Product Application Info

Aastra XML Scripts for PBX IN A FLASH

Version 2.3.0

Doc. No.: PA-001009-01-04

AASTRA

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 2010 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-001009-01-04 1

1.3.2 PA-001009-01-03 4

1.3.3 PA-001009-01-02 5

1.3.4 PA-001009-01-01 6

1.3.5 PA-001009-01-00 6

2 Installation 8

2.1 Compatibility 8

2.1.1 Server 8

2.1.2 Aastra SIP Phones 8

2.2 Package installation 8

2.2.1 Package Dependencies 8

2.2.2 Remove mDNSResponder packages 9

2.2.3 Keep mDNSResponder packages 9

2.2.4 Fresh install 10

2.2.5 Upgrade from any previous version 11

2.2.6 Files installed or modified 12

2.3 Configuration changes from previous version (2.2.1) 13

2.3.1 Configuration files 13

2.3.2 Profile (.prf) files 13

2.4 Before you connect your first phone 14

2.4.1 Create aastra.cfg 14

2.4.2 Post-installation check 19

2.4.3 Check FreePBX/Asterisk configuration 20

2.4.4 Configure Parking lot 22

2.4.5 Create an extension on Asterisk (mode ‘extensions’) 23

2.4.6 Create a device and a user on Asterisk (mode ‘deviceanduser’) 24

2.4.7 Configure Find-me Follow-me 26

2.4.8 Create a meet-me conference 27

2.4.9 Create Day/Night control 27

2.4.10 Create a Queue 28

2.4.11 Configure g722 wideband codec 29
2.5 Localization *30*
3 freePBX modes **31**
3.1 Configuration *31*
3.2 'extensions' mode *31*
3.3 'deviceanduser' mode *32*
4 Auto-discovery **34**
4.1 Compatibility *34*
4.2 Principle *34*
4.3 Implementation on the server *37*
5 Self-Configuration **38**
5.1 Message flow *38*
5.2 Auto-configuration policy *39*
5.3 'extensions' mode self-configuration *40*
5.3.1 Software architecture 40
5.3.2 Extension login 42
5.3.3 Default phone template configuration 44
5.3.4 Custom phone templates 48
5.3.5 Custom user configuration 48
5.3.6 Phone configuration update 49
5.4 'deviceanduser' mode self-configuration *50*
5.4.1 Software architecture 50
5.4.2 Device Login 53
5.4.3 User Login 55
5.4.4 User Logout 56
5.4.5 Default Phone template configuration 57
5.4.6 Custom phone templates 60
5.4.7 Custom user configuration 61
5.4.8 Phone configuration update 62
5.5 Before you connect the first phone *62*
6 Asterisk applications **63**
6.1 DND *63*
6.1.1 Phone Compatibility 63
6.1.2 Synchronization mechanism 63
6.1.3 PHP script 63
6.1.4 Configuration 64

6.1.5 Configuration files 64
6.1.6 Screenshots 65
6.1.7 Comments 65
6.2 Call Forward 65
6.2.1 Phone Compatibility 65
6.2.2 Synchronization mechanism 65
6.2.3 PHP script 66
6.2.4 Configuration 66
6.2.5 Configuration files 67
6.2.6 Screenshots 67
6.2.7 Comments 67
6.3 Follow-Me 67
6.3.1 Phone Compatibility 68
6.3.2 Synchronization mechanism 68
6.3.3 PHP script 68
6.3.4 Configuration 68
6.3.5 Configuration files 69
6.3.6 Comments 69
6.4 Day/Night 69
6.4.1 Phone Compatibility 70
6.4.2 Synchronization mechanisms 70
6.4.3 PHP script 70
6.4.4 Configuration 71
6.4.5 Configuration files 71
6.4.6 Screenshots 72
6.4.7 Comments 72
6.5 Presence 72
6.5.1 Phone Compatibility 73
6.5.2 PHP script 73
6.5.3 Configuration 73
6.5.4 Configuration files 73
6.5.5 Screenshots 74
6.5.6 Comments 74
6.6 Meet-me 74
6.6.1 Phone Compatibility 74
6.6.2 PHP script 74
6.6.3 Configuration 75

