


**iPECS**  
IP telephony solution for SMB

 LG-NORTEL



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# make IT simple!

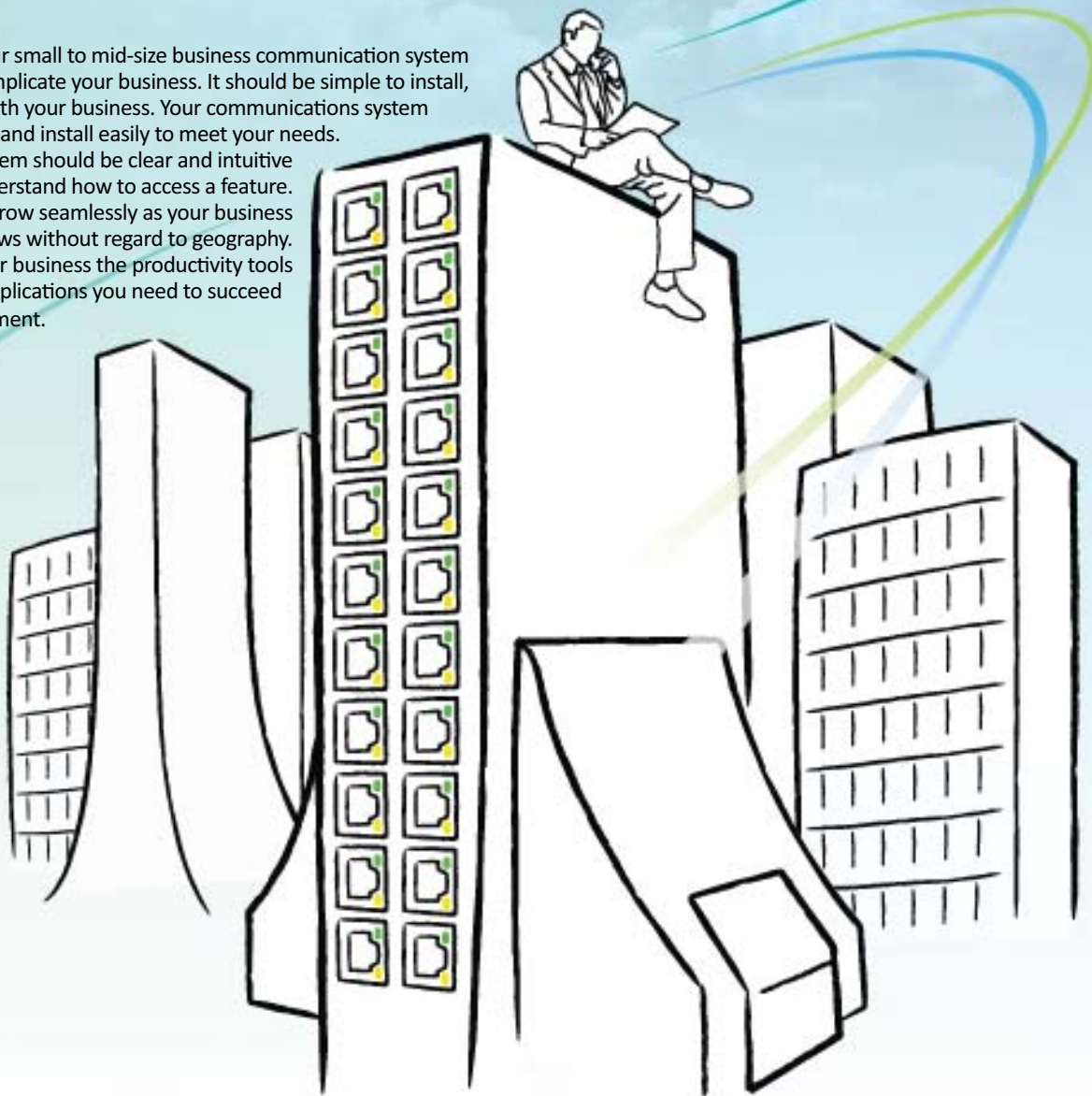
Demand more, we'll make it simple..... **iPECS**

Your small to mid-size business communication system shouldn't complicate your business. It should be simple to install, use and grow with your business. Your communications system should configure and install easily to meet your needs.

