



iPECS

Intelligent communication solutions
for your dynamic business



It's time to experience iPECS

Now, the LG-Nortel iPECS (IP Enterprise Communication Solutions) offers a communication solution optimized to address the requirements of your dynamic business. With iPECS your needs are easily implemented showcasing integrated sophisticated features, productivity enhancing applications, office mobility, and more. All using proven IP technology so you experience the low cost of ownership of an integrated voice and data solution.

The iPECS distributed intelligence architecture simply lets you configure the best solution for your needs. Easily communicate with others, improve employee productivity, enhance your customer's contact experience, and lower the cost of ownership using a single packet infrastructure for both your voice and data requirements. iPECS employs IP at its core to route calls and manage communications. Unlike other native IP systems, iPECS delivers a complete and sophisticated set of integral features and functions to simplify your internal telephony needs and share those expensive external communication interfaces. Unlike legacy TDM systems with their patched in IP technology, iPECS handles higher traffic volumes without seeing your costs grow significantly as your IP connectivity needs increase. Employing the latest in VoIP (Voice

over IP) technology, the iPECS platform is ready for the future today. iPECS capabilities will exceed your needs for: extensive sophisticated features required in the contemporary enterprise, simple multi-site connectivity over the enterprise WAN high-quality secure remote user access via broadband un-tethered, in-office and wireless user mobility advanced value-added IP telephony applications to improve productivity an array of stylish terminals to meet the needs of any user from basic telephone to multi-media IP Phone with collaborative application sharing.



- Native IP technology, single voice/data Infrastructure
- Complete set of Sophisticated easy-to-use features
- Extensive VoIP Technology with IPSec & QoS
- Future-Ready Platform & Architecture
- Centralized System Administration & Management
- Powerful Remote Connection Solutions
- Better Solutions for Single- and Multi-site Organizations
- IP based Applications to improve Workforce Productivity
- Variety of IP Terminals, basic to multi-media

Enjoy a solution rich in sophisticated features.

Intelligent Solutions. Intelligent Solutions. iPECS implements all the features of legacy TDM digital systems and more. Basic features such as Hold and Transfer make call handling as simple as pressing a single button. A comprehensive Voice Announce Intercom permits quick and effective internal contact between users. Forward calls to voice mail, other users, or to your ringing before you answer the call with Caller ID. Establish a Multi-party Conference to get the right people for the discussion using a single Conf button. Send Short Text Messages to inform other users of your status, Out of Office Back at 11:00, or disseminate important information to other users, Sales meeting schedule change now 1pm.

LCR (Least Cost Routing) automatically sends outgoing calls over the least expensive available path. iPECS analyzes the dialed number and compares the number to the LCR database to select the best route for each call.

The integrated Auto Attendant and Voice Mail application in iPECS is implemented with the built-in six-channel Voice Store and Forward server. The Auto Attendant automatically answers incoming calls and plays the company-recorded announcement to the caller. Up to 20 announcements can be recorded to form multi-level audio menus directing the caller to an appropriate answer point by interpreting caller-dialed inputs. When a call is sent to a voice mailbox, the user greeting is played and the caller can leave and edit a message or call another iPECS user. iPECS notifies you of the message so you can retrieve, save, delete and even forward the message with a

commentary to other users. You can even use the Voice Mail to screen calls similar to an answering machine; the caller's voice is broadcast over the speaker as a message is left; you can choose to pick-up the call or allow the caller to continue leaving the message in your voice mail in-box for retrieval later.

In some situations, a member of a group such as Sales, Service, etc must handle incoming calls. iPECS addresses these group needs employing various types of incoming call Hunt Groups: Ring, Circular, Terminal and ACD with Uniform Call Distribution hunt processes are available. Using ACD, you can set-up a basic Call Center, assign a Supervisor to monitor the real-time status of the group from their iPECS phone display, act to oversee and assist group agents and activate alternate routing during high-volume call periods. Agents are able to login to the group from any available phone. ACD statistics report basic group and agent performance on-demand or at regular intervals. Applying Caller Controlled Routing, callers can route through a multi-level menu of recorded announcements to refine the call routing. The advanced call routing algorithms even allow you to route incoming calls based on the caller ID or route calls to a predefined destination.



