



Aastra Phones and Asterisk® iPBX: A Winning Combination

www.aastratelecom.com



Business Class Functionality Unleashed

When Aastra IP phones are used with Asterisk based systems, many powerful features are unleashed

- » Intercom / Set paging
- » Busy Lamp Field (BLF) shows presence and status of other extensions
- » Directed Call Pickup Support
- » Up to 9 Call Appearances
- » Integration with business productivity software and databases



Business Class Form Factor

Business users immediately feel comfortable with Aastra products because of our proven industrial designs. Meticulous engineering is evident when you press the buttons or put the handset to your ear.

Your Connection to the World

AASTRA

Our user interface is designed to be functional and efficient:

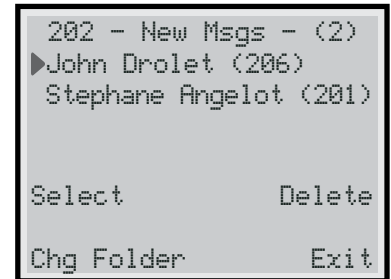
- » Large backlit displays are easy to read
- » Dedicated line keys with LEDs makes juggling multiple calls easy. With a single press of a button, you can put your current call on hold and pickup another line or incoming call. Jump back and forth between calls with a single button press
- » Hold/Transfer/Conference functions are intuitive and easy
- » Full duplex speakerphone on most models with high end acoustics
- » Easily switch between headset, handset and speakerphone on most models

Powerful XML API

The Aastra XML API provides extreme Asterisk integration for the administrator and for the end-user, this includes:

- » Plug and play installation with auto-discovery of the Asterisk server and user self-provisioning
- » Directory Services (Asterisk, Microsoft Exchange...)
- » Visual Voicemail (scroll through voicemails messages using the display screen of phone)
- » Visual Park Pickup (list parked calls on display screen of phone),
- » Meet-me conference manager
- » And many more, all available as Open Source

The Aastra XML API SDK allows you to develop powerful applications making the phone a productivity tool



Industry Standards Embraced and Extended

- » IEEE 802.3af Power Over Ethernet supported on all models except entry level 9112i. No proprietary cables required! The standard Ethernet cable included in the box is all you need
- » DHCP IP Address setup and automatic configuration (using option 66)
- » Configuration can be downloaded to the phone using TFTP, FTP, HTTP or HTTPS and updates can be triggered remotely using check-sync SIP Notify.
- » Time and Date Synchronization using NTP
- » Built in HTTP/HTTPS server for Web admin and maintenance
- » Support for most emerging extended SIP protocol extensions



Complete Family from cordless to lobby phone

Our 57i CT and 9480i/480i CT cordless solutions are unmatched by the competition. The 2.4GHz frequency hopped spread spectrum handsets provide up to 300,000 sq. ft. coverage and battery life that is superior to WiFi solutions.

Aastra's complete portfolio of carrier/enterprise grade IP telephones meet every business requirement including operators consoles, cordless offerings, and inexpensive lobby phones. Offering flexibility, quality and reliability at attractive price points, Aastra endpoints maximize the power of Asterisk® based phone systems.



Busy Lamp Field (BLF) Setup

Summary:

1. Add a hint for each phone you wish to have monitored
2. Add the proper "Subscribecontext" entries to sip.conf file
3. Configure the softkeys or keys on the phones or on the expansion modules
4. Reboot each phone

Details:

1. Hint setup

Add a hint entry to for every phone you want to monitor to your extensions.conf Asterisk config file

```
[mycontext]
exten => 1001, hint,SIP/1001 ; John Doe
```

2. Subscribecontext

Add a Subscribecontext entry to the sip configuration of each phone you wish to configure BLF buttons in your sip.conf

3. Configure each phone you wish to monitor on one or more phones

Configure one or more soft buttons using either the Web interface or the phone configuration files (aastra.cfg or <MAC.cfg>).