Use of the system should be clear and intuitive so users easily understand how to access a feature.

It should grow seamlessly as your business grows without regard to geography.

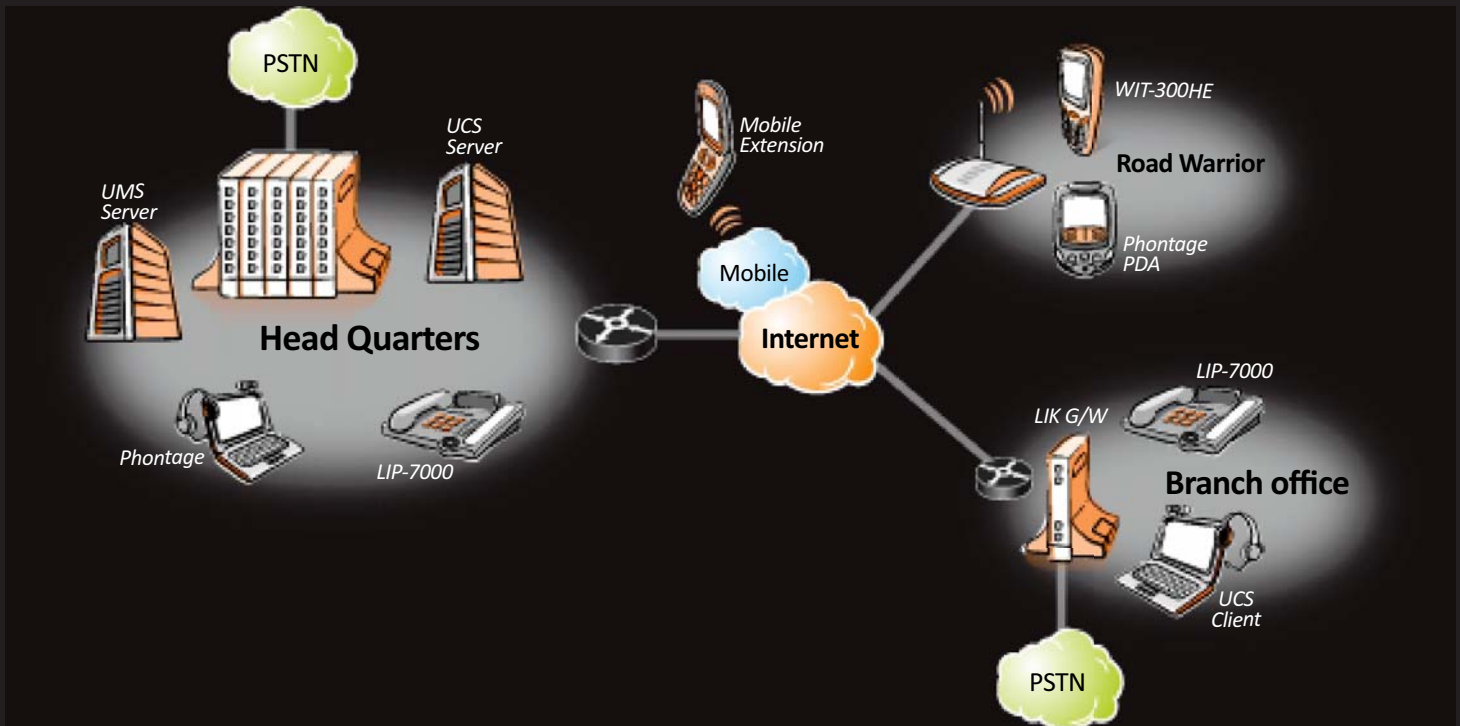
It should give your business the productivity tools and communication applications you need to succeed in a competitive environment.



iPECS from LG-Nortel 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.

LIK ■ LIP ■ UCS ■ Phontage ■ WIT ■ Ez ATD ■ UMS

**iPECS**



## COMPONENTS

### LIK, Call Server and Gateway

At the heart of the **iPECS** platform is the **iPECS** Call Server. This highly reliable purpose-built Call Server controls and maintains communications between end-points and shared network resources. Modular **iPECS** Gateways, which easily connect to the Call Server over any IP network, interface to an array of network resources from analog telephone circuits to advanced VoIP connections. The simple modular structure yields flexible configurations and installations to meet your business needs now and in the future.