Rest assured of a reliable secure solution, ready for your future needs with low cost of ownership



▶ iPECS Modules (Desktop type)

Reliable. LG-Nortel has provided high-quality reliable telephone equipment World-wide for nearly half a century. We understand that unlike data, voice communications is critical to the success of your small to mid-sized enterprise. Each iPECS component is analyzed for quality and reliability, and undergoes stringent environmental and stress testing. Software must not only pass rigorous Engineering and Quality evaluations but also is subjected to months of detailed field tests before commercial release. These efforts and on-going Quality Assurance in the LG-Nortel ISO-certified manufacturing facilities assure consistent quality and the highest reliability for your iPECS solution.

Security & Quality of Voice. With iPECS, there is no worry about security and voice quality for remote users over the internet. iPECS achieves the highest voice quality and security by deploying essential technologies such as 802.1p/Q (Ethernet Priority and VLAN), DiffServ pre-tagging (IP Packet Prioritization) and IPSec (VPN and Voice Encryption).

Ready For the Future. Everyday your dynamic business faces new challenges and opportunities. Meeting these challenges and opportunities requires almost constant change and innovation. iPECS modularity and distributed intelligence architecture was built with these business realities in mind; as your business grows and business processes change, iPECS grows and changes with you. Add new iPECS appliances at minimal expense as you grow. Add new applications as your processes change; iPECS intelligence permits you to deploy advanced LGE

telephony applications. iPECS also supports the latest Microsoft CTI services so you can implement other specialized TAPI applications developed by 3rd parties when and where you need them. Furthermore, take advantage of new features and functions as they are incorporated in iPECS with the **iPECS Software Upgrade tool**. This tool lets staff download the latest iPECS software efficiently and quickly using the Web-based management GUI to upgrade your solution easily. iPECS is not just ready for the future, it is the future.

Simple Installation, Management and Maintenance. The unique modular distributed intelligence architecture of iPECS was designed to allow easy set-up. Installation is a matter of “plug and play”. Just connect iPECS appliances (gateway modules and terminals) to the company LAN; appliances register with iPECS automatically and are operational. Add or move appliances as needed; just connect the appliance to any LAN port.

A major benefit of iPECS is the simplicity of day-to-day administration and maintenance such as responding to user change requests. This simplicity is a key factor in improving maintenance staff productivity and limiting operational expenditures. **iPECS Administration and Management tools** employ a user friendly Web-based GUI that is accessible from any standard Web browser. These simple to use tools enable staff to effectively administer and manage iPECS features and resources with just a ‘point-and-click’. Since it is IP-based, staff can access iPECS Administration and Management tools either locally or from a centralized remote site.



▶ Web Admin Window

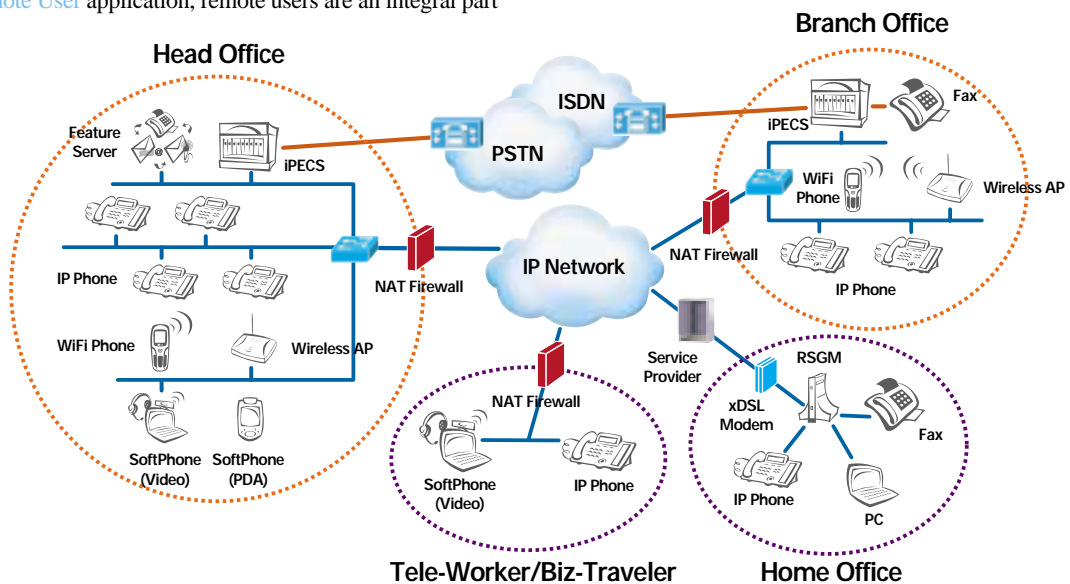
Benefit from a solution with seamless connectivity

