



**Open Voice over IP according to Aastra**

**SIP**

# Innovation, Openness, Convergence

Over the past few years, Aastra has invested heavily in research and development with a view to promoting the concept of open voice over IP, which comprises solutions that are increasingly independent of hardware and are based on SIP (Session Initiation Protocol).

## State of the VoIP technology

The first phase of migration to Voice over IP (VoIP 1.0) was characterised by the use of mainly proprietary solutions, without any major impact on existing telephony architectures.

Today, with growing IP network reliability and rapid development of new internet-based communication tools, a second migration phase (VoIP 2.0) has started. It is increasingly based on open standards and reinforces systems, terminals and applications interoperability thanks to the concept of unified communications.

## SIP, the key migration factor

Aastra considers SIP as a catalyst for migration to VoIP 2.0, encouraging end-users to change their analogue and digital terminals to SIP terminals, and from TDM operators to SIP operators.

In fact, due to the important role played by terminals in VoIP architectures, companies are giving priority to universal terminals that are independent of infrastructures and, thus, adapt to technological changes.





But beyond this aspect, SIP enables **multimedia applications** to easily communicate with each other and to choose the most suitable media according to user presence.

Thus, thanks to the interoperability offered by SIP, it is possible to connect video terminals or dual-mode GSM/WiFi terminals to a company's telephony environment without investing heavily in new infrastructures.

### **VoIP according to Aastra**

In the context of convergence towards a unified IP infrastructure, the need for reliable and scalable solutions is a decisive factor for IT managers when designing their information systems. Aastra provides **flexible and scalable SIP-based solutions for between 4 and 150,000 users**. They take into account problems such as **Business Recovery Plans**, with solutions for restart after failure, or **encryption-protected communications**.

Aastra also strives to accompany its customers during this **IP migration** by offering innovative solutions as well as a **full range of professional services** aimed at supporting the migration of the existing telephony network to an "intelligent network" capable of **managing unified communications** for all departments of a company, thus **increasing its efficiency**.

# SIP trunk

## Migration in progress...

The number of alternative telephony providers has been growing over the past few years. They use IP technology and SIP to develop their offers. Traditional providers are gradually following the trend, changing from ISDN to IP links.

Today, an increasing number of providers is converging towards SIP to offer this service: the SIP trunk.

Many companies and organisations are already showing interest in this SIP trunking offer which proposes attractive rates while controlling the quality of service and security.

Fully in keeping with its interoperability strategy, **Aastra\* IP systems are SIP compatible**. This makes it possible to connect SIP terminals, regardless of whether they are standard or advanced terminals, to interface with applications using this same protocol, and to natively use the SIP trunk interface to connect to VoIP providers.

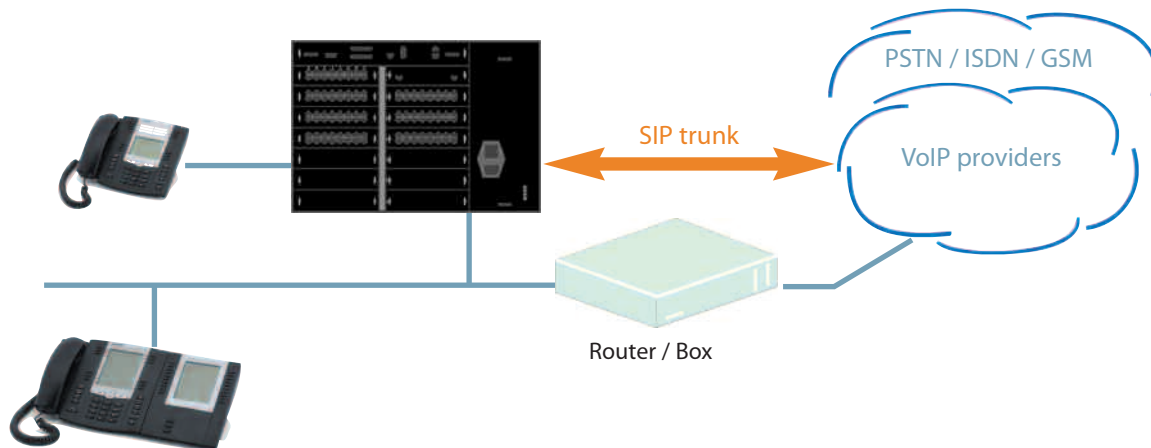
*\* Visit Aastra's website for compatible versions.*



SIP offers the basic services required on the network, including:

- Number display
- Restriction of number display
- Name display
- Call forwarding
- Transfers
- Voice mail access

The SIP trunk solution has been tested with major providers and will quickly be adopted by companies, both SMEs with ADSL or VDSL connections or large companies.