6.6.4 Configuration files....75
6.6.5 Screenshots....75
6.6.6 Comments....75
6.7 Visual Voice Mail....75
6.7.1 Phone Compatibility....76
6.7.2 PHP script....76
6.7.3 Usage....76
6.7.4 Configuration....77
6.7.5 Configuration files....77
6.7.6 Screenshots....77
6.7.7 Comments....77
6.8 Asterisk Directory....77
6.8.1 Phone Compatibility....78
6.8.2 PHP script....78
6.8.3 Configuration....78
6.8.4 Configuration files....78
6.8.5 Screenshots....78
6.8.6 Comments....79
6.9 CSV directory....79
6.9.1 Phone Compatibility....79
6.9.2 PHP script....80
6.9.3 Configuration....80
6.9.4 Configuration files....80
6.9.5 CSV file format....80
6.9.6 Screenshots....81
6.9.7 Comments....81
6.10 LDAP directory....81
6.10.1 Phone Compatibility....81
6.10.2 PHP script....82
6.10.3 Configuration....82
6.10.4 Configuration files....82
6.11 Directory Menu....82
6.11.1 Phone Compatibility....83
6.11.2 PHP script....83
6.11.3 Configuration....83
6.11.4 Configuration files....83
6.12 Speed Dial....83

6.12.1 Phone Compatibility 83
6.12.2 PHP script 84
6.12.3 Configuration 84
6.12.4 Configuration files 84
6.12.5 Screenshots 84
6.12.6 Comments 84
6.13 SugarCRM 85
6.13.1 Phone Compatibility 85
6.13.2 PHP script 85
6.13.3 Configuration files 85
6.13.4 Screenshots 85
6.13.5 Comments 85
6.14 Parking 85
6.14.1 Phone Compatibility 86
6.14.2 PHP script 86
6.14.3 Configuration 86
6.14.4 Configuration files 87
6.14.5 Screenshots 87
6.14.6 Comments 87
6.15 ACD Agent login/logout 87
6.15.1 Phone Compatibility 88
6.15.2 Synchronization mechanisms 88
6.15.3 PHP script 88
6.15.4 Configuration 89
6.15.5 Configuration files 89
6.15.6 Screenshots 89
6.15.7 Comments 89
6.16 ACD Queue monitoring 89
6.16.1 Phone Compatibility 89
6.16.2 PHP script 89
6.16.3 Configuration 89
6.16.4 Configuration files 90
6.16.5 Screenshots 90
6.17 User Key management 90
6.17.1 Phone Compatibility 91
6.17.2 PHP script 91
6.17.3 Configuration 91

6.17.4 Configuration files 91
6.17.5 Screenshots 91
6.18 Picture CallerID (6739i only) *92*
6.18.1 Phone Compatibility 93
6.18.2 PHP script 93
6.18.3 Configuration (aastra.cfg or MAC.cfg) 93
6.18.4 Configuration files 93
6.18.5 Screenshots 93

7 Action uris 94
7.1 Action uri registered 94
7.2 Action uri poll 94
7.3 Action uri xml sip notify 95
7.4 Action uri incoming 95
7.5 Action uri onhook 96
7.6 Action uri outgoing 96

8 Utilities 97
8.1 apply_prf 97
8.2 backup 97
8.3 check_install 97
8.4 read_context 97
8.5 read_database 98
8.6 set_autologout 98

9 Media Applications 99
9.1 US Area code lookup 99
9.2 Ask Google 100
9.3 Biorhythms 101
9.4 Currency Converter 102
9.5 CNN News 103
9.6 ESPN News 104
9.7 FOX News 105
9.8 Horoscope 106
9.9 Movies 107
9.10 Netflix 108
9.11 Stock Quotes 109
9.12 Today… 109
9.13 US Local Weather 110