Many Sites, One Office. If your application serves 2 or 72 sites, the **iPECS Networking** option can provide substantial benefits connecting branch offices or satellite locations and headquarters in a single, unified, enterprise telephony solution. A unified numbering plan gives users simple access to all iPECS resources and other users in the network. Share resources across nodes and lower intra-office long distance costs by utilizing your existing managed corporate WAN. In addition, if you have branch offices that are often unattended, implement CAS (Centralized Attendant Service) and iPECS will pass calls to the central answering point, a live Attendant or Auto Attendant/Voice Mail.

Remote User. Enterprises of all types find the Home-office employee reduces overhead and improves employee performance and morale. Home-workers often spend more time working from home than they would in the office and are just as productive. However, the remote home-worker is often a communication island. With the standard **iPECS Remote User** application, remote users are an integral part

of the system and can enjoy secure high-quality communications with the host iPECS resources and other users. Any registered iPECS Phone connected over a broadband interface has transparent access to the host iPECS features and resources across the internet. Optionally, the **iPECS RSGM (Remote Service Gateway Module)** provides local line access, as well as transparent access to iPECS. This unique iPECS appliance supports a local phone line connection, a powered LAN connection for an iPECS Phone, a connection for an SLT, and miscellaneous interfaces (BGM, MOH, etc.). A separate 10/100Mbps Ethernet connection is even included for a home PC/network.

All iPECS Phones used in a remote location as well as the RSGM implement IPsec (IP Security) with DES and 3DES voice encryption assuring the highest level of security. iPECS employs the DiffServ protocol to support QoS at the IP layer and supports 802.1p/Q for voice priority and security at the Ethernet layer.



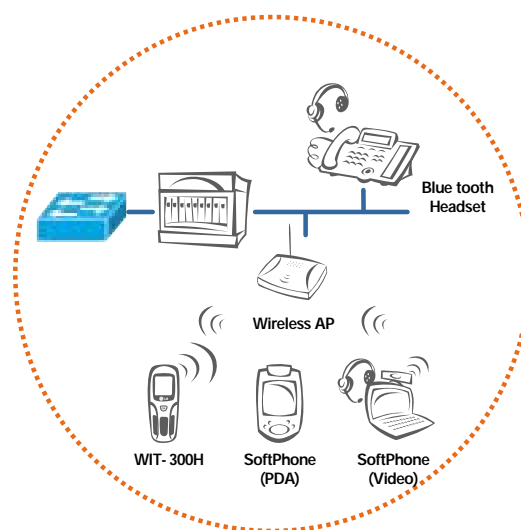
Mobility for the on-the-go business

Increased mobility has become an important tool for the competitive enterprise. Whether the requirement is for un-tethered in-office communications, wireless in-building communications, or linking to mobile phones for World-wide unified communications, iPECS offers a broad array of capabilities for your solution.

In-office Un-tethered Communication. Many employees need to speak to callers un-tethered from their phone. While the high-quality iPECS Speakerphone can answer some of these needs, in busy open office environments the use of a speakerphone can be disruptive to others. With the optional iPECS Bluetooth module for the LIP-7024D & 7024LD iPECS Phones and a standard Bluetooth headset, your employees can move freely about their office area up to 10 meters from the phone. Hands remain free to work on the desktop or to review files during the conversation without disturbing other workers nearby.



building distance of typically 50 meters or more. Your employees quickly enjoy the many benefits of this wireless environment because of the mobile phone-like ease of operation. Alternatively, use the iPECS SoftPhone with a WiFi interface on a PDA and achieve the same wireless connectivity with the added benefit of being able to access your contact database and other functions of the iPECS SoftPhone.



