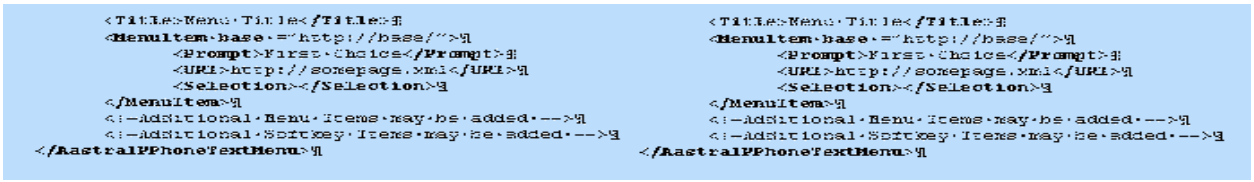
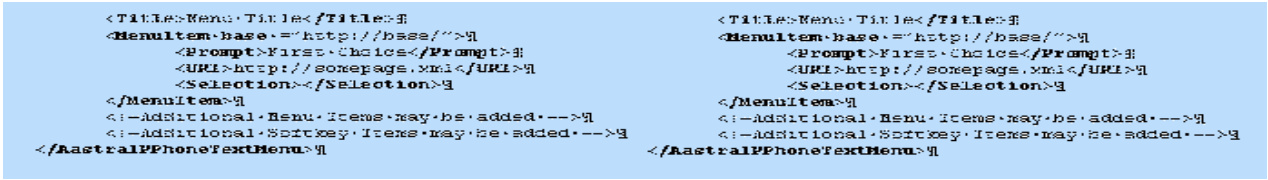



# Product Application Info

# Aastra XML Scripts for PBX IN A FLASH

# Version 2.2.1

Doc. No.: PA-001009-01-03



Aastra Telecom will not accept liability for any damages and/or long distance charges, which result from unauthorized and/or unlawful use.

While every effort has been made to ensure accuracy, Aastra Telecom will not be liable for technical or editorial errors or omissions contained within this documentation. The information contained in this documentation is subject to change without notice.

Copyright 2009 Aastra Telecom. www.aastra.com

All Rights Reserved.

# TABLE OF CONTENTS


**1 Introduction ..... 1**

*1.1 Purpose ..... 1*

*1.2 Feedback/Bug reporting/Support ..... 1*

*1.3 Revision History ..... 1*

1.3.1 PA-001009-01-03 ..... 1

1.3.2 PA-001009-01-02 ..... 2

1.3.3 PA-001009-01-01 ..... 3

1.3.4 PA-001009-01-00 ..... 3

**2 Installation ..... 5**

*2.1 Compatibility ..... 5*

2.1.1 PBX in a Flash server ..... 5

2.1.2 Aastra SIP Phones ..... 5

*2.2 Package installation ..... 5*

*2.3 Before you connect your first phone ..... 7*

2.3.1 Create aastra.cfg ..... 7

2.3.2 Check FreePBX/Asterisk configuration ..... 12

2.3.3 Configure Parking lot ..... 14

2.3.4 Create an extension on Asterisk (mode ‘extensions’) ..... 15

2.3.5 Create a device and a user on Asterisk (mode ‘deviceanduser’) ..... 16

2.3.6 Configure Find-me Follow-me ..... 17

2.3.7 Create a meet-me conference ..... 18

2.3.8 Create Day/Night control ..... 19

2.3.9 Create a Queue ..... 19

*2.4 Localization ..... 20*

**3 FreePBX modes ..... 22**

*3.1 Configuration ..... 22*

*3.2 ‘extensions’ mode ..... 22*

*3.3 ‘deviceanduser’ mode ..... 23*

**4 Auto-discovery ..... 24**

*4.1 Principle ..... 24*

*4.2 Implementation on the server ..... 26*

**5 Self-Configuration ..... 27**

*5.1 Message flow ..... 27*

*5.2 Auto-configuration policy ..... 28*
*5.3 'extensions' mode self-configuration ..... 29*
5.3.1 Software architecture ..... 29
5.3.2 Extension login ..... 31
5.3.3 Default phone template configuration ..... 33
5.3.4 Custom phone templates ..... 35
5.3.5 Phone configuration update ..... 36
*5.4 'deviceanduser' mode self-configuration ..... 37*
5.4.1 Software architecture ..... 37
5.4.2 Device Login ..... 40
5.4.3 User Login ..... 41
5.4.4 User Logout ..... 43
5.4.5 Default Phone template configuration ..... 43
5.4.6 Custom phone templates ..... 47
5.4.7 Phone configuration update ..... 47
*5.5 Before you connect the first phone ..... 48*
**6 Asterisk applications ..... 49**
*6.1 DND ..... 49*
6.1.1 Phone Compatibility ..... 49
6.1.2 PHP script ..... 49
6.1.3 Configuration ..... 49
6.1.4 Configuration files ..... 50
6.1.5 Screenshots ..... 50
6.1.6 Comments ..... 50
6.1.7 Message flow ..... 51
*6.2 Call Forward ..... 51*
6.2.1 Phone Compatibility ..... 51
6.2.2 PHP script ..... 51
6.2.3 Configuration ..... 52
6.2.4 Configuration files ..... 53
6.2.5 Screenshots ..... 53
6.2.6 Comments ..... 53
6.2.7 Message Flow ..... 53
*6.3 Follow-Me ..... 53*
6.3.1 Phone Compatibility ..... 54
6.3.2 PHP script ..... 54
6.3.3 Configuration ..... 54

6.3.4 Configuration files ..... 55
6.3.5 Comments ..... 55
*6.4 Day/Night ..... 55*
6.4.1 Phone Compatibility ..... 55
6.4.2 PHP script ..... 55
6.4.3 Configuration ..... 56
6.4.4 Configuration files ..... 56
6.4.5 Screenshots ..... 57
6.4.6 Comments ..... 57
*6.5 Presence ..... 57*
6.5.1 Phone Compatibility ..... 58
6.5.2 PHP script ..... 58
6.5.3 Configuration ..... 58
6.5.4 Configuration files ..... 59
6.5.5 Screenshots ..... 59
6.5.6 Comments ..... 59
*6.6 Meet-me ..... 60*
6.6.1 Phone Compatibility ..... 60
6.6.2 PHP script ..... 60
6.6.3 Configuration ..... 60
6.6.4 Configuration files ..... 60
6.6.5 Screenshots ..... 60
6.6.6 Comments ..... 60
*6.7 Visual Voice Mail ..... 61*
6.7.1 Phone Compatibility ..... 61
6.7.2 PHP script ..... 61
6.7.3 Usage ..... 62
6.7.4 Configuration ..... 62
6.7.5 Configuration files ..... 62
6.7.6 Screenshots ..... 62
6.7.7 Comments ..... 63
6.7.8 Message Flow ..... 63
*6.8 Directory ..... 63*
6.8.1 Phone Compatibility ..... 63
6.8.2 PHP script ..... 63
6.8.3 Configuration ..... 64
6.8.4 Configuration files ..... 64

6.8.5 Screenshots....64
6.8.6 Comments....64
*6.9 Contacts using a csv text file....65*
6.9.1 Phone Compatibility....65
6.9.2 PHP script....65
6.9.3 Configuration....66
6.9.4 Configuration files....66
6.9.5 CSV file format....66
6.9.6 Screenshots....66
6.9.7 Comments....66
*6.10 Speed Dial....67*
6.10.1 Phone Compatibility....67
6.10.2 PHP script....67
6.10.3 Configuration....67
6.10.4 Configuration files....67
6.10.5 Screenshots....68
6.10.6 Comments....68
*6.11 SugarCRM....68*
6.11.1 Phone Compatibility....68
6.11.2 PHP script....68
6.11.3 Configuration files....68
6.11.4 Screenshots....69
6.11.5 Comments....69
*6.12 Parking....69*
6.12.1 Phone Compatibility....69
6.12.2 PHP script....69
6.12.3 Configuration....69
6.12.4 Configuration files....70
6.12.5 Screenshots....70
6.12.6 Comments....71
*6.13 MP3 Player....71*
6.13.1 Phone Compatibility....71
6.13.2 PHP script....71
6.13.3 Configuration....71
6.13.4 Configuration files....71
6.13.5 Screenshots....72
6.13.6 Comments....72

*6.14 ACD Agent login/logout* ..... *72*
6.14.1 Phone Compatibility ..... 72
6.14.2 PHP script ..... 72
6.14.3 Configuration ..... 73
6.14.4 Configuration files ..... 73
6.14.5 Screenshots ..... 73
6.14.6 Comments ..... 73
*6.15 ACD Queue monitoring* ..... *73*
6.15.1 Phone Compatibility ..... 73
6.15.2 PHP script ..... 73
6.15.3 Configuration ..... 73
6.15.4 Configuration files ..... 74
6.15.5 Screenshots ..... 74
*6.16 Action uri registered* ..... *74*
*6.17 Action uri poll* ..... *74*
*6.18 Action uri xml sip notify* ..... *75*
*6.19 Action uri incoming* ..... *75*
*6.20 Action uri onhook* ..... *76*
*6.21 Action uri outgoing* ..... *76*

**7 Media applications ..... 77**
*7.1 US Area code lookup* ..... *77*
*7.2 Ask Google* ..... *78*
*7.3 Biorhythms* ..... *79*
*7.4 Currency Converter* ..... *80*
*7.5 CNN News* ..... *81*
*7.6 ESPN News* ..... *82*
*7.7 FOX News* ..... *83*
*7.8 Horoscope* ..... *84*
*7.9 Movies* ..... *85*
*7.10 Netflix* ..... *86*
*7.11 Stock Quotes* ..... *87*
*7.12 Today…* ..... *87*
*7.13 US Local Weather* ..... *88*
*7.14 World Clock* ..... *89*
*7.15 Yahtzee* ..... *90*
*7.16 Global menu* ..... *91*

**8 Appendix A: Configuration files ..... 93**

*8.1 server.conf ..... 93*

*8.2 asterisk.conf ..... 93*

*8.3 init.conf ..... 95*

*8.4 timezone.conf ..... 96*

**9 Appendix B: Description of the Files ..... 97**

**10 Appendix C: RPM Spec file ..... 101**

**11 LAST PAGE OF THE DOCUMENT ..... 105**

# TABLE OF FIGURES

Figure 1: Generated aastra.cfg ..... 12
Figure 2: Parking lot configuration ..... 14
Figure 3: Extension configuration ..... 16
Figure 4: Device configuration ..... 16
Figure 5: User configuration ..... 17
Figure 6: Find-me Follow-me configuration ..... 18
Figure 7: Conference configuration ..... 18
Figure 8: Day/Night configuration ..... 19
Figure 9: Queue configuration ..... 20
Figure 10: Phone boot sequence ..... 25
Figure 11: Multicast DNS query ..... 26
Figure 12: Self-Configuration message flow ..... 28
Figure 13: startup.php software architecture ..... 29
Figure 14: logout.php software architecture ..... 30
Figure 15: startup.php software architecture ..... 38
Figure 16: login.php software architecture ..... 38
Figure 17: logout.php software architecture ..... 39
Figure 18: DND message flow ..... 51
Figure 19: CFWD message flow ..... 53
Figure 20: Visual Voice Mail message flow ..... 63

# 1 Introduction

## 1.1 Purpose

This document describes the installation and the use of the Aastra XML Scripts for PBX in a Flash (PIAF) provided by Aastra Telecom as open source code.

## 1.2 Feedback/Bug reporting/Support

The Aastra XML scripts for PBX in a Flash are not directly supported by Aastra. Standard Aastra support will not answer your questions if you have issues with the scripts.

The only place you will get some support is the PBX in a Flash forum in the “Add-On Install Instructions” topic at

http://pbxinaflash.com/forum/forumdisplay.php?f=10

## 1.3 Revision History

### 1.3.1 PA-001009-01-03

- Updated with aastra-ipphone firmware package version 2.5.0
- Enhancements
    - Visual voice mail.
        - User configurable auto-answer mode
        - User configurable auto-login mode
        - Greetings record from the application
        - LED indication for messages (2.x phones only)
        - Support for monitoring other mailboxes
        - Now available for 6730i, 6731i, 6751i, 6753i and 9143i.
    - Localization
        - Support for Spanish and Portuguese
        - Multiple languages addition
        - Date and time format is now automatically detected from aastra.cfg
    - Call Forward
        - New toggle mode
        - Last entry cached
    - aastra.cfg generation
        - Auto detection of Network interfaces and VLAN support
        - Multiple concurrent languages
        - User can select language
        - User can select timezone
    - Self-configuration,

- In ‘extensions’ mode, a configurable ‘admin’ password can be used instead of the user voice mail password.
- No more reboot needed for login/logout in ‘extensions’ mode for phones running 2.5.0 firmware
- New tool ‘apply_prf’ to reapply the profile on all configured phones
- Configurable custom profiles for selected users.

o ACD Agent/Queues
- Automatic refresh of the queue list every 10 seconds (2.x phones only)

o Day/Night control
- Configuration control to check if the index configured in asterisk.conf is configured via freePBX
- If more than one day/night configured, the application can now toggle day/night for other indexes but day/night status is propagated only for the configured index.

o CSV based directory
- Location of the csv file is now configurable in asterisk.conf

o Find-Follow me
- For softkey phones, complete configuration control (ring times, list of phones and call confirmation)
- For non softkey phones only activate/deactivate is available
- LED management to indicate if feature is activated

o Directory
- New Intercom softkey

o New and improved Horoscope application using a daily RSS feed.

- Bug fixes
  - o Parking daemon was blasting SIP Notify every minute
  - o Spec file post uninstall script
  - o Visual Parking, user can now pickup the park call going off-hook
  - o In ‘deviceanduser’ mode, for a fixed device with a default user, the logout key was available
  - o Special characters in SIP password now supported.
  - o Caller ID can be more than 2 words
  - o Custom menu does not allow to move up the second element
  - o Logout no longer allowed in ‘deviceanduser’ mode if device is ‘fixed’.

### 1.3.2 PA-001009-01-02

- Updated with aastra-ipphone firmware package version 2.4.1
- Enhancements
  - o Support for new Aastra 6730i and 6731i SIP Phones

- Presence application (initially provided by Ethan Schroeder at Schmooze Communications)
- Meet-me applications now displays conference room name
- Internal lookup on outgoing calls (configurable) with presence information
- Directory, Parking and Visual Voice mail application now available for 9112i and 9133i
- ACD agent login/logout (initially provided by Ethan Schroeder at Schmooze Communications)
- ACD queue statistics
- LED of the Parking application now slow flashes if at least one call is parked.
- Environment variables including phpagi credentials are now directly taken from FreePBX configuration.
- Enhanced localization with date/time format and all labels outside of the code
- Simplified initial setup with most of the configuration parameters available from the setup-aastra-xml command.
- DND state is now reflected on BLF monitoring (FreePBX 2.5 and DEVSTATE module needed).
- Some parsing protection against external hacking.

- Bug fixes
  - Race condition in the sync mechanism corrupting user context files
  - Auto-config fails on some extensions with password using symbol characters
  - Auto-config fails on some extensions with extensions starting with 0
  - SIP Notify sent to more than 50 extensions
  - Display parking lot now works if Find-me Follow-me is enabled or call from a ring group (thanks to Ethan Schroeder at Schmooze Communications)
  - Visual voice mail crashes if caller ID has symbol characters
  - In device and user mode, speed dial is now common for users connected on multiple devices
  - Visual voice mail authentication in device and user mode
- aastra-xml-scripts version 2.2.0

#### 1.3.3 PA-001009-01-01

- Dependency with Aastra firmware 2.3.1
- Bug fixes
  - Visual voice mail, correct r/w rights on the user INBOX if Visual voice mail used before the inbox is created.
- aastra-xml-scripts version 2.1.1

#### 1.3.4 PA-001009-01-00

- Initial documentation for PBX in a Flash
- Changes from previous version (not directly available for PBX in a Flash)

- Updated for the Aastra 9143i, 9480i and 9480iCT phones
- Support for ‘deviceanduser’ FreePBX mode on top of the ‘extension’ mode, but only for the phones supporting the 2.x firmware.
- Capability to filter the extensions displayed in the Directory application.
- New parameter $$KEYPRESSED$$ supported in the dynamic configuration file
- The key attached to DND, CFWD and Day/Night is now automatically detected by reading the phone configuration file.
- The index for the day/night application is part of the configuration.
- The list of extensions having the day/night application and notification is now configurable.
- On the visual voice mail application, you now have the capability to forward a message to a list of users.
- Updated Stock quotes application (no more Web scraping) with ‘Watch list’ capabilities.
- New media applications
  - RSS feed for FoxNews.com
  - Biorhythms
  - Currency converter
- Lots of bug fixes

- aastra-xml-scripts version 2.1.0

# 2 Installation

## 2.1 Compatibility

### 2.1.1 PBX in a Flash server

The aastra-xml-scripts have been developed and tested for PBX in a Flash 1.3 and 1.4 (32 bit OS) with FreePBX 2.4.x and 2.5.

### 2.1.2 Aastra SIP Phones

The aastra-xml-scripts have been developed and tested for the following firmware version of the SIP phones:

- 1.4.3.23 Aastra 9112i/9133i/480i and 480iCT
- 2.5.0.82 for Aastra 6730i and 6731i
- 2.5.0.82 for Aastra 6751i/6753i/6755i/6757i and 6757iCT
- 2.5.0.82 for Aastra 9143i, 9480i and 9480iCT

**Note:** Since firmware 2.3.0 what used to be 5xi models are now called 675xi. In the rest of the document a 5xi will be noted either '5xi' or '675xi'.

As the aastra-ipphone version 2.5.0 is automatically installed with the aastra-xml-scripts package, all the phones connected to the server are updated to the right firmware version if you use the self-configuration mechanism.

## 2.2 Package installation

On your PBX in a Flash console, logged as root type

1. cd /tmp
2. wget http://pbxinaflash.net/source/aastra-xml-2.2.1/install-aastra-xml.x.gz
3. gunzip install-aastra-xml.x.gz
4. chmod +x install-aastra-xml.x
5. ./install-aastra-xml.x

Your screen should look like this if this is a new installation

```
root@pbx:~ $ cd /tmp
root@pbx:/tmp $ wget http://pbxinaflash.net/source/aastra-xml-2.2.1/install-aastra-xml.x.gz
--16:17:29--  http://pbxinaflash.net/source/aastra-xml-2.2.1/install-aastra-xml.x.gz
Resolving pbxinaflash.net... 216.239.128.70
Connecting to pbxinaflash.net|216.239.128.70|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1259 (1.2K) [application/x-gzip]
Saving to: `install-aastra-xml.x.gz'

100%[======================================>] 1,259       --.-K/s   in 0s

16:17:29 (51.5 MB/s) - `install-aastra-xml.x.gz' saved [1259/1259]

root@pbx:/tmp $ gunzip install-aastra-xml.x.gz
root@pbx:/tmp $ chmod +x install-aastra-xml.x
root@pbx:/tmp $ ./install-aastra-xml.x
Installation of Aastra XML scripts version 2.2.1 (32 bits)

Checking Operating System...OK
Checking package php-gd ...Installation needed
Installing package...Done
```

```
Checking package libtool-ltdl-devel ...Installation needed
Installing package...Done
Checking package mDNSResponder-util 108.5...Installation needed
Downloading package...Done
Installing package...Done
Checking package mpg123 ...Installation needed
Downloading package...Done
Installing package...Done
Checking package aastra-ipphone 2.5.0...Installation needed
Downloading package...Done
Installing package...Done
Checking package aastra-xml-scripts 2.2.1...Installation needed
Downloading package...Done
Installing package...Done
Modifying firewall rules for mDNSResponder...Done

Aastra XML scripts 2.2.1 successfully installed.
Please run setup-aastra-xml to generate aastra.cfg.
Please reboot your server to finalize the installation.
root@pbx:/tmp $
```

or like this if you upgrade from 2.1.1 or 2.2.0

```
root@pbx:~ $ cd /tmp
root@pbx:/tmp $ wget http://pbxinaflash.net/source/aastra-xml-2.2.1/install-aastra-xml.x.gz
--16:17:29--  http://pbxinaflash.net/source/aastra-xml-2.2.1/install-aastra-xml.x.gz
Resolving pbxinaflash.net... 216.239.128.70
Connecting to pbxinaflash.net|216.239.128.70|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1259 (1.2K) [application/x-gzip]
Saving to: `install-aastra-xml.x.gz'

100%[======================================>] 1,259       --.-K/s   in 0s

16:17:29 (51.5 MB/s) - `install-aastra-xml.x.gz' saved [1259/1259]

root@pbx:/tmp $ gunzip install-aastra-xml.x.gz
root@pbx:/tmp $ chmod +x install-aastra-xml.x
root@pbx:/tmp $ ./install-aastra-xml.x
Installation of Aastra XML scripts version 2.2.1 (32 bits)

Checking Operating System...OK
Checking package php-gd ...Nothing to do
Checking package libtool-ltdl-devel ...Nothing to do
Checking package mDNSResponder-util 108.5...Nothing to do
Checking package mpg123 ...Nothing to do
Checking package aastra-ipphone 2.5.0...Installation needed
Downloading package...Done
Installing package...Done
Checking package aastra-xml-scripts 2.2.1...Installation needed
Downloading package...Done
Installing package...Done
Modifying firewall rules for mDNSResponder...Done

Aastra XML scripts 2.1.1 successfully installed.
Please run setup-aastra-xml to generate aastra.cfg.
Please reboot your server to finalize the installation.
root@pbx:/tmp $
```

Package dependencies

The following package will also be installed if they are not already present

- mDNSResponder-util
- aastra-ipphone >= 2.5.0
- mpg123
- php-gd
- libtool-ltdl-devel

Files installed or modified

- php XML scripts at /var/www/html/aastra with user asterisk r/w rights
- cache directory created at /var/cache/aastra with user asterisk r/w rights
- setup-aastra-xml installed at /usr/local/sbin as an executable
- demo directory for the MP3 Player application created at /var/cache/MP3 with user asterisk r/w rights
- /etc/asterisk/sip_notify.conf is modified to support the check-sync and aastra-xml event types
- /var/lib/asterisk/agi-bin/user_login_out.agi is replaced and the previous version of the file is renamed
- /var/www/html/admin/modules/core/agi-bin/user_login_out.agi is replaced and the previous version of the file is renamed
- /var/lib/asterisk/agi-bin/record-temporary-message.php is installed
- /etc/asterisk/extensions-away-status.conf is installed
- /etc/asterisk/extensions_custom.conf is modified to add the extensions-away context
- Custom sound files are installed at /var/lib/asterisk/sounds/custom
- /etc/rc.d/rc.local is modified to add the launch of the aastra XML script daemons.
- firewall rules are checked and modified if port 5353 (mDNS) is not open.

Post installation

- Asterisk is reloaded
- mDNSresponder service is (re)started

**A server reboot is needed after the installation of the scripts.**

## 2.3 Before you connect your first phone

### 2.3.1 Create aastra.cfg

After the package installation, it is needed to create the right aastra.cfg file in order to launch the self-configuration process.