The Call Server makes available an extensive set of features. From basics (Hold, Transfer, etc.) to more advanced functions (Least Cost Routing, Incoming Call Distribution, etc.), users easily access features often through a single button on the phone. **iPECS** offers an array of terminals so each user has the right communications tool for the job. Select from any of the LIP-7000 series desk-top phones, **iPECS** Wireless LAN phones, PC or PDA Virtual phones or SLT as appropriate for each user. Even digital phones from your legacy LG-Nortel system can be employed.

LG-Nortel delivers a range of applications software 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 combines voice, video and messaging under a single user interface. In addition, **iPECS** Application Integration Message lets both LG-Nortel and 3rd party applications combine to deliver a seamless overall communication solution for your small to mid-sized business.

LIK



# LIP

## LIP 7000 series IP Terminals

iPECS includes a wide variety of user desk-top terminals. The LIP 7000 series includes 5 models and the Attendant DSS Console to address the specific needs of each user. From the LIP-7004 basic lobby phone to the Executive LIP-7024LD, the LIP-7000 terminals are simple to use yet feature rich. Users quickly learn to use the LIP phone thanks to one-button operations and user friendly functions such as the navigation and soft-menu keys. The full duplex Speakerphone in most models let users converse handsfree, assured of the highest quality through advanced VoIP technology. The LIP-7000 terminals can connect anywhere there is a LAN connection and support the IEEE Power-Over-Ethernet standard so a separate power connection is not required.

### LIP-7024LD

- 224x144 Large LCD
- 3 softkeys
- Navigation key
- Fullduplex SPK
- 24 flex btn
- 9 fixed btn
- Dual LED
- 2LAN(10/100T)
- 802.3af PoE
- Optional DSS
- Optional Wall mount
- Optional Pedestal



### LIP-7024D

- 3x24 LCD
- 3 softkeys
- Navigation key
- Fullduplex SPK
- 24 flex btn
- 9 fixed btn
- Dual LED
- 2LAN(10/100T)
- 802.3af PoE
- Optional DSS
- Optional Wall mount
- Optional Pedestal



### LIP-7016D

- 3x24 LCD
- 3 softkeys
- Navigation key
- Fullduplex SPK
- 16 flex btn
- 9 fixed btn
- Dual LED
- 2LAN(10/100T)
- 802.3af PoE
- Optional DSS
- Optional Wall mount
- Optional Pedestal



### LIP-7008D

- 2x24 LCD
- Fullduplex SPK
- 8 flex btn
- 5 fixed btn
- Single LED
- 802.3af PoE
- Optional Wall mount
- Optional DSS



### LIP-7004N

- 2 flex btn
- 5 fixed btn
- 802.3af PoE
- OHD
- Single LED
- Optional Wall mount



### LIP-7048DSS

- 48 flex btn
- Dual LED
- 2LAN(10/100T)
- 802.3af PoE
- Optional Wall mount
- Optional DSS
- Optional Pedestal