World-wide Mobile Communication. For today's road warrior, most hotels and many offices are equipped for internet access. For these situations, the iPECS SoftPhone is the answer. Install the SoftPhone on a PC with video camera or on a PDA. The iPECS SoftPhone can be used to make and place calls as a remote user, avoiding those high hotel phone charges. Synchronize your contact database with the SoftPhone Phone Book, review call activity with the Call log or access iPECS features from on-screen Flex buttons while maintaining transparent access to the host iPECS. When multi-media is required, the iPECS Video/SoftPhone option delivers all the functionality of the SoftPhone with video conferencing and collaborative file sharing.

If internet service is not available, business travelers need only activate the Mobile Link feature. iPECS will deliver office calls directly to their mobile phone, and they can place calls from the mobile phone via iPECS to other users or employ iPECS resources.

In-building Wireless Communication. If your need is to roam freely throughout your business facility or campus, iPECS has the solution: the iPECS WIT-300H Wireless LAN Phone for seamless wireless connectivity. Establish a network of WiFi standard APs (Access Points) and WIT-300H users gain transparent access to iPECS while on the move. Cover distances of up to 300 meters open field or in-



Improve productivity and enhance customer service with Value-added Telephony Applications

iPECS Feature Server. iPECS Feature Server starts with a robust Telephony Service Provider (TSP) and Media Service Provider (MSP) for compatibility with the latest Microsoft TAPI 3.1 Computer-Telephony services. iPECS Feature Server is comprised of an advanced feature rich Automated Attendant and Voice Mail with optional Unified Messaging Service (UMS) and Desktop Control software to enhance messaging services. Using the UMS application, Voice, Fax and e-mails are available from any medium; a voice message can be attached to an e-mail so the user can listen to voice messages while browsing e-mail. The Desktop Control option lets the user control various messaging options including message delivery and notification. Further enhancing the “anywhere, anytime and any media” capability, the TTS (Text-to-Speech) option permits automated reading of e-mails during a telephone call. Support for POP3, SMTP and IMAP4 assures the widest possible interoperability and, with IMAP4, message synchronization between voice and e-mail systems.



iPECS ez-Attendant. iPECS ez-Attendant, a PC Based application, simplifies call handling by your Attendant. The powerful ez-Attendant capabilities and superb GUI improves efficiency of the Attendant, manage incoming calls with the click of a mouse. ez-Attendant links to a local or corporate database (MS Outlook, Access, ACT, Goldmine) so the answering position is able to greet callers knowing who’s calling. From a glance at the ez-Attendant Station folder window, the receptionist can see DND, etc. In

addition, iPECS ez-Attendant supports any language by simply translating all text including menus to the Attendant’s desired language with the Local Language feature. iPECS supports up to 5 ez-Attendants for larger or busy call-volume environments, and can be used as a Central Attendant in networked environments.



iPECS Call Center. As a business, you only get one first chance to impress potential customers favorably. If that first chance is by phone, you need to assure that the contact experience reflects a customer-oriented business attitude. The optional **iPECS ACD Call Center Pro** application can help your business present the professional caring attitude your customer desires. Employing the advanced ACD call routing package standard in iPECS, the Call Center Pro application sends detailed and summary information to the Supervisor’s desktop. This versatile PC-based supervisor is capable of displaying user defined real-time group, agent and incoming line performance and status in list, graphical and chart formats. The supervisor desk-top can display information for three different ACD groups simultaneously with wallboards for each group. The ACD Call Center Pro MIS is a highly flexible management tool for output of customizable reports on real-time and historical performance of the Call Center. Further, using the “what if” reports, your call center management team has access to a powerful forecasting tool for Call Center staffing.

Ease of Use, the right iPECS terminal for the job



▶ LIP-7004N



▶ LIP-7008D



▶ LIP-7016D



▶ LIP-7024D



▶ LIP-7024LD



▶ LIP-7048DSS

The wide variety of iPECS terminals lets you select the right communication tool for each user's specific telephony needs, from basic telephony such as a lobby phone using the entry level LIP-7004N, to a feature rich multi-media collaborative communication terminal with the iPECS Video/SoftPhone and everything in between. Robust features and smart design...Low-end to High-end...Wired and Wireless...Hard phone and SoftPhone...you choose the right terminals for your needs.