This is done by typing the following command **setup-aastra-xml** on the console logged as root.

```
root@pbx:~ $ setup-aastra-xml
setup-aastra-xml

Aastra Phone Setup Tool (XML scripts)
=====================================

Network Interface
=================

eth0 has been detected as the only network interface on your server.
192.168.0.134 is used as the Server IP address.


Additional Languages Support
============================

Do you want to install additional languages on your phones?

[0] English only
```

```
[1] Multi-Language Support
[q] Quit

Install additional languages?: [0] 1


Phone Type Selection
====================

Are you using Classic IP Phones 480i/480iCT/9112i/9133i?
Note that on those phones, the language options are limited.

[0] No, I'm solely using 9xxxi and 67xxi (former 5xi) phones.
[1] Yes, I'm also using Classic IP Phones.
[q] Quit

Install additional languages?: [0] 0


Language Selection
==================

English is available by default. Select up to 4 additional languages to install.
You will be able to choose the language during the login process on the phone.
Separate by space.
Example: 3 1 4 5 --> Will install German, French, Italian and Spanish.

1: French (Europe)
2: French (Canada)
3: German
4: Italian
5: Spanish (Europe)
6: Spanish (Mexico)
7: Portuguese (Europe)
8: Portuguese (Brazil)
q: Quit

Select additional languages to install: 1 3


Your selection:

1: French (Europe)
2: German

OK?

[y]: Yes, proceed
[n]: No, select again

Enter y or n: [y] y


Default Language
================

Select default language.

[0] English
[1] French (Europe)
[2] German
[q] Quit

Select default language: [0] 0


Input Language
==============

Select input language (for entering text via phone keypad).
```

```
[0] English
[1] French
[2] German
[3] Italian
[4] Spanish
[5] Portuguese
[q] Quit

Select input language: [0] 0


User language selection
=======================

Do you want the user to select the language during the login process?

[y] Yes
[n] No
[q] Quit

Enter y or n: [n] y


Tone Set
========

Select the country tone set to use.

[0] US/Canada
[1] Europe (generic tones)
[2] UK
[3] France
[4] Germany
[5] Italy
[6] Mexico
[7] Brazil
[8] Australia
[q] Quit

Select Tone Set: [0] 0


Default phone Timezone
======================

Select the default timezone for the phones. Page 1/4

[ 0] US-Eastern        [16] MX-Cancun         [32] AU-Lord howe
[ 1] US-Central        [17] MX-Merida         [33] AU-Tasmania
[ 2] US-Mountain       [18] MX-Monterrey      [34] AU-Melbourne
[ 3] US-Pacific        [19] MX-Mazatlan       [35] AU-Sydney
[ 4] US-Alaska         [20] MX-Chihuahua      [36] AU-Broken hill
[ 5] US-Aleutian       [21] MX-Hermosillo     [37] AU-Brisbane
[ 6] US-Hawaii         [22] MX-Tijuana        [38] AU-Lindeman
[ 7] CA-Newfoundland   [23] AD-Andorra        [39] AU-Adelaide
[ 8] CA-Atlantic       [24] AE-Dubai          [40] AU-Darwin
[ 9] CA-Eastern        [25] AG-Antigua        [41] AU-Perth
[10] CA-Saskatchewan   [26] AI-Anguilla       [42] AW-Aruba
[11] CA-Central        [27] AL-Tirane         [43] AZ-Baku
[12] CA-Mountain       [28] AN-Curacao        [44] BA-Sarajevo
[13] CA-Pacific        [29] AR-Buenos aires   [45] BB-Barbados
[14] CA-Yukon          [30] AS-Pago pago      [46] BE-Brussels
[15] MX-Mexico city    [31] AT-Vienna         [47] BG-Sofia
 [q] Quit                                      [n] Next Page

Select Timezone: [0] 1


User Timezone selection
=======================
```

```
Do you want the user to select the timezone during the login process?

[y] Yes
[n] No
[q] Quit

Enter y or n: [n] y


Time format
===========

Select the time format to be displayed on the phone.

[0] 12 hours (AM/PM)
[1] 24 hours
[q] Quit

Select Time format: [0]


Date format
===========

Select the Date format to be displayed on the phone.

[0]  WWW MMM DD (WWW is the day of the week)
[1]  DD-MMM-YY
[2]  YYYY-MM-DD
[3]  DD/MM/YYYY
[4]  DD/MM/YY
[5]  DD-MM-YY
[6]  MM/DD/YY
[7]  MMM DD
[8]  DD MMM YYYY
[9]  WWW DD MMM
[10] DD MMM
[11] DD.MM.YYYY
[q] Quit

Select Date format: [0]

Created /tftpboot/aastra.cfg.
   - using 192.168.0.134 for the proxy/registrar IP address,
   - adding extra language(s):
      - French (Europe)
      - German
   - using English as input language,
   - using English as default language,
   - using US tone set,
   - using US-Central (CST) as default phone timezone,
   - using 12h (AM/PM) as time format,
   - using (WWW MMM DD) as date format.

If the IP address of your Asterisk system changes, or if you want
to change localization settings, run this script again and reboot.
Reboot your Aastra phones by disconnecting the power to the phone.root@pbx:~ $
```

The script asks you for multiple parameters:

1. Network interface is automatically detected and user is prompted only if a conflict is detected.
2. Select extra language(s) to install on your phones
3. Select the default language if extra language(s) has been installed
4. Select if user will select the language during the login process
5. Select a localized tone set

6. Select a default Time zone for the phones
7. Select if user will select the timezone during the login process
8. Select a time format for the phones
9. Select a date format for the phones

The setup-aastra-xml script generates a generic aastra.cfg file located at the TFTP root directory (/tftpboot) but you can customize it as the script will also add the content of /tftpboot/aastra_custom.cfg at the end of the generated aastra.cfg.

The aastra.cfg will use your server IP address instead of 192.168.0.134 in this example.

```
# Aastra default config file for use with XML scripts
# Generated using setup-aastra-xml
#
# Copyright (C) 2009 Aastra Telecom
#

# Setup DHCP mode
dhcp: 1

# Setup TFTP server address
tftp server: 192.168.0.134

# Unlock keys for 6730i, 6731i and 6753i
prgkey1 locked: 0
prgkey2 locked: 0
prgkey5 locked: 0
prgkey6 locked: 0

# SIP Proxy/Registrar
dynamic sip: 1
sip line1 user name: XXNAXX
sip line1 proxy ip: 192.168.0.134
sip line1 registrar ip: 0.0.0.0

# Time server
time server disabled: 0
time server1: pool.ntp.org
time server2: 192.168.0.134

# Time Zone
time zone name: US-Central
time zone code: CST

# Date and time format
time format: 0
date format: 0

# Localization
tone set: US
language 1: lang_fr.txt
language 2: lang_de.txt
language 3:
language 4:
language: 0
input language: English
web language: 0

# Localization XML Scripts
ask_language: 1
ask_tz: 1
```

```
# Digit timeout
sip digit timeout: 6

# Allow XML push
xml application post list: 192.168.0.134
xml get timeout: 30

# Startup URI
action uri startup: http://192.168.0.134/aastra/startup/init.php

# BLF customization
sip accept out of order requests: 1
sip blf subscription period: 600

# Force one key
softkey1 type: xml
softkey1 label: Startup
softkey1 value: http://192.168.0.134/aastra/startup/init.php
prgkey1 type: xml
prgkey1 value: http://192.168.0.134/aastra/startup/init.php
```

**Figure 1: Generated aastra.cfg**

**The setup-aastra-xml command must be performed every time the server IP address changes.**

**Note:** Do not use the 'setup-aastra' provided by PBX in a Flash as it would not create the right aastra.cfg file. Later on, the setup-aastra script will be replaced by setup-aastra-xml in the PBX in a Flash image.

### 2.3.2 Check FreePBX/Asterisk configuration

#### 2.3.2.1 FreePBX modules

In order to use all the Asterisk XML applications, the following modules must be enabled and configured for FreePBX

- Call Forward
- Conferences
- DND
- Day Night Mode
- Paging and Intercom
- Parking Lot
- Queues
- Find-me Follow-me

This can be done using the 'module admin' menu of FreePBX.

#### 2.3.2.2 AMPEXTENSIONS

Also you must decide which FreePBX mode you will be using, two modes are available:

- 'extensions' where an extension is attached to one single device (phone)
- 'deviceanduser' where devices (phones) and users are managed separately

See chapter 2.3.2.2 for more details on the 2 modes. The XML scripts support the 2 modes.

**Note:** The 'deviceanduser' mode is only supported by the Aastra SIP phones supporting the 2.x firmware; therefore it is not supported by the 9112i, 9133i, 480i and 480iCT.

This configuration parameter is 'AMPEXTENSIONS' described in '/etc/amportal.conf'

```
# AMPEXTENSIONS: the type of view for extensions admin
# If set to 'deviceanduser' Devices and Users will be administered seperately,
and Users will be able to "login" to devices.
# If set to 'extensions' Devices and Users will be administered in a single
screen.
AMPEXTENSIONS=extensions
```

**Note:** If you change the value of this parameter, you will need to restart asterisk and freepbx ('amportal restart' command). It is recommended to do this change only if you do not have any device or extension configured.

#### 2.3.2.3 USEDEVSTATE

Another FreePBX parameter used by the XML scripts is USEDEVSTATE as described in '/etc/amportal.conf'

```
# USEDEVSTATE = true|false # DEFAULT VALUE false
# If this is set, it assumes that you are running Asterisk 1.4 or higher and want
to take advantage of the
# func_devstate.c backport available from Asterisk 1.6 which allows custom hints
to be created to support
# BLF for server side feature codes such as daynight, followme, etc.
#
USEDEVSTATE=true
```

This parameter has been introduced with FreePBX 2.5 and will work only if your Asterisk is compiled with the DEVSTATE module which is available in Asterisk 1.6 as well as in 1.4. Make sure that the DEVSTATE module is part of your Asterisk engine.

**Note:** This parameter is not mandatory for the XML scripts, the scripts will adapt to the configuration.

You can check if the module is available by typing

- core show function DEVSTATE

```
  -= Info about function 'DEVSTATE' =-

[Syntax]
DEVSTATE(device)

[Synopsis]
Get or Set a device state

[Description]
  The DEVSTATE function can be used to retrieve the device state from any
device state provider.  For example:
   NoOp(SIP/mypeer has state ${DEVSTATE(SIP/mypeer)})
   NoOp(Conference number 1234 has state ${DEVSTATE(MeetMe:1234)})

  The DEVSTATE function can also be used to set custom device state from
the dialplan.  The "Custom:" prefix must be used.  For example:
  Set(DEVSTATE(Custom:lamp1)=BUSY)
  Set(DEVSTATE(Custom:lamp2)=NOT_INUSE)
You can subscribe to the status of a custom device state using a hint in
the dialplan:
  exten => 1234,hint,Custom:lamp1
```

```
  The possible values for both uses of this function are:
UNKNOWN | NOT_INUSE | INUSE | BUSY | INVALID | UNAVAILABLE | RINGING
RINGINUSE | ONHOLD
```

- module show like devastate

```
Module                          Description                           Use Count
func_devstate.so                Gets or sets a device state in the dialp 0
1 modules loaded
```

from the asterisk CLI.

This parameter allows advanced behavior of the BLF function for instance when the DND is activated for one user a BLF configured on this user will show the 'busy' state.

Please refer to Asterisk/Digium web site to find documentation on how to install/compile the DEVSTATE module.

**Note:** if you change the value of this FreePBX parameter in '/etc/amportal.conf/', you will need to restart amportal and also disable/enable the DND FreePBX module.

### 2.3.3 Configure Parking lot

The automated profiles for the phone will configure the park key for each phone, so you have to make sure that the parking module is enabled and configured.

This can be done using the 'Parking Lot' menu of FreePBX.

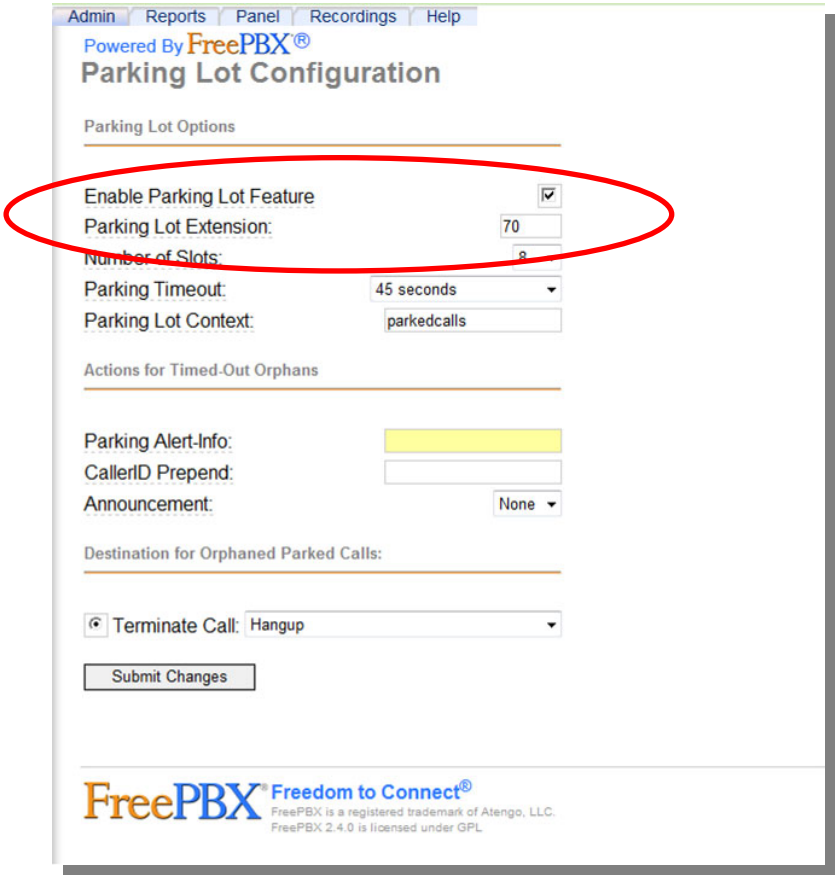



**Figure 2: Parking lot configuration**

**Note:** If later on you change the value of the Parking Lot Extension, you will have to perform a login/logout every phone on your platform as the configuration files must be regenerated in order to use the new value.

### 2.3.4 Create an extension on Asterisk (mode 'extensions')

Depending on the configuration (see chapter 8.2 for more details), a user will be authenticated using:

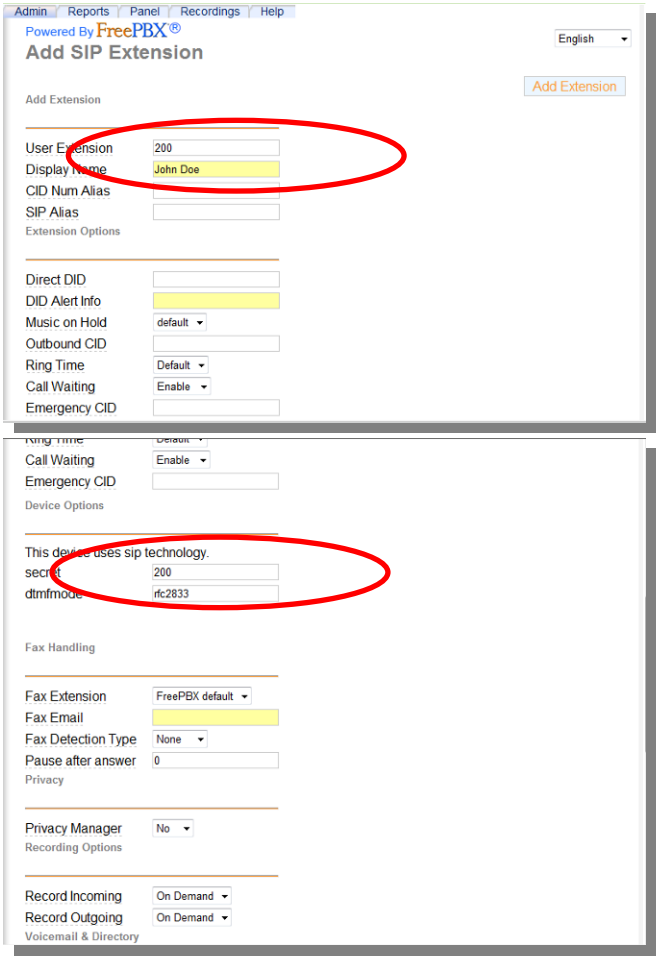
- its extension number,
- its voice mail password.

OR

- its extension number,
- the platform password configured in asterisk.comf.

With configuration 1, you will be able to connect a phone for this user only if a voice mail box with a password is created for this extension using FreePBX.

A voice mail box is not mandatory with configuration 2.



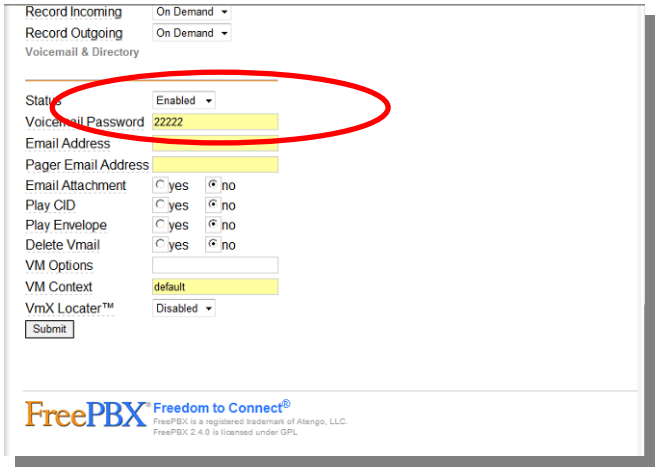



**Figure 3: Extension configuration**

### 2.3.5 Create a device and a user on Asterisk (mode 'deviceanduser')

In this implementation of self-configuration, the devices and the users are separated. You need to create a device for each phone of your installation; you will also have to create the users.

So we have implemented 2 self-configuration mechanisms:

- One for the devices
- One for the users

Device configuration

A device is identified by

- Its deviceID,
- Its password (secret)

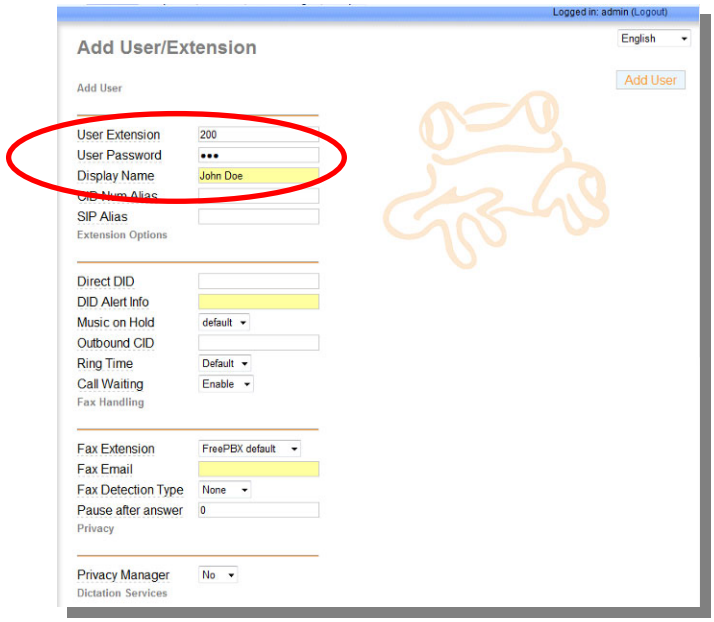
**Figure 4: Device configuration**

User configuration

A user is identified by

- its extension

- its user password




…

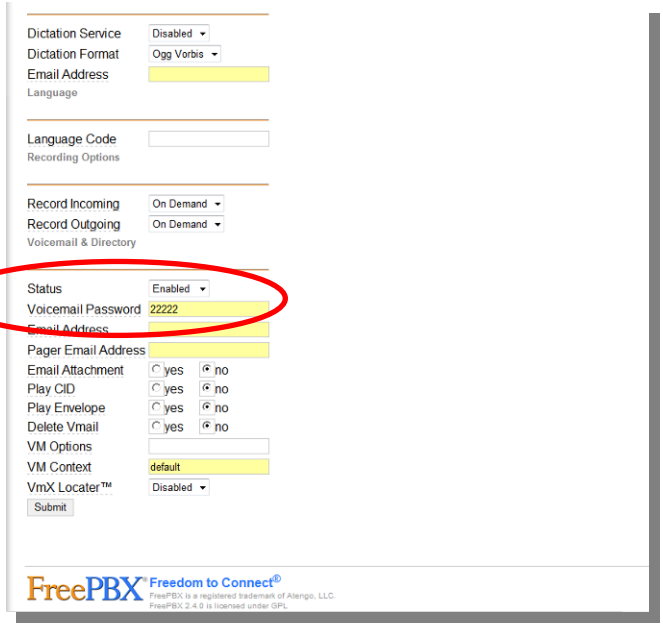



**Figure 5: User configuration**

### 2.3.6 Configure Find-me Follow-me

If you plan to use the find-me follow-me script, you need to configure the initial setting using FreePBX. The script is not able to configure the ring strategy.

The script detects if find-me follow-me is configured for the user.

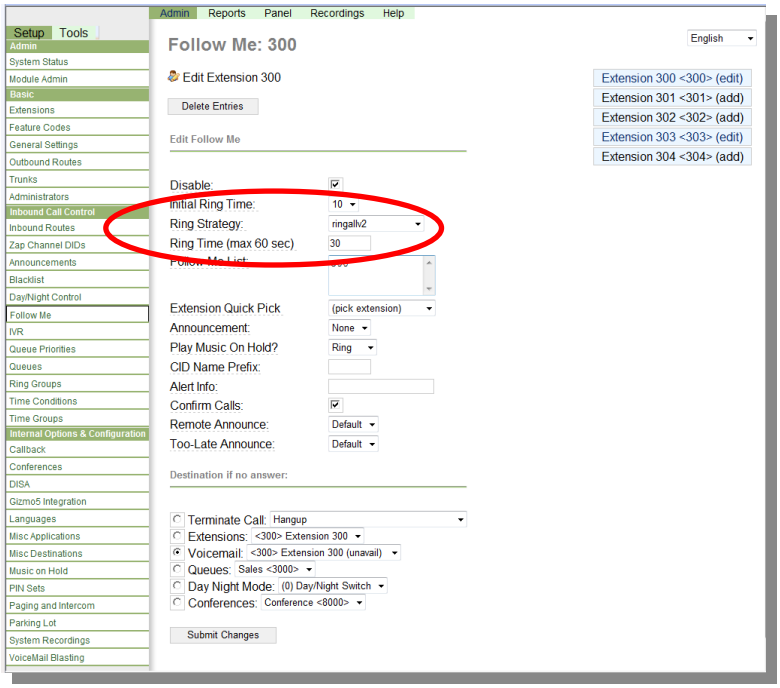



**Figure 6: Find-me Follow-me configuration**

### 2.3.7 Create a meet-me conference

In order to use the meet-me manager application, you need to create at least one meet-me conference using FreePBX.

The conference options are not really relevant for the XML application.

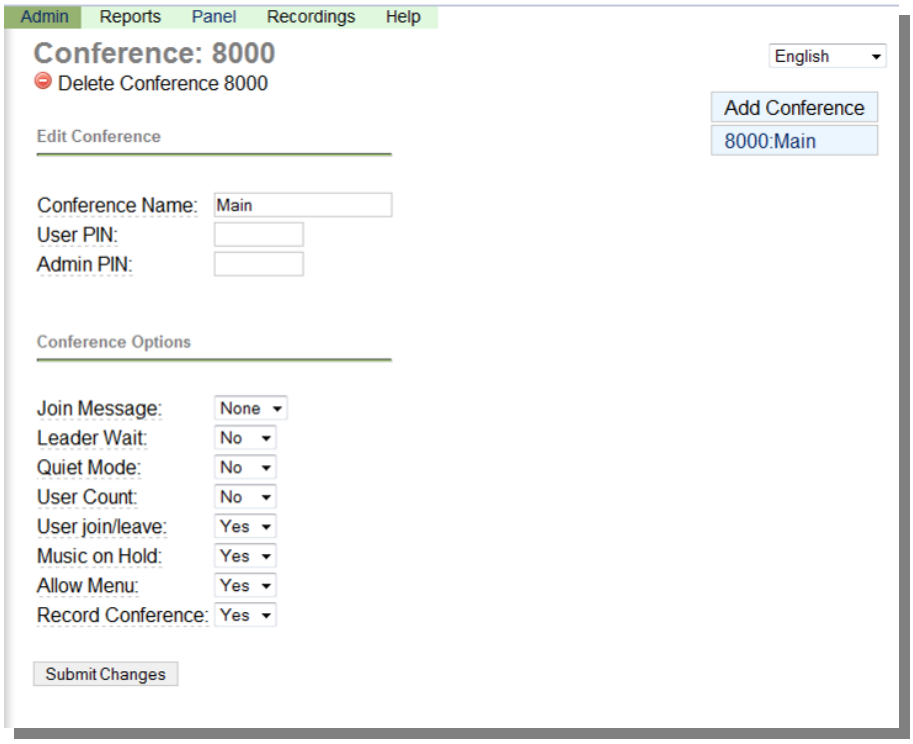



**Figure 7: Conference configuration**

### 2.3.8 Create Day/Night control

If you plan to use the Day/Night script, the feature has to be configured via FreePBX. The day/night index used by the scripts is configured in /var/www/html/aastra/config/asterisk.conf, by default the index is 0.

You can configure more than one day/night index but the XML scripts will only propagate the state of the configured index.

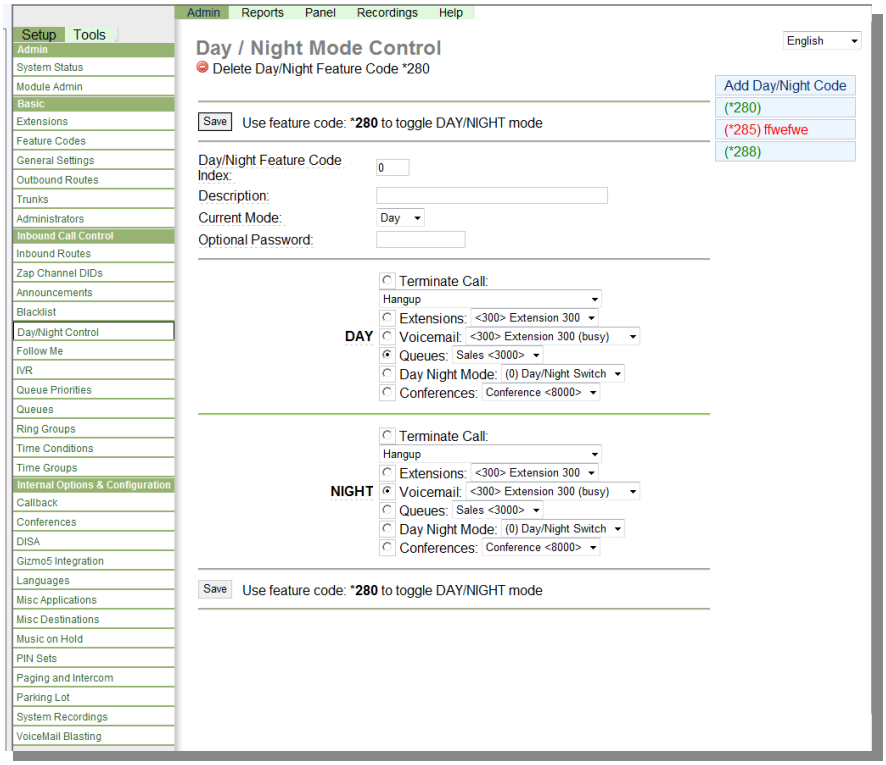



**Figure 8: Day/Night configuration**

### 2.3.9 Create a Queue

In order to use the queue management and the Agent Login/Logout application, you need to create at least one ACD queue using FreePBX.

