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Authorised reseller:

**iPECS**  
Unified Communications U Can afford



Unified Communications U Can afford!

**iPECS**



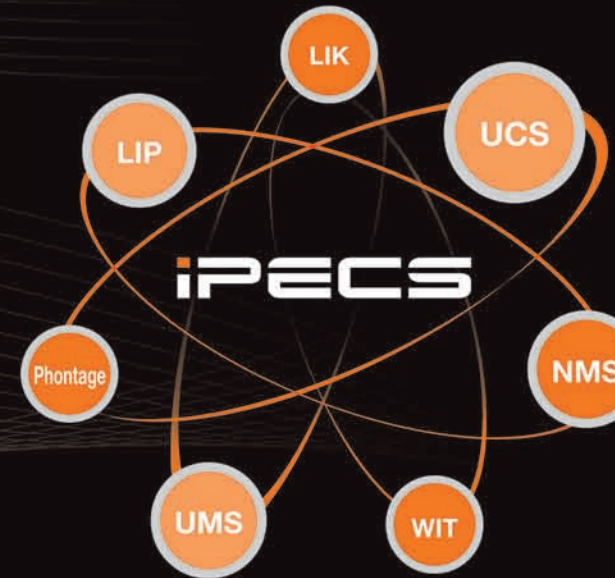
Your communication solution shouldn't complicate your business. It should be simple to use and easily grow as your business grows - no headaches or economic pressures. The solution should also be clear and intuitive so users can easily understand how to work together. Welcome to our complete VoIP communication solution.







LG-Nortel's iPECS is the IP communication solution developed with small and medium size business in mind. The modular, fully distributed IP architecture, rich set of easy to use features and broad range of optional applications (hardware and software make iPECS the obvious solution for your business communications.



## Productivity Enhancement

As a Small-Medium Business (SMB), you need to constantly improve productivity. iPECS UCS is one of several productivity-enhancing tools and applications in iPECS. The iPECS UCS Client is an intuitive desktop collaboration application designed for SMB users so they can easily interact with colleagues. Wherever you are, you are able to reach

the resources needed for efficient communications. With a click of your mouse, UCS Client instantly accesses shared resources such as a central company phonebook. Use the presence information, reduce communication latency and communicate with others in the most appropriate format, Instant Message, Voice Call, Video

Conference, SMS and more. Share applications and files to review the latest information, such as sales records, and improve decision-making and response time. iPECS UCS simplifies your business communications and improves productivity by linking voice and other communications-aware applications under a single intuitive user interface.

## Minimising TCO

iPECS employs a fully distributed modular architecture to deliver all the advantages of VoIP. The single voice/data infrastructure significantly reduces the Total Cost of Ownership (TCO) of your communication solution. Due to the simple, straight-forward configuration and plug-and-play installation, communication managers appreciate the ability to locate iPECS appliances where they are needed

without clumsy and difficult configuration limits. The modular gateways, terminals and soft clients can be put anywhere there is access to the network. Powerful redundancy capabilities assure continuous operation, should failure occur, with back-up power and Call Server modules. iPECS intelligent management provides a highly versatile interface to easily manage all iPECS appliances in the distributed

environment. Managers can monitor and manage up to 1,000 Call Servers from a single remote point and have full access to the database and maintenance features of each system. Thanks to the modular hardware and software structure, you can simply add another module to increase the capacity or coverage of service no matter how your business is growing.

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## LIK, iPECS Call Server and Gateway

iPECS Call Server is at the heart of the iPECS platform. This highly reliable purpose-built server controls and maintains communications between end-points and shared network resources. You can select the Call Server to best meet your needs based on the size of the business from 20 to 500 users. Modular iPECS Gateways, which easily connect to the call server over any IP network, interface to an array of resources including analogue, digital and SIP connections, both for trunks and extensions. The simple modular structure provides flexible configurations and installations to meet your business needs - now and in the future.