# Applications

## Towards a converging world



Aastra's **OfficeSuite**, **ACP (Aastra Communication Portal)** and **UCP (Unified Communication Platform)** applications evolve alongside the standards, at the same rate as the platforms. Therefore, they have been naturally designed to **work together with SIP terminals**.

Aastra OfficeSuite is a CTI (computer telephony integration) application that allows calls and voice messages to be managed via a PC.

ACP offers contact center, web attendant, conference bridge and CTI services such as screen pop-up, call recording and intelligent call-forwarding management via its TWP (Telephony Web Portal) suite.

UCP basically offers unified-messaging, automated attendant and presence-management services.

These applications enable a user to monitor and control his or her telephony terminal from the computer application. Aastra OfficeSuite, ACP and UCP have been validated with SIP terminals and enable users of such terminals to **take full advantage of these applications**:

- Participating in a conference call from a SIP terminal
- Screen pop-up on the PC when the terminal rings
- Recording outgoing or incoming calls
- Accessing the unified messaging system from the SIP terminal
- Integrating the forwarding status of a SIP terminal, with its presence status, in the messaging system
- Use of a SIP terminal by a contact center agent

# SIP terminals

## IP within reach

6751i



Aastra's strategy on open standards allows it to support SIP softphones on PC or PDA and new SIP telephones.

6753i



Aastra's range of SIP 6750i terminals, comprising terminals 6751i, 6753i, 6755i and 6757i, is meant for both small and large companies. It offers high-quality IP telephony functions at a competitive cost.



6755i

Aastra SIP terminals, associated with Aastra systems, allow the use of a telephony solution compatible with the existing infrastructure, while remaining open to future developments.

Based on the standard SIP, Aastra 6750i terminals are compatible with a large variety of platforms (example: Asterisk, Broadsoft, etc.).



6757i and its expansion module

### Strong points of Aastra 6750i terminals

- Excellent voice quality
- Navigation keys which simplify access to the various functions
- Voicemail indicator LED
- The terminals all have a screen, an incoming call log for 200 names, an outgoing call log for 100 names, or even a personalised directory for 200 names
- All the terminals are compatible with a set of XML applications. Users can, thus, have access to standard internet services (example: RSS flows from news sites) as well as client-specific applications (for instance: the company's unified directory)
- Terminals 6755i and 6757i can have expansion modules which allow the use of additional programmable keys. The modules are of two types: paper labels or LCD screen
- Aastra 6750i terminals are easy to manage, thanks to centralised deployment of configuration files and software updates



# DECT over IP

## Communicate with complete freedom



The Open Mobility IP DECT offer combines **DECT maturity and performance with IP flexibility**. Aastra thus enables DECT technology users to gradually migrate to IP, by proposing this IP DECT solution.

The solution comprises:

- **Two terminals: OpenPhone 27 and OpenPhone 28**  
Each DECT terminal is considered as an SIP subscriber at the IPBX level. OpenPhone 28 has the **Call Device for Isolated Workers function** used to make an automatic emergency call in case of handset verticality loss. The handset has equally been reinforced and is compliant with standard IP54 (splash and dust resistant).
- **An indoor RFP32IP base station and an outdoor RFP34IP base station**  
They are **connected directly to the company's LAN**. To ensure handover and roaming, the DECT base stations are synchronised via the air interface. These base stations allow **8 simultaneous calls** and can be powered over LAN (compatibility with standard 802.3af).
- **Open Mobility Manager (OMM) software**  
This software manages and handles the processing of IP DECT calls. It is either installed on a DECT base station or on a dedicated, PC-type Linux computer server.