9.14 World Clock 111
9.15 Yahtzee 112
9.16 Global menu 113

10 Appendix A: Configuration files 115
10.1 server.conf 115
10.2 asterisk.conf 115
10.3 directory.conf 117
10.4 daynight.conf 120
10.5 httpd.conf 122
10.6 queues.conf 122
10.7 status.conf 123
10.8 pictureID.conf (for 6739i only) 123
10.8.1 General parameters 124
10.8.2 Number transformations 124
10.8.3 Number matching examples 126
10.8.4 Pattern matching examples 126
10.9 timezone.conf 127

11 Appendix B: Description of the Files 128

12 Appendix C: RPM Spec file 133

13 LAST PAGE OF THE DOCUMENT 137

TABLE OF FIGURES

Figure 1: Generated aastra.cfg 19
Figure 2: Parking lot configuration 23
Figure 3: Extension configuration 24
Figure 4: Device configuration 25
Figure 5: User configuration 26
Figure 6: Find-me Follow-me configuration 26
Figure 7: Conference configuration 27
Figure 8: Day/Night configuration 28
Figure 9: Queue configuration 29
Figure 10: Phone boot sequence 36
Figure 11: Multicast DNS query 37
Figure 12: Self-Configuration message flow 39
Figure 13: startup.php software architecture 40
Figure 14: logout.php software architecture 41
Figure 15: startup.php software architecture 51
Figure 16: login.php software architecture 52
Figure 17: logout.php software architecture 53

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-001009-01-04

- Enhancements
    - New package dependencies:
        - mDNSResponder and mDNSResponder-util no more needed (replaced by standard Linux avahi package)
        - mpg123 no more needed (MP3 player removed)
    - Aastra “daemons” are now linux services
    - Aastra6739i support with some limitations
        - Server auto-discovery not yet supported
        - Dynamic logout process not yet supported
        - Automatic refresh for some applications (agents, meet-me…) not yet supported.
    - Compatibility with Asterisk 1.6
    - Compatibility with freePBX 2.5, 2.6 and 2.7
    - AGI authentication mechanism now independent of freePBX
    - New installation checkup tool
    - New installation backup tool
    - New admin and user passwords to be used for self-configuration for instance when user does not have a voice mail box.
    - New synchronization mechanism for application using a LED status, polling no more needed (if devstate implemented and freePBX version 2.6)
    - New picture CallerID application for the 6739i
    - Call Park and Visual Parking can be configured as just one key (phones running 2.x or 3.x only)
    - User personal numbers (Home, Mobile) management available from

- CFWD,
- Follow-me
- Presence

- o Self-configuration
  - New user based customization configuration profile (user-custom.prf)
- o Parking
  - Park/Pickup now available as a single key (phones running 2.x or 3.x only)
  - Pressing the parking key can now automatically pickup a parked call if there is only one.
- o Presence application
  - New “Disconnected” status when user is logged out in ‘extensions’ mode
  - New “At Home” status
  - Action to be performed based on the status can now be individually configured
  - User can now configure a daily automatic logout time (extensions mode only)
  - CFWD can now be configured as an action for a status change
- o Day/night application
  - Individual management for each index or global management
  - Day Night “dev state” now updated
- o Visual voice mail
  - New and Saved messages are now displayed in the same screen sorted by date/time (most recent first)
  - Messages automatically set to read when played using the application
  - Play/record messages and prompts is now done with the phone calling the server
  - New callback feature from a message with caller ID
  - Allow DTMF passthrough for message control when playing message (4=Rewind 2s, 6=Fast forward 2s, 0=Stop, 5=Pause/Play,1=Restart), 2.x and 6739i phones only.
- o ACD agent application
  - Now available for non-softkey phones
  - New simplified user interface for softkey phones adding actions for all the queues
  - Now supports restricted list of dynamic agents and agent priority
- o Queue management application
  - Configurable list of queues available for a supervisor
  - Now displays the list of callers in the queues and allows supervisor pickup
  - Now allows agent logout from a queue
- o Meet-me application