A queue is identified with:

- an extension
- a description
- an optional password
- a list of optional static agents

The password will be used in the Agent login/logout application.

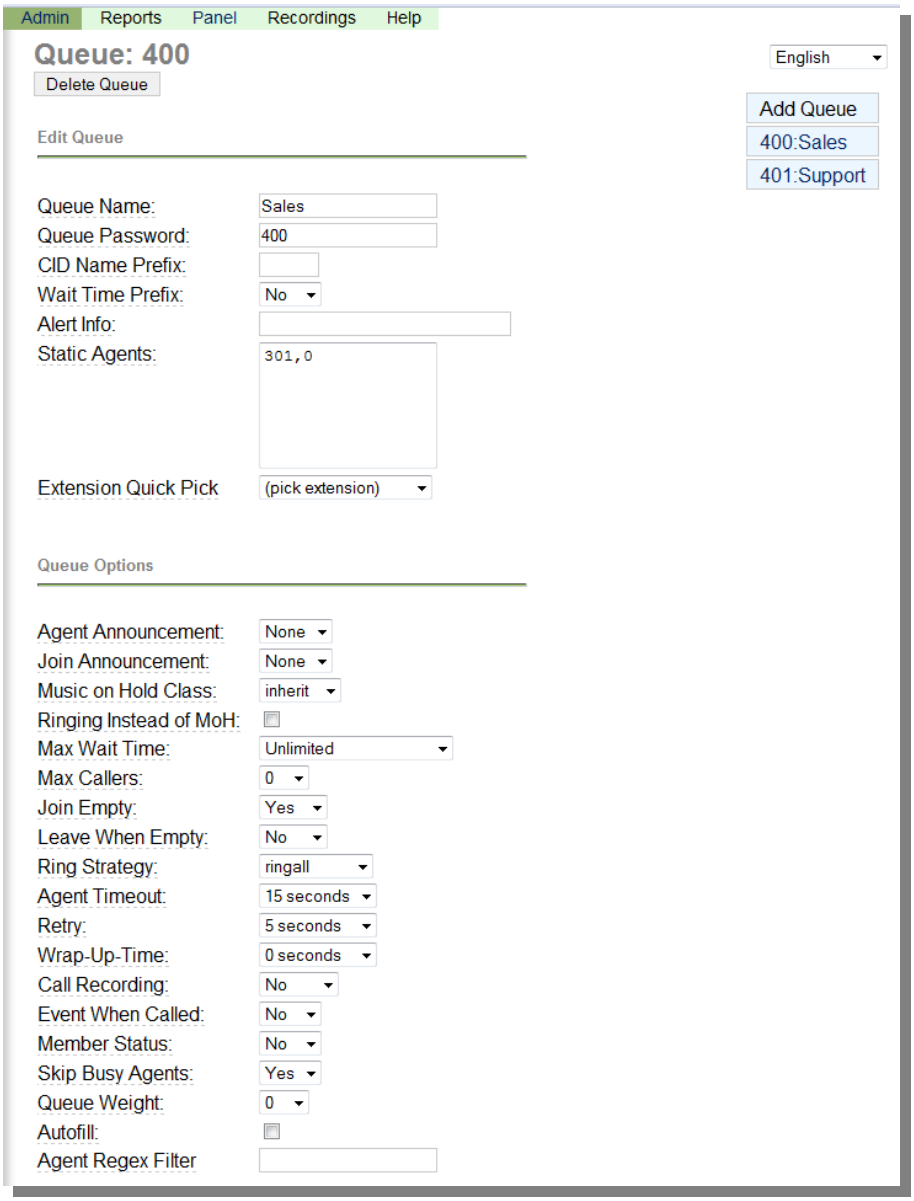



**Figure 9: Queue configuration**

## 2.4 Localization

The Aastra XML scripts have been designed for easy localization:

- If you use setup-aastra-xml to generate aastra.cfg, the following localization parameters are set:
    - Extra language(s)
    - Default language
    - Tone Set
    - Time Zone
    - Time format

- Date format
- User selects language
- User selects time zone

- All the labels used in the scripts are defined in a text file (language.ini under /var/www/html/aastra)
- The date and time format used in the scripts is set to International if the time format is set to 24 hours in aastra.cfg.
- The scripts are using the language sent by the phone in the HTTP header which is not available for the Aastra 9112i, 9133i and 480i/480iCT, for these phones, it is necessary to force the language in server.conf.
- For the self-configuration files (.prf), the scripts will localize every potential labels (keys) using language.ini.

**Note:** the scripts are delivered in US English, French, Spanish, German and Portuguese.

# 3 FreePBX modes

FreePBX supports 2 radically different modes for managing the Asterisk users:

- extensions
- deviceanduser

Here is a quote from Philippe Lindheimer (FreePBX) explaining the differences between the 2 modes.

*"Freepbx 'virtualizes' extensions. The basic concept is that there are users and then there are devices. A user can have multiple devices. The default shipping mode provides the 'extensions' tab which ends up creating a user with the same extension number as the device that you assign them. However, if you flip to 'deviceanduser' mode (see /etc/amportal.conf - AMPEXTENSIONS=) you will see that you now can control users separate from devices and you can assign multiple devices to a single user or you can make a device adhoc allowing any user to login to the device and it becomes their phone until they logout."*

## 3.1 Configuration

The configuration parameter is 'AMPEXTENSIONS' described in '/etc/amportal.conf'

```
# AMPEXTENSIONS: the type of view for extensions admin
# If set to 'deviceanduser' Devices and Users will be administered seperately,
and Users will be able to "login" to devices.
# If set to 'extensions' Devices and Users will be administered in a single
screen.
AMPEXTENSIONS=extensions
```

'extensions' mode

```
AMPEXTENSIONS=extensions
```

'deviceanduser' mode

```
AMPEXTENSIONS=deviceanduser
```

**Note:** If you change the value of this parameter, you will need to restart asterisk and freepbx ('amportal restart' command). It is recommended to do this change only if you do not have any device or extension configured.

## 3.2 'extensions' mode

In this mode which is the default mode, the user and the device are the same. A SIP extension created on Asterisk can be attached to only one phone as they share a single identity.

So when you define an extension, you configure the SIP credentials for this user and attach them later to a phone via a phone configuration file (MAC.cfg).

Extension 200 will be called by asterisk using SIP/200.

The main characteristics of an extension are:

- Extension number (which is also the SIP Authentication name)
- Caller ID
- SIP secret

- Voicemail configuration

### 3.3 'deviceanduser' mode

In this mode, the device (phone) is separated from the user, so a user can log into any device and it can be done more than one time as the association between the user and the device is logical in the dial plan.

Extension 200 on device 3000 will be called by asterisk using SIP/3000.

You will use this mode if you want:

- More than one phone with the same user
- Login/logout capabilities without reboot.

When you create the device you have the choice between 3 modes:

- Fixed with default user, the device can not be attached to a user besides the configured default user. In a way it is the 'extensions' mode.
- Adhoc with default user, you can login/logout from the device but after a logout the phone will be attached to its default user.
- Adhoc without default user, you can login/logout from the device but after a logout the phone will have no user.

---

**Note:** Technically, you could use a 4th mode (fixed without default user) but it does not really make sense as you would not be able to call the phone.

---

The main characteristics of a device are:

- Device ID (which is also the SIP Authentication name)
- SIP secret
- Description
- Device type: Fixed or Adhoc
- Default user attached to this device

The main characteristics of a user are:

- Extension number
- User password (which is not the SIP secret)
- Caller ID
- Voicemail configuration

The login/logout capabilities on a device are performed via

- The TUI, *11 to login, *12 to logout
- The XML applications (if you use the profiles provided in the script package)

---

**Note:** As the SIP credentials are not changed on the phone during a login/logout sequence there is no need to reboot the phone, all the changes are dynamic.

---

# 4 Auto-discovery

This chapter describes the auto-discovery mechanisms that have been introduced in the Aastra SIP phones in firmware 1.4.1.

The purpose of these developments is to allow a non-configured phone (out of the box) to "discover" its Configuration Server automatically and get its configuration from there.

The discovery mechanism selected by Aastra to go beyond DHCP option 66 which might not commonly be available is multicastDNS (mDNS) also known as "Bonjour" in the Apple Computer community.

## 4.1 Principle

The principle of the auto-discovery mechanism using mDNS service is that:

- a mDNS client is implemented in the phone.
- a mDNS responder is implemented on the network (usually on the server hosting the IP-PBX).

At the first boot, the phone executes the following sequence:

Get an IP address

- Try to get IP address from DHCP server
- If DHCP fails, phone is going to skip auto-discovery.

Get Configuration server IP address

- From DHCP using option 66
- If no DHCP option 66, the phone broadcasts a mDNS query (the type of the service requested is _aastra-cfg._tcp standing for Aastra Configuration)
- The mDNS response contains the IP address of the TFTP server, currently only TFTP is supported for the auto-discovery mechanism.

Select the right server

- If there is more than one mDNS responder to the requested service on the network, the phone displays the list of servers identified.
- The user selects which one to use as a configuration server.
- This IP address is saved to the phone and will be used from that point on. Phone won't try another during startup auto-discovery until the IP address is removed from configuration

---

**Note:** If TFTP, FTP or HTTP configuration server is manually configured via TUI or WebUI, the phone will skip auto-discovery during startup.

---

The following diagram shows the phone boot sequence with or without mDNS.

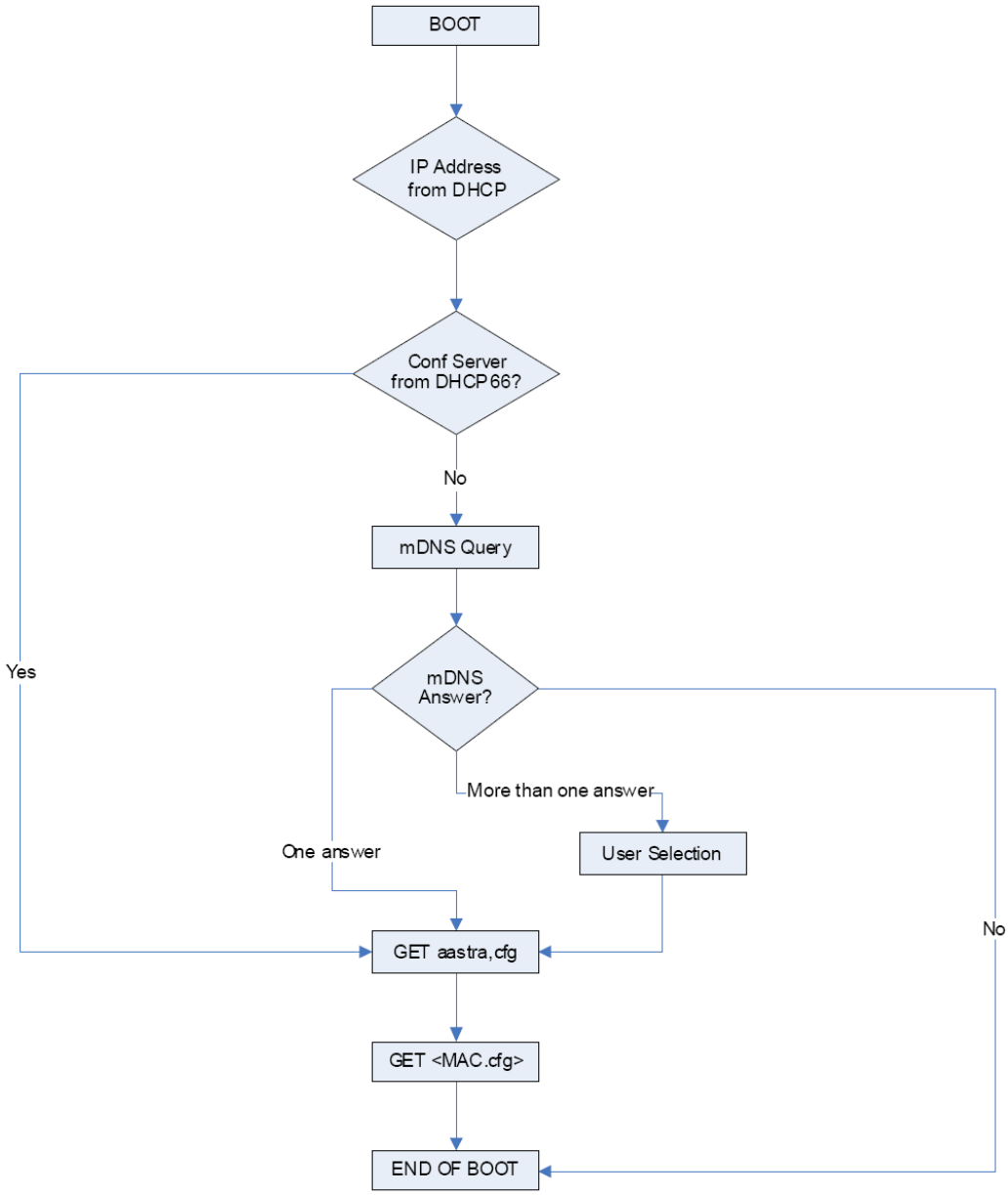



**Figure 10: Phone boot sequence**

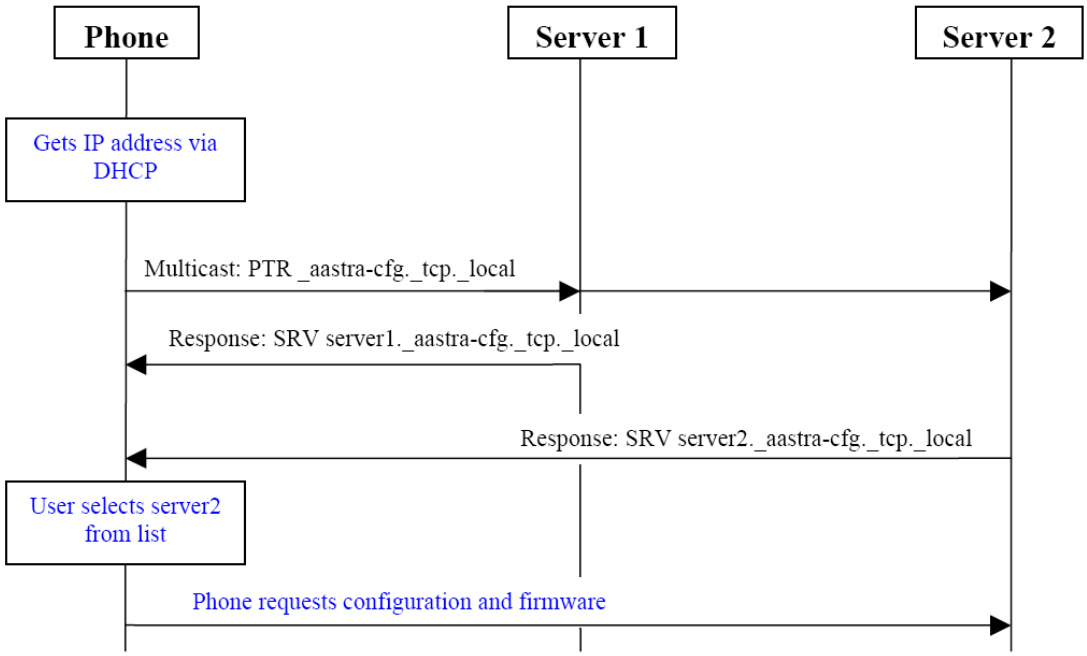



**Figure 11: Multicast DNS query**

## 4.2 Implementation on the server

The mDNS Responder is provided by the mDNSResponder-util package(s) which is available from the PBX in a Flash Web site.

This package is automatically installed with the aastra-xml-scripts package.

The mDNSResponder is configured as a Linux service running at init level 3.

Description of the mDNSResponder files installed on the PBX in a Flash server

- `/usr/sbin/mDNSResponder` mDNS Responder executable binary
- `/etc/rc.d/init.d/mDNSResponder` mDNSResponder service file
- `/etc/services_mDNS` mDNSResponder configuration file

The configuration file includes the configuration to answer to the mDNS query sent by the Aastra SIP phones.

**Note:** the mDNS service is automatically started after the aastra-xml-scripts installation.

# 5 Self-Configuration

This chapter describes the self-configuration mechanism provided with the aastra-xml-scripts package which allows the automatic configuration of an Aastra SIP Phone after the first boot.

The self-configuration relies on the XML API capabilities of the Aastra SIP phones and more specifically on:

- action uri startup which is a way to configure the phone to call an XML application at the end of the boot sequence.
- AastraIPPhoneExecute XML object which allows an XML application to tell the phone to perform actions such as a reboot.
- AastraIPPhoneConfiguration XML object which allows an XML application to dynamically change the phone configuration.

For more information on the Aastra XML API, please refer to the XML API SDK available from the Aastra web site www.aastratelecom.com.

## 5.1 Message flow

The following is a description of how this can be done using existing phone features.

1. The aastra.cfg file sets the startup action uri configuration parameter to point to the configuration script and configuration download information.
2. Phone downloads the aastra.cfg file, ignores missing <MAC>.cfg file and continues boot process.
3. Phone executes startup uri, running the configuration script. The MAC address of the phone and the phone model are in the HTTP headers of the request.
4. The script uses XML to gather required configuration information and creates <MAC>.cfg file on the TFTP server root directory. The <MAC>.cfg file must reset the startup action uri to avoid the configuration script being called on subsequent boots.
5. With 2.5.0 or better,
   - the new configuration is sent to the phone via a AastraIPPhoneConfiguration objects,
   - no reboot needed
5. With a previous firmware,
   - the script reboots the phone via XML reboot command or via SIP check-sync message.
   - Phone reboots, directly downloads both aastra.cfg and newly created <MAC>.cfg file

The following diagram shows the message exchange between the phone and the server (TFTP server and XML applications).

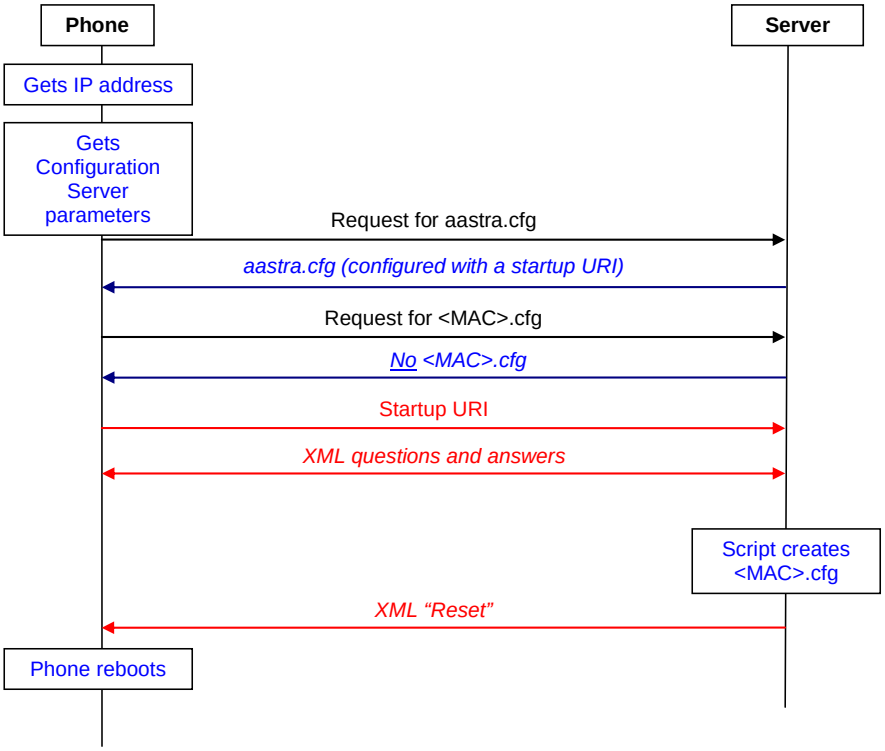



**Figure 12: Self-Configuration message flow**

## 5.2 Auto-configuration policy

The auto-configuration policy which includes the flow of questions asked to the user and the script to generate the <MAC>.cfg file is totally open with this mechanism.

Multiple options are available.

1. Extension is already provisioned in the IP-PBX database.

   One way to implement this feature might be to have all the extensions already provisioned on the switch side and the XML flow will be used to identify the user (extension number and voicemail password for instance). The script must then control if the extension is not already assigned and create the <MAC>.cfg based on the extension(s) configuration.

   Another way would be to display the list of available extensions and let the user select his extension; of course password protection is needed to avoid any hacking of the platform.

2. Extension is not provisioned in the IP-PBX database

   A second option is to have the script to provision the extension in the database. To do so, the script can ask for user general parameters (name …) and automatically creates an extension in the switch database and then creates the <MAC>.cfg, the extension number can be either automatically assigned or the user can select it in a list of available extensions.

**Option 1 has been implemented in the aastra-xml-scripts package.**

## 5.3 'extensions' mode self-configuration

### 5.3.1 Software architecture

In this mode, two XML scripts are provided to perform the hot desking features:

- /var/www/html/aastra/asterisk/startup.php for the login
- /var/www/html/aastra/asterisk/logout.php for the logout.

#### 5.3.1.1 Login

The login script is called at the end of the boot sequence. Once the user has entered his extension, his voice mail password and his time zone, the script:

- Checks the authentication parameters
- Retrieve all the SIP parameters from the asterisk configuration
- Creates MAC.cfg file on the TFTP server root directory
- Updates the cache file with the user information
- Sends an email (optional) to log the operation.

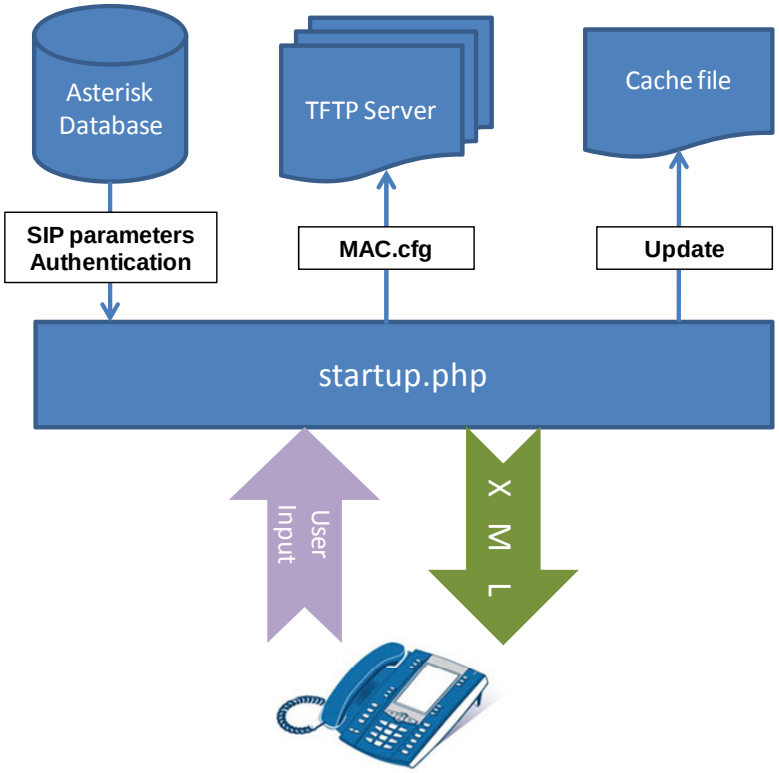



**Figure 13: startup.php software architecture**

The scripts also checks, using its cache file, that the user is not already registered on another phone, if this is the case, the script updates the MAC.cfg of the other phone and sends a SIP notify check-sync to make it reboot if the phone is registered.

Also the script can trigger an email for each hot desking event. This email parameters configured in /var/www/html/aastra/config/asterisk.conf. See chapter 8.2 for more details.

5.3.1.2 Logout

The logout script is called by the user using a configured key. Once the user enters his voice mail password (or configured platform password), the script:

- Checks the authentication parameters
- Creates an empty MAC.cfg file on the TFTP server
- Updates the cache file with the user information
- Sends an email (optional) to log the operation.