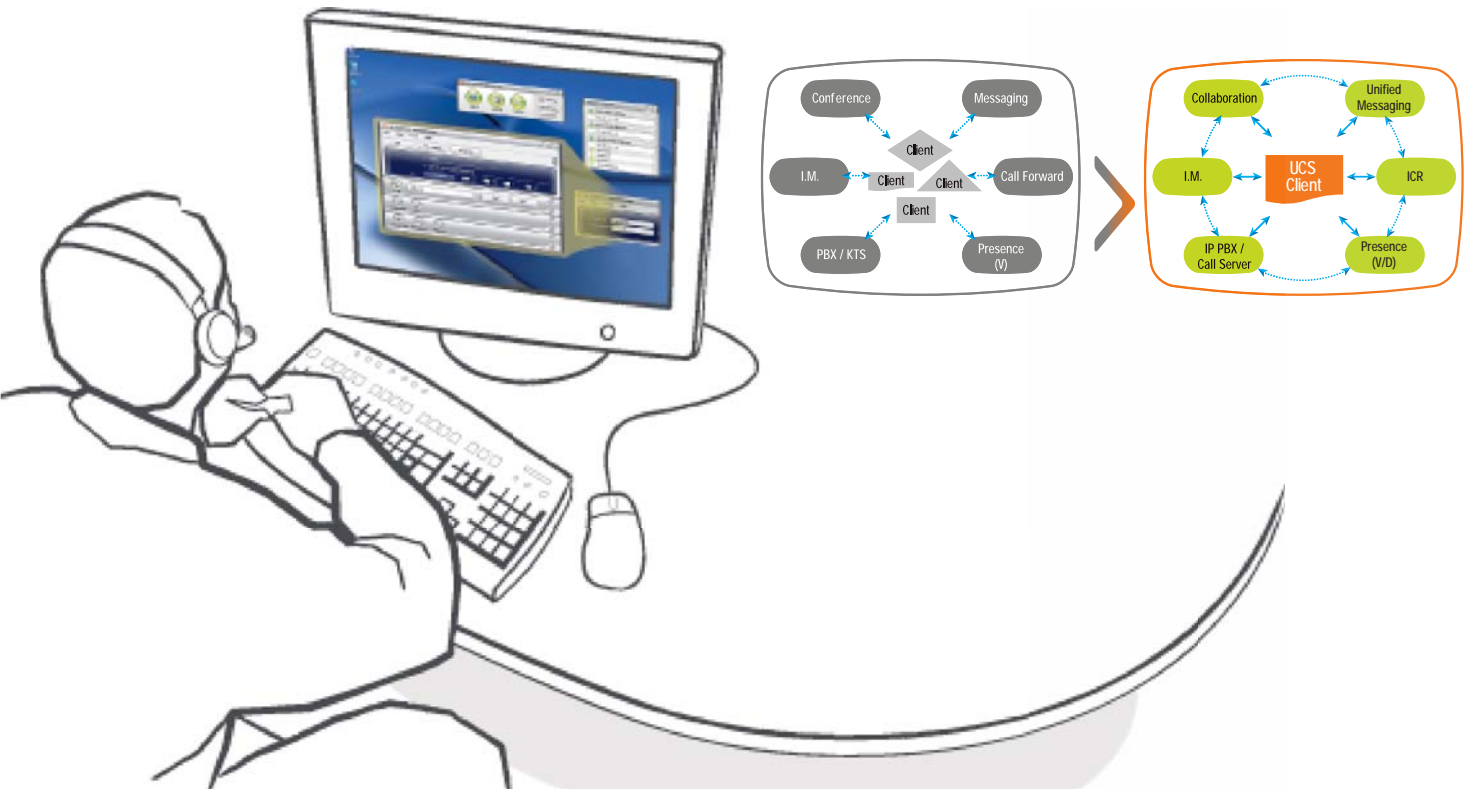


## UCS, Unified Communication Solution

The **iPECS** UCS Client is a PC based application, which operates in conjunction with the **iPECS** UCS Server. UCS Server supports up to 200 simultaneous Clients, expanding and enhancing the communication services of **iPECS** to dramatically improve business productivity and customer responsiveness. In addition to the rich voice services available from the **iPECS** platform, users of **iPECS** UCS Client are provided access to a wide range of video, text and graphic collaborative and messaging services via the UCS Server.

Services available include Presence, Video Conferencing, Instant Messaging, Document Sharing, Web Co-browsing, ICR (Individual Call Routing) and more. Employing a simple intuitive graphical user interface, the UCS Client has access to both private and shared scheduling and directory database applications which are fully integrated with the various services available.

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





**Phontage**

## Phontage, Desktop or PDA

**iPECS Phontage** is a multi-media communication tool using a PC or PDA based application 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. 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 desk-top 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. Other special functions available to **iPECS Phontage** user include appointment scheduling, SMS support, E-mail and call recording.



**ez-ATD**

## ez-ATD, PC based Attendant Console

**iPECS ez-Attendant** application simplifies call handling for your Attendant. The powerful ez-Attendant capabilities and superb GUI improve efficiency of the 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 greet callers knowing who's calling. From a glance at the ez-Attendant Station folder window, the receptionist views the status of users idle, busy, 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 high call-volume environments, and can be used as a Centralized attendant in networked environments.