        - If the phone is already connected to a conference room, the application goes straight to the list of members
    - Find-Me Follow Me
        - “dev state” now properly updated
    - Logout
        - In ‘extensions’ mode, no more password required (by configuration)
    - PBX directory
        - Much faster display
        - Now also displays “hint” status when Presence status is available, also true for internal calls
    - Directories
        - New LDAP directory application to connect to Microsoft Exchange or any LDAP directory
        - New directory front end application to access to all type of directories (csv, LDAP or any XML script)
    - Outgoing calls
        - Integration with external lookup services such as superfecta
    - New Auto-logout feature
        - Daily automatic logout configurable by the user or the administrator via a tool
        - Feature enabled or disabled by configuration
        - User phone idle screen message can indicate or not auto-logout time (configuration)
        - Available in freePBX ‘extensions’ mode only
        - Available for all phones but phones running 1.4.x
    - New user key management application (2.5.x and 3.0.1 phones only)
        - ‘extensions’ mode only
        - Allows the user to create keys (limited to BLF and Speed dial)
        - Allows the user to move around all the keys (if not locked)
        - Allows the user to change key labels (if not locked)
        - User configuration is stored in order to be used as a template for the next login on another phone of the same type.
- Other Changes
    - MP3 Player application removed
- Updated with aastra-ipphone firmware
    - 2.5.3 for Aastra 6730i, 6731i, 6751i, 6753i, 6755i, 6757i, 6757iCT, 9143i, 9480i, 9480iCT
    - 3.0.1 for Aastra 6739i
- Bug fixes
    - Potentially problematic traces removed

- Cannot unnotify return status if voice message notification
- Signature mechanism disabled for 'deviceanduser' mode
- Various locks on 9133i/480i/480iCT in applications making an incoming phone call or dialing out (Visual VM, Visual Parking...)
- Wrong page number for the forward option
- On 480i/480iCT random 'Page Load error' when selecting a user for forward
- Forced logout did not update MAC.cfg when 1.4.x phone not connected
- Page load error on 480i/480iCT with Agent logged in
- Special keys (DND, CFWD…) cannot be configured on an expansion module
- Updated horoscope application
- Fixed weather application
- Many more…

1.3.2 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.
    - ACD Agent/Queues
        - Automatic refresh of the queue list every 10 seconds (2.x phones only)
    - 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.
    - CSV based directory
        - Location of the csv file is now configurable in asterisk.conf
    - 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
    - Directory
        - New Intercom softkey
    - New and improved Horoscope application using a daily RSS feed.
- Bug fixes
    - Parking daemon was blasting SIP Notify every minute
    - Spec file post uninstall script
    - Visual Parking, user can now pickup the park call going off-hook
    - In ‘deviceanduser’ mode, for a fixed device with a default user, the logout key was available
    - Special characters in SIP password now supported.
    - Caller ID can be more than 2 words
    - Custom menu does not allow to move up the second element
    - Logout no longer allowed in ‘deviceanduser’ mode if device is ‘fixed’.

1.3.3 PA-001009-01-02

- Updated with aastra-ipphone firmware package version 2.4.1
- Enhancements
    - 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

1.3.4 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

1.3.5 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 Server

PIAF

The aastra-xml-scripts have been developed and tested for PBX in a Flash 1.3 and 1.4 (32/64 bit OS).

Asterisk

Asterisk 1.4 and Asterisk 1.6 are supported.

freePBX

freePBX 2.5, 2.6 and 2.7 are supported.