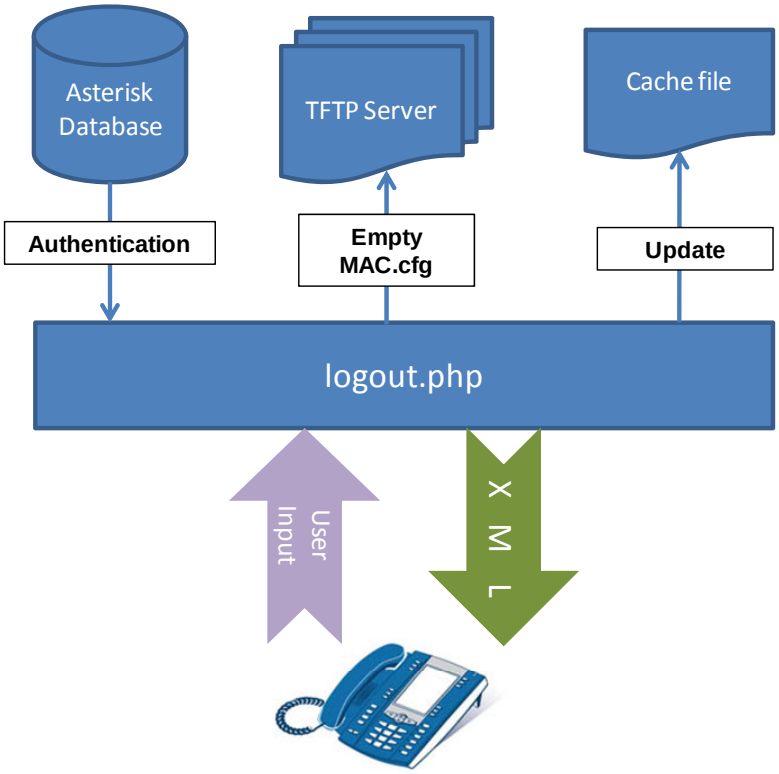
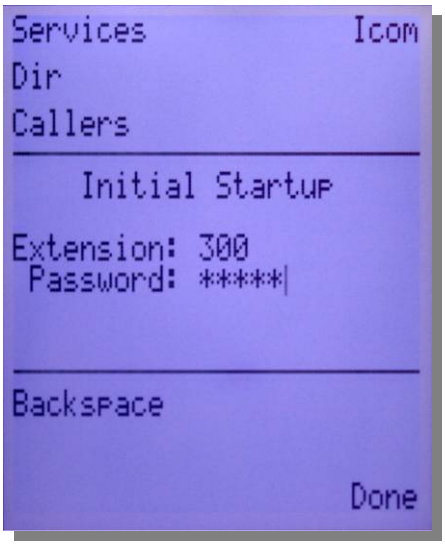
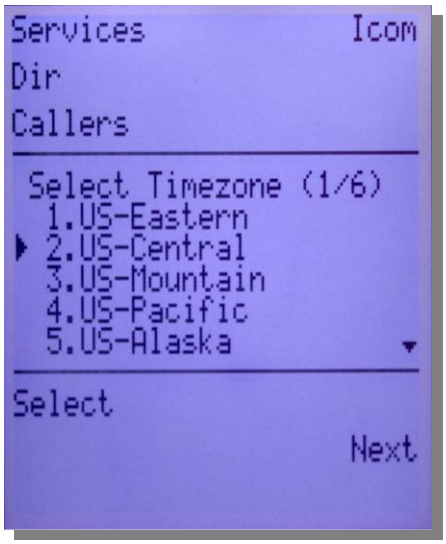
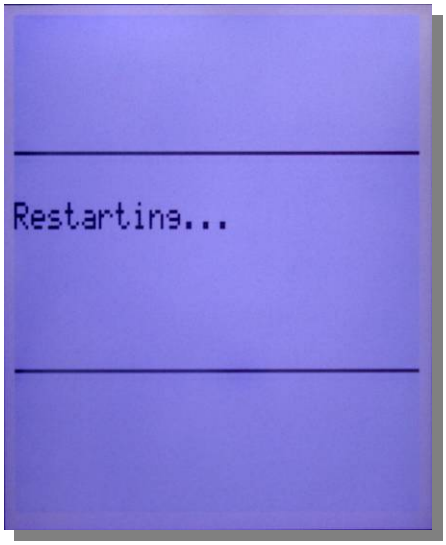
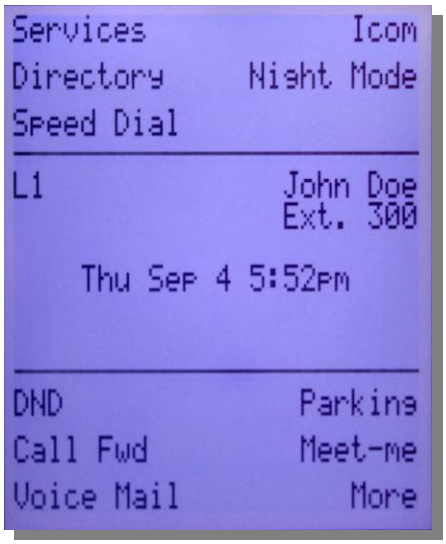



**Figure 14: logout.php software architecture**

Also the script can trigger an email for each hot desking event. This email address is configured in /var/www/html/aastra/config/asterisk.conf. See chapter 8.2 for more details.

### 5.3.2 Extension login

<table>
<tr>
<td>
</td>
<td>Phone<br>• Boots<br>• Gets an IP address<br>• Automatically discovers the server<br>• Loads aastra.cfg from the TFTP Server</td>
</tr>
<tr>
<td colspan="2">If multiple languages have been installed and user language selection is enabled.<br>Language selection takes place here.</td>
</tr>
<tr>
<td> 
</td>
<td>Depending on configuration.<br>User enters:<br>• his extension<br>• his voice mail password<br>OR<br>• his extension<br>• the platform password<br>Note: On phones running 1.4.x, this operation is done via 2 screens..</td>
</tr>
</table>

| | |
|---|---|
|  | If user time zone selection has been enabled in aastra.cfg.<br>User selects the time zone |
|  | Depending on phone firmware<br>2.5.0 or better<br>• Configuration is sent to the phone<br>Previous firmware<br>• Phone reboots<br>In both cases, the MAC.cfg file has been created under /tftpboot. |
|  | Phone is ready to use. |

### 5.3.3 Default phone template configuration

The default phone template used by the self-configuration is

`/var/www/html/aastra/asterisk/demo-user.prf`

This file can be easily modified to fit your needs.

The name of the default prf file to be used for self configuration as well as the custom profiles are configured in asterisk.conf, see chapter 8.2 for more details.

Parameters

The template file supports the following variables which will be replaced by their value when the configuration file is generated.

| Variable | Value | Origin |
|---|---|---|
| $$AA_SIPAUTHNAME_AA$$ | SIP Authentication name | freePBX |
| $$AA_SIPSECRET_AA$$ | SIP Secret | freePBX |
| $$AA_SIPUSERNAME_AA$$ | SIP username | freePBX |
| $$AA_SIPCALLERID_AA$$ | User Caller ID | freePBX |
| $$AA_PROXY_SERVER_AA$$ | Proxy server address | asterisk.conf |
| $$AA_REGISTRAR_SERVER_AA$$ | Registrar server address | asterisk.conf |
| $$AA_XML_SERVER_AA$$ | XML Server IP address | asterisk.conf |
| $$AA_XMLDIRECTORY_AA$$ | XML directory | asterisk.conf |
| $$AA_TZ_NAME_AA$$ | Time zone name | User input |
| $$AA_TZ_CODE_AA$$ | Time zone code | User input |
| $$AA_KEYPRESS_AA$$ | Name of the key | Automatic |
| $$AA_PARKINGLOT_AA$$ | Parking Lot main number | freePBX |
| $$AA_INTERCOM_CODE_AA | Intercom code | freePBX |

Phone template

Aastra9112i

- Key 1: Park
- Key 2: Logout

Aastra9133i/9143i

- Key 1: Park
- Key 2: DND
- Key 3: Call Forward
- Key 4: Directory
- Key 5: Presence
- Key 6: Parking
- Key 7: Logout

Aastra480i/Aastra480iCT/Aastra9480i/Aastra9480iCT

- Key 1: Directory
- Key 2: Speed Dial
- Key 3: DND
- Key 4: Call Forward
- Key 5: Presence
- Key 6: ACD Agent

- Key 7: Voice Mail
- Key 8: Parking
- Key 9: Meet-me
- Key 20: Logout
- Services key Menu

Aastra6730i/6731i

- Key 1: Park
- Key 2: DND
- Key 3: Call Forward
- Key 4: Presence
- Key 5: Parking
- Key 6: Delete (backspace key)
- Key 7: Directory
- Key 8: Logout

Aastra6751i

The following applications are available through the Services key.

- Logout
- DND
- Call Forward
- Directory
- SugarCRM
- Speed Dial

Aastra6753i

- Key 1: Park
- Key 2: Delete (backspace key)
- Key 3: Parking
- Key 4: DND
- Key 5: Call Forward
- Key 6: Logout

Aastra6755i

- Top Key 1: Services
- Top Key 2: Directory
- Top Key 3: Speed Dial
- Top Key 4: Presence
- Top Key 5: Day/Night
- Top Key 6: Icom

- Key 1: DND
- Key 2: Call Forward
- Key 3: Follow-me
- Key 4: Voice Mail
- Key 5: Parking
- Key 6: Meet-me
- Key 7: ACD Agent
- Key 8: Queues
- Key 9: MP3 Player
- Key 20: Logout
- Services key Menu

Aastra57i/Aastra57iCT

- Top Key 1: Services
- Top Key 2: Directory
- Top Key 3: Speed Dial
- Top Key 4: Presence
- Top Key 5: Day/Night
- Top Key 6: Intercom
- Key 1: DND
- Key 2: Call Forward
- Key 3: Follow-me
- Key 4: Voice Mail
- Key 5: Parking
- Key 6: Meet-me
- Key 7: ACD Agent
- Key 8: Queues
- Key 9: MP3 Player
- Key 20: Logout
- Services key Menu

### 5.3.4 Custom phone templates

The self-configuration script uses the default template configured in asterisk.conf for all users but you can also configure custom templates for 'special' users who need a different configuration.

This configuration is also done in asterisk.conf.

Example

With the following configuration in asterisk.conf for the 'Profiles' tag.

```
#   [Profiles]
```

```
#   support=200-249,251-299
#   agent=400-
#   manager=250,300,301
```

As long as you have created the following profile files in /var/www/html/aastra/asterisk:

- support-user.prf
- agent-user.prf
- special-user.prf

the self-configuration scripts will use

- support-user.prf for extensions 200 to 249 and 251 to 299
- agent-user.prf for extensions over 400
- manager-user.prf for extensions 250, 300 and 301
- the default profile for all other extensions.

---

**Note:** If the custom profile file is not available, the.self-configuration fails.

---

### 5.3.5 Phone configuration update

Once a phone has been configured using the self-configuration, you have 2 ways to change the phone configuration.

Modify MAC.cfg

If you manually modify MAC.cfg located at /tftpboot, the changes will be applied after a phone reboot. The keys used for the applications such as DND, CFWD, Presence… are automatically detected after the phone reboots.

Modify the profile(s)

You can also modify the default profile file (/var/www/html/aastra/asterisk/demo-user.prf) as well as the custom profiles, the changes will apply when the phone performs a logout/login.

Another way to update the configurations with the new profile is to use the 'apply_prf' tool located at /var/www/html/aastra/asterisk.

This tool will automatically apply the new profile(s) to a list of phones (or all the platform phones) and remotely reboot them if needed.

```
Syntax
       cd /var/www/html/aastra/asterisk
       ./apply_prf {-r} user1 user2…
       Or
       ./apply_prf {-r} ALL
```

Where

- -r indicates that a reboot will be triggered
- user1 user2… is the list of users to update or ALL for all users (stored in /var/cache/aastra/startup_asterisk.cfg).

Example

```
[asterisk]# ./apply_prf -r 300

Processing user/device 300
--------------------------
MAC: 00085D195EBB
```

```
Model: Aastra57iCT
CallerID: Extension 300
MAC file updated
Reboot command sent
```

## 5.4 'deviceanduser' mode self-configuration

### 5.4.1 Software architecture

Three XML scripts are provided to perform the hot desking features:

- /var/www/html/aastra/asterisk/startup.php for the device login
- /var/www/html/aastra/asterisk/login.php for the user login.
- /var/www/html/aastra/asterisk/logout.php for the user logout.

**Note:** The device login operation should be managed by the administrator of the telephony platform.

#### 5.4.1.1 Device Login

The device login script is called at the end of the boot sequence. Once the administrator has entered the device ID, the device password (secret) and the phone time zone, the script:

- Checks the authentication parameters
- Retrieve all the SIP parameters from the asterisk configuration
- Creates MAC.cfg file on the TFTP server root directory
- Updates the cache file with the device information
- Sends an email (optional) to log the operation.

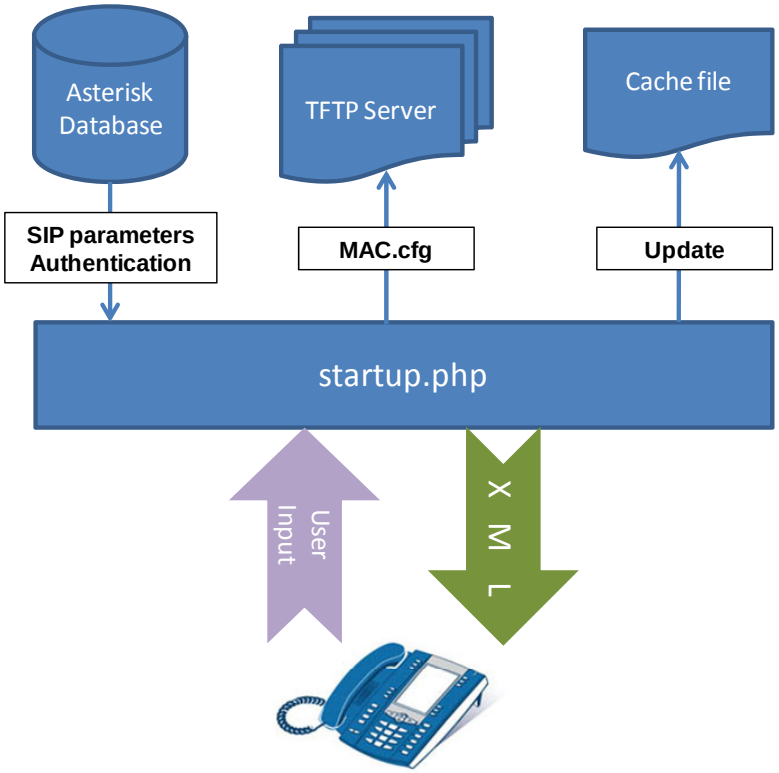


**Figure 15: startup.php software architecture**

The scripts also checks, using its cache file, that the device is not already registered on another phone.

The script can trigger an email for each hot desking event. This email address is configured in /var/www/html/aastra/config/asterisk.conf. See chapter 8.2 for more details.

#### 5.4.1.2 User Login

Once the device is attached to a phone, the user can now login to this phone. The user login script is called when the user presses the 'Login' key on the phone, the script

- Asks for the user extension
- Asks for the user password
- Checks the credentials
- Updates the cache file with the user information
- Asks Asterisk to send a SIP Notify aastra-xml to the phone

**Note:** Dialing *11 on the phone will perform the same user login and will also trigger a SIP Notify.

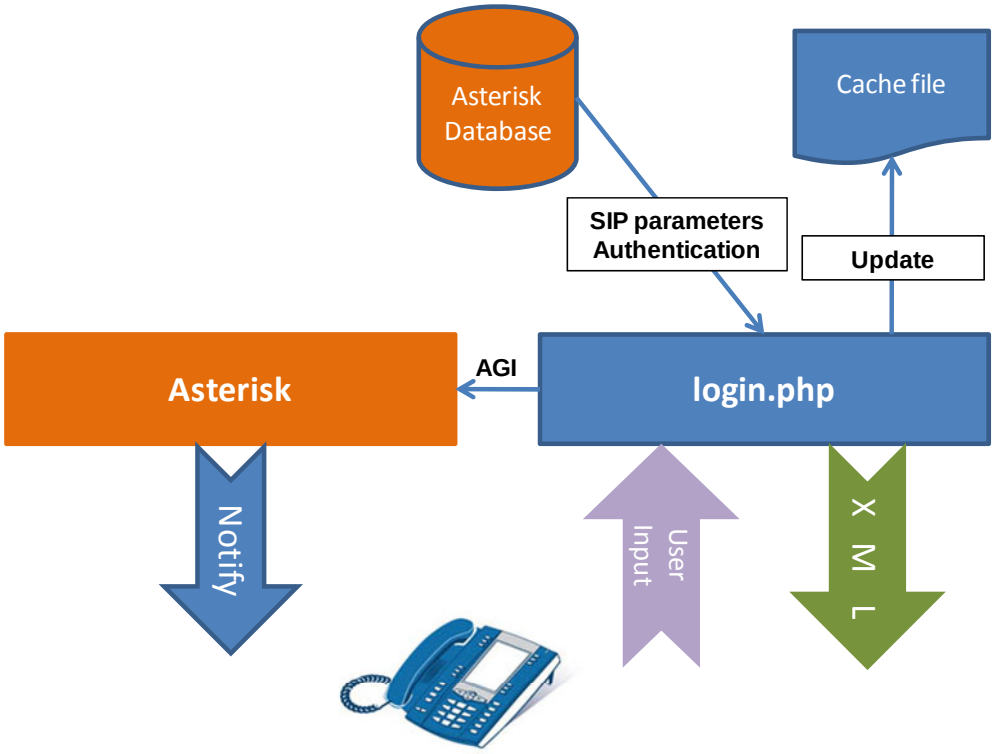



**Figure 16: login.php software architecture**

The SIP Notify is then processed by the phone calling the sync.php script which sends the configuration update to the phone based on the profile file.

**Note:** If a user is already logged in to the device, the login user script will logout the initial user.

5.4.1.3 User Logout

The logout script is called by the user. Once the user his voice mail password, the script:

- Clear phone history (redial list…)
- Updates the cache file with the user information
- Asks Asterisk to send a SIP Notify aastra-xml to the phone

**Note:** Dialing *12 on the phone will perform the same user logout and will also trigger a SIP Notify.

The SIP Notify is then processed by the phone calling the sync.php script which sends the configuration update to the phone based on the profile file.

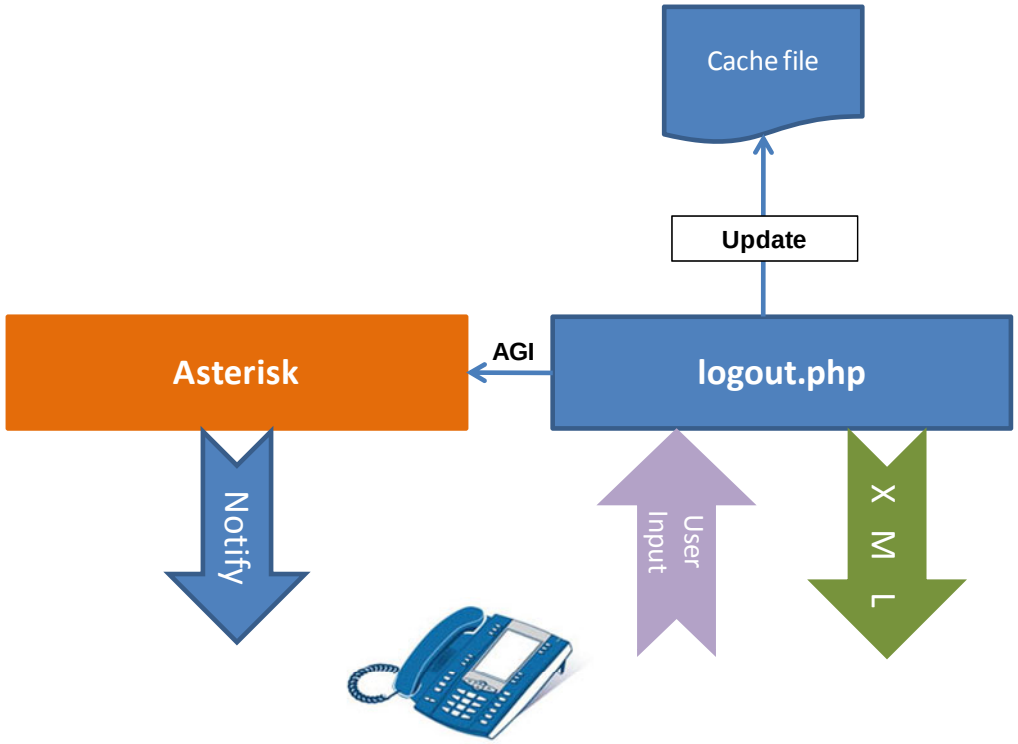
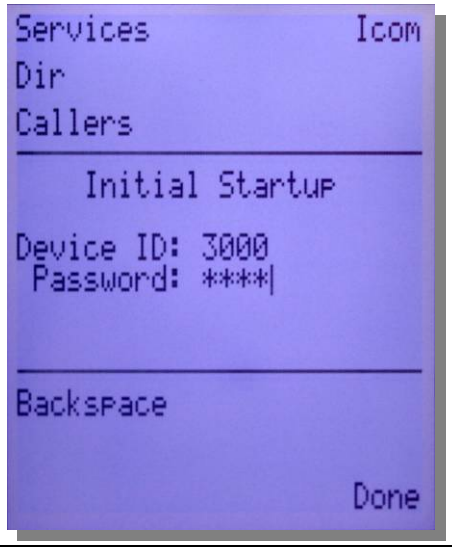
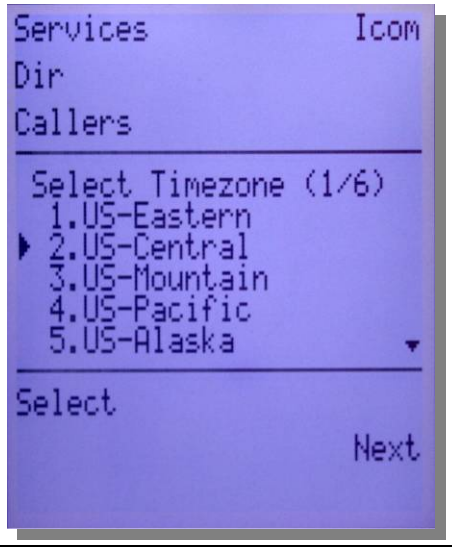
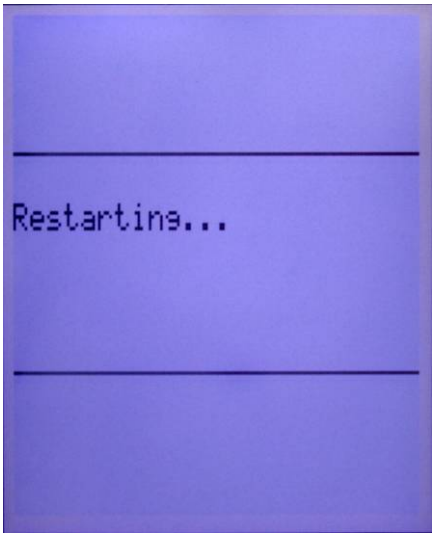
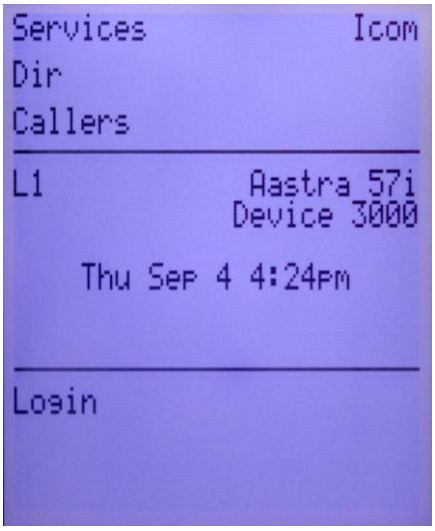



**Figure 17: logout.php software architecture**

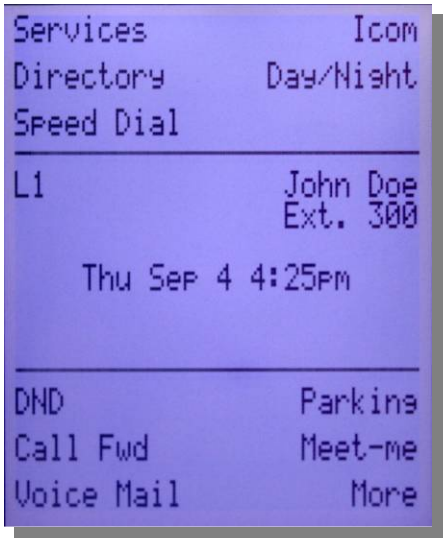
### 5.4.2 Device Login

| | |
|---|---|
| | Phone:<br>• Boots<br>• Gets an IP address<br>• Automatically discovers the server<br>• Load aastra.cfg from the TFTP Server |
|  | Administrator enters<br>• Device ID<br>• Device password<br>Note: On the non softkey 51i/53i/9143i/6730i and 6731i, this operation is done via 2 screens. |
|  | If user time zone selection has been enabled in aastra.cfg.<br>User selects the time zone |

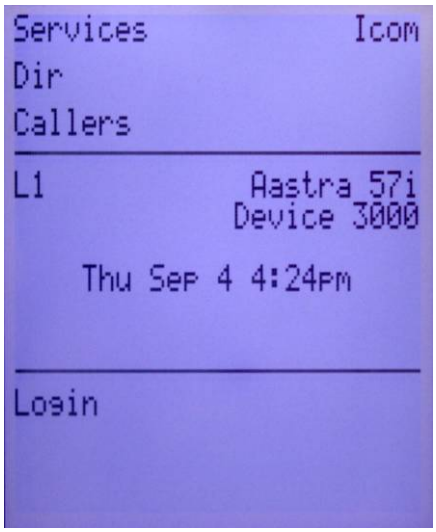
| | |
|---|---|
|  | With firmware 2.5 or better<br>• Configuration is dynamically sent to the phone, no reboot needed.<br>With previous firmware<br>• Phone reboots<br>For both modes, the MAC.cfg has been created for the device |
|  | Phone is ready to use as a device.<br>Note: in this example, the device has been configured as adhoc with no default user. |

### 5.4.3 User Login

| |
|---|
| If multiple languages have been installed and user language selection is enabled.<br>Language selection takes place here. |

| | |
|---|---|
| | User enters his credentials.<br><br>Note: On the non softkey phones 51i/53i/9143i/6730i and 6731i, this operation is done via 2 screens. |
|  | Phone is now configured for the user.<br><br>Note: no reboot necessary |

### 5.4.4 User Logout

| | |
|---|---|
| | User confirms logout |
|  | Phone is back to its device configuration.<br><br>Note: in this example, the device has been configured as adhoc with no default user. |

### 5.4.5 Default Phone template configuration

The default phone templates used by the self-configuration in 'deviceanduser' mode are (as configured in asterisk.conf)

- `/var/www/html/aastra/asterisk/demo-device-nouser.prf`, this file contains the profile for a device without a user.
- `/var/www/html/aastra/asterisk/demo-device-user.prf`, this file contains the profile for a device with a logged user.