The Call Server makes available an extensive set of telephony features. You can easily access these features and resources, often through a single button on your

terminal - from the basics (Hold, Transfer, etc.) to the more advanced features (Least Cost Routing, Incoming Call Distribution, SIP trunking, etc.). iPECS offers a selection of terminals, so each user has the right communications tool for the job. Choose from any of the LIP-8000 series desk-top phones, DECT over IP, iPECS Wireless LAN phones, PC and PDA Virtual phones, SLT or standard SIP terminals as appropriate for each user. Even digital phones from your legacy LG-Nortel system can be used.

The iPECS Call Server is a platform for a range of communication applications designed to improve employee productivity and enhance the customer calling experience. Ez-Attendant improves Attendant call handling; Unified Messaging

speeds handling voice, FAX and e-mail messages; Unified Communication Solution (UCS) combines voice, video and messaging under a single user interface. In addition, iPECS Application Integration Message (AIM) as well as Microsoft standard TAPI let both LG-Nortel and 3rd party applications combine to deliver a seamless overall communication solution.



## LIP 8000 series IP Terminals

iPECS includes a wide variety of user desk-top terminals. The LIP 8000 series includes four phone models and three types of DSS Console, to provide a solution tailored to the needs of each user. From the LIP-8004D basic phone to the Executive LIP-8040L, the LIP-8000 series terminals are simple to use yet feature-rich. Users

quickly learn to use the LIP phone, thanks to one button operations and user-friendly features such as the navigation and soft-menu keys. The full-duplex speakerphone in most models lets users converse handsfree, assured of the highest quality through advanced VoIP technology.

The LIP-8000 series terminals can connect

anywhere there is a LAN connection and support the IEEE 802.11af Power-over-Ethernet standard, so a separate power connection is not normally you can easily access these features and resources, often through a single button on your terminal required.

### LIP-8040L

- 240 x 144 LCD 9 lines
- 3 soft keys
- Navigation key
- Full duplex speakerphone
- 10 flexible buttons (LCD)
- 10 fixed buttons
- Wideband Codec
- Triple color LED
- Ring/MW indicator
- 2nd hub port(10/100T)
- 802.3af PoE
- Optional Bluetooth/DSS



### LIP-8024D

- 240 x 56 LCD 4 lines
- 3 soft keys
- Navigation key
- Full duplex speakerphone
- 24 flexible buttons
- 10 fixed buttons
- Wideband Codec
- Triple color LED
- Ring/MW indicator
- 2nd hub port(10/100T)
- 802.3af PoE
- Optional Bluetooth/DSS



### LIP-8012D

- 240 x 42 LCD 3 lines
- 3 soft keys
- Navigation key
- Full duplex speakerphone
- 12 flexible buttons
- 10 fixed buttons
- Wideband Codec
- Triple color LED
- 802.3af PoE
- 2nd hub port(10/100T)
- Ring/MW indicator
- Optional DSS



### LIP-8004D

- 16 character 1 line
- On-hook dialling
- 4 flexible buttons
- 8 fixed buttons
- Triple color LED
- Ring/MW indicator
- 802.3af PoE



### LIP-8048DSS

- 48 LED flexible buttons
- Paper underlay
- Triple color LED
- External power supply
- 12-pin connector
- Max. 4 cascading



### LIP-8012DSS

- 12 LED flexible buttons
- Paper underlay
- Triple color LED
- Power fed from IP Phone
- 12-pin connector
- Max. 2 cascading



### LIP-8012LSS

- 12 LED flexible buttons
- LCD underlay
- Triple color LED
- Power fed from IP Phone
- 12-pin connector
- Max. 2 cascading



### LIP-8048LSS

- 40 LED flexible buttons
- LCD underlay
- Triple color LED
- PoE or External power supply
- LAN connection



## UCS, Unified communication for small and medium size business



iPECS UCS is a PC based application, which operates in conjunction with the iPECS Call Server. iPECS UCS Server simply integrates all of your modes of communication into a single graphical user interface. Supporting access by up to 600 users simultaneously, iPECS UCS expands and enhances the communication services of iPECS to dramatically improve business productivity and customer responsiveness. In addition to the rich voice services available from the iPECS LK, UCS users are provided access to a wide range of video, text and graphic collaborative and messaging services.

