

## Technical overview

### Switch capacity

Up to 60 SIP trunks, RFC3261  
1/2 PRI, 4/8/12 BRA trunks  
Up to 240 IP users  
8 analogue a/b extensions (FXS), expandable to 240  
Up to 240 digital system phones  
Ethernet port  
External relays x 2

### IP system phones

Four-line backlit display  
Two Ethernet ports (mini-hub)  
DC jack for 12 Volt plug-top adaptor or PoE  
Headset socket (Executive version only)  
DSS module (Executive version only)

### Digital system phones

2 - wire Executive keyset  
Four-line backlit display  
Headset socket  
DSS module

### Voice over IP

Voice compression codecs: G.711, G.729  
Quality of Service (QoS): 802.1p/q  
Echo and silence suppression  
Echo cancellation G.165/G.168

### Security

Remote IP keysets: AES encryption

### System management

Browser based local or remote programming  
LEDs for power and status  
Local or remote configuration backup  
Local or remote software upgrade  
Remote diagnostics

### Physical interfaces

Trunks: ISDN PRI, TO RJ45  
Ethernet RJ45  
a/b extensions (FXS) RJ45  
Digital keysets RJ45  
External relays (x 2) RJ45  
Optional audio adaptor for public address, at an FXS port, audio jack

### Power

110V / 220V / 240V ac (market dependent)  
Switch consumption: typical 24VA  
Plug-top adaptors for IP keysets  
PoE IEEE 802.3 af

### Status LEDs

Power  
LAN  
Internet, SIP server  
Error warning  
Expansion card 1  
Expansion card 2  
Expansion card 3  
Expansion rack (Slave), Exp

### Physical dimensions

19" rack full width, one height unit,  
three quarter depth  
Weight: 2Kg  
Rack and wall mountable

### Voice Functionality

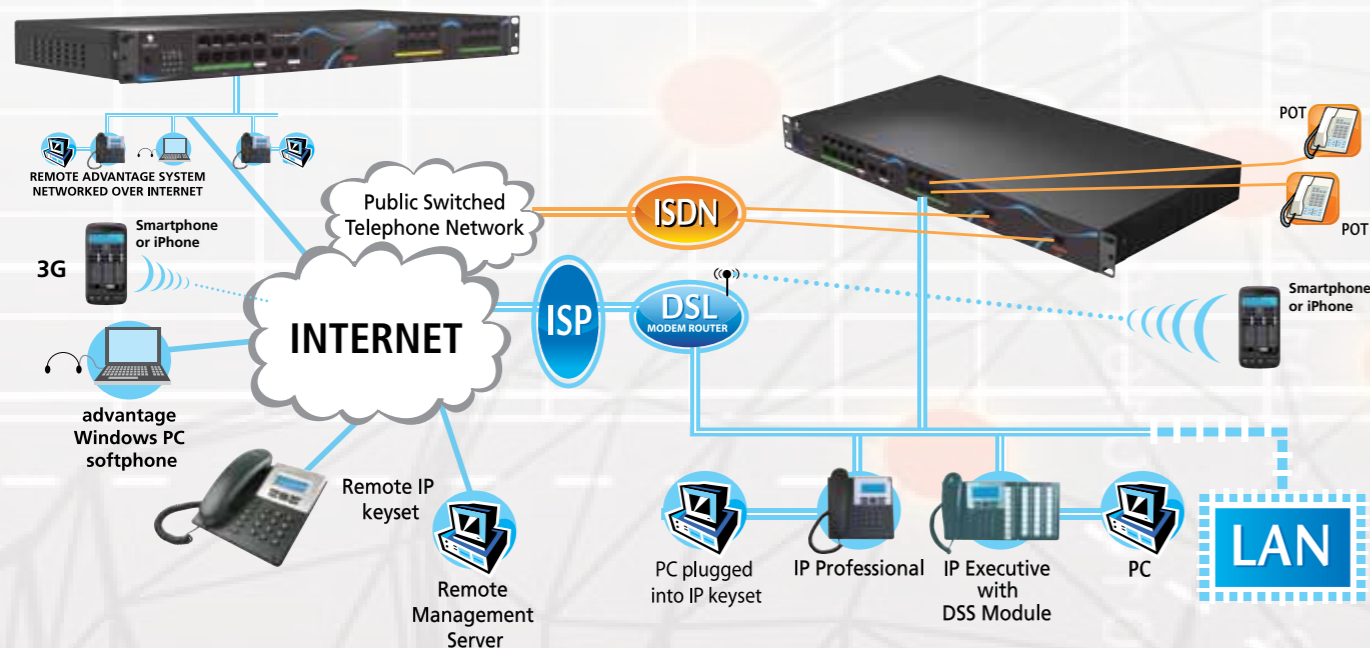
Alarm clock calls  
Analogue CLI  
Auto-discovery of IP stations  
Automated attendant  
Automated Management Server  
Automatic Call Distributor  
Browser based system programming  
Browser based user programming  
Call-back  
Call Barring, up to 7 levels  
Call Forward  
Forward all  
Forward no answer  
Forward on busy  
External or internal divert  
Reprogramme diversions remotely  
Call Hold  
Call Lists  
Missed  
Dialed  
Received  
Callback  
Call Logging  
Call Park  
Call Pick-up/ Call Pick-off  
Call Record  
Call Protection  
Call Transfer  
Call Waiting (internal and external)  
CLIP, CLIR  
Conference Call (Internal and External)  
CSTA  
CTI  
Do not disturb  
Doorphone (1 x a/b extn, 2 x relays)  
Email forwarding of voice mails and recorded calls  
Embedded web server  
Enquiry Call  
External line ringing assignment  
Gmail contacts' synchronisation