## WIT-300HE

# WIT-300HE, 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 an in-building wireless solution. Users that need to be mobile in the building or campus 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 operation of the WIT-300HE without needing to read lengthy user manuals. Users benefit from mobile access to all **iPECS** features and resources as well as WIT-300HE specific features like Push-to-Talk, calculator, Phone Book, etc. all with the gorgeous full color screen.



### WIT-300HE

- 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: 200m open field, 50m indoor
- WEP 64bit & 128bit
- Push-to-Talk operation



## UMS

# 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 synchronized 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.

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**iPECS**



# SOLUTIONS

## Powerful Networking

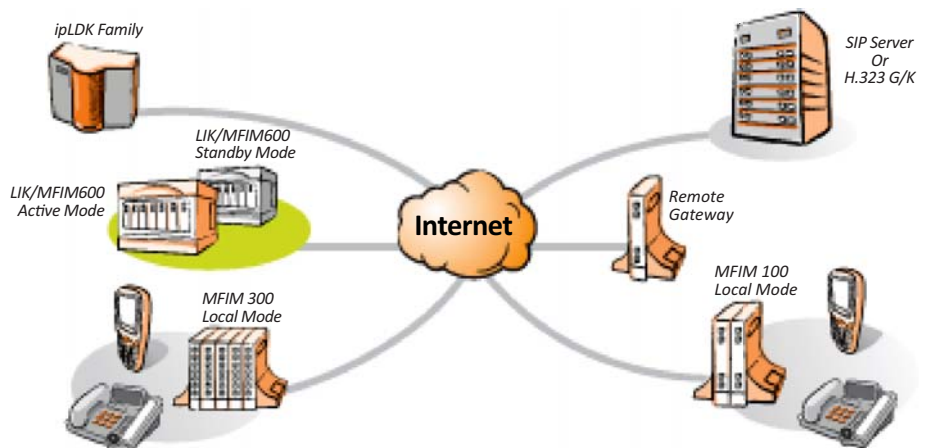
## Simple and Secure networking between multiple offices

Whether your need is to connect remote home office users or multiple offices each **with up to 600 channels**, iPECS networking delivers a simple and secure solution. For the basic remote home office, simply install an LIP-7000 series phone on a local internet connection for **transparent access to the iPECS Call Server**. For the more advanced remote user with fax and local PSTN access needs, add the Remote Gateway.

Interconnect multiple small offices over your WAN in a **Centralized Control Network** and achieve transparent communications under control of a single central Call Server. All features of the central Call Server are available to all elements of the network. With a **Call Server at remote sites**, maintain communications even if the connection to the central Server fails. In critical environments, a **back-up Call Server** can be configured as a hot stand-by; should the primary Call Server fail, the back-up provides full redundant operation. Centralized Networking can support up to 600 channels in total.

In larger environments, use the Distributed Control Networking to **link up to 70 iPECS Call Servers** over your existing WAN or over ISDN. A unified numbering plan simplifies calling or transferring calls between sites. Attendant services can be distributed at each site or centralized at a single location. The powerful iPECS protocol provides a **central attendant** with status indications for any phones that are part of the networked environment. iPECS easily inter-operates with other systems using IP or QSIG protocols for basic networking services or other LG Nortel systems including **ipLDK** where the more advanced iPECS networking capabilities are supported.

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 tunneling to hide the real packet destination. To assure the highest QoS, iPECS components support the standard **DiffServ pre-tagging** and 802.1 p/Q VLAN technology.



## Cost Saving

# Manage and Control communications to reduce costs

Productivity improvements are great but you need to address the costs of communications. The intelligent distributed architecture of iPECS lets you minimize costs at installation and beyond. The **modularity** of iPECS devices let you simply select only the devices you need to lower cost. Use your existing LAN switches to merge voice and data on a single network and reduce infra-structure costs. For **users of a LG-Nortel legacy TDM system**, use your old digital phones in non-critical locations and save costs on new equipment.

Future maintenance costs are minimized through **simplified MAC** (Moves, Adds & Changes). To move or add a phone, simply plug it into a LAN wall jack. You don't need to be a technician to make administrative changes, a simple Web GUI guides you through.