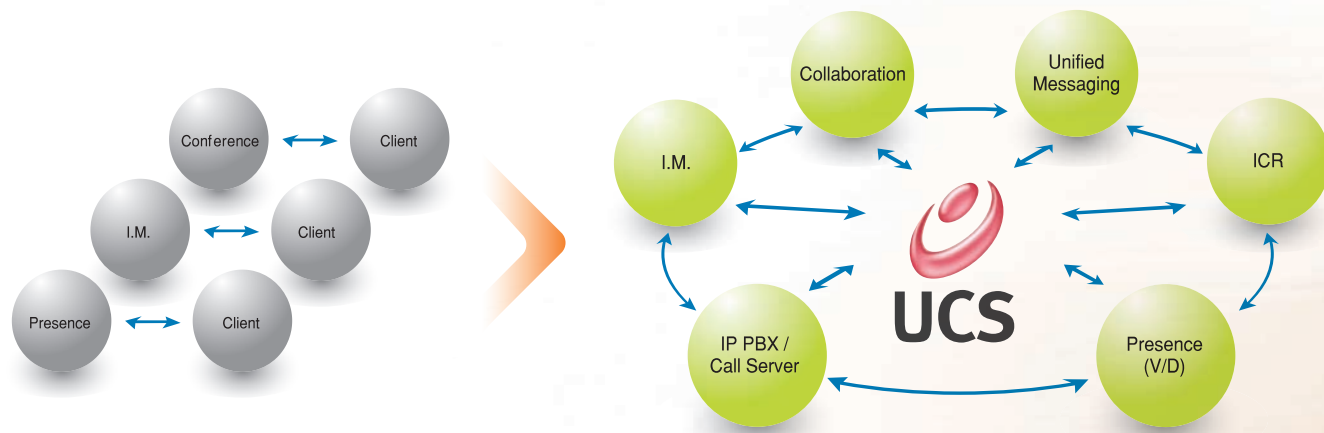
Unlike other UC solutions, iPECS UCS is designed

as a Single Server Solution. All the functional modules, IM, Video Conference, Shared and Private directories, ICR, etc., are included in a single server application, improving performance, lowering costs and reducing maintenance. Additionally, traffic analysis of the various UCS functions permits the communication manager to easily analyse use of each module and adjust the environment appropriately.

Services available include 32-party voice and 6-party video conferencing, Business related instant messaging, Application sharing and Multi-party call recording, Comprehensive presence information, Individual Call Routing and more.

Employing a simple intuitive graphical user interface, the UCS has access to both private and shared schedules. Users can easily access the central UCS database or company's Active Directory via LDAP.

Further, UCS operates and synchronises with major personal information management applications and databases such as Outlook, ACT!, Goldmine and Excel. The user interface is highly flexible and can be customised to address the needs of the individual user. As an IP solution, UCS overcomes geographical limitations, allowing access to services and databases of the UCS Server while in the office or on the road.