LIP-7000 Series: Variety, Smart Design & Feature Rich. LIP-7000 series iPECS Phones are comprised of 5 models and DSS Console to provide a wide assortment of choice to users all with the substantial benefits inherent in the native IP world. The LIP-7000 series phones each incorporate Flexible buttons with LED and Fixed function buttons making the iPECS Phones easy-to-use and suitable for most SME users.

The smart design blends in to any decor and users quickly and easily adapt to the iPECS Phone thanks to user-friendly functionality such as navigation and soft menu keys, large multi-line displays, multiple alert tones and useful features such as Caller ID, Call Log, Phone Book, etc. With the high quality full duplex speakerphone integrated in the higher-end models (LIP-7008 and up), users can converse handsfree or use a headset connected to the built-in headset jack. The optional Bluetooth module for the LIP 7024D & LD offer the additional benefit of un-tethered hands-free communication.

Compatibility with IEEE 802.3af, the Power over Ethernet standard, lets the LIP-7000 series iPECS Phones derive power safely from the corporate LAN or power the phone from local AC with the optional AC/DC adapter. An integrated smart 10/100 Mbps switch port in the higher-end models provides an additional connection for other data equipment such as the user's PC. The smart switch gives priority access to voice without affecting data performance enhancing the single infrastructure voice and data environment.

LIP-7000 iPECS Phones provide the highest voice quality through advanced VoIP technologies and voice packet prioritization. Furthermore, the simple upgrade and management tools for the LIP-7000 iPECS Phones reduce system management costs.





WIT-300H Wireless Terminal. LG-Nortel's Wireless LAN iPECS terminal, WIT-300H, follows IEEE 802.11b standard with full access to iPECS features and functions. Establish a wireless network of standard WiFi APs (Access Points) for an in-building wireless office solution. Employees that need to be mobile in the office or campus facilities can roam freely with handover from one AP to the next in a seamless wireless communication environment. The WIT-300H mobile phone-like user interface is adopted quickly by the user without the need to read complex user manuals. Users benefit from the full feature set of iPECS as well as features of the phone itself; like Calculator, Phone Book, 64 Alert Tones, etc, all with the gorgeous full-color screen.

► **WIT- 300H Wireless IP Terminal.**

Size:122mm×46.3mm×24.1mm(H×W×D)

Weight: 98g(including the battery)

Standby time/Talk time:50hrs./4hrs.

Cell coverage:200m open site, 50m indoor

QoS:801.11e

Encryption:DES & 3DES, AES

Push-To-Talk(PTT)

64 Alert Tones, Vibration

Codec: G.711(a/u Law)/G.723.1/G.729

65K Color Graphic LCD(128 x 128)

Internal Antenna, Intenna

Navigation button

iPECS Video/SoftPhone. The iPECS Video / SoftPhone is a multi-media communication tool using a PC-based application linking the operation of an on-screen iPECS phone with other communications-related PC applications. The iPECS Video/SoftPhone is visualized on the desktop and utilizes a mouse and keyboard user interface. Select an on-screen button with a mouse click to access features of iPECS or to place and receive calls. The built-in Phone Book, which can automatically synchronize to the user's PIM (Personal Information Manager), lets you place calls as well as manage your contact records. When a call is received, an Incoming Call Pop-up Window notifies you of the caller information and will display the Phone Book database record for the caller including notes you may have entered. The Video Interface delivers video for a multi-party conference. Application Sharing allows multiple parties in a conference to view and manipulate files for a collaborative session. Other special functions available to iPECS Video/SoftPhone users include Appointment Scheduling, Short Text Messaging, e-mail and Call Recording.



iPECS Key Features list

External Line Features

Auto Call Number Redial (ACNR)
 Call Park
 Call Transfer
 CO Call Time Restriction
 CO Call Transfer to Co Line
 Co Line Groups
 CO Line Name Display
 CO Line Queuing
 CO Line Ring Assignment
 Executive/Secretary Transfer
 Last Number Redial
 Music On Hold (MOH)
 Private Line
 Save Number Redial
 Station Speed Dial
 System Speed Dial
 System Speed Zone Group
 VoIP Call-Direct Call
 VoIP Call-Call by Network
 ISDN Services -
 Advice of Charge (AOC)
 CLIP
 COLP
 CLIR/COLR
 MSN/Sub-Addressing