These files can be easily modified to fit your needs.

The name of the prf file to be used for self configuration as well as the custom templates are configured in asterisk.conf, see chapter 8.2 for more details.

**Note:** 'deviceanduser' mode is only supported by the phones running firmware 2.5.0 or better, which excludes 9112i, 9133i, 480i and 480iCT.

Parameters

The template files support the following variables which will be replaced by their value when the configuration file is generated.

| Variable | Value | Origin | -nouser | -user |
|---|---|---|---|---|
| $$AA_SIPAUTHNAME_AA$$ | SIP Authentication name | freePBX | ✓ | |
| $$AA_SIPSECRET_AA$$ | SIP Secret | freePBX | ✓ | |
| $$AA_SIPUSERNAME_AA$$ | SIP username | freePBX | ✓ | ✓ |
| $$AA_SIPCALLERID_AA$$ | User Caller ID | freePBX | ✓ | ✓ |
| $$AA_PROXY_SERVER_AA$$ | Proxy server address | asterisk.conf | ✓ | |
| $$AA_REGISTRAR_SERVER_AA$$ | Registrar server address | asterisk.conf | ✓ | |
| $$AA_XML_SERVER_AA$$ | XML Server IP address | asterisk.conf | ✓ | ✓ |
| $$AA_XMLDIRECTORY_AA$$ | XML directory | asterisk.conf | ✓ | ✓ |
| $$AA_TZ_NAME_AA$$ | Time zone name | User input | ✓ | |
| $$AA_TZ_CODE_AA$$ | Time zone code | User input | ✓ | |
| $$AA_KEYPRESS_AA$$ | Name of the key | Automatic | ✓ | |
| $$AA_PARKINGLOT_AA$$ | Parking Lot main number | freePBX | ✓ | ✓ |
| $$AA_INTERCOM_CODE_AA | Intercom code | freePBX | ✓ | ✓ |

#### 5.4.5.1 Phone template for a device with no user

**Note:** 'deviceanduser' mode is only supported by the phones running firmware 2.4.1 or better, which excludes 9112i, 9133i, 480i and 480iCT.

Aastra9143i/6730i/6731i/6753i

- Key 1: Login

Aastra6755i/57i/57iCT/9480i/Aastra9480iCT

- Key 1: Login
- Services key Menu

Aastra6751i

The following applications are available through the Services key.

- Login

#### 5.4.5.2 Phone template for a device with a user

Aastra9143i

- Key 1: Park
- Key 2: DND
- Key 3: Call Forward
- Key 4: Directory
- Key 5: Presence
- Key 6: Parking
- Key 7: Logout

Aastra9480i/Aastra9480iCT

- Key 1: Directory
- Key 2: Speed Dial
- Key 3: DND

- Key 4: Call Forward
- Key 5: Presence
- Key 6: Agent
- Key 7: Voice Mail
- Key 8: Parking
- Key 9: Meet-me
- Key 20: Logout
- Services key Menu

Aastra6730i/6731i

- Key 1: Park
- Key 2: DND
- Key 3: Call Forward
- Key 4: Presence
- Key 5: Parking
- Key 6: Delete
- Key 7: Directory
- Key 8: Logout

Aastra6751i

The following applications are available through the Services key.

- Login
- Logout
- DND
- Call Forward
- Directory
- SugarCRM
- Speed Dial
- Parking
- Presence
- MP3 Player

Aastra6753i

- Key 1: Park
- Key 2: Delete (backspace key)
- Key 3: Parking
- Key 4: DND
- Key 5: Call Forward
- Key 6: Logout

Aastra6755i

- Top Key 1: Services
- Top Key 2: Directory
- Top Key 3: Speed Dial
- Top Key 4: Presence
- Top Key 5: Day/Night
- Top Key 6: Intercom
- Key 1: DND
- Key 2: Call Forward
- Key 3: Follow-me
- Key 4: Voice Mail
- Key 5: Parking
- Key 6: Meet-me
- Key 7: ACD Agent
- Key 8: Queues
- Key 9: MP3 Player
- Key 20: Logout
- Services key Menu

Aastra57i/Aastra57iCT

- Top Key 1: Services
- Top Key 2: Directory
- Top Key 3: Speed Dial
- Top Key 4: Presence
- Top Key 5: Day/Night
- Top Key 6: Intercom
- Key 1: DND
- Key 2: Call Forward
- Key 3: Follow-me
- Key 4: Voice Mail
- Key 5: Parking
- Key 6: Meet-me
- Key 7: ACD Agent
- Key 8: Queues
- Key 9: MP3 Player
- Key 20: Logout

### 5.4.6 Custom phone templates

The self-configuration script uses the default template configured in asterisk.conf for all devices and users but you can also configure custom templates for 'special' devices or users who need a different configuration.

This configuration is also done in asterisk.conf.

Example

With the following configuration in asterisk.conf for the 'Profiles' tag.

```
#   [Profiles]
#   support=200-249,251-299
#   agent=400-
#   manager=250,300,301
#   custom=3000-3100
```

As long as you have created the following profile files in /var/www/html/aastra/asterisk:

- support-device-user.prf
- agent-device-user.prf
- special-device-user.prf
- custom-device-nouser.prf

the self-configuration scripts will use

- support-device-user.prf for extensions 200 to 249 and 251 to 299
- agent-device-user.prf for extensions over 400
- manager-device-user.prf for extensions 250, 300 and 301
- custom-device-nouser.prf for devices 3000 to 3100
- the default profile for all other devices/users.

**Note:** If the custom profile file is not available, the.self-configuration fails.

### 5.4.7 Phone configuration update

#### 5.4.7.1 Device configuration update

Once a device has been configured using the self-configuration, you have 2 ways to change the configuration.

Modify MAC.cfg

If you manually modify MAC.cfg located at /tftpboot, the changes will be applied after a phone reboot.

Modify the profile(s)

You can also modify the default profile file (/var/www/html/aastra/asterisk/demo-device-nouser.prf) as well as the custom profiles, the changes will apply when the phone reboots.

Another way to update the configurations with the new profile(s) is to use the 'apply_prf' tool located at /var/www/html/aastra/asterisk.

This tool will automatically apply the new profile(s) to a list of devices (or all the platform phones) and remotely reboot them if needed.

```
Syntax
       cd /var/www/html/aastra/asterisk
```

```
./apply_prf {-r} device1 device2…
Or
./apply_prf {-r} ALL
```

Where

- -r indicates that a reboot will be triggered
- device1 device2… is the list of devices to update or ALL for all devices (stored in /var/cache/aastra/startup_asterisk.cfg).

Example

```
[asterisk]# ./apply_prf -r 3000

Processing user/device 3000
---------------------------
MAC: 00085D195EBB
Model: Aastra57iCT
CallerID: Device 3000
MAC file updated
Reboot command sent
```

#### 5.4.7.2 User configuration update

If you want to change a user configuration once a phone has been configured using the self-configuration, you can modify the default profile file (demo-device-user.prf) located at /var/www/html/aastra/asterisk as well as all the custom profiles.

The changes will be applied after a logout/login.

## 5.5 Before you connect the first phone

Make sure that you have followed all the steps detailed in chapter 2.3.

---

**Note:** the self-configuration works only when the phones get their IP address from a DHCP server.

---

# 6 Asterisk applications

In this chapter, XML_SERVER is the IP address of the server

## 6.1 DND

This application allows a user to activate and deactivate the server side DND on his phone. When activated, a status message is displayed and the LED attached to the key (when there is one) is lit.

The status is synchronized at the phone boot and on a regular basis (67i and 9i series only).

If the USEDEVSTATE is set to true in '/etc/amportal.conf' enabling the DND will also change the BLF status of the user to 'Busy'.

### 6.1.1 Phone Compatibility

All Aastra phones.

BUT no LED status for Aastra9112i/9133i/480i/480iCT/9480i/9480iCT

### 6.1.2 PHP script

Location

/var/www/html/aastra/asterisk/dnd.php

Parameters

- user=XXX [Mandatory]

  where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

---

**Notes:**

- only one instance of this script per phone is supported
- the LED key is automatically detected when the phone registers after a reboot.

---

### 6.1.3 Configuration

Aastra 9112i/9133i/480i/480iCT

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register &user=$$SIPUSERNAME$$`
- uri
  `http://XML_SERVER/aastra/asterisk/dnd.php ?user=$$SIPUSERNAME$$`

Aastra 6751i

As the Aastra6751i does not have any softkey, the DND application is available only through the 'Services' key.

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register &user=$$SIPUSERNAME$$`
- action uri poll:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=check &user=$$SIPUSERNAME$$`
- action uri poll interval: 1800

- sip xml notify event: 1
- action uri xml sip notify:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=check&user=$$SIPUSERNAME$$`
- xml application uri
  `http://XML_SERVER/aastra/menu/mymenu.php ?menu_source=menu2&menu_user=$$SIPUSERNAME$$&user=$$SIPUSERNAME$$`

Aastra 53i/55i/57i/57iCT, 9143i/9480i/9480iCT and 6730i/6731i

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register&user=$$SIPUSERNAME$$`
- action uri poll:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=check&user=$$SIPUSERNAME$$`
- action uri poll interval: 1800
- action uri xml sip notify:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=notify&user=$$SIPUSERNAME$$`
- uri

  `http://XML_SERVER/aastra/asterisk/dnd.php ?user=$$SIPUSERNAME$$`

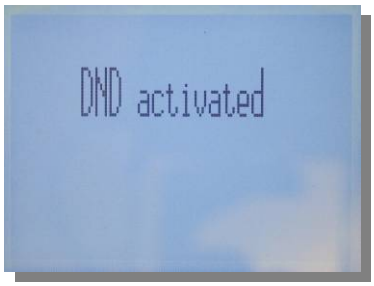
### 6.1.4 Configuration files

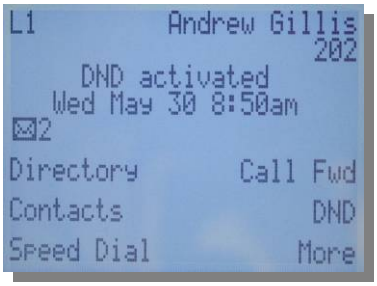
The DND application uses the following configuration files

server.conf

- General tag, language

### 6.1.5 Screenshots




### 6.1.6 Comments

'extensions mode'

- This application works only if the phone is configured with a single extension.

'deviceanduser' mode

- If a user is logged on multiple devices, the DND status is automatically updated on all the devices.

### 6.1.7 Message flow

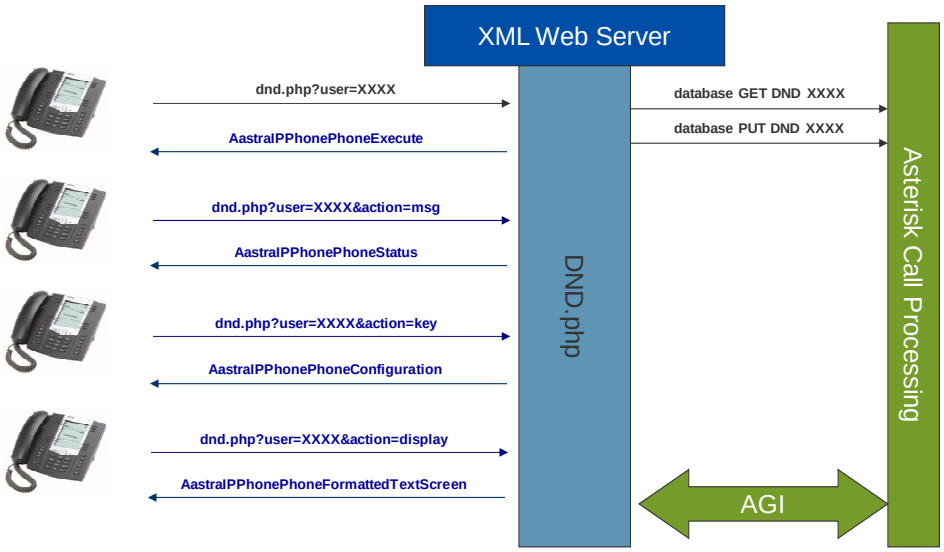



**Figure 18: DND message flow**

## 6.2 Call Forward

This application allows a user to activate and deactivate the server side CFWD ALL on his phone. When activated, a status message is displayed and the LED attached to the key (when there is one) is lit.

Depending on the script parameters (see 6.2.2) the script can have 2 modes:

- Manual: the user is prompted to enter the call forward destination target.
- Toggle: the target destination of the call forward is always the same and the scripts toggles between 'activated' and 'deactivated'.

The status is synchronized at the phone boot and on a regular basis (67xxi and 9i Series only).

### 6.2.1 Phone Compatibility

All Aastra phones.

BUT no LED status for Aastra9112i/9133i/480i/480iCT/9480i/9480iCT

### 6.2.2 PHP script

Location

`/var/www/html/aastra/asterisk/cfwd.php`

Parameters

- user=XXX [Mandatory]

  where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

OR

- user=XXX [Mandatory]

where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

- Value=YYY [Optional]

where YYY is the target destination of the call forward.

---

**Notes:**

- only one instance of this script per phone is supported
- the LED key is automatically detected when the phone registers after a reboot.

---

### 6.2.3 Configuration

Aastra 9112i/9133i/480i/480iCT

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register &user=$$SIPUSERNAME$$`
- uri
  `http://XML_SERVER/aastra/asterisk/cfwd.php ?user=$$SIPUSERNAME$$`

Aastra 51i

As the Aastra6751i does not have any softkey, the CFWD application is available only through the 'Services' key.

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register &user=$$SIPUSERNAME$$`
- action uri poll:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=check &user=$$SIPUSERNAME$$`
- action uri poll interval: 1800
- action uri xml sip notify:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=notify &user=$$SIPUSERNAME$$`
- xml application uri
  `http://XML_SERVER/aastra/menu/mymenu.php ?menu_source=menu2 &menu_user=$$SIPUSERNAME$$ &user=$$SIPUSERNAME$$`

Aastra 53i/55i/57i/57iCT, 9143i/9480i/9480iCT and 6730i/6731i

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register &user=$$SIPUSERNAME$$`
- action uri poll:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=check &user=$$SIPUSERNAME$$`
- action uri poll interval: 1800
- action uri xml sip notify:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=notify &user=$$SIPUSERNAME$$`
- uri

  `http://XML_SERVER/aastra/asterisk/cfwd.php ?user=$$SIPUSERNAME$$`

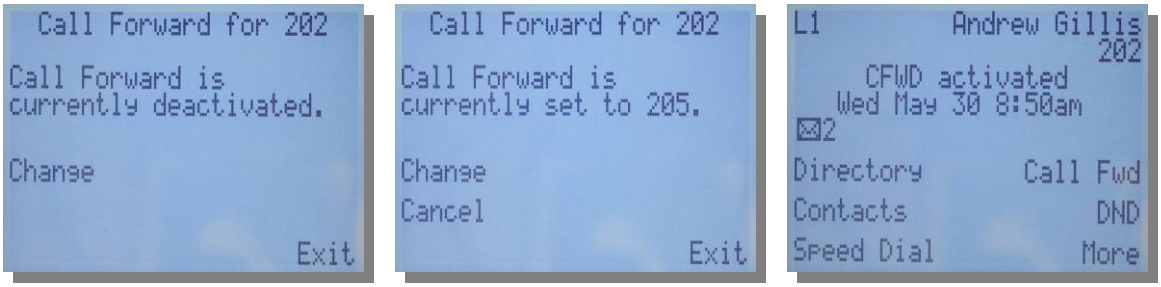
### 6.2.4 Configuration files

The Call Forward application uses the following configuration files

server.conf

- General tag, language

### 6.2.5 Screenshots




### 6.2.6 Comments

'extensions mode'

- This application works only if the phone is configured with a single extension.

'deviceanduser' mode

- If a user is logged on multiple devices, the CFWD status is automatically updated on all the devices.

### 6.2.7 Message Flow

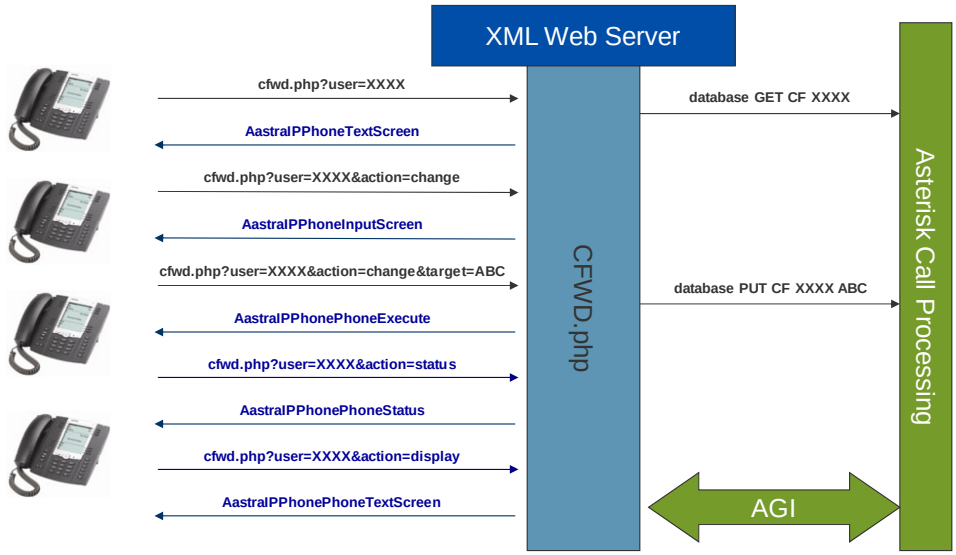



**Figure 19: CFWD message flow**

## 6.3 Follow-Me

This application allows a user to activate/deactivate as well as configure the find-me follow-me feature on the phone. When activated, a status message is displayed and the LED attached to the key (when there is one) is lit.

The status is synchronized at the phone boot and on a regular basis (67xxi and 9i Series only).

**Note:** find-me follow-me feature must first be configured from FreePBX as the scripts cannot handle the type of ringing strategy.

### 6.3.1 Phone Compatibility

All Aastra phones.

BUT no LED status for Aastra9112i/9133i/480i/480iCT/9480i/9480iCT

### 6.3.2 PHP script

Location

`/var/www/html/aastra/asterisk/follow.php`

Parameters

- user=XXX [Mandatory]

where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

**Notes:**

- only one instance of this script per phone is supported
- the LED key is automatically detected when the phone registers after a reboot.

### 6.3.3 Configuration

Aastra 9112i/9133i/480i/480iCT

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register&user=$$SIPUSERNAME$$`
- uri
  `http://XML_SERVER/aastra/asterisk/follow.php ?user=$$SIPUSERNAME$$`

Aastra 51i

As the Aastra6751i does not have any softkey, the CFWD application is available only through the 'Services' key.

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register&user=$$SIPUSERNAME$$`
- action uri poll:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=check&user=$$SIPUSERNAME$$`
- action uri poll interval: 1800
- action uri xml sip notify:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=notify&user=$$SIPUSERNAME$$`
- xml application uri
  `http://XML_SERVER/aastra/menu/mymenu.php ?menu_source=menu2&menu_user=$$SIPUSERNAME$$&user=$$SIPUSERNAME$$`

Aastra 53i/55i/57i/57iCT, 9143i/9480i/9480iCT and 6730i/6731i

- action uri registered:

```
http://XML_SERVER/aastra/asterisk/sync.php     ?action=register
                                               &user=$$SIPUSERNAME$$
```

- action uri poll:
```
http://XML_SERVER/aastra/asterisk/sync.php     ?action=check
                                               &user=$$SIPUSERNAME$$
```
- action uri poll interval: 1800
- action uri xml sip notify:
```
http://XML_SERVER/aastra/asterisk/sync.php     ?action=notify
                                               &user=$$SIPUSERNAME$$
```
- uri
```
http://XML_SERVER/aastra/asterisk/follow.php   ?user=$$SIPUSERNAME$$
```

#### 6.3.4 Configuration files

The Follow-me application uses the following configuration files

server.conf

- General tag, language

#### 6.3.5 Comments

'extensions mode'

- This application works only if the phone is configured with a single extension.

'deviceanduser' mode

- If a user is logged on multiple devices, the Follow-me status is automatically updated on all the devices.

### 6.4 Day/Night

This application allows a user to change the mode of the Day/Night control from his phone. When in night mode, a status message is displayed, the label of the key is changed (if softkey) and the LED attached to the key (when there is one) is lit.

The status is synchronized at the phone boot and on a regular basis (5i and 9i Series only).

The list of users allowed to have this application on their phone as well as the list of users being notified is configurable in the asterisk.conf file see chapter 8.2 for more details.

The script detects which day/night index(es) have been configured via FreePBX and checks if the configured index has been configured.

If more than one index is configured, the script will allow the status change for all the indexes but the status is propagated only for the configured index.

#### 6.4.1 Phone Compatibility

All Aastra phones.

BUT no LED status for Aastra9112i/9133i/480i/480iCT/9480i/9480iCT

#### 6.4.2 PHP script

Location

```
/var/www/html/aastra/asterisk/daynight.php
```

Parameters

- user=XXX [Mandatory]

where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

---

**Notes:**

- only one instance of this script per phone is supported
- the LED key is automatically detected when the phone registers after a reboot.

---

### 6.4.3 Configuration

Aastra 9112i/9133i/480i/480iCT

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register &user=$$SIPUSERNAME$$`
- uri
  `http://XML_SERVER/aastra/asterisk/daynight.php ?user=$$SIPUSERNAME$$`

Aastra 51i

As the Aastra6751i does not have any softkey, the Day/Night application is available only through the 'Services' key.

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register &user=$$SIPUSERNAME$$`
- action uri poll:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=check &user=$$SIPUSERNAME$$`
- action uri poll interval: 1800
- action uri xml sip notify:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=notify &user=$$SIPUSERNAME$$`
- xml application uri
  `http://XML_SERVER/aastra/menu/mymenu.php ?menu_source=menu2 &menu_user=$$SIPUSERNAME$$ &user=$$SIPUSERNAME$$`

Aastra 53i/55i/57i/57iCT, 9143i/9480i/9480iCT and 6730i/6731i

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register &user=$$SIPUSERNAME$$`
- action uri poll:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=check &user=$$SIPUSERNAME$$`
- action uri poll interval: 1800
- action uri xml sip notify:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=notify &user=$$SIPUSERNAME$$`
- uri

`http://XML_SERVER/aastra/asterisk/daynight.php ?user=$$SIPUSERNAME$$`

### 6.4.4 Configuration files

The Daynight application uses the following configuration files

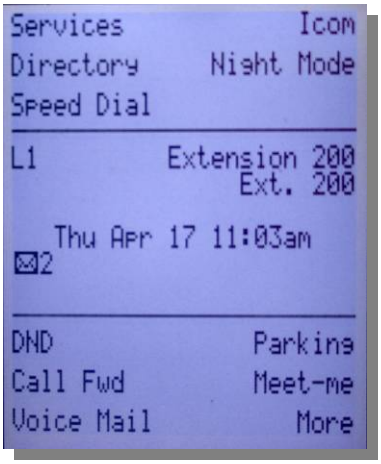
server.conf

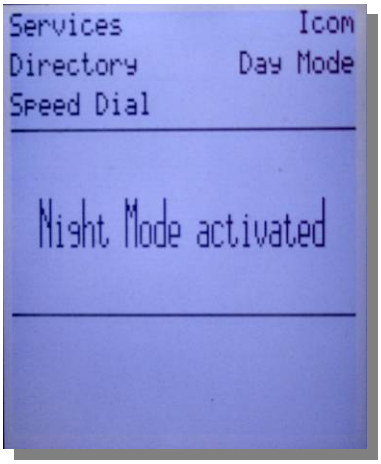
- General tag, language

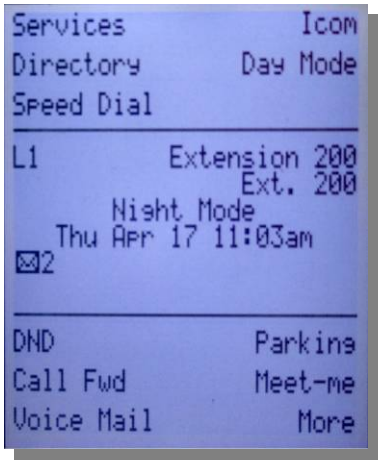
asterisk.conf

- Daynight tag, all parameters

### 6.4.5 Screenshots




### 6.4.6 Comments

'deviceanduser' mode

- If a user is logged on multiple devices, the Day/night status is automatically updated on all the devices hosting the user.