To keep costs under control, iPECS incorporates **Least Cost Routing (LCR)** software algorithms to assure each call is routed in the most effective manner. Reduce long distance calling from **traveling** employees, with iPECS Phontage and UCS Client connect directly to iPECS over an ordinary internet link anywhere in the world. In your multi-site environment, link voice over an existing WAN to gain significant cost savings on **inter-office** telephone calls.

Connect iPECS to your service provider's IP based network to reduce your monthly telephone costs. iPECS supports both **Session Initiation Protocol (SIP)** and H.323 Voice over IP 'trunking' technologies so you can take advantage of newer low cost network connections.



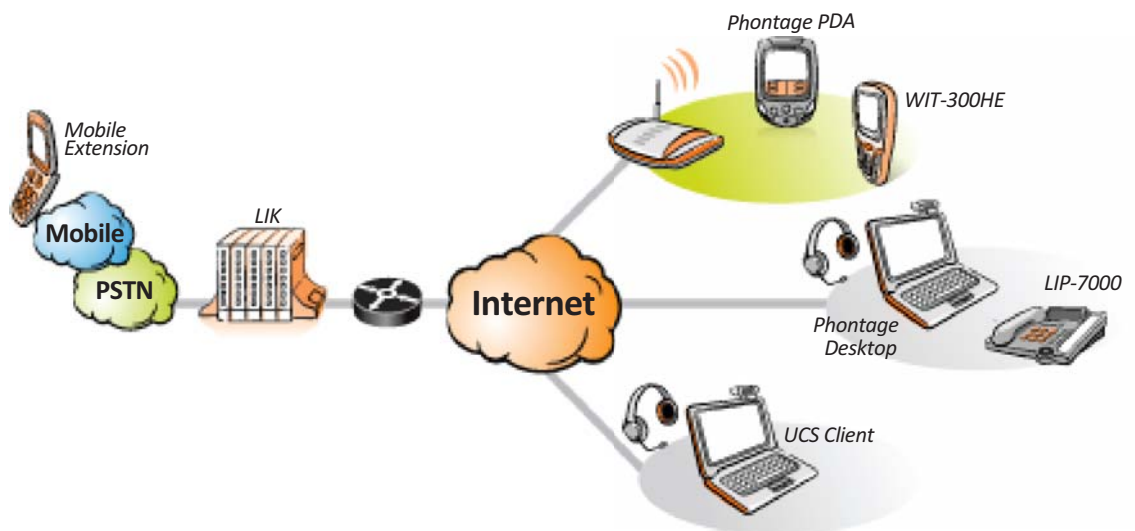
## Mobility

# A tool for the Competitive Edge

Mobility can be a critical need for the competitive business. iPECS offers an array of solutions to address your mobility requirements. Customers only need to remember one number. No matter where you are, you will be ringed by one office number by your customers. iPECS provides **mobile extension** service so that the call server route your call to your office extension and registered mobile phone at the same time. You can also make calls from your mobile phone with CID of your office extension. Major call features are supported from mobile such as Call transfer, Recall, Hunt call etc.

If you need to roam throughout your facility or campus and maintain communications, iPECS offers several options. Using a network of WiFi standard Access Points (APs), the iPECS wireless LAN phone, **WIT-300HE**, has access to the full compliment 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. Because of the WIT-300HE mobile phone-like operation and simple GUI, your users will quickly enjoy the many benefits of this WiFi solution. Alternatively, the **Phontage PDA or Desk-top** with a WiFi interface will achieve the same transparent iPECS access with the additional benefit of access to your contact database and other Phontage functions.

Your traveling employees are always out-of-touch with the office. Phontage and UCS Client let the **road warrior** transparently access iPECS anywhere there is an internet connection. Call others in the office, place and receive outside calls just like while in the office. And, use the conference and collaboration capabilities of the UCS Client to **enhance productivity** while on the road.



Collab-  
oration

## Increase productivity with Simple to use Conferencing & Messaging tools

Your business is becoming more and more global with organizational resources more geographically dispersed. You need to get more than just 3 people on the call to make that decision, solve the problem, answer your customer questions, etc. Advanced DSP technology of the optional iPECS **Conferencing module** delivers high quality voice conferences for up to 24 parties. Simply use the normal conference procedure to add parties as needed.