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
- 2.5.3.2002 for Aastra 6730i and 6731i or better
- 2.5.3.2002 for Aastra 6751i/6753i/6755i/6757i and 6757iCT or better
- 2.5.3.2002 for Aastra 9143i, 9480i and 9480iCT or better
- 3.0.1.38 for Aastra6739i or better

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 2.5.3 (which also includes firmware 3.0.1 for the 6739i) 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.

Note:

- The XML scripts 2.3.0 are the last scripts compatible with the 1.4.x phones (9112i, 9133i, 480i and 480iCT).
- The XML scripts 2.3.0 are optimized for 2.6.0 and 3.0.1 firmware.

2.2 Package installation

2.2.1 Package Dependencies

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

- aastra-ipphone >= 2.5.3
- avahi
- php-gd
- php-ldap

Notes:

- The XML scripts 2.3.0 are not using anymore the mDNSResponder packages; the auto-discovery feature is now performed with the standard avahi package. It is recommended to remove the mDNSResponder packages as it will interfere with the avahi package.
- The Aastra SIP Phones running 1.4.x are not compatible with avahi for auto-discovery; you may want to keep the mDNSResponder package. See chapter 2.2.3 for details on how to keep the mDNSResponder packages.

2.2.2 Remove mDNSResponder packages

It is recommended to remove the mDNSResponder packages if they were previously installed as they will conflict with the avahi package.

How to check if mDNSResponder is installed

```
# rpm –q mDNSResponder-util
# package mDNSResponder-util is not installed
or
# mDNSResponder-util-108.5-1
```

How to remove the packages

Note: The mDNSResponder packages can be removed only if the aastra-xml-scripts 2.2.1 package has been removed first as they are a dependency.

```
# /etc/rc.d/init.d/mDNSResponder stop
# rpm –e mDNSResponder-util mDNSResponder
```

2.2.3 Keep mDNSResponder packages

If you are using Aastra SIP Phones running 1.4.x you may want to keep the mDNSResponder packages. After the installation of the Aastra XML scripts 2.3.0 the avahi package is also installed, you need to modify the avahi configuration in order to avoid a conflict.

Note: The avahi package cannot be removed as it is a dependency for tha aastra-xml-scripts package.

How to check if mDNSResponder is installed

```
# rpm –q mDNSResponder-util
# package mDNSResponder-util is not installed
or
# mDNSResponder-util-108.5-1
```

How to install mDNSResponder

```
# cd /tmp
# wget http://65.205.71.13/2.3.0/mDNSResponder-108.5-1.i386.rpm
# wget http://65.205.71.13/2.3.0/mDNSResponder-util-108.5-1.i386.rpm
# rpm –i –-force mDNSResponder-108.5-1.i386.rpm
# rpm –i mDNSResponder-util-108.5-1.i386.rpm
# rm –rf mDNS*.rpm
```

How to change avahi configuration

```
# rm -rf /etc/avahi/services/tftp.service
```

```
# /etc/rc.d/init.d/avahi-daemon restart
```

2.2.4 Fresh install

Steps

1. Retrieve installation script
2. Install the XML scripts
3. Generate /tftpboot/aastra.cfg
4. Check XML scripts installation

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

1. cd /tmp
2. wget http://pbxinaflash.net/source/aastra-xml-2.3.0/install-aastra-xml.x.gz
3. gunzip install-aastra-xml.x.gz
4. chmod +x install-aastra-xml.x
5. ./install-aastra-xml.x
6. setup-aastra-xml
7. /var/www/html/aastra/utilities/check_install