## 6.5 Presence

This application allows a user to setup and share presence information.

The presence statuses are:

- Available
- Away
- At Lunch
- In a Meeting
- Out of Office

When the user is not available, the application allows him to:

- Enter a return date
- Enter a return time
- Record a temporary message

Also the user can configure a default phone behavior when he is not available (Preferences):

- Activate DND
- Activate Find-Me Follow-Me

**Note:** the find-me follow-me menu is available only if the function has been configured for the user in freePBX.

When the user is not available, the LED attached to the key (when there is one) is lit.

This presence information is stored in the Asterisk database and is made available to other users via the directory application and the outgoing call application. The directory application allows another to be notified (voice or text message) when you are back to available.

The presence application can be disabled via configuration, see chapter 8.2 for more details.

### 6.5.1 Phone Compatibility

All Aastra phones.

No LED status for Aastra9112i/9133i/480i/480iCT/9480i/9480iCT

### 6.5.2 PHP script

Location

`/var/www/html/aastra/asterisk/away.php`

Parameters

- user=XXX [Mandatory]

  where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

---

**Notes:**

- only one instance of this script per phone is supported
- the LED key is automatically detected when the phone registers after a reboot.

---

### 6.5.3 Configuration

Aastra 9112i/9133i/480i/480iCT

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register&user=$$SIPUSERNAME$$`
- action uri onhook:
  `http://XML_SERVER/aastra/asterisk/onhook.php ?user=$$SIPUSERNAME$$&number=$$REMOTENUMBER$&name=$$INCOMINGNAME$$`
- uri
  `http://XML_SERVER/aastra/asterisk/away.php ?user=$$SIPUSERNAME$$`

Aastra 51i

As the Aastra6751i does not have any softkey, the Presence application is available only through the 'Services' key.

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register&user=$$SIPUSERNAME$$`
- action uri poll:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=check&user=$$SIPUSERNAME$$`
- action uri poll interval: 1800
- action uri xml sip notify:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=notify&user=$$SIPUSERNAME$$`
- xml application uri
  `http://XML_SERVER/aastra/menu/mymenu.php ?menu_source=menu2&menu_user=$$SIPUSERNAME$$&user=$$SIPUSERNAME$$`

Aastra 53i/55i/57i/57iCT, 9143i/9480i/9480iCT and 6730i/6731i

- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php` `?action=register&user=$$SIPUSERNAME$$`
- action uri onhook:
  `http://XML_SERVER/aastra/asterisk/onhook.php` `?user=$$SIPUSERNAME$$&number=$$REMOTENUMBER$&name=$$INCOMINGNAME$$`
- action uri poll:
  `http://XML_SERVER/aastra/asterisk/sync.php` `?action=check&user=$$SIPUSERNAME$$`
- action uri poll interval: 1800
- action uri xml sip notify:
  `http://XML_SERVER/aastra/asterisk/sync.php` `?action=notify&user=$$SIPUSERNAME$$`
- uri

`http://XML_SERVER/aastra/asterisk/away.php` `?user=$$SIPUSERNAME$$`

### 6.5.4 Configuration files

The Presence application uses the following configuration files

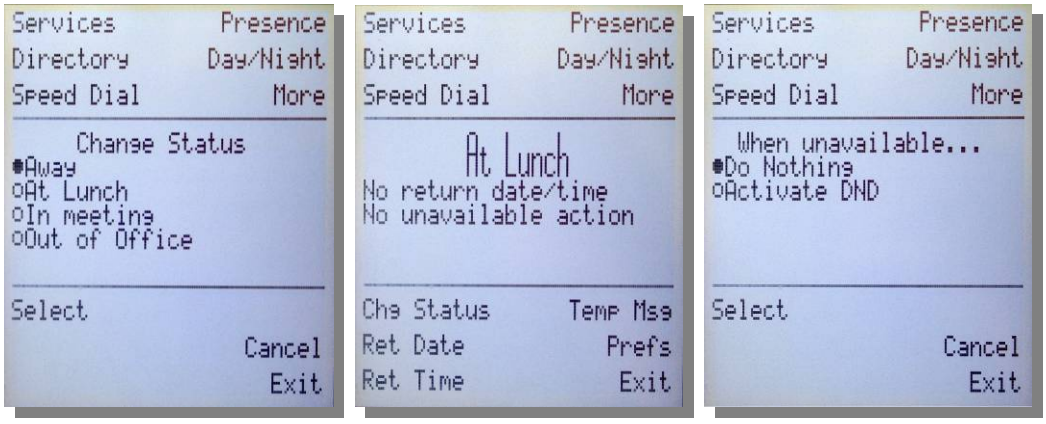
server.conf

- General tag, language

asterisk.conf

- Presence tag, all parameters

### 6.5.5 Screenshots




### 6.5.6 Comments

All modes

- The recording of a temporary message works only if the user voicemail has been created and used one time.

'deviceanduser' mode

- If a user is logged on multiple devices, the Presence status is automatically updated on all the devices hosting the user.

## 6.6 Meet-me

This application allows a user to control a meet-me conference from his phone.

With this application, the user can:

- See the list of attendees
- Mute/Unmute attendees
- Kick attendees

### 6.6.1 Phone Compatibility

All Aastra phones with softkeys

- Aastra480i/480iCT
- Aastra9480i/9480iCT
- Aastra6755i/6757i/6757iCT

### 6.6.2 PHP script

Location

`/var/www/html/aastra/asterisk/meetme.php`

Parameters

- ext=XXX [Mandatory]

  where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

### 6.6.3 Configuration

- uri

`http://XML_SERVER/aastra/asterisk/meetme.php ?ext=$$SIPUSERNAME$$`

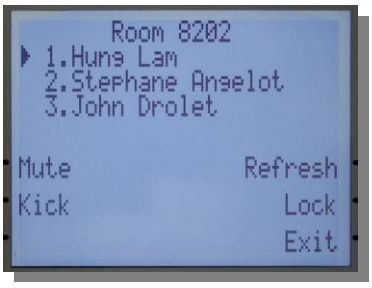
### 6.6.4 Configuration files

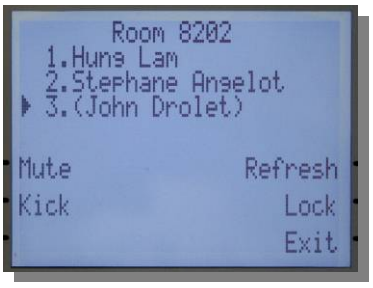
The Meet-me application uses the following configuration files

server.conf

- General tag, language

### 6.6.5 Screenshots




### 6.6.6 Comments

On the Aastra 55i/57i/57iCT and 9480i/9480iCT, the attendee list is automatically refreshed, where on the 480i/480iCT the list must be manually refreshed using the “Refresh” key.

## 6.7 Visual Voice Mail

This application allows a user to manage its Voice mail messages from the phone using a data interface comparable to an email reader, a.k.a visual voice mail.

With this application, the user can

- Play a message
- Delete a Message
- Save a message
- Restore a message
- Forward a message
- Record his name
- Record his unavailable message
- Record his busy message
- Record his temporary message
- Enable/disable auto-answer mode
- Enable/disable auto-login

The application also manages the LED attached to the key if the application is configured for a dedicated mailbox (6755i, 6757i and 6757iCT only).

For the 9480i and 9480iCT which don't support LED management, the label attached to the softkey reflects the number of new messages in the Inbox.

### 6.7.1 Phone Compatibility

All Aastra phones with softkeys

- Aastra480i/480iCT
- Aastra9480i/9480iCT
- Aastra6751i/6753i/6755i/6757i/6757iCT
- Aastra6730i/6731i

No LED management for Aastra480i/480iCT and Aastra9480i/9480iCT

### 6.7.2 PHP script

Location

`/var/www/html/aastra/asterisk/vmail.php`

Parameters

- ext=XXX [Mandatory]

  where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

- user=YYY [Optional]

  where YYY is the voice mail box ID to monitor, variable $$AA_SIPUSERNAME_AA$$ should be used there.

**Notes:**

- Multiple instances of this script per phone are allowed but with different mailboxes.
- the LED key(s) are automatically detected when the phone registers after a reboot.

### 6.7.3 Usage

Let's suppose that my phone is extension 100, there is also a general mail box with extension 300

Monitoring your own voice mail box

```
/var/www/html/aastra/asterisk/vmail.php?ext=100&user=100
```

Monitoring the general mailbox

```
/var/www/html/aastra/asterisk/vmail.php?ext=100&user=300
```

Using the scripts to access any VM box but no monitoring

```
/var/www/html/aastra/asterisk/vmail.php?ext=100
```

### 6.7.4 Configuration

- action uri onhook:

```
http://XML_SERVER/aastra/asterisk/onhook.php   ?user=$$SIPUSERNAME$$
                                               &number=$$REMOTENUMBER$
                                               &name=$$INCOMINGNAME$$
```

- uri

Monitoring the user mailbox

```
http://XML_SERVER/aastra/asterisk/vmail.php    ?ext=$$SIPUSERNAME$$
                                               &user=$$AA_SIPUSERNAME_AA$$
```

Monitoring any mailbox XXX

```
http://XML_SERVER/aastra/asterisk/vmail.php    ?ext=$$SIPUSERNAME$$
                                               &user=XXX
```

Not monitoring any mailbox

```
http://XML_SERVER/aastra/asterisk/vmail.php    ?ext=$$SIPUSERNAME$$
```

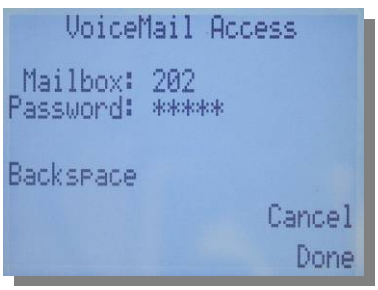
### 6.7.5 Configuration files

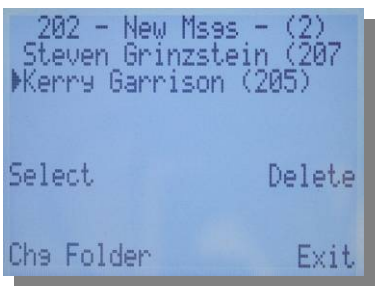
The Visual voice mail application uses the following configuration files

server.conf

- General tag, language

### 6.7.6 Screenshots



### 6.7.7 Comments

This application works only if the phone is configured with a single extension

### 6.7.8 Message Flow

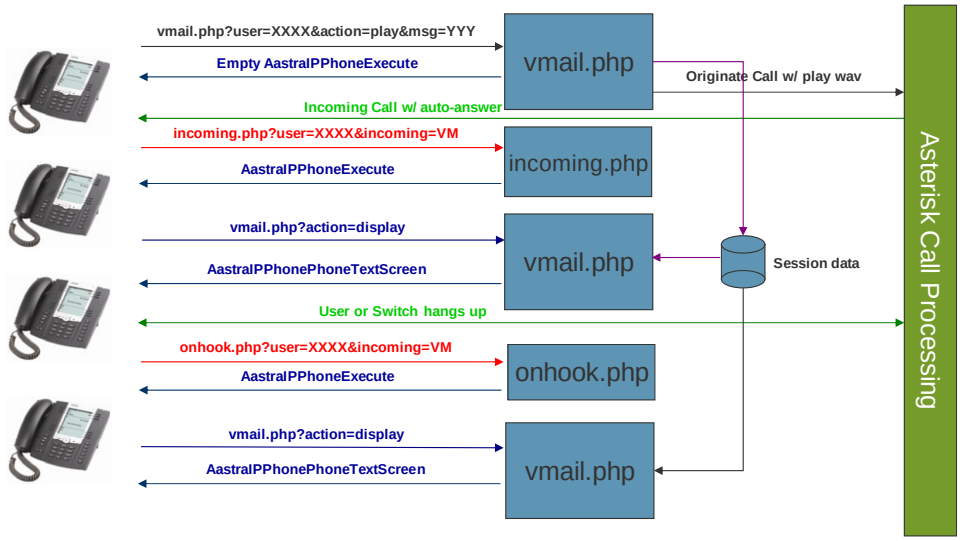



**Figure 20: Visual Voice Mail message flow**

## 6.8 Directory

This application allows a user to access to the Asterisk directory showing all the extensions configured on the platform.

The directory is presented as a sorted list with 15 (1.4.3) or 30 (2.5.0) items per page.

From there, the user can:

- Dial the extension
- Intercom the extension
- Add it to his speed dial list (phones with softkeys only)

You can filter the extensions you don't want to be displayed in the application in the asterisk.conf file see chapter 8.2 for more details.

When the presence application is enabled, the directory application displays the presence status of the users and also allows to be notified when a user is back to available.

### 6.8.1 Phone Compatibility

All Aastra phones

### 6.8.2 PHP script

Location

`/var/www/html/aastra/asterisk/directory.php`

Parameters

- user=XXX [Mandatory]

where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

### 6.8.3 Configuration

- uri

```
http://XML_SERVER/aastra/asterisk/directory.php   ?user=$$SIPUSERNAME$$
```

### 6.8.4 Configuration files

The Directory application uses the following configuration files

server.conf

- General tag, language

asterisk.conf

- Directory tag, all parameters
- SpeedDial tag, all parameters

### 6.8.5 Screenshots

Without presence application

With presence application

### 6.8.6 Comments

On the phones without softkeys (51i/53i/9143i/6730i/6731i), the user cannot access to the speed dial feature from this application.

## 6.9 Contacts using a csv text file

The application described in this chapter is a generic directory application using a CSV file as source data.

The Contact application allows the user to perform a lookup based on

- The first letters of the first name AND last name[1]
- Letters anywhere in the complete name

Also, it allows the user to configure[1]:

- The results display format: 'first name last name' or 'last name first name'
- Sorting index: 'last name' or 'first name'

The user can also store any contact to his personal speed dial (if configured).

### 6.9.1 Phone Compatibility

The directory and speed dial applications are available for

- Aastra 51i, 53i, 55i, 57i, 57iCT
- Aastra 9143i, 9480i, 9480iCT
- Aastra 6730i/6731i

But some limitations apply in the directory application when the phone is a non softkey phone a user cannot:

- set a speed dial from the directory application
- change sorting index and display format
- access to record details
- perform a search using first name or last name

### 6.9.2 PHP script

Location

`/var/www/html/aastra/asterisk/contacts.php`

Parameters

- user=XXX [Mandatory]

  where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

- source=YYY [Optional]

  where YYY is the name of the csv file to use, this file must be stored in the cache directory (/var/cache/aastra) which is the default location or at the location configured in asterisk.conf, be named YYY.txt and be accessible to linux user asterisk in read mode. This parameter is optional; the default value is 'contacts'.

[1] Not available for non-softkey phones.

### 6.9.3 Configuration

- uri

```
http://XML_SERVER/aastra/asterisk/contacts.php    ?user=$$SIPUSERNAME$$
```

### 6.9.4 Configuration files

The Contacts application uses the following configuration files

server.conf

- General tag, location of the cache directory and language

asterisk.conf

- DialPlan tag, all parameters
- SpeedDial tag, all parameters
- Contacts, all parameters

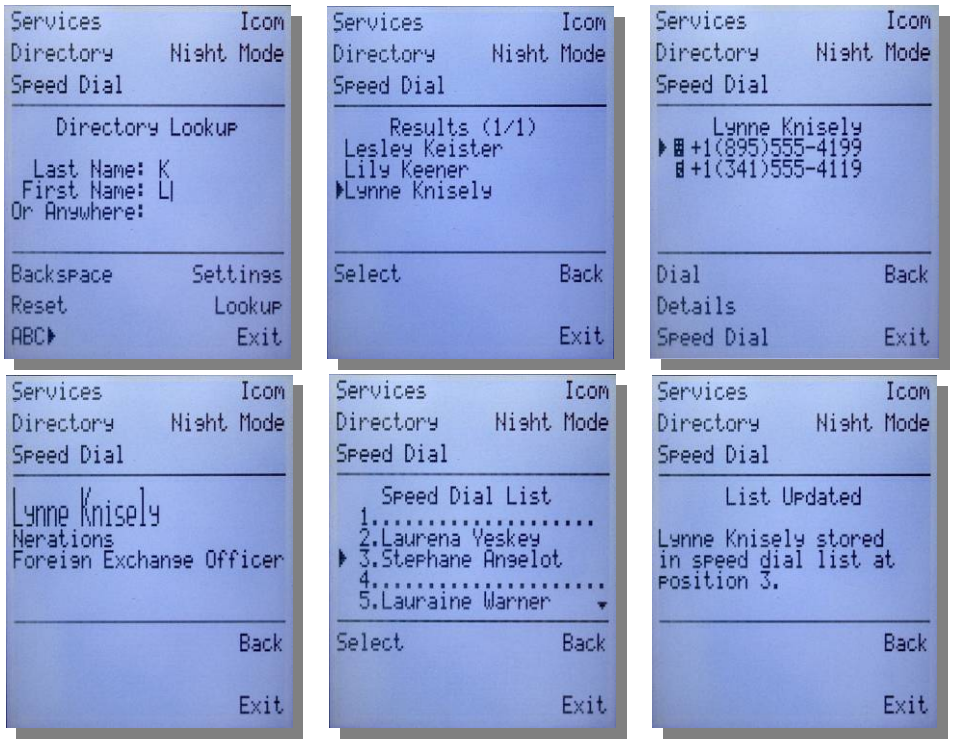
### 6.9.5 CSV file format

The CSV file must respect the following format:

```
First name, Last name, Company, Title, Work, Home, Mobile
```

The application is provided with a sample database '/var/cache/aastra/contacts.txt' where all the fields have been randomly generated.

### 6.9.6 Screenshots




### 6.9.7 Comments

On the phones without softkeys (51i/53i/9143i/6730i/6731i), the user cannot access to the speed dial feature from this application.

## 6.10 Speed Dial

This application allows a user to manage a list of 30 (2.4.1) or 15 (1.4.3) sped dial entries. Each speed dial entry can handle up to 4 numbers (work, home, mobile or other). The speed dial list is stored on the server. The user can:

- Create an entry
- Modify an entry
- Delete an entry

This application is linked to the Directory and Contacts applications as you can create a speed dial entry directly it (phones with softkeys only).

### 6.10.1 Phone Compatibility

All Aastra phones with softkeys

- Aastra480i/480iCT
- Aastra9480i/9480iCT
- Aastra6755i/6757i/6757iCT

### 6.10.2 PHP script

Location

`/var/www/html/aastra/asterisk/speed.php`

Parameters

- user=XXX [Mandatory]

  where XXX is the context (cache in /var/cache/aastra) where the speed dial list is stored, usually it is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

- mode=YYY [Optional]

  where YYY is either static or dynamic. In static mode the user cannot edit the speed dial list, this mode can be used for a global central speed dial.

### 6.10.3 Configuration

- uri

`http://XML_SERVER/aastra/asterisk/speed.php?user=$$SIPUSERNAME$$`

### 6.10.4 Configuration files

The Directory application uses the following configuration files

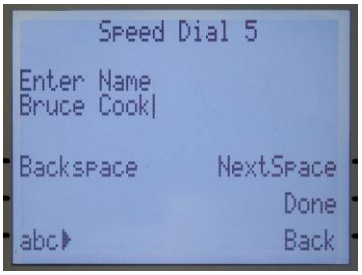
server.conf

- General tag, language

asterisk.conf

- SpeedDial tag, all parameters

### 6.10.5 Screenshots




### 6.10.6 Comments

The speed dial list is stored on the cache directory on the server.

## 6.11 SugarCRM

This application allows a user to access to the SugarCRM contact numbers (work, mobile, home or other). The lookup is made based on the first letters of the last name, the results are presented as lists of 15 (1.4.3) or 30 (2.4.1) items per page.

From there, the user can dial the contact using one of his numbers.

### 6.11.1 Phone Compatibility

All phones running 2.x firmware and 480i/480iCT

- Aastra480i/480iCT
- Aastra9480i/9480iCT
- Aastra6751i/6753i/6755i/6757i/6757iCT
- Aastra6730i/Aastra6731i

### 6.11.2 PHP script

Location

`/var/www/html/aastra/asterisk/sugarCRM.php`

Parameters

None

### 6.11.3 Configuration files

The SugarCRM application uses the following configuration files

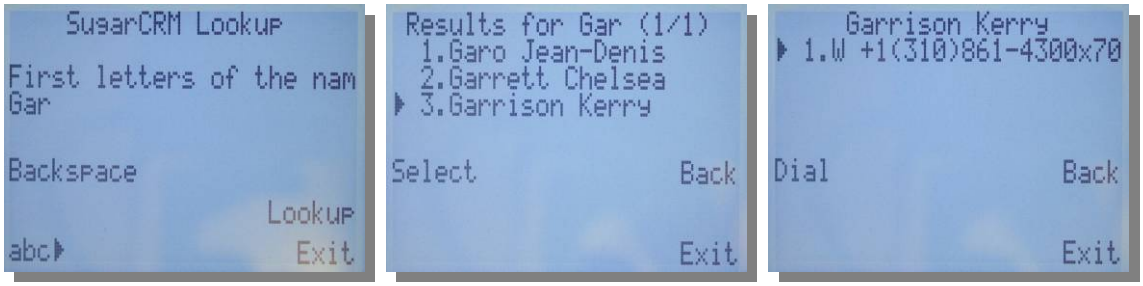
server.conf

- General tag, language

asterisk.conf

- DialPlan tag, all parameters

### 6.11.4 Screenshots




### 6.11.5 Comments

This XML application works only if sugarCRM is installed and configured.

## 6.12 Parking

This application allows a user to access to the list of parked calls on the platform and perform a pickup.

Another part of this application is to display the parking orbit used by Asterisk after the call is parked. This second application is available only on the Aastra67i and 9i family.

If the key supporting the application has a LED, this LED will slow flash to indicate that at least one call is currently parked. The list of users having this feature is configurable see chapter 8.2 for more details.

### 6.12.1 Phone Compatibility

All Aastra Phones

BUT no LED for Aastra 9112i/9133i/480i/480iCT/9480i/9480iCT

### 6.12.2 PHP script

Location

`/var/www/html/aastra/asterisk/park.php`

Parameters

- user=XXX [Mandatory for 9112i/9133i]

  where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

### 6.12.3 Configuration

Aastra 9112i/9133i/480i/480iCT

- action uri onhook:
  `http://XML_SERVER/aastra/asterisk/onhook.php ?user=$$SIPUSERNAME$$ &number=$$REMOTENUMBER$ &name=$$INCOMINGNAME$$`
- uri
  `http://XML_SERVER/aastra/asterisk/park.php ?user=$$SIPUSERNAME$$`

Aastra 51i

As the Aastra6751i does not have any softkey, the Park application is available only through the ‘Services’ key.

- action uri onhook:
  `http://XML_SERVER/aastra/asterisk/onhook.php ?user=$$SIPUSERNAME$$ &number=$$REMOTENUMBER$ &name=$$INCOMINGNAME$$`
- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register &user=$$SIPUSERNAME$$`
- action uri poll:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=check &user=$$SIPUSERNAME$$`
- action uri poll interval: 1800
- action uri xml sip notify:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=notify &user=$$SIPUSERNAME$$`
- xml application uri
  `http://XML_SERVER/aastra/menu/mymenu.php ?menu_source=menu2 &menu_user=$$SIPUSERNAME$$ &user=$$SIPUSERNAME$$`

Aastra 53i/55i/57i/57iCT, 9143i/9480i/9480iCT and 6730i/6731i

- action uri onhook:
  `http://XML_SERVER/aastra/asterisk/onhook.php ?user=$$SIPUSERNAME$$ &number=$$REMOTENUMBER$ &name=$$INCOMINGNAME$$`
- action uri registered:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=register &user=$$SIPUSERNAME$$`
- action uri poll:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=check &user=$$SIPUSERNAME$$`
- action uri poll interval: 1800
- action uri xml sip notify:
  `http://XML_SERVER/aastra/asterisk/sync.php ?action=notify &user=$$SIPUSERNAME$$`
- uri

`http://XML_SERVER/aastra/asterisk/park.php ?user=$$SIPUSERNAME$$`

### 6.12.4 Configuration files

The Parking application uses the following configuration files

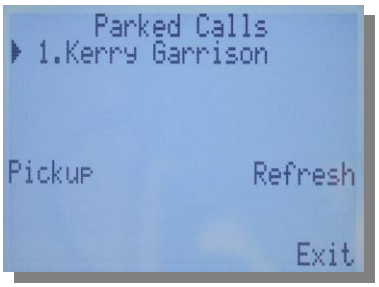
server.conf

- General tag, language

asterisk.conf

- Parking tag, all parameters

### 6.12.5 Screenshots



### 6.12.6 Comments

This application works only if the parking lot has been configured using FreePBX (see chapter 2.3.2.3 for details on the configuration).