### Strong points of the Open Mobility solution

- **It improves employee mobility**
- **It reduces deployment costs:**
  - Common voice/data infrastructure: the DECT base stations are connected directly to the company's LAN
  - Wiring is simplified thanks to connection to the nearest LAN
  - Base station extension to remote sites: LAN and WAN
- **Traffic density is increased** with 8 simultaneous communication channels
- **Security is guaranteed** through authentication and communication confidentiality



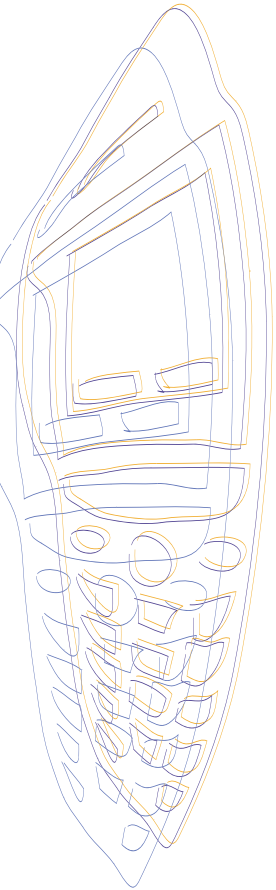
OpenPhone 27



OpenPhone 28

# WLAN terminal

## Welcome to the wireless world



### Strong points of the Aastra 312w

- Excellent ergonomics
- Large colour screen
- High battery life (50 h in standby mode, 5 h in communication mode)
- SIP compatibility
- Wide range of telephony functions
- Easy deployment
- Secure solution



Aastra proposes a Voice over Wireless LAN (VoWLAN) offer, which can be used together with or as an **alternative to integrated DECT and IP DECT solutions**.

This new solution is SIP-oriented.

It is based on standard technologies, completed through functions developed by Aastra in order to offer a more comprehensive voice-service level.

Aastra 312w is a wireless terminal that is compliant with standard 802.11 b/g. It combines **innovative design with voice quality and a high functional variety**: large back-lit screen, hands-free mode, headset jack, vibracall, etc.

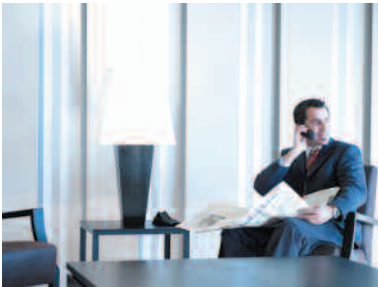
**A memory card (in SIM format)** allows you to back up your private contacts, handset personalisation data, network parameters and MAC address. Thus, in the unlikely event you have to replace the handset, the memory card enables you to transfer the data in the new phone, without having to enter it again.





# Fixed-mobile convergence

## The simplicity of single terminal



### Strong points of the fixed-mobile convergence solution

- **Single terminal**
- **Reduced costs** of GSM calls: calls in the company pass through the LAN and no longer through the GSM network
- **No additional software** needs to be deployed
- **Possibility to couple** the GSM terminal with an Aastra softphone in CTI mode
- Users can access a **single directory from their terminal** company directory and private GSM directory
- International numbers (E164) are accessible via the PBX

Aastra is entering the fixed-mobile-convergence and single-terminal era with the dual-mode GSM/WiFi smartphones.

GSM is becoming omnipresent whereas companies are striving more and more for cost reduction, time gains and simplicity. Close to 50% of mobile-phone calls made by employees are made from their office, although less expensive fixed terminals are at their disposal.

In line with Aastra's strategy of opening up to market standards, Aastra VoIP systems are natively SIP compatible. Users of GSM/WiFi\* smartphones (example: Nokia E6x) can, thus, connect to the enterprise network via this protocol and **use almost all the telephony functions offered by Aastra systems.**

Thanks to fixed-mobile convergence, communication costs are reduced, and users remain mobile both inside and outside their company.

A dual-mode terminal, declared on the WiFi network and recognised by the IPBX, offers a variety of functions comparable to that of an enterprise SIP terminal:

- **Speed-dial number** management
- **Call log** (GSM calls and internal calls)
- **Transfer** after call
- **Caller name and number display**
- etc.

**Thanks to the Aastra SIP interfaces, no modifications need to be made to the GSM terminal.**

\* equipped with a SIP battery

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