### Groups:

Dedicated mailboxes  
Group diversion  
Group mailbox  
Missed call list per group  
Up to 10 groups  
Headset ready  
Hot desking  
Hotline  
Hunting groups  
iPhone app for Fixed Mobile Convergence (FMC) over 3G or WiFi (Android version available in 2012)  
IP server (for IP extensions)  
IP system phones  
Outlook contacts' synchronisation  
Least cost routing  
Meet-me conference rooms  
MSN ringing assignment  
MSN restriction  
Multiple user devices (desk, soft, mobile)  
Music on hold  
Networking of multiple systems  
Night service  
Paging via system phones  
Phone Book  
pool of 10,000 entries  
import / export of directories  
Internal extension list  
Programmable keys 16  
Re-dial (last 10 numbers)  
Ringing Modes, 15  
SIP client (up to 60 SIP trunks)  
SIP extension users  
Synchronisation with Outlook, UPnP (Universal Plug and Play)  
User PIN codes  
User profiles (Office/Home/Roaming)  
Voicemail  
Voice recording  
Windows Soft phone

# advantage 24000

The flexible communications solution for small business



VoIP & Unified Communications Solution  
for up to 240 users

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Email: ictdirect@eircom.ie  
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EIR/IRD 1300C





eircom advantage Executive set with DSS Module

## The complete business solution for internet telephony

eircom advantage 24000 integrates all the voice communications needs of a small to medium business on a modular IP platform which can be configured for SIP trunks and ISDN lines, with integrated voicemail, automated attendant, Fixed Mobile Convergence (FMC) and integration with Microsoft Outlook to support click to dial from Outlook Contacts.



eircom advantage Executive set with DSS Module

Configuration example showing an eircom advantage 24000 rack mount system with plug-in cards. The rack has 8 FXS analogue POTs as standard. This also has a plug-in card for 8 Upn digital system phones and two PRI cards.

### Modular system

The basic 19" rack accommodates up to 240 IP users. 8 FXS analogue a/b interfaces are standard. Up to 60 SIP trunks may be provisioned.

### Plug-in cards

The basic unit has three universal plug-in slots into which any three of the following cards may be inserted.

- ISDN PRI card (max 2 cards), each with 1 PRI
- ISDN BRA card, with 4 x T0 basic accesses.
- FXS Analogue POTs extensions' card, with 8 a/b.
- Upn Digital extension card, with 8 system phone interfaces.