## NMS, Multi site management tool for iPECS

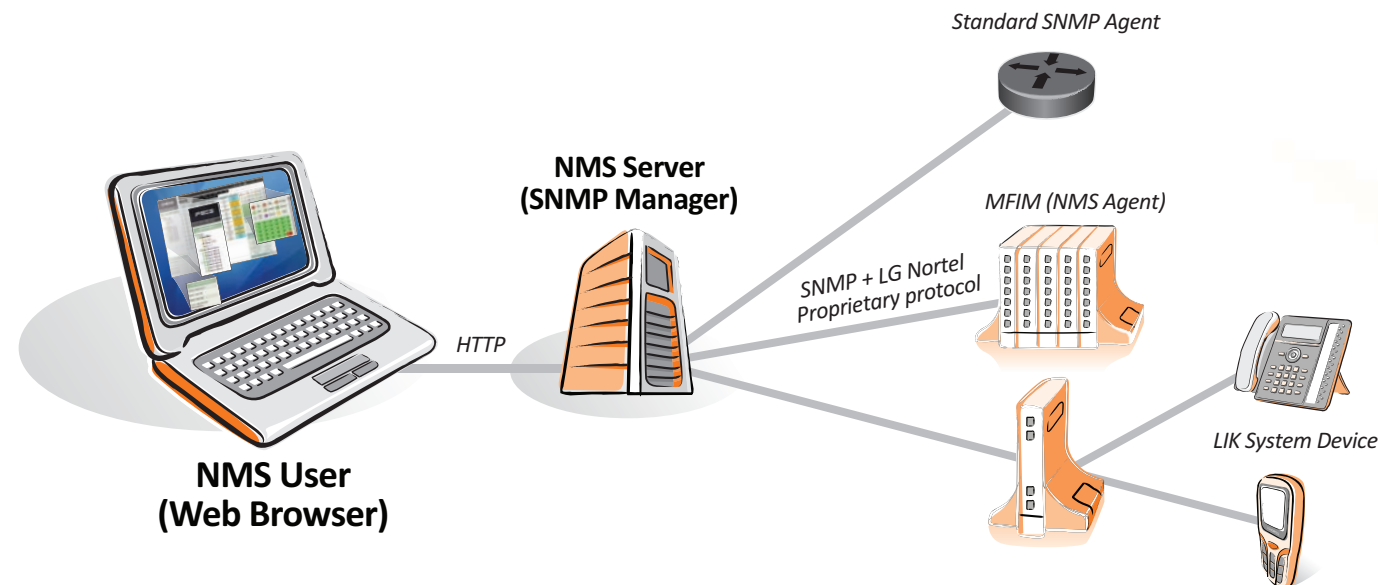
iPECS Network Management Solution (NMS) is a powerful tool for managing fault information, monitoring real time status, maintaining call statistics and databases of multiple iPECS appliances. iPECS NMS is a web-based application, so communication managers can access it with a web browser from any remote PC. Providing services for up to 1,000 iPECS Call Servers, iPECS NMS employs standard SNMP (Simple Network Management Protocol) to identify and "trap" events should a problem occur.

Email fault notification ensures the network manager is informed of predefined events and faults on a real-time basis, so unusual conditions can be addressed before they affect service.

With iPECS NMS, communication managers can review real-time status of all devices and channels associated with a Call Server, with fault events highlighted for quick identification. NMS maintains a database of all Call Servers and permits direct access to each server's Web Admin function for remote adds, moves and changes. Instead of accessing the Web admin of

each Call Server and dealing with multiple site IDs and passwords, the manager can download or upload multiple system databases or upgrades to software through NMS with a few mouse clicks.

iPECS NMS monitors and stores call traffic and SMDR statistics from each registered server. Analysis of call (SMDR) and traffic statistics are presented in both graphical and tabular formats which can be used for resource planning. Select stations, lines, time intervals, etc. to customise the reporting you need.



## WIT-300HE, Proprietary Wireless IP Terminal

LG-Nortel's Wireless LAN terminal, WIT-300HE, implements an IEEE standard 802.11b wireless interface with full access to iPECS features and resources. Set-up a network of WiFi Access Points (APs) for a site-wide wireless solution so that users can roam freely. During a call, the

WIT300HE locates and uses the closest AP, even changing APs while you roam, for seamless wireless communications.

The mobile phone-like operation means users quickly learn how to use the WIT-300HE without needing to read lengthy user manuals. Users



### Major Specifications

- 802.11b Wireless LAN IP phone
- Size: 122mmX46.3mmX24.1mm
- 65K color graphic LCD (QVGA)
- Weight: 98 grams w/battery
- Standby/Talk-time 50hrs/4hrs
- Mobile-like operation
- Coverage: up to 200m outdoor, 50m indoor
- WEP 64bit & 128bit

## UMS, Unified Messaging Solution

The iPECS UMS (Unified Messaging Solution) employs the latest Microsoft Telephony application development environment to combine advanced Automated Attendant and Voice Mail functions with UMS and Desktop Call Control to enhance voice messaging services. Voice Mail, 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 Text-to-Speech option permits automated

reading of e-mails; call the Voice Mail and have e-mails read over the telephone. Callers receive the recorded Auto Attendant message and are routed with the caller's input. Should the called party be unavailable, the caller is passed to Voice Mail where a voice message can be left. Once the message is complete, UMS notifies the user. The Desktop Call Control lets users define notification preferences as well as manage and access their voice mail box.

iPECS UMS supports up to 16 simultaneous

voice paths and 4 FAX channels, and is compatible with a range of e-mail protocols including POP3, SMTP and IMAP4 assuring the widest possible inter-operability. If your e-mail supports IMAP4 protocol, messages are automatically synchronised between the UMS and e-mail servers, so you need only manage one set of messages. Like all iPECS components, UMS is simple to administer and maintain through a web-based connection and user friendly GUI.