Your screen should look like this:

```
root@pbx:~ $ cd /tmp
root@pbx:/tmp $ wget http://pbxinaflash.net/source/aastra-xml-2.3.0/install-aastra-xml.x.gz
--16:17:29--  http://pbxinaflash.net/source/aastra-xml-2.3.0/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 2.3.0 (32/64 bits)

Checking Operating System...OK
Checking package php-gd ...Installation needed
Installing package...Done
Checking package php-ldap ...Installation needed
Installing package...Done
Checking package avahi ...Installation needed
Installing package...Done
Checking package aastra-ipphone 2.5.3...Installation needed
Downloading package...Done
Installing package...Done
Checking package aastra-xml-scripts 2.5.3...Installation needed
Downloading package...Done
Installing package...Done
Checking mDNSResponder package...Nothing to do
Modifying firewall rules for auto-discovery...Done

Aastra XML scripts 2.3.0 successfully installed.
Please run setup-aastra-xml to generate aastra.cfg.
Please run /var/www/html/aastra/utilities/check_install to check installation.
root@pbx:/tmp $
```

2.2.5 Upgrade from any previous version

If you have customized some files such as auto-configuration profiles or configuration files, please backup these files before performing the upgrade as they might be lost during the upgrade process.

Steps

1. Retrieve installation script
2. Install the new XML scripts
3. Reboot
4. Generate /tftpboot/aastra.cfg
5. Check XML scripts installation
6. Migrate users to this version

```
#/etc/rc.d/init.d/mDNSResponder stop
# rpm –e mDNSResponder-util mDNSResponder
# yum update aastra-xml-scripts
# setup-aastra-xml
# /var/www/html/aastra/utilities/check_install
# /var/www/html/aastra/utilities/apply_prf –r ALL
```

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

1. cd /tmp
2. wget http://pbxinaflash.net/source/aastra-xml-2.3.0/install-aastra-xml.x.gz
3. gunzip install-aastra-xml.x.gz
4. chmod +x install-aastra-xml.x
5. ./install-aastra-xml.x
6. reboot
7. setup-aastra-xml
8. /var/www/html/aastra/utilities/check_install
9. /var/www/html/aastra/utilities/apply_prf –r ALL

Note: It is necessary to reboot the server after installing the new scripts in order to complete the removal of the previous scripts.

```
root@pbx:~ $ cd /tmp
root@pbx:/tmp $ wget http://pbxinaflash.net/source/aastra-xml-2.3.0/install-aastra-xml.x.gz
--16:17:29--  http://pbxinaflash.net/source/aastra-xml-2.3.0/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 2.3.0 (32/64 bits)

Checking package php-gd ...Nothing to do
Checking package php-ldap ...Installation needed
Installing package...Done
Checking package avahi ...Installation needed
Installing package...Done
```

```
Checking package aastra-ipphone 2.5.3...Upgrade needed
Removing old package...Done
Downloading package...Done
Installing package...Done
Checking package aastra-xml-scripts 2.5.3...Upgrade needed
Removing old package...Done
Downloading package...Done
Installing package...Done
Checking mDNSResponder package...Removal needed
Removing package…Done
Modifying firewall rules for auto-discovery...Nothing to do

Aastra XML scripts 2.3.0 successfully installed.
Please run setup-aastra-xml to generate aastra.cfg.
Please run /var/www/html/aastra/utilities/check_install to check installation.
root@pbx:/tmp $
```

2.2.6 Files installed or modified

Files

- 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
- /etc/asterisk/sip_notify.conf is modified to support the check-sync and aastra-xml event types
- /etc/asterisk/manager_custom.conf is modified to add XML scripts credentials
- /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/aastra-vm.php is installed
- /var/lib/asterisk/agi-bin/aastra-vm-greetings.php is installed
- /etc/asterisk/extensions_aastra.conf is installed
- /etc/asterisk/extensions_custom.conf is modified to add the extensions_aastra context
- /etc/rc.d/init.d/aastra-daemon1 is installed (aastra-daemon1 service)
- /etc/rc.d/init.d/aastra-daemon2 is installed (aastra-daemon2 service)
- /etc/avahi/services/tftp.service is installed (avahi configuration for Aastra phones)
- /etc/httpd/conf/httpd.conf is modified to deny access to the script configuration files
- Custom sound files are installed at /var/lib/asterisk/sounds/custom

