WORLD