### Expansion racks

Additional expansion racks, each with three slots for plug-in cards, may be connected to the LAN, to increase the hardware capacity, as per following examples, per expansion rack added.

- 32 FXS analogue a/b POTs users
  - 24 Upn digital system phones and 8 FXS
- Up to 240 TDM extensions, between FXS and digital, can be connected using expansion racks as Slaves off the Master rack. The Slaves are tightly coupled with the Master, giving presence information across all registered users. Access to outside lines, either ISDN or SIP trunks, is exclusively via the Master.



advantage windows PC softphone

### IP System phones

IP keysets may be connected locally on the LAN or remotely over Internet. Remote IP extensions have full keyset functionality. A PC may be plugged into an Ethernet mini-hub on the back of the IP system phone, allowing a single cable to the desk.

There are two desktop IP system phones to choose from, Executive and Professional, each with a 4 line backlit display, with context sensitive navigation keys. A 48 key Direct Station Select (DSS) module may be used in conjunction with the Executive key set.

The Executive set is also available as a PC softphone application, offering keyset functionality on any PC running Microsoft Windows. It's also available as an iPhone app. An Android app is in development.

### Digital System phones

2-wire digital Executive keysets may be connected at the Upn digital plug-in card

### Email forwarding of voice mails and recorded calls

Individual and group voice mails or recorded calls may be forwarded automatically to your email address as a WAV attachment. You can alter your voicemail greeting remotely and change your call forward destination from your mobile phone.

### Automated Attendant

One hundred separate interactive messages and menus can be played to callers depending on the number they dialed, the time of day, the language preference and the other options selected by the caller.

### VoIP Networking of multiple systems

Up to one hundred advantage systems can be networked over Internet using two or more IP channels per system. A single numbering plan covers all of the networked systems. A common operator may be programmed to ring for incoming calls, across any systems.

### Browser-based user portal

Download your system phone book from Gmail or Outlook. Set Call Forward and manage voice mails and general user parameters.



Dial out from your PC browser. Use the context-sensitive buttons for Hold, Transfer, Park and Conference.

### Dial from your PC using CTI

The desktop PC can click to dial calls from your Microsoft Outlook Contacts list.

### Fixed Mobile Convergence (FMC)

A user may have single number reachability and a single, centralised mailbox for the desk phone, home system phone, Apple iPhone and Windows soft phone.

An Apple iPhone running the eircom advantage iPhone app, may be registered to a user as an extension device on the wireless LAN or roaming on the public mobile wireless network.

The incoming caller ID of the originating caller is presented to such handsets. The user presents one CLI, irrespective of the device used to make the call.

For a user with several registered devices (home, office, iPhone or Windows soft phone), the last device used is the active device, to which all incoming calls are directed.

The user can change active devices by either pressing a key to push activity to another device or by pulling activity to their device by using it to make a call.

### Feature/expansion cards & licences

SIP or ISDN trunks (to max 60 trunks in total) IP system phone users on the LAN/WAN (max 240).

Digital or analogue a/b extensions (to max 240 users in total).

Multi-layer Automated Attendant, Voicemail boxes (users/groups: max 250 boxes).

Call Recording.

Email forwarding of voice mails and recorded calls.

Secure (AES) remote IP extensions over Internet.

Music-on-Hold, downloadable 20 min wav/MP3.

CTI, dial from the desktop.

PC Soft phone.

iPhone system phone app.

Networking of multiple Opera systems.

Meet-me conference rooms.

### Auto discovery by IP system phones

Set-up programming is not required for IP system phones. Just plug into the LAN, which has a DHCP server, and the phones auto discover the system and are automatically assigned extension numbers.