Post installation

- aastra-daemon1 service is added and (re)started
- aastra-daemon2 service is added and (re)started
- Apache is restarted
- asterisk is reloaded
- avahi-daemon service is set for automatic launch at run level 3, 4, 5 and (re)started

2.3 Configuration changes from previous version (2.2.1)

2.3.1 Configuration files

2.3.1.1 asterisk.conf

General section

- New ‘password’ parameter which is the manager password for the aastra-xml user, must match what is is /etc/asterisk/manager_custom.conf
- New ‘signature’ parameter to enable/disable the phone signature (model, MAC and IP address) in freePBX ‘extensions’ mode.

Startup section

- New ‘pw_admin’ parameter which is the admin password for the self-configuration process
- New ‘pw_user’ parameter which is the user password for the self-configuration process (used when user has no voice mail in ‘extensions’ mode)
- New ‘logout_pw_enabled’ parameter to allow or not password checks for the logout process in ‘extensions’ mode
- New ‘autologout_enabled’ parameter to enable or disable the automatic logout feature (freePBX mode ‘extensions’ only)
- New ‘autologout_message’ to enable/disable the display of the auto-logout on the phone idle screen.

Other sections

- Section Outgoing, new parameter ‘external’ to perform a Web based number lookup
- Section Daynight has been replaced by daynight.conf
- Section Dialplan has been moved to directory.conf
- Section Music is no more needed as the MP3 player application has been removed
- Section Contacts has been moved to directory.conf

2.3.1.2 New configuration files

- daynight.conf for the day/night application
- directory.conf for the CSV and LDAP directory applications
- httpd.conf for the Apache custom configuration
- pictureID.conf for the picture callerID application used by the 6739i
- queues.conf for the ACD queue application
- status.conf to define the presence statuses

See chapter 10 for more details on the configuration files.

2.3.1.3 Other changes

init.conf has been removed

2.3.2 Profile (.prf) files

queues.php

- ‘user’ parameter added

- `http://$$AA_XML_SERVER_AA$$/$$AA_XMLDIRECTORY_AA$$/asterisk/queues.php?use`
  `r=$$SIPUSERNAME$$`

speed.php

- Now located under ‘directory’ instead of ‘asterisk’
- `http://$$AA_XML_SERVER_AA$$/$$AA_XMLDIRECTORY_AA$$/`**`directory`**`/speed.php?use`
  `r=$$SIPUSERNAME$$`

contacts.php

- Replaced by csv_directory.php see chapter 6.9 for details

daynight.php

- Now supports ‘index’ parameter see chapter 6.4 for details

action uri outgoing

- For the 6739i only
- You must add the ‘user’ parameter
- `action uri`
  `outgoing:http://$$AA_XML_SERVER_AA$$/$$AA_XMLDIRECTORY_AA$$/asterisk/outgo`
  `ing.php?number=$$REMOTENUMBER$$`**`&user=$$SIPUSERNAME$$`**

park.php

- Can now also park a call as a blind transfer if the phone is “connected”
  - Available only for the phones running 2.x or 3.x
  - Optional Parameter ‘linestate’ added
- Can automatically pickup a parked call if there is only one
  - Optional parameter ‘autopick’ added (set to 1 enables the feature)
- `http://$$AA_XML_SERVER_AA$$/$$AA_XMLDIRECTORY_AA$$/asterisk/park.php?user=`
  `$$SIPUSERNAME$$`**`&linestate=$$LINESTATE$$&autopick=1`**

meetme.php

- ‘number’ parameter added see chapter 6.6 for details
- `http://$$AA_XML_SERVER_AA$$/$$AA_XMLDIRECTORY_AA$$/asterisk/meetme.php?`
  `ext=$$SIPUSERNAME$$`**`&number=$$REMOTENUMBER$$`**

music.php

- Removed

2.4 Before you connect your first phone

2.4.1 Create aastra.cfg

After the package installation, it is needed to create the proper 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.

```
[pbx.localdomain ~]# 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,
   - using 70 for the parking lot extension
   - 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.
[pbx.localdomain ~]#
```