## Phontage, Desktop or PDA & Webphone



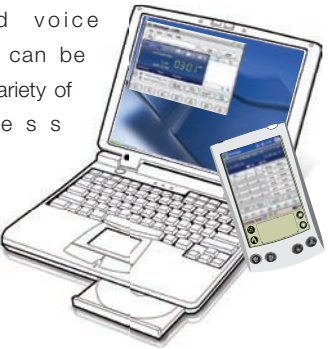
Phontage

iPECS Phontage is a software based communication tool using a PC or PDA to link the operation of an on-screen multi-button telephone with other communications-related PC applications. All the features of the traditional iPECS multi-button phone are available to the user as well as 2 party call recording. In addition, a Phonebook database with links to the user's PIM (Personal Information Manager), provides pop-up windows for incoming caller

identification. iPECS Phontage users can employ the Phonebook to place calls as well as manage contact records. The video interface in the desktop Deluxe version delivers video for a multi-party conference with up to 3 participants. Sharing allows multiple parties in a conference to view and manipulate files simultaneously.

While Phontage Desktop provides excellent communication features based on the multi-tasking PC platform, Phontage PDA works as a

perfect mobile communicator within wireless network coverage. Unlike other software based applications, users can access iPECS Webphone from any location via a web browser. This simple Active X controlled voice application can be used for a variety of business operations.



## Ez-ATD, PC based Attendant Console

The iPECS ez-Attendant application, with its powerful capabilities and superb GUI, simplifies call handling and improves the efficiency of your Attendant. Attendants manage incoming calls with a simple click of a mouse. ez-Attendant links to local and corporate databases (MS Outlook, Access, ACT, Goldmine) so the answering position is able to know who is calling and greet

them accordingly. From a glance at the ez-Attendant Station folder window, the receptionist can see the status of users - idle, busy, etc.

iPECS Call Server supports up to 5 ez-Attendants for larger or high call-volume environments, and can be used as a Centralised Attendant in a networked environment.



# iPECS

## Unified Communications U Can afford

## Transparent connectivity for the Branch office, Home Office and Business traveller

Businesses of all sizes are more geographically dispersed with small and home offices needing to communicate as a single business. The distributed intelligent architecture is highly scalable to 600 channels in a single system and iPECS modular appliances and IP Phones deploy anywhere an IP network is available.

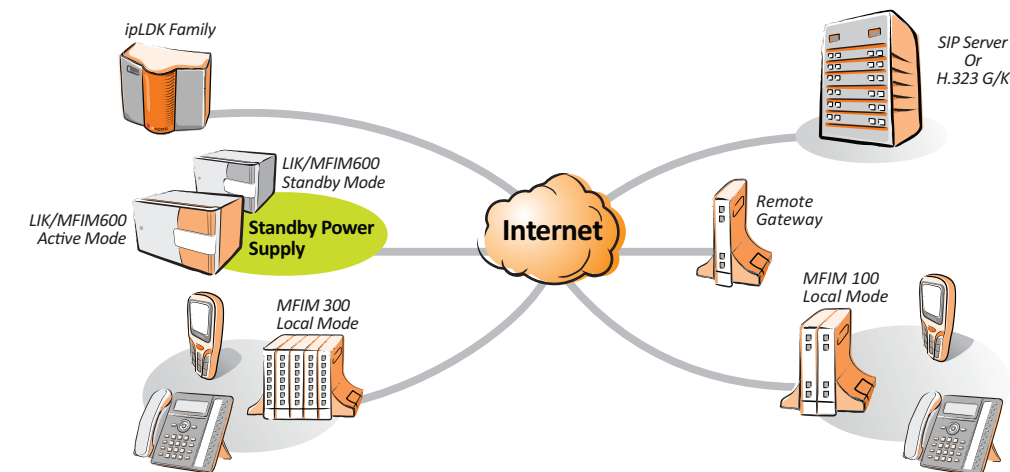
Interconnect multiple offices over the WAN in a transparent Network and achieve seamless communications under control of a single central Call Server. All features of the central Call Server are available to all elements of the network while you optimise your communications costs, remote gateways and automatic LCR tables provide toll by-pass. In larger environments or with existing

LG-Nortel communication systems, iPECS IP Networking brings together multiple branch office systems into a seamless telephony network.