The second part of this application is handled by the action uri onhook.

## 6.13 MP3 Player

This application allows a user to select and play MP3 files stored on the server. A default free of right MP3 file is provided with the package.

### 6.13.1 Phone Compatibility

Aastra phones with softkeys

Aastra480i/480iCT

Aastra9480i/9480iCT

### 6.13.2 PHP script

Location

`/var/www/html/aastra/asterisk/music.php`

Parameters

- user=XXX [Mandatory]

  where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

### 6.13.3 Configuration

- action uri onhook:
  `http://XML_SERVER/aastra/asterisk/onhook.php ?user=$$SIPUSERNAME$$ &number=$$REMOTENUMBER$ &name=$$INCOMINGNAME$$`
- uri

`http://XML_SERVER/aastra/asterisk/music.php ?user=$$SIPUSERNAME$$`

### 6.13.4 Configuration files

List of directories with MP3 files

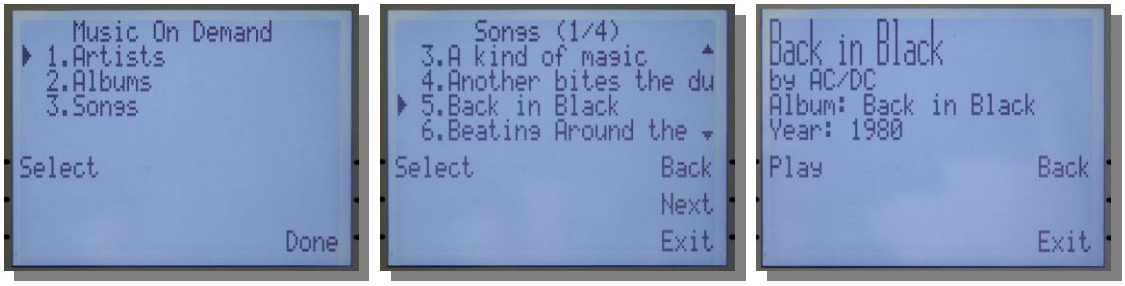
`/var/www/html/aastra/config/asterisk.conf`

File indexing

Each time the list of directories is modified or MP3 files are added or deleted from the monitored directories, the files must be reindexed. This is done using the following commands.

- `Logged as root on the console`
- `cd /var/www/html/aastra/asterisk`
- `php genMP3.php`

### 6.13.5 Screenshots




### 6.13.6 Comments

The MP3 files can be played only if they have been indexed and if they have minimum ID3 tags embedded (title and artist).

Some MP3 files might not be supported by the MP3 player used (mpg123).

The index file is located on the cache directory (/var/cache/aastra).

## 6.14 ACD Agent login/logout

This application allows a user to login/logout to an ACD queue.

Agents can be:

- Static, configured as a permanent agent to one or multiple queues. This configuration is done via FreePBX. When an agent is static for a given queue, he can not logout from this queue, he can just pause and unpause.
- Dynamic, agent has the capability to login/logout to any ACD queue configured on the platform. Some queues can be password protected.

---

**Note:** the application does not support the agents declared in /etc/asterisk/agent.conf.

---

### 6.14.1 Phone Compatibility

All Aastra phones.

BUT no LED for Aastra 9112i/9133i/480i/480iCT/9480i/9480iCT

### 6.14.2 PHP script

Location

`/var/www/html/aastra/asterisk/agent.php`

Parameters

- agent=XXX [Mandatory]

where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

---

**Notes:**

- only one instance of this script per phone is supported
- the LED key is automatically detected when the phone registers after a reboot.

---

### 6.14.3 Configuration

- uri

```
http://XML_SERVER/aastra/asterisk/agent.php       ?agent=$$SIPUSERNAME$$
```

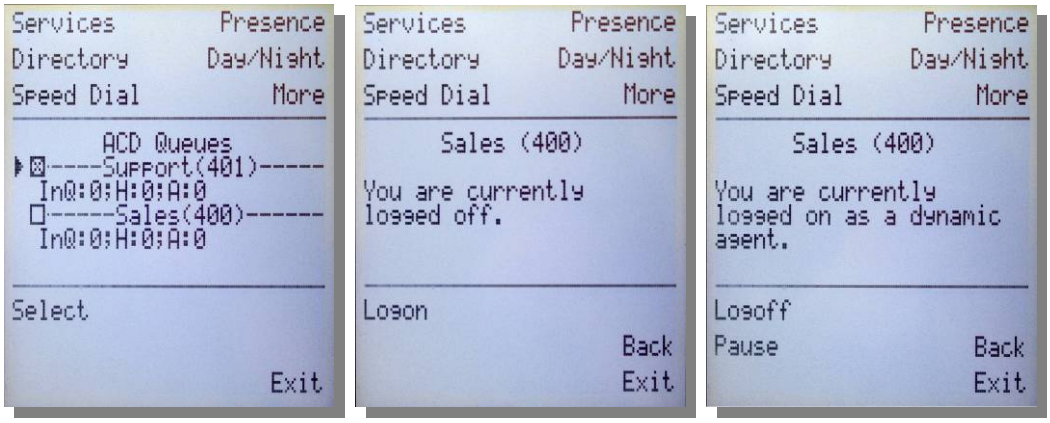
### 6.14.4 Configuration files

The ACD agent login/logout application uses the following configuration files

server.conf

- General tag, language

### 6.14.5 Screenshots




### 6.14.6 Comments

'deviceanduser' mode

- Agent connection status is shared between the devices supporting the same user

## 6.15 ACD Queue monitoring

This application allows a user to monitor the ACD queues configured on the server. For each queue, the user can access to basic statistics as well as details on logged agents.

### 6.15.1 Phone Compatibility

All Aastra phones with softkeys.

### 6.15.2 PHP script

Location

```
/var/www/html/aastra/asterisk/queues.php
```

Parameters

No parameter

### 6.15.3 Configuration

- uri

```
http://XML_SERVER/aastra/asterisk/queues.php
```

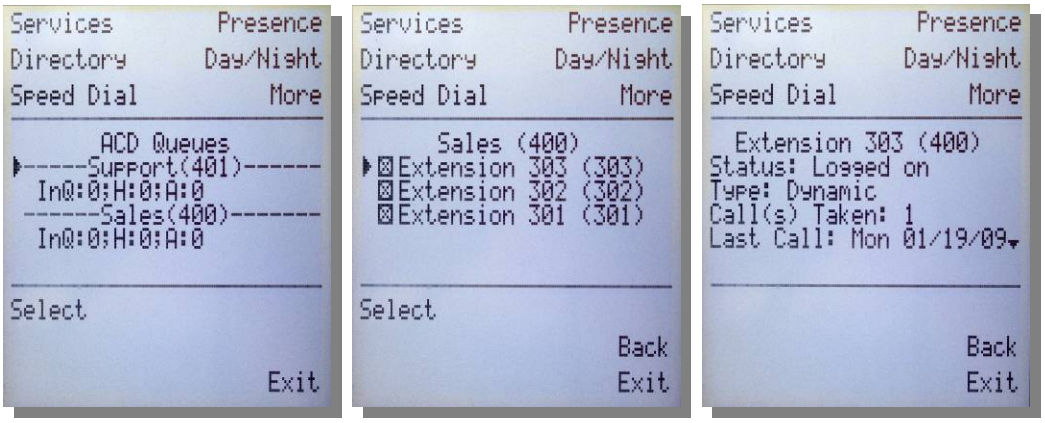
### 6.15.4 Configuration files

The Queues application uses the following configuration files

server.conf

- General tag, language

### 6.15.5 Screenshots




## 6.16 Action uri registered

The action uri registered is triggered when the phone registers to the SIP proxy server. In this implementation, it is used to synchronize the phone status after a reboot for:

- DND
- Call forward
- Day/Night
- Presence
- ACD Agent

This synchronization is needed because after a reboot, the phone loses is idle screen message status and the LED status.

Location

`/var/www/html/aastra/asterisk/sync.php`

Parameters

- action=register [Mandatory]
- user=AAA [Mandatory]

where AAA is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

## 6.17 Action uri poll

The action uri poll is triggered when the configured timer expires (action uri poll interval). In this implementation, it is used to synchronize the phone status on a periodic basis for:

- DND
- Call forward

- Day/Night
- Presence
- ACD Agent

This synchronization is needed because the status for each application might be changed on the server side by other means than the XML application.

Location

```
/var/www/html/aastra/asterisk/sync.php
```

Parameters

- action=check [Mandatory]
- user=AAA [Mandatory]

where AAA is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

## 6.18 Action uri xml sip notify

The action uri xml sip notify is triggered when the phone receives an aastra-xml notify event from the Asterisk server. In this implementation, it is used to propagate the phone status on multiple devices for:

- DND
- Call forward
- Day/Night
- Presence
- ACD Agent
- Parking
- Voice mail

as well as to push a new phone configuration when a user logs in/out from a device in the 'deviceanduser' mode.

Location

```
/var/www/html/aastra/asterisk/sync.php
```

Parameters

- action=notify [Mandatory]
- user=AAA [Mandatory]

where AAA is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.

## 6.19 Action uri incoming

The action uri incoming is triggered when the phone receives an incoming call (SIP INVITE). In this implementation it is used to intercept an incoming call for the following applications:

- The Visual voice mail
- The MP3 Player.

Location

`/var/www/html/aastra/asterisk/incoming.php`

Parameters

- user=AAA [Mandatory]

  where AAA is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.
- name=BBB [Mandatory]

  where BBB is the callerID name of the incoming call, variable $$INCOMINGNAME$$ must be used there.
- number=CCC [Mandatory]
- where CCC is the callerID of the incoming call, variable $$REMOTENUMBER$$ must be used there.

## 6.20 Action uri onhook

The action uri onhook is triggered at the end of a communication. In this implementation, it is used to give control back to XML for the following applications:

- The Visual voice mail
- The MP3 Player
- Parking orbit display
- The Temporary Record for the Presence application

Location

`/var/www/html/aastra/asterisk/onhook.php`

Parameters

- user=AAA [Mandatory]

  where AAA is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there.
- name=BBB [Mandatory]

  where BBB is the callerID name of the incoming call, variable $$INCOMINGNAME$$ must be used there.
- number=CCC [Mandatory]

where CCC is the callerID number of the incoming call, variable $$REMOTENUMBER$$ must be used there.

## 6.21 Action uri outgoing

The action uri outgoing is triggered when the phone starts to dial a number (sends a SIP INVITE). In this implementation, it is used to display the name of the called party if it is an extension of the PBX, extra information on presence status is displayed as well.

Location

`/var/www/html/aastra/asterisk/outgoing.php`

Parameters

- number=AAA [Mandatory]

where AA is the dialed number, variable $$REMOTENUMBER$$ must be used there.

This internal directory lookup is configurable in asterisk.conf (see chapter 8.2 for more details)

# 7 Media applications

On top of Asterisk related applications, aastra-xml-scripts package also contains some media and information XML applications:

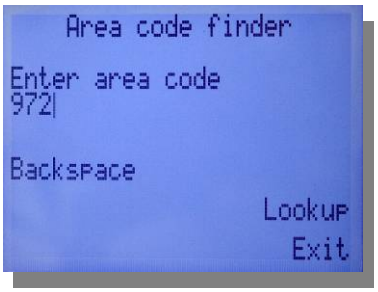
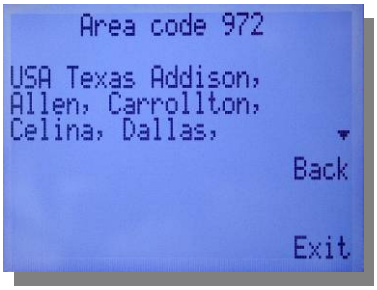
- Area code
- Ask Google
- Biorhythms
- Currency converter
- CNN News
- ESPN News
- Fox News
- Horoscope
- Local Weather
- Netflix
- Movies
- Stock
- Today…
- World Clock
- Yahtzee

These XML applications can be configured individually on a phone key or as a global menu.

**In this chapter `XML_SERVER` represents the IP address or name of the server**

## 7.1 US Area code lookup

| Description | | | |
|---|---|---|---|
| This application allows the user to lookup for the State/Cities of any given area code. | | | |
| **Phone compatibility** | | | |
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |
| **PHP script** | | | |
| Location<br>`/var/www/html/aastra/area/area.php`<br>Parameters<br>None | | | |
| **Configuration** | | | |
| • uri<br>`http://XML_SERVER/aastra/area/area.php` | | | |

| Screenshots |
|---|
|   |

## 7.2 Ask Google

| Description |
|---|
| This application allows the user to ask a general question to Google.com. Please refer to http://www.google.com/sms for more details.<br><br>Questions<br>• 1 USD in Euro<br>• Define TCP<br>• Movies 90210<br>• Translate bread in French<br>• … |

| Phone compatibility | | | |
|---|---|---|---|
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

**PHP script**

Location

`/var/www/html/aastra/google/google.php`

Parameters

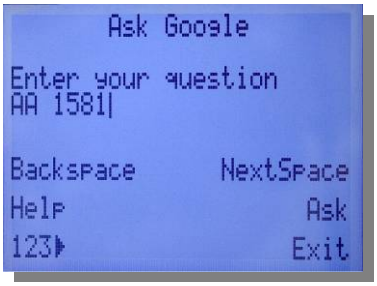
- user=XXX [Optional]

  where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there. If not provided, the MAC address of the phone is used.

**Configuration**

- uri

  `http://XML_SERVER/aastra/google/google.php?user=$$SIPUSERNAME$$`

| Screenshots |
|---|
|  |
| **Comments** |
| Internet access needed<br>User's last request is stored in the cache directory /var/cache/aastra |

### 7.3 Biorhythms

| Description | | | |
|---|---|---|---|
| Check your Biorhythms. | | | |
| **Phone compatibility** | | | |
| ✗ | Aastra9112i | ✓ | Aastra6751i |
| ✗ | Aastra9133i | ✓ | Aastra6753i |
| ✗ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

**PHP script**

Location

`/var/www/html/aastra/games/biorhythms.php`

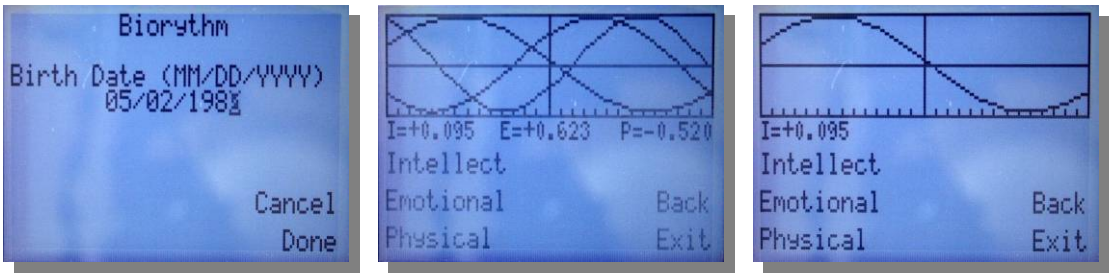
Parameters

- user=XXX [Optional]
  where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there. If not provided, the MAC address of the phone is used.

**Configuration**

- uri
  `http://XML_SERVER/aastra/games/biorhythms.php?user=$$SIPUSERNAME$$`

**Screenshots**




| Comments |
|---|
| User's birth date is stored on the server.<br>Only phones with graphical display (55i/57i and 57iCT) will display the charts<br>PHP-GD extension is needed for this XML script. |

## 7.4 Currency Converter

| Description | | | |
|---|---|---|---|
| This application uses www.yahoo.com to convert any currency in to another currency. It also allows the user to setup a list of favorite conversions. | | | |
| **Phone compatibility** | | | |
| ✘ | Aastra9112i | ✘ | Aastra6751i |
| ✘ | Aastra9133i | ✘ | Aastra6753i |
| ✘ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✘ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✘ | Aastra6730i/6731i |

**PHP script**

Location

`/var/www/html/aastra/stock/currency.php`

Parameters

- user=XXX [Optional]

  where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there. If not provided, the MAC address of the phone is used.

**Configuration**

- uri

  `http://XML_SERVER/aastra/stock/currency.php?user=$$SIPUSERNAME$$`

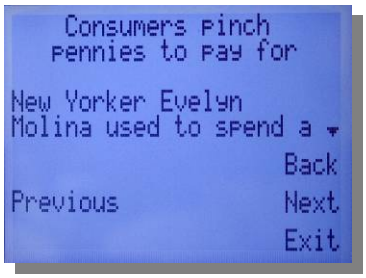
| Screenshots |
|---|
| |
| Comments |
| User's last request and favorites are stored on the server.<br>Internet access needed |

### 7.5 CNN News

| Description |
|---|
| RSS feed from CNN.com including the following topics:<br>• Top Stories<br>• World<br>• U.S.<br>• Politics<br>• Law<br>• Technology<br>• Science and Space<br>• Health<br>• Entertainment<br>• Travel<br>• Education<br>• Video<br>• Offbeat<br>• Most Popular<br>• Most Recent |

| Phone compatibility | | | |
|---|---|---|---|
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

| PHP script |
|---|
| Location<br>`/var/www/html/aastra/rss/rss.php`<br>Parameters<br>• feed=XXX [Mandatory]<br>where XXX is the name of the RSS configuration file to use |

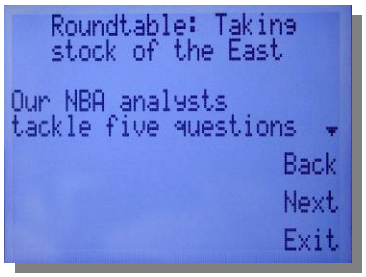
| Configuration |
|---|
| • uri<br>`http://XML_SERVER/aastra/rss/rss.php?feed=cnn` |
| **Screenshots** |
|  |
| **Comments** |
| Internet access needed<br>RSS feed files are cached in the cache directory /var/cache/aastra |

### 7.6 ESPN News

| Description |
|---|
| RSS feed from ESPN.com bringing news for the most popular sports in North America.<br>• Top Headlines<br>• NFL<br>• NBA<br>• MLB<br>• NHL<br>• Motorsports<br>• Soccer<br>• College Basketball<br>• College Football |

| Phone compatibility | | | |
|---|---|---|---|
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

| PHP script |
|---|
| Location<br>`/var/www/html/aastra/rss/rss.php`<br>Parameters<br>• feed=XXX [Mandatory]<br>where XXX is the name of the RSS configuration file to use |

| Configuration |
|---|
| • uri<br>`http://XML_SERVER/aastra/rss/rss.php?feed=espn` |
| **Screenshots** |
|  |
| **Comments** |
| Internet access needed<br>RSS feed files are cached in the cache directory /var/cache/aastra |

### 7.7 FOX News

| Description |
|---|
| RSS feed from foxnews.com including the following topics:<br>• Latest Headlines<br>• National<br>• World<br>• Politics<br>• Business<br>• SciTech<br>• Health<br>• Entertainment |

| Phone compatibility | | | |
|---|---|---|---|
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

| PHP script |
|---|
| Location<br>`/var/www/html/aastra/rss/rss.php`<br>Parameters<br>• feed=XXX [Mandatory]<br>where XXX is the name of the RSS configuration file to use |
| **Configuration** |
| • uri<br>`http://XML_SERVER/aastra/rss/rss.php?feed=foxnews` |

| Comments |
|---|
| Internet access needed<br>RSS feed files are cached in the cache directory /var/cache/aastra |

### 7.8 Horoscope

| Description | | | |
|---|---|---|---|
| RSS feed from astrosage.com providing a daily horoscope. | | | |
| **Phone compatibility** | | | |
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

**PHP script**

Location

`/var/www/html/aastra/rss/rss.php`

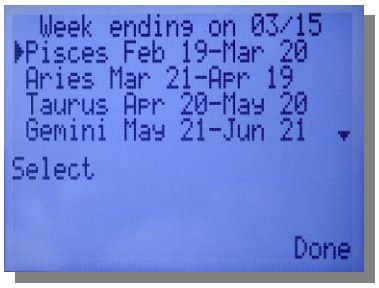
Parameters

- feed=XXX [Mandatory]
  where XXX is the name of the RSS configuration file to use

**Configuration**

- uri
  `http://XML_SERVER/aastra/rss/rss.php?feed=horoscope`

**Screenshots**



| Comments |
|---|
| Internet access needed<br>RSS feed files are cached in the cache directory /var/cache/aastra |

## 7.9 Movies

| Description |
|---|
| RSS feed from Yahoo.com including the following topics:<br>• Opening This Week<br>• Coming Soon<br>• Weekend Box Office<br>• News & Gossip<br>• Top Selling DVDs<br>• New on DVD This Week<br>• New on DVD Next Week<br>• DVDs Available for Pre-Order |

| Phone compatibility | | | |
|---|---|---|---|
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

**PHP script**

Location

`/var/www/html/aastra/rss/rss.php`

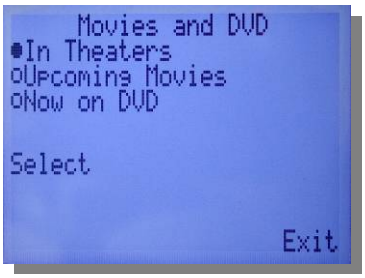
Parameters

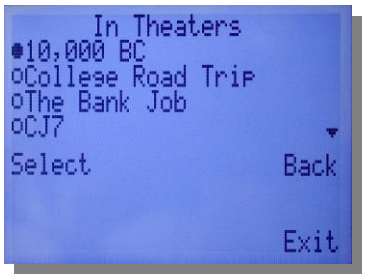
- feed=XXX [Mandatory]
  where XXX is the name of the RSS configuration file to use

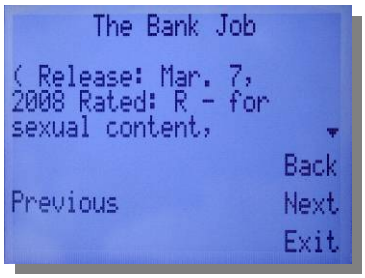
**Configuration**

- uri
  `http://XML_SERVER/aastra/rss/rss.php?feed=movies`

**Screenshots**




**Comments**

Internet access needed

RSS feed files are cached in the cache directory /var/cache/aastra

## 7.10 Netflix

| Description |
|---|
| RSS feed from netflix.com including the following topics:<br>• Top 100<br>• New Releases<br>• Action/adventure Top 25<br>• Comedy Top 25<br>• Drama Top 25<br>• Horror Top 25<br>• Sci-Fi Top 25<br>• Television Top 25<br>• Thrillers Top 25 |

| Phone compatibility | | | |
|---|---|---|---|
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

**PHP script**

Location

`/var/www/html/aastra/rss/rss.php`

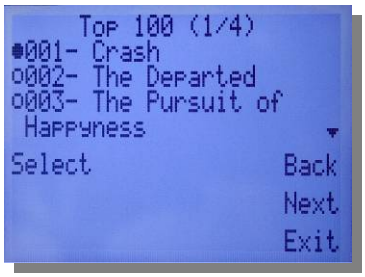
Parameters

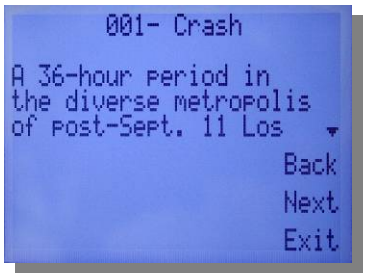
- feed=XXX [Mandatory]
  where XXX is the name of the RSS configuration file to use

**Configuration**

- uri
  `http://XML_SERVER/aastra/rss/rss.php?feed=netflix`

**Screenshots**




**Comments**

Internet access needed

RSS feed files are cached in the cache directory /var/cache/aastra

## 7.11 Stock Quotes

| Description |
|---|
| This application uses www.yahoo.com to get the value of any given stock. Please refer to yahoo.com for the syntax of the stock ticker. |

| Phone compatibility | | | |
|---|---|---|---|
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

**PHP script**

Location

`/var/www/html/aastra/stock/stock.php`

Parameters

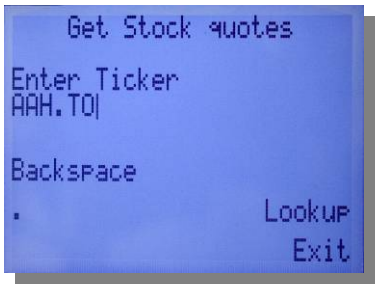
- user=XXX [Optional]
- where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there. If not provided, the MAC address of the phone is used.