For the (9)480i/(9)480iCT/55i/57i/57i CT: For the 9112i/9133i//9143i/53i:

```
softkey2 type: blf                              prgkey5 type: blf
softkey2 label: John Doe                        prgkey5 value: 1001
softkey2 value: 1001
```

4. Reboot each phone you configured with BLF buttons

Ringing state notification

You can also get notification when the extension being monitored is ringing. In the general section of sip.conf add:

```
notifyringing=yes
```

The phone can also play a ring splash when the monitored extension is ringing:

- Add "Play a ring splash: 1" to the configuration file
- On the preferences page of the WebUI select the "Play a Ring Splash" checkbox

Directed Call Pickup

The Aastra phones support picking up the call that is ringing the monitored extension.

1. Apply the pickup patch from bug 5014 to Asterisk 1.2
2. Enabled directed call pickup on the phone
 - Add "directed call pickup: 1" to the configuration file, or
 - On the preferences page of the WebUI select the "Directed Call Pickup" checkbox

Intercom or Set Paging

To make *80 the prefix for an intercom call in the Asterisk extension.conf file add

```
exten=*80XXX,1,SetVar(ALERT.INFO=info=alert-autoanswer)
exten=*80XXX,2,Dial(SIP/${EXTEN:3},12,Tt)
```

By default intercom is enabled on the phone, but the phone will be muted for incoming intercom calls. This can be changed via the "Preferences" page on the WebUI or via the configuration files:

```
sip allow auto answer: 1
sip intercom mute mic: 1
```

The Icom key on the (9)480i, (9)480iCT, 55i 57i and 57i CT can be configured to automatically add the *80 prefix when used to make a call. On the "Preferences" page of the WebUI in the "Outgoing Intercom Setting" section, set the "Type" to "Server-Side" and set * as the "Prefix Code". Note that "Line" must also be set to a configured line. Alternatively, add the following to the phone configuration files:

```
sip intercom type: 2
sip intercom prefix code: *80
sip intercom line: 1
```

Call Park and Pickup

Softkeys and programmable keys can be configured to Park and Pickup a call. This can be done via the WebUI or via the configuration files.

(9)480i/(9)480iCT/55i/57i/57iCT settings:

```
softkey3 type: Park
softkey3 label: ParkCall
softkey3 value: asterisk;700
softkey3 line: 1
```

```
softkey4 type: Pickup
softkey4 label: PickupCall
softkey4 value: asterisk;700
softkey4 line: 1
```

9112i/9133i/9143i/53i settings:

```
prgkey1 type: Park
prgkey1 value: asterisk;700
prgkey1 line: 1
```

```
prgkey4 type: Pickup
prgkey4 value: asterisk;700
prgkey4 line: 1
```

Note: If you use a different park extension than the default 700, then replace 700 in the examples above with the extension you use.

Priority Alerting

The ring pattern played by the phone can be controlled via the Alert-Info header. For example:

```
exten => .*581.,1,SIPAddHeader<Alert-Info: info=<Bellcore-dr1>>
exten => .*581.,2,Dial<SIP/$EXTEN:4>
```

Supported ring patterns are:

- <Bellcore-dr1>
- <Bellcore-dr2>
- <Bellcore-dr3>
- <Bellcore-dr4>
- <Bellcore-dr5>

Firmware and Configuration Updates

The AutoSync feature enables the phone to check for firmware and configuration file changes once a day. This can be configured via the WebUI on the "Configuration Server" page or via the configuration files. For example, to check for firmware and configuration changes at 1:30 in the morning, add the following to aastra.cfg or <MAC>.cfg

```
auto resync mode: 3
auto resync time: 01:30
```

You can also force the phone check for updates from the Asterisk console, if the phone finds an update it will reboot to apply the changes. Add the following to the Asterisk sip_notify.conf configuration file:

```
[aastra-check-cf9]
Event=>check-sync
Content-Length=>0
```

Then from the Asterisk console you can type "sip notify aastra-check-cf9 42561", where 42561 is the sip phone.

For more information on Aastra VoIP products, visit www.aastratelecom.com or call 1-800-574-1611

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