Today's small and medium size businesses recognise the advantages of Home Office workers in terms of costs, performance and morale of the employees. However, without an appropriate business communication solution, remote workers end up on a communications island, unable to effectively communicate with business colleagues. With the flexible iPECS Remote application, users simply connect their IP Phone or soft client to a home network with internet access and the terminal is automatically registered for service with iPECS. The Remote Service Gateway Module

provides an even more complete solution for the home environment by including a local CO line and SLT interface for fax connection. Remote users are an integral part of the system and enjoy secure, high quality communications with other users and server resources.

Your travelling employees need not be out-of-touch, Wherever they have an IP connection with iPECS Phontage or UCS Client, they're connected to the office system to place and receive calls and messages. The iPECS Phontage and the UCS Client link business communications with other PC based scheduling and contact applications to improve productivity and responsiveness.





## One-look management of remote branch deployments with secure survivable networking

Managing corporate communication systems can be complex and managing multiple systems can easily become a communication manager's nightmare. iPECS Web Admin acts to control all assigned appliances and terminals through a single admin and maintenance interface in the Call Server. Without suffering from primitive command strings, managers access all management features of iPECS via an intuitive Web GUI. The same GUI is employed for the Station User Portal where users can quickly enter speed numbers, forward calls or activate, Individual Call Routing (ICR).

iPECS NMS addresses the multi-site communication manager's needs. NMS monitors each iPECS server using standard SNMP (Simple Network Management Protocol) to log and "trap"

events, including fault history. When automatically notified, the communication manager simply logs-in as an NMS client using a web browser. The web-based NMS client displays real-time status screens highlighting alarm and fault events. The NMS client has access to the Web Admin of each iPECS server for one-look management with call and traffic statistics screens for historical and billing use.

For those critical applications, iPECS provides full redundancy options for power supply, call server and remote site WAN connection failure. If you include a back-up iPECS Call Server and power supply module, should the main server or power module fail, the back-up immediately takes control of the system without even disconnecting an existing conversation. You can even equip

remote sites with a local iPECS server. Should the WAN connection to the main office fail, the local server takes over for uninterrupted communications. The remote site can also be equipped with an optional second power module for seamless power back-up.

Security and Quality of Service (QoS) should be a major concern in any networked environment. iPECS implements IPSec and SRTP, a well known security standard for the internet, to encrypt data in the IP packets using advanced encryption techniques and tunnelling to hide the real packet destination. To ensure the highest QoS, iPECS components support the standard DiffServ pre-tagging and 802.1 p/Q VLAN technology.

## Improved business productivity and quicker decision making

Integrated communications makes for enhanced productivity, faster decision making, and improved customer service. iPECS UCS delivers the benefits of organisational collaboration at a price affordable to the SMB. Use iPECS UCS Client to share and review the latest budget analysis or sales brochure with all concerned parties at once. Everyone gets the same message and decision/response time improves.

iPECS UCS Shared Schedules and Directories make it simple to arrange a conference call with up to 32 voice or 6 video users. In iPECS UCS Scheduler you can create a shared group

schedule with Outlook synchronisation and/or create a conference room and password. iPECS UCS then notifies participants automatically with e-mail. Alternatively, set up a conference group by identifying participants and then establish the conference call with a click of your mouse.