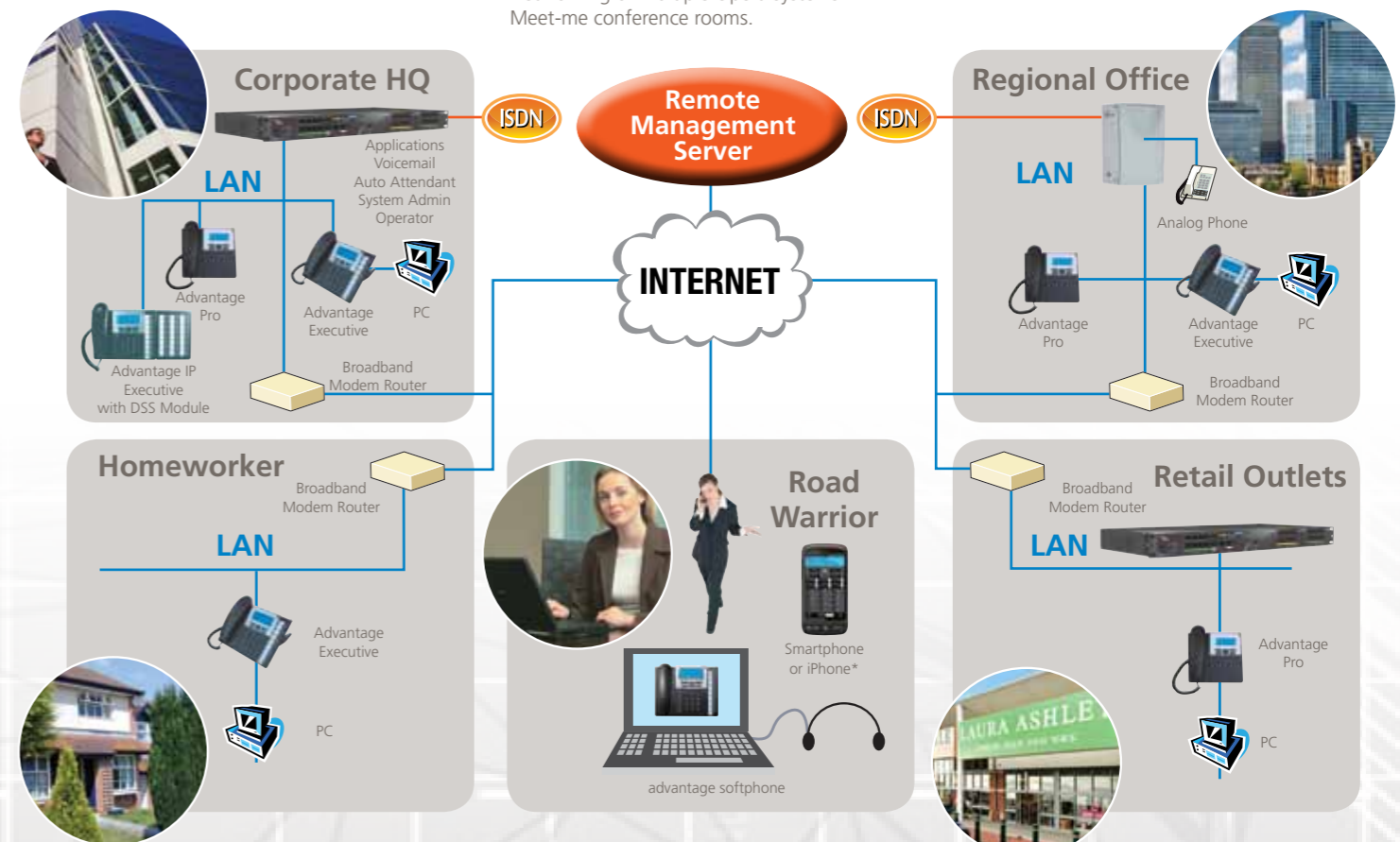
For home workers, a system phone that has auto discovered on a company LAN where the broadband modem/router supports Universal Plug n Play, can be plugged into any LAN with Internet access and it will automatically go on line and connect to its system as a remote extension.

### Call Recording

A user may record calls or portions of calls to their voice mailbox using a single key press to activate/deactivate the recording. Alternatively, the system may be programmed so that all calls to particular extensions are recorded. As soon as recorded calls are terminated, the recording is stored in the voice mailbox and a wav file containing the recorded conversation is forwarded to the email address associated with that particular extension, for storage on their PC.

### Meet Me Conference Rooms

Two seven-party dial-in audio conferences may be held at the same time and can be recorded and emailed to participants.



\* Apple iPhone App currently supported. Android App available from early 2012