Attendant Features

Call Queuing

Disable Outgoing Access
 Intrusion
 Override
 Day/Night/Weekend Mode
 Station Feature Cancel

System Features

Alarm
 Account Code
 Analog Caller ID Service
 Answering Machine Emulation
 Authorization Code
 Automatic Call Distribution (ACD)
 Busy Lamp Field
 Canned Toll Restriction
 CID
 CLI Message Waiting
 Conference
 Dial by Name
 DID (Direct in Dial)
 DISA (Direct Inward System Access)
 Hot desk
 ICLID Call Routing
 LCR (Least Cost Routing)
 Linked Station Pair
 Message Waiting/Call Back
 SMDR
 Remote Software Upgrade

Station Groups -

Circular
 Terminal
 ACD/UCD
 Ring
 Auto Attd/Voice Mail
 Universal Night Answer
 Voice Over
 Attendant
 Voice Announcement

Call Features

Call Forward -
 Busy/no answer
 Follow-me
 Incoming CO Line off-net
 Preset
 Station off net
 Unconditional
 Camp-on
 Call pick up
 DND
 Hot line/Warm line
 Serial Calling
 Step Calling
 Paging -
 Internal
 External
 Meet Me Page
 Push To Talk Paging



iPECS at a glance

	iPECS-100	iPECS-300
Max Ports (CO/IP Lines + Stations)	100	300
Max No of Stations	70	300
Max No of CO Lines (BRI/PRI/LCO/IP)	42	200
Max No of Attendants	4	5
Max Executive/Secretary Pairs	10	36
No of Internal VoIP Channels (Basic)	6	6
No of VSF Channels	6	10
Voice Recording Time	200min./24hours	240 min./30 hours
No of Relay Contacts	2	4
Terminals	SLT, LIP-7000/LIP-24 series, iPECS SoftPhone/VideoPhone, WIT-300H	
IP Security & QoS	IPSec, 802.1p/Q, IP TOS, Diffserv Pre-tagging	
VoIP Interface	H.323 V4/SIP ready 802.11b, RTP/RTCP, STUN G.711/G.723.1/G.729 H.263	
CTI TAPI 3.1	(TSP & MSP)	
Application protocol	HTTP, FTP, TFTP, DHCP, PPPoE	

Summary of iPECS LIP-7000 Series Terminals

	7004N	7008D	7016D	7024D	7024LD
LCD	-	2 x 24 Character	2 x 24 Character	3 x 24 Character	224 x 144 Graphic
Flex button	2	8	16	24	24
Flex button LED	Single	Single	Dual	Dual	Dual
Fixed button	5	5	7	7	7
Soft Key	-	-	3	3	3
Navigation Key	-	-	yes	yes	yes
Switch (10/100) port	1	1	2	2	2
Full duplex speaker	OHD	yes	yes	yes	yes
IEEE 802.3af compliance	yes	yes	yes	yes	yes
Headset jack	-	yes	yes	yes	yes
Alert tone (15 melodies)	yes	yes	yes	yes	yes
Wall mounting (option)	yes	yes	yes	yes	yes
Pedestal (option)	-	yes	yes	yes	yes
LIP-7048DSS (option)	yes	yes	yes	yes	yes
Bluetooth module (option)	-	-	-	yes	yes
Silence Suppression & Echo Cancellation	yes	yes	yes	yes	yes
Codec	G.711, G.723.1, G.729a/b				
QoS packet prioritization	802.1p/Q, IP TOS, Diffserv Pre-tagging				
Power adaptor (option)	48V DC, 100 mamp				



GS Tower, 679 Yoksamdong, Kangnam-gu,
Seoul, 135-985, Korea
Tel. +82-2-2005-2941 Fax. +82-2-2005-2599
<http://www.LG-Nortel.com>

This document is for general guidance purpose only. The information furnished in this document is valid as of the date of its publication and is subject to change without notice. LG-Nortel Co.Ltd, assumes no responsibility for any errors or omissions in this document that result in your misunderstanding.

Copyright 2005 March, LG-Nortel Co.Ltd, All rights reserved.
Printed in Korea