Presence and telephony status of other iPECS UCS users eliminates communication latency. Know who is on the phone before you call. If another user is on the phone, send an Instant message instead. iPECS UCS Instant Messaging lets you chat securely with one or a group of colleagues or use it to send a quick

note to other internal users.

iPECS UCS Client has an intuitive Graphical User Interface with easy access to the always available Call Assistance to place calls and receive notification of new calls through call pop-ups with detailed caller information. UCS Client has access to all iPECS features and unique capabilities such as peer-to-peer and multi-party conference call recording and voice file management. Record that important client call and ensure you can pass the message accurately to all concerned parties.



## Mobility - a tool for the Competitive Edge

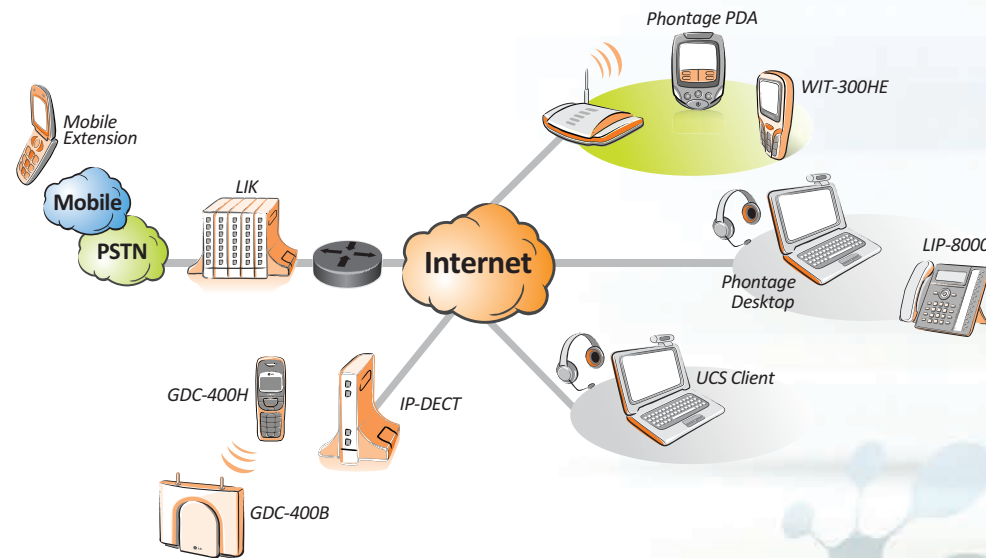
Mobility can be a critical need in a competitive business. iPECS offers a range of solutions from wide-area mobile phone integration to in-building mobility with WiFi or IP-DECT. With the iPECS Mobile Extension service, callers only need to remember one number. No matter where you are, iPECS routes the call to your office extension and registered mobile phone at the same time. You can also make calls from your mobile phone using iPECS resources and features available at your office extension. Major call features are supported from the mobile including Call transfer, Recall, Hunt calls, etc.

If you need to roam throughout your facility while maintaining communications, iPECS offers both Wireless LAN and DECT technologies. Using a network of WiFi standard Access points, the

iPECS wireless LAN phone, WIT-300HE, has access to the full complement of iPECS functionality while on the move. As you move, the WIT-300HE automatically locates the most appropriate AP in the network to maintain a call. The iPECS IP-DECT in-building mobility solution is built on LG-Nortel's DECT base station (GDC-400B). Base stations connect to the exclusive iPECS wireless management interface to create coverage zones. Within these zones, users of the highly functional GDC-400H wireless DECT handset gain access to iPECS features and resources without suffering capacity limits (other than system maximum capacity). With seamless handover during a call, users roam freely throughout the DECT coverage zone and the Call Server automatically maintains the connection while the

handset moves from base station to base station. Because both the DECT-400H and WIT-300HE use mobile phone-like operation and a simple GUI, users will quickly enjoy the many benefits of either of these solutions.

Previously, your travelling employees were frequently out-of-touch with the office. Phontage and UCS Client let the road warrior transparently access iPECS wherever and whenever they have access to an internet connection. They can call others in the office, place and receive outside calls as if they were in the office. This includes the use of the conference and collaboration capabilities of the UCS Client to enhance productivity while on the road.



## Advanced feature support improves customer service

From basic direct call routing to advanced Caller ID based routing, iPECS handles your important customer calls quickly and efficiently. Programmable hunt groups let you define how best to handle customer calls. Ring multiple phones at one time in a Ring group or set-up a basic Call Centre using Automatic Call Distribution (ACD).