For those conferences across time-zones, Scheduled Conferencing puts interested parties together at the same time. Set-up a **Conference Room** and notify attendees with a Voice Message broadcast from iPECS UMS. Use Phontage or UCS Client to set-up the Conference Room and automatically send e-mails to invited parties.

In many cases, you need a more collaborative conference, iPECS UCS combines real-time audio and video calls, File sharing, Web push and Instant Messaging for a **complete multi-media conference** for up to six UCS Clients. All parties in the video conference simultaneously communicate and share and manipulate files including presentation.

While you are not in-touch, you need to get that important message through. With iPECS Automated Attendant and messaging tools, callers are answered with **one of three announcements in their language** and directed to your voice mail-box to leave a message and you'll be notified by a flashing Message light on your phone. With iPECS UMS you can direct **notification to your e-mail** or receive notification via SMS.

When you can't contact other users, you can send an internal SMS note to the LCD display on their phone or on a group phones. To get messages to off-net users, iPECS supports ETSI standard **'fixed line SMS'** to compatible devices, assuring the message will get through without interruption. Have your voice messages sent directly to hard drive of the iPECS Phontage or UCS Client or download messages on demand for simple off-line message management. With iPECS Phontage and UCS Client, you can record conversations and share the recording with other users.

## Call Handling

# Improve Customer Care Using flexible & simple Call Handling

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 Center using ACD.

**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 alternative 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. Use Caller ID routing to further separate incoming calls. Calls from that large account can be sent to the account team or route calls based on regional origin, language or time-of-day.

Once the call is answered, users can **easily process** the call if needed. Place the call on hold, transfer the call or even set-up a conference call **with a press of a button**. Users no longer need to worry about losing the call with the simple call handling operation of iPECS terminals.

With advanced features such as **Linked Station and Hotdesk**, your call can be managed in a flexible way. Your soft client and desktop hardphone can work as a pair and this will provide more flexibility on your call handling. Hotdesk agent can log in any system station with its own station attributes such as station number, COS, voice mail etc.



# SPECIFICATION

	MFIM100	MFIM300	MFIM600
Channel Capacity	Max 100 ports	Max 300 ports	Max 600 ports
Max No. of station	70	300	6
Max No. of trunk	42	200	400
No. of attendant	4	5	5
No. of CO group	20	72	72
Max No. of DSS per station	2	9	9
No. of Executive/Secretary pairs	10	36	36
No. of pool station speed dial bins	1400	4000	8000
No. of system speed dial bins	800	3000	6000
No. of internal page zones	10	35	35
VoIP (Trans-coding)	6	6	None
VSF channel	6	6	None
VSF recording time	Min 200 minutes	Min 240 minutes	
T.38 support	Yes	Yes	Yes
PFTU	4 ports	4 ports + 1 Ext.(6 ports)*	4 ports + 1 Ext.(6 ports)*
BGM	1 Int. + 2 Ext.	1 Int. + 2 Ext.	1 Int. + 2 Ext.
Alarm Input	2	2	2
External Paging	2	2	2
Dry Relay Contact	2	4	4
USB (host)	1	1	1
System Redundancy	No	No	Yes

VSF	VMIM	UCS Client	Phontage
MFIM100/300 built in	Max. 1 for MFIM100/300 Max. 6 for MFIM600	Pentium IV 2.3 GHz 512MB RAM 200MB Free HDD Window XP/2000 or later	Pentium IV 1GHz 256MB RAM 200MB Free HDD Window XP/2003/2000
6 channels	8 channels	10/100T NIC Optimized for 1024x768 Full duplex sound card USB Headset recommended	
G.711	G.711 / G.729a / G.723.1		
96MB(MFIM100)/112MB(MFIM300)	256MB		
210m/240m(G.711)	560m(G.711)		

Dimension	H(mm)	W(mm)	D(mm)	W(kg)	Distance	AWG 22 (m)	AWG 24 (m)
LIP Phones	196	269	86.4	0.92	LIP Phone	100	100
LIP-DSS	162	98	86.4	0.3	H.323 VoIP phone	100	100
Gateway	194.5	230	38.8	1.5	Digital Terminal	500	300
Main Cabinet	308.4	436.6	310	9.0	SLT(SLTM2/8)	6,000	4,000
PWBX	91.7	436.6	310	5.37	SLT(SLTM32)	4,500	3,000