**Configuration**

- uri

  `http://XML_SERVER/aastra/stock/stock.php?user=$$SIPUSERNAME$$`

**Screenshots**



**Comments**

Internet access needed

User's last request is stored in the cache directory /var/cache/aastra.

Only the phones with softkeys can access to the watch list.

## 7.12 Today…

| Description |
|---|
| RSS feed from answers.com including the following topics: |

- Word of the Day
- Birthdays today
- This day in History
- Quote of the Day

| Phone compatibility | | | |
|---|---|---|---|
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

**PHP script**

Location

`/var/www/html/aastra/rss/rss.php`

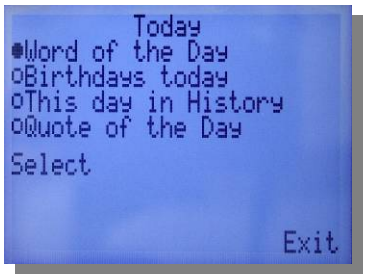
Parameters

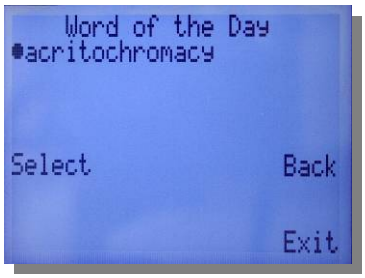
- feed=XXX [Mandatory]
  where XXX is the name of the RSS configuration file to use

**Configuration**

- uri
  `http://XML_SERVER/aastra/rss/rss.php?feed=day`

**Screenshots**



**Comments**

Internet access needed

RSS feed files are cached in the cache directory /var/cache/aastra

### 7.13 US Local Weather

| Description |
|---|
| RSS feed from rssweather.com providing weather forecast for any given US ZIP code |

| Phone compatibility | | | |
|---|---|---|---|
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |

| | | | |
|---|---|---|---|
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

**PHP script**

Location

`/var/www/html/aastra/weather/weather.php`

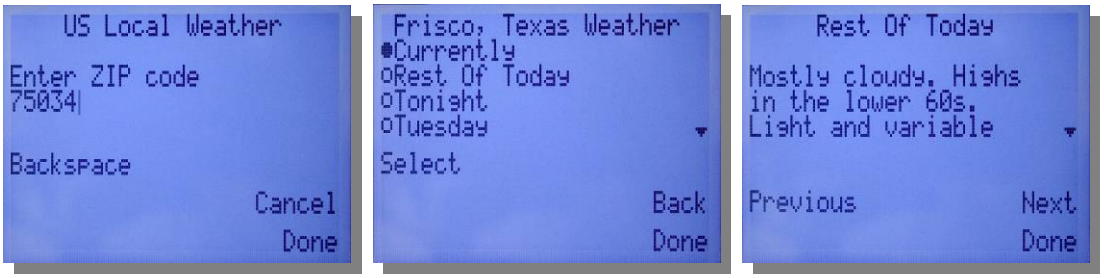
Parameters

None

**Configuration**

- uri
  `http://XML_SERVER/aastra/weather/weather.php`

**Screenshots**




**Comments**

Internet access needed

RSS feed files (for each zip code) are cached in the cache directory /var/cache/aastra

User's last request is stored in the cache directory /var/cache/aastra

### 7.14 World Clock

**Description**

Date and time from around the world using www.timeanddate.com. It allows the user to define a list of favorite cities for quick access.

**Phone compatibility**

| | | | |
|---|---|---|---|
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

**PHP script**

Location

`/var/www/html/aastra/clock/clock.php`

Parameters

None

Configuration

- uri
  `http://XML_SERVER/aastra/clock/clock.php`

Screenshots

Comments

Internet access needed
Favorites list is stored in the cache directory /var/cache/aastra
Only phones with softkeys can create create the favorites list.

### 7.15 Yahtzee

Description

A Yahtzee game…

Phone compatibility

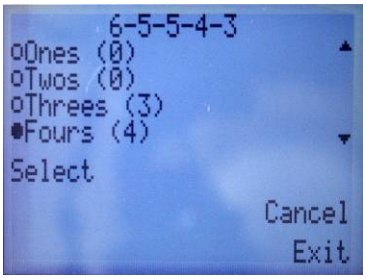
| | | | |
|---|---|---|---|
| ✘ | Aastra9112i | ✘ | Aastra6751i |
| ✘ | Aastra9133i | ✘ | Aastra6753i |
| ✘ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✘ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✘ | Aastra9480i/9480iCT | ✘ | Aastra6730i/6731i |

PHP script

Location
`/var/www/html/aastra/games/yahtzee.php`
Parameters
None

Configuration

- uri
  `http://XML_SERVER/aastra/games/yahtzee.php`

| Screenshots |
|---|
|  |

### 7.16 Global menu

| Description |
|---|
| This application is an XML application agragator. It can be configured as an XML key or as the XML custom menu behind the “Services” key (not available on 9112i, 9133i, 9143i, 51i and 53i). |

| Phone compatibility | | | |
|---|---|---|---|
| ✓ | Aastra9112i | ✓ | Aastra6751i |
| ✓ | Aastra9133i | ✓ | Aastra6753i |
| ✓ | Aastra480i/480iCT | ✓ | Aastra6755i |
| ✓ | Aastra9143i | ✓ | Aastra6757i/6757iCT |
| ✓ | Aastra9480i/9480iCT | ✓ | Aastra6730i/6731i |

**PHP script**

Location

`/var/www/html/aastra/menu/mymenu.php`

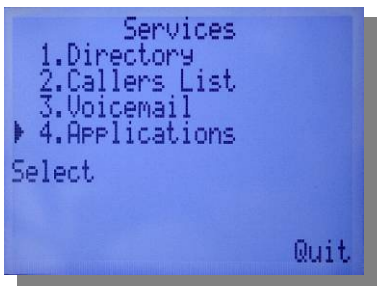
Parameters

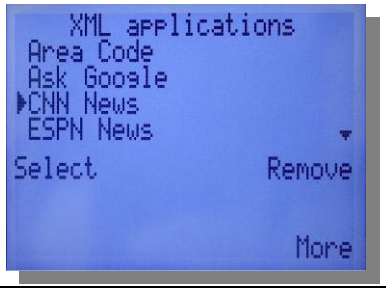
- menu_source=XXX [Optional]
- where XXX is the name of the menu configuration file located at /var/www/html/menu. If omitted, the default value is ‘all’.

**Configuration**

- uri
  `http://XML_SERVER/aastra/menu/mymenu.php?menu_source=menu1`

**Screenshots**



| Comments |
| --- |
| User menu is stored in the cache directory /var/cache/aastra<br>Only Aastra phones with softkeys are able to customize the list of applications.<br>The configuration file with the list of applications behind the 'menu' key is /var/www/html/aastra/menu/menu1.menu |

# 8 Appendix A: Configuration files

The general configuration files are located in the `/var/www/html/aastra/config` directory.

These files can be changed dynamically, no reboot needed.

## 8.1 server.conf

This file includes configuration parameters for the XML server.

```
################################################################################
# server.conf
#
# Configuration file for Aastra XML scripts
#
# Version: 2.2.1
#
# Copyright 2009 Aastra Telecom Ltd
#
################################################################################
[General]
# Public IP address (optional), if not provided $_SERVER['HTTP_HOST'] is used
public=
# Path for the Aastra cache directory (optional), if not provided /var/cache/aastra is
used. Do not use '\' for Windows implementation.
cache=
# Path for the TFTP root directory (optional) if not provided /tftpboot is used. Do not use
'\' for Windows implementation.
tftp=
# Path for the XML directory behind the HTTP Server (optional), default is xml
xmldirectory=aastra
# Mode DEBUG (0 or 1), default is 0
debug=
# Mode TRACE (0 or 1), default is 0
trace=
# Forced language (optional), can be en, de, fr...
language=
```

When activated, the traces and debug files are stored in files located in the ‘cache’ directory (by default /var/cache/aastra) indexed by the date, a daily file is generated.

## 8.2 asterisk.conf

This file includes configuration parameters for

- The asterisk application
  - SIP proxy IP address,
  - SIP registrar IP address,
- The self-configuration
  - default profile to use (.prf files located in /var/www/html/aastra/asterisk)
  - email addresses to send the hot desking event
  - identity of the email sender
  - Authentication mode
    - Using the user voicemail password (default)
    - Using a platform password

- Custom profiles for self-configuration
- The server dial plan (used by the sugarCRM application)
    - country code,
    - long distance prefix
    - international prefix
    - outgoing prefix
- The directory with the list of extensions you want to keep secret
- The daynight application with the list of users having the application on their phone as as the list of users being notified on their phone.
- The MP3 Player (list of directories with MP3 files for indexing)
- The Presence application (enabled or disabled)
- The Parking application (list of users not having the updated LED)
- The outgoing lookup application (enabled or disabled)
- The directory location of the CSV file for the CSV based contacts application

```
################################################################################
# asterisk.conf
#
# Configuration file for Aastra XML scripts
#
# Version: 2.2.1
#
# Copyright 2009 Aastra Telecom Ltd
#
################################################################################
[General]
# IP address or name of the proxy server (optional), if not provided
$_SERVER['SERVER_ADDR'] is used
proxy=
# IP address or name of the registrar server (optional), if not provided
$_SERVER['SERVER_ADDR'] is used
registrar=

[Startup]
# Default Phone profile to use for self-configuration
profile=demo
# Email address to send the hot desking events (optional)
email=
# Identity of the email sender (optional) if not provided, the sender is no-reply@proxy
sender=
# Authentication method (optional) custom numeric password (voice mail password used by
default)
auth=

################################################################################
# This section describes the custom profile to be used for self-configuration,
# the default profile will apply if user/device is not configured below.
#
# Syntax
# profile=List of user/device ranges using the profile separated by a
#         comma (xxx,xxx-yyy,-yyy,xxx-)
#
# Example
#   [Profiles]
#   standard=200-249,251-299
#   agent=300-
#   special=250
#
################################################################################
```

```
[Profiles]

[Directory]
# List of extension ranges to be hidden separated by a comma (xxx,xxx-yyy,-yyy,xxx-)
hidden=

[SpeedDial]
# Speed dial application enabled (1) or not(0), default is 1
enabled=1

[Daynight]
# Index of the day/night service (0 by default)
index=
# List of users having the day/night application separated by a comma or ALL
appli=ALL
# List of users being notified for day/night changes separated by a comma (on top of the
ones with the application) or ALL
notify=ALL

[DialPlan]
# International country code
country=1
# Long distance prefix
long distance=1
# International prefix
international=011
# Outgoing prefix
outgoing=9

[Music]
# List of the MP3 directories separated by a comma
directory=/var/cache/MP3

[Presence]
# Presence application enabled (1) or not(0), default is 1
enabled=

[Parking]
# List of users NOT being notified for park changes separated by a comma
exclude=

[Outgoing]
# Lookup application enabled (1) or not(0), default is 1
enabled=

[Contacts]
# Directory location of the csv text file (default is the cache directory
/var/cache/aastra)
location=
```

This configuration is typical for an Asterisk server with a US dial plan.

**Note:** the email configuration works only if the server has Internet access and is configured with a SMTP relay server.

## 8.3 init.conf

This file includes the configuration parameters for the self-configuration application.

```
##############################################################################################
# init.conf
#
# Configuration file for Aastra XML scripts
#
# Version: 2.2.1
#
# Copyright 2009 Aastra Telecom Ltd
```

```
# List of choices at the phone boot.
#
# [Choice]
# label Label to be displayed
# uri   uri to be called
#
# Variables
#  $$AA_XML_SERVER_AA$$       IP address/name of the XML server
#  $$AA_XMLDIRECTORY_AA$$     Name of the xml directory
##############################################################################################
[Asterisk]
label=Local Asterisk
uri=http://$$AA_XML_SERVER_AA$$/$$AA_XMLDIRECTORY_AA$$/asterisk/startup.phpp
```

List of choices at the phone boot.

[Choice]

| | |
|---|---|
| label | Label to be displayed |
| uri | uri to be called |

Variables

| | |
|---|---|
| $$AA_XML_SERVER_AA$$ | IP address/name of the XML server |
| $$AA_XMLDIRECTORY_AA$$ | Name of the xml directory |

## 8.4 timezone.conf

This file includes the list of time zones the user will have to choose from for the self-configuration. It can be easily changed in order to limit the choice or to display your country as the first one in the list.

# 9 Appendix B: Description of the Files

| Directory /File | Comment |
|---|---|
| /etc/asterisk | |
| asterisk/extensions-away-status.conf | Presence context |
| /var/cache/aastra | |
| contacts.php | Sample contact file |
| music.cfg | Index file for MP3 player |
| /var/cache/MP3 | |
| Wild_Child.mp3 | MP3 file sample |
| /usr/local/sbin/ | |
| setup-aastra-xml | aastra.cfg generator |
| /var/lib/asterisk/agi-bin/ | |
| user_login_out.agi | User login/logout |
| record-temporary-message.php | Record temporary message |
| /var/lib/asterisk/sounds/custom | |
| temporary-message-restricted.wav | Custom sound files |
| temporary-message-saved.wav | |
| vm-no-box.wav | |
| vm-you-no-box.wav | |
| welcome-back.wav | |
| /var/www/html/aastra | Scripts Root Directory |
| language.ini | Language configuration file |
| /var/www/html/aastra/area | |
| area.php | Area code application |
| area_codes.txt | Data file for area code application |
| /var/www/html/aastra/asterisk | |
| aastra_daemon1 | Daemon for Parking LED management |
| aastra_daemon2 | Daemon for VMail LED management |
| agent.php | ACD Agent login/logout |
| away.php | Presence application |
| contacts.php | Contacts application |
| cfwd.php | Call Forward |
| daynight.php | Day/Night |
| demo-device-nouser.prf | Profiles for self-configuration |
| demo-device-user.prf | |

| Directory /File | Comment |
|---|---|
| demo-user.prf | |
| directory.php | Directory |
| dnd.php | DND |
| genMP3.php | MP3 indexing tool |
| incoming.php | Incoming call handler |
| login.php | Login for device and user mode |
| logout.php | Logout |
| meetme.php | Meet-me |
| music.php | MP3 Player |
| notify.php | Presence notification |
| onhook.php | On hook handler |
| outgoing.php | Outgoing call handler |
| park.php | Parking lot |
| queues.php | Queue |
| read_context | Debug utility |
| startup.php | Self-configuration |
| sugarCRM.php | Sugar CRM |
| sync.php | Synchronization handler |
| vmail.php | Visual voice-mail |
| /var/www/html/aastra/clock/ | |
| clock.ini | Data file for world clock application |
| clock.php | World clock |
| /var/www/html/aastra/config/ | |
| init.conf | Config file for self-configuration |
| server.conf | Server config file |
| asterisk.conf | Asterisk config file |
| timezone.conf | List of timezones |
| /var/www/html/aastra/games/ | |
| yahtzee.php | Yahtzee game |
| biorhythm.php | Biorhythms |
| /var/www/html/aastra/google/ | |
| google/google.php | Ask Google |
| /var/www/html/aastra/include/ | |
| AastraAsterisk.class.php | Asterisk includes |

| Directory /File | Comment |
|---|---|
| AastraAsterisk.php | |
| AastraCommon.php | Common Aastra functions |
| AastraIPPhone.class.php | Aastra XML php classes |
| AastraIPPhoneConfiguration.class.php | |
| AastraIPPhoneConfigurationEntry.class.php | |
| AastraIPPhoneDirectory.class.php | |
| AastraIPPhoneDirectoryEntry.class.php | |
| AastraIPPhoneExecute.class.php | |
| AastraIPPhoneExecuteEntry.class.php | |
| AastraIPPhoneFormattedTextScreen.class.php | |
| AastraIPPhoneFormattedTextScreenEntry.class.php | |
| AastraIPPhoneGDImage.class.php | |
| AastraIPPhoneIconEntry.class.php | |
| AastraIPPhoneImageMenu.class.php | |
| AastraIPPhoneImageMenuEntry.class.php | |
| AastraIPPhoneImageScreen.class.php | |
| AastraIPPhoneInputScreen.class.php | |
| AastraIPPhoneInputScreenEntry.class.php | |
| AastraIPPhoneSoftkeyEntry.class.php | |
| AastraIPPhoneStatus.class.php | |
| AastraIPPhoneStatusEntry.class.php | |
| AastraIPPhoneTextMenu.class.php | |
| AastraIPPhoneTextMenuEntry.class.php | |
| AastraIPPhoneTextScreen.class.php | |
| class.id3.php | ID3 tag parser |
| htmlparser.inc | HTML parser |
| License.txt | License file |
| preg_find.php | Special function |
| RSS.class.php | RSS include |
| /var/www/html/aastra/startup/ | |
| init.php | Self-configuration initiator |
| /var/www/html/aastra/menu/ | |
| menu1.menu | Custom menu 1 |
| menu2.menu | Custom menu 2 |

| Directory /File | Comment |
|---|---|
| mymenu.php | Menu |
| /var/www/html/aastra/rss/ | |
| cnn.rss | CNN feed |
| day.rss | Day feed |
| espn.rss | ESPN feed |
| fox.rss | FOX News feed |
| horoscope.rss | Daily horoscope |
| movies.rss | Movies feed |
| netflix.rss | Netflix feed |
| rss.php | RSS reader |
| /var/www/html/aastra/scripts/ | |
| setup-xml | aastra.cfg generator |
| /var/www/html/aastra/stock/ | |
| currency.php | Currency converter |
| stock.php | Stock quotes |
| /var/www/html/aastra/weather/ | |
| weather.php | Local weather (US zip code) |

# 10 Appendix C: RPM Spec file

```
Summary:     Aastra Telecom XML scripts
Name:        aastra-xml-scripts
Version:     2.2.1
Release:     1
License:     BSD type/GPL see License.txt
Group:       System/Servers
BuildArch:   noarch
Source0:     %{name}-%{version}.tar.gz
BuildRoot:   %{_tmppath}/%{name}-%{version}
Vendor:             Aastra Telecom
URL:         www.aastratelecom.com
Packager:    support@aastra.com
Requires:    mDNSResponder-util,aastra-ipphone >= 2.5.0,mpg123,php-gd
AutoReqProv: no

%description
PHP scripts which enable the Aastra Telecom SIP Phones XML browser to interact
with the asterisk features.

%prep

%setup -q -n %{name}-%{version}

%build

%install

install -d %{buildroot}/var/www/html/aastra
cp -r SCRIPTS/* %{buildroot}/var/www/html/aastra

install -d %{buildroot}/var/cache/aastra
cp -r INSTALL/cache/* %{buildroot}/var/cache/aastra

install -d %{buildroot}/var/cache/MP3
cp -r INSTALL/MP3/* %{buildroot}/var/cache/MP3

install -D INSTALL/scripts/setup-aastra-xml %{buildroot}/usr/local/sbin/setup-
aastra-xml

rename %{buildroot}/var/lib/asterisk/agi-bin/user_login_out.agi
%{buildroot}/var/lib/asterisk/agi-bin/user_login_out.agi.orig
install -D INSTALL/agi-bin/user_login_out.agi %{buildroot}/var/lib/asterisk/agi-
bin/user_login_out.agi

rename %{buildroot}/var/www/html/admin/modules/core/agi-bin/user_login_out.agi
%{buildroot}/var/www/html/admin/modules/core/agi-bin/user_login_out.orig
install -D INSTALL/agi-bin/user_login_out.agi
%{buildroot}/var/www/html/admin/modules/core/agi-bin/user_login_out.agi

install -D INSTALL/agi-bin/record-vm-greetings.php
%{buildroot}/var/lib/asterisk/agi-bin/record-vm-greetings.php

install -D INSTALL/asterisk/extensions-away-status.conf
%{buildroot}/etc/asterisk/extensions-away-status.conf

install -d %{buildroot}/var/lib/asterisk/sounds/custom
cp -r INSTALL/sounds/* %{buildroot}/var/lib/asterisk/sounds/custom

%post
```

```
if [ ! -f '/etc/asterisk/sip_notify.conf' ]
then
  touch /etc/asterisk/sip_notify.conf
  chown asterisk /etc/asterisk/sip_notify.conf
fi

res=`grep -c aastra-check-cfg /etc/asterisk/sip_notify.conf`
if [ $res -eq 0 ]
then
  cat >> /etc/asterisk/sip_notify.conf <<EOF

; Aastra check-sync
[aastra-check-cfg]
Event=>check-sync
Content-Length=>0
EOF
fi

res=`grep -c aastra-xml /etc/asterisk/sip_notify.conf`
if [ $res -eq 0 ]
then
  cat >> /etc/asterisk/sip_notify.conf <<EOF

; Aastra XML event
[aastra-xml]
Event=>aastra-xml
Content-Length=>0
EOF
fi

res=`grep -c extensions-away-status /etc/asterisk/extensions_custom.conf`
if [ $res -eq 0 ]
then
  cat >> /etc/asterisk/extensions_custom.conf <<EOF

#include extensions-away-status.conf
EOF
fi

res=`grep -c daemon.php /etc/rc.d/rc.local`
if [ $res -eq 1 ]
then
      sed '/daemon.php/d' /etc/rc.d/rc.local > /etc/rc.d/rc.local.temp
      mv /etc/rc.d/rc.local.temp /etc/rc.d/rc.local
fi
res=`grep -c aastra_daemon1 /etc/rc.d/rc.local`
if [ $res -eq 0 ]
then
  cat >> /etc/rc.d/rc.local <<EOF
/var/www/html/aastra/asterisk/aastra_daemon1&
EOF
fi
res=`grep -c aastra_daemon2 /etc/rc.d/rc.local`
if [ $res -eq 0 ]
then
  cat >> /etc/rc.d/rc.local <<EOF
/var/www/html/aastra/asterisk/aastra_daemon2&
EOF
fi
chmod +x /etc/rc.d/rc.local

asterisk -rx 'module reload'
/etc/rc.d/init.d/mDNSResponder restart
```

```
%postun
res=`grep -c extensions-away-status /etc/asterisk/extensions_custom.conf`
if [ $res -eq 1 ]
then
      sed '/extensions-away-status/d' /etc/asterisk/extensions_custom.conf >
/etc/asterisk/extensions_custom.conf.temp
      mv /etc/asterisk/extensions_custom.conf.temp
/etc/asterisk/extensions_custom.conf
fi

res=`grep -c daemon.php /etc/rc.d/rc.local`
if [ $res -eq 1 ]
then
      sed '/daemon.php/d' /etc/rc.d/rc.local > /etc/rc.d/rc.local.temp
      mv /etc/rc.d/rc.local.temp /etc/rc.d/rc.local
fi
res=`grep -c aastra_daemon1 /etc/rc.d/rc.local`
if [ $res -eq 1 ]
then
      sed '/aastra_daemon1/d' /etc/rc.d/rc.local > /etc/rc.d/rc.local.temp
      mv /etc/rc.d/rc.local.temp /etc/rc.d/rc.local
fi
res=`grep -c aastra_daemon2 /etc/rc.d/rc.local`
if [ $res -eq 1 ]
then
      sed '/aastra_daemon2/d' /etc/rc.d/rc.local > /etc/rc.d/rc.local.temp
      mv /etc/rc.d/rc.local.temp /etc/rc.d/rc.local
fi
chmod +x /etc/rc.d/rc.local

asterisk -rx 'module reload'
/etc/rc.d/init.d/mDNSResponder restart

%files
%defattr(755,asterisk,asterisk)
/etc/asterisk/extensions-away-status.conf
/var/cache/aastra
/var/cache/MP3
/usr/local/sbin/setup-aastra-xml
/var/lib/asterisk/agi-bin/user_login_out.agi
/var/lib/asterisk/agi-bin/record-vm-greetings.php
/var/lib/asterisk/sounds/custom
/var/www/html/aastra
/var/www/html/admin/modules/core/agi-bin/user_login_out.agi

%changelog
* Fri Apr 02 2009  Aastra Support
- Release 2.2.1
- Dependency for firmware 2.5.0
- Visual voice mail LED management
- Greetings record via the Vmail application
- Localization in French, Spanish, German and Portuguese
- Bug fixes

* Fri Jan 19 2009  Aastra Support
- Release 2.2.0
- Dependency for firmware 2.4.1
- Presence application
- User login/logout to ACD
- Bug fixes

* Fri Sep 19 2008  Aastra Support
```

```
- Release 2.1.1
- Dependency for firmware 2.3.1
- Bug fixes (Visual voice mail)

* Tue Sep 02 2008  Aastra Support
- Release 2.1.0
- Support for 9143i, 9480i and 9480iCT
- Device and User mode support
- Additional scripts
- Bug fixes

* Sun Mar 16 2008  Aastra Support
- Release 2.0.0
- Auto-Discovery and Self-Configuration
- Visual Call Park
- Day/night schedule control
- Additional scripts

* Fri Jun 1 2007  Aastra Support
- Release 1.1.0
- Enhancements to CFWD and DND for 5i series phones
- Additional scripts for RSS feed reader, weather, stock quotes, ask google,
speed dial, Horoscopes and World Clock.

* Mon Feb 19 2007  Aastra Support
- Release 1.0.0
```

# 11 LAST PAGE OF THE DOCUMENT

**This page is intentionally left blank**

**PA-001009-01-03**