Assign an ACD Supervisor to monitor the real-time status of the group from their iPECS phone display, or take action to monitor and assist group agents and activate alternative routing during high volume call periods. Agents can log in from any available phone. ACD statistics report basic group

and agent performance on-demand or at regular intervals. By applying Caller Controlled Routing, callers can navigate multi-level menus of recorded announcements to arrive at their correct call destination.

The advanced call routing algorithms even allow you to route or separate incoming calls based on the Caller ID. For example, calls from a large account can be automatically sent to that account's team or calls can be routed according to their regional origin.

Once the call is answered, users can easily

process the call, place the call on hold, transfer the call or even set-up a conference call with a press of a button. The simple call handling operation of iPECS terminals means that users no longer need to worry about losing a call.

With advanced features such as Station Intelligent Call Routing (ICR), you define how to manage your incoming calls. Define call routing scenarios to forward calls using time, date, day of week, even caller ID to specific destinations, all through the iPECS web-based Station Programme User portal. Incoming calls are instantly routed accordingly.

# Enhanced Business Suites through Open Telephony Interfaces

Your business communication system needs open interfaces to support applications designed for your business processes. iPECS supports standard SMDR, traffic reports and iPECS AIM (Application Integration Messaging). iPECS AIM includes support for the Microsoft standard telephony application interface, TAPI 2.1, and adds support for 3<sup>rd</sup> party applications to control proprietary messaging. With proprietary messaging, 3<sup>rd</sup> party developers can enhance functionality and interaction between their external application and iPECS.

DESCRIPTION	CAPACITY				
	MFIM50A	MFIM50B	MFIM100	MFIM300	MFIM600
Max Channel No.	50	50	100	300	600
Max Trunk Channel	42	42	42	200	400
Max Station Channel	50	50	70	300	600
Built in Trunk	4 CO	2BRI + 2BRI*	-	-	-
Built in SLT	2	2	-	-	-
Built in VoIP ch.	4(8**)	4(8**)	6	6	-
Built in VM ch.	6	6	6	6	-
VM recording time	270min.	270min.	200min.	240min.	-
PFTU	1 port	-	4 ports	4 ports	4 ports
BGM	1 Int. + 1 ext.	1 Int. + 1 ext.	1 Int. + 2 ext.	1 Int. + 2 ext.	1 Int. + 2 ext.
Local Survivability	Yes	Yes	Yes	Yes	Yes
System Redundancy	No	No	Yes	Yes	Yes

\*Licence code required for channel activation

\*\*No of available channels using G.711

ITEM	HEIGHT (mm/in)	WIDTH (mm/in)	DEPTH (mm/in)	WEIGHT (kg/lbs)
Gateway Module	230/9.1.	38.8/1.5.	194.5/7.7	1.5/3.3
Main Cabinet, Enhanced	265.6/10.5	440/17.3	318.2/12.5	7.78/17.2
PSU	230/9.1	38.3/1.5	179.4/7.1	1.4/3.1
1U RMB	38.3/1.5	482.6/19	183.2/7.2	2/4.4
DHLD *1	146/5.7	111.5/4.4*1	128/5	0.4/0.9
WHLD	280/11.0	60/2.4	188.3/7.4	0.2/0.4
LIP-Phones	235/9.3	206/8.1	129/5.1	1.0/2.23
LIP-DSS	97/3.8	206/8.1	127/5	0.35/0.77

ITEM	VSF	VMIM
Description	MFIM50/100/300 built in	Optional G/W
No. Channel	6 channels	8 channels
Codec type	G.711	G.711 / G.723.1 / G.729a
Memory size	96MB(MFIM50/100) 112MB(MFIM300)	256MB

	UCS Client	Phontage
System requirements	Pentium IV 2.3 GHz	Pentium IV 1GHz
	512MB RAM	256MB RAM
	200MB Free HDD	200MB Free HDD
	Window XP/2000 or later	Window XP/2003/2000
	Full duplex sound card	Full duplex sound card
	Optimized for 1024 x 768	Optimized for 1024 x 768