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

# 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

# Global Park
sprecode: asterisk;70

# Digit timeout
sip digit timeout: 6

# GRUU and instance id not needed for Asterisk
sip gruu: 0
sip instance id: 0

# 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/asterisk/startup.php

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

# Bypass Asterisk SIP non compliancy
sip contact matching: 2

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

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

Figure 1: Generated aastra.cfg

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

2.4.2 Post-installation check

After the package installation, you can check the platform configuration using the 'check_install' application. This application will check all critical configurations needed for the XML scripts.

```
Aastra XML scripts 2.3.0-1 Installation Check
=============================================

---------------------- Package installation ----------------------
Package php-gd  ..........................................  Passed
Package php-ldap  ........................................  Passed
Package avahi  ...........................................  Passed
No package mDNSResponder  ................................  Passed
No package mDNSResponder-util  ...........................  Passed
Package aastra-ipphone  ..................................  Passed
Package aastra-xml-scripts  ..............................  Passed
Cache Directory (/var/cache/aastra/)  ....................  Passed
```

```
TFTP Directory (/tftpboot)  ..............................  Passed
/tftpboot/aastra.cfg  ....................................  Passed
php-agi connection  ......................................  Passed
freePBX database connection  .............................  Passed
------------------ Asterisk/freePBX Configuration -----------------
Asterisk version (1.6)  ..................................  Passed
Asterisk location set to /etc/asterisk/  .................  Passed
Asterisk spooler set to /var/spool/asterisk/  ............  Passed
Voicemail configuration  .................................  Passed
USEDEVSTATE set to True  .................................  Passed
Wideband Codec (g722) configuration  .....................  Passed
freePBX mode set to extensions  ..........................  Passed
3 extension(s) configured  ...............................  Passed
1 meet-me room(s) configured  ............................  Passed
Parking extension configured (70)  .......................  Passed
Intercom prefix configured (*80)  ........................  Passed
1 Day/Night indexe(s) configured  ........................  Passed
3 ACD queue(s) configured  ...............................  Passed
----------------- Aastra XML scripts Configuration ----------------
Debug mode not activated  ................................  Passed
Trace mode not activated  ................................  Passed
Language not forced  .....................................  Passed
Self-configuration admin password not configured  ..........  WARNING
-> You may want to configure it in config/asterisk.conf
Self-configuration user password not configured  ...........  WARNING
-> You may want to configure it in config/asterisk.conf for users without VM
Speed dial application configured  .......................  Passed
Outgoing state display application configured  ............  Passed
Date/Time format (US)  ...................................  Passed
User asked for timezone (no)  ............................  Passed
No hidden directory extension  ...........................  Passed
Local dial plan  .........................................  Passed
     Country code: 1
     Long distance prefix: 1
     International prefix: 011
     No outbound prefix
     No local prefix
     Local extension length not set
```

Note: The FAILED tests must be fixed before moving to the next step.

2.4.3 Check FreePBX/Asterisk configuration

2.4.3.1 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.

2.4.3.2 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 3 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 2.x or 3.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.

2.4.3.3 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 native in Asterisk 1.6 but also available for 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 (1.4)

```
  -= 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
```

- core show function DEVICE_STATE (1.6)

```
    -= Info about function 'DEVICE_STATE' =-

[Syntax]
DEVICE_STATE(device)

[Synopsis]
Get or Set a device state

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

  The DEVICE_STATE function can also be used to set custom device state from
the dialplan.  The "Custom:" prefix must be used.  For example:
  Set(DEVICE_STATE(Custom:lamp1)=BUSY)
  Set(DEVICE_STATE(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 (1.4 and 1.6)

```
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 or forums 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.

2.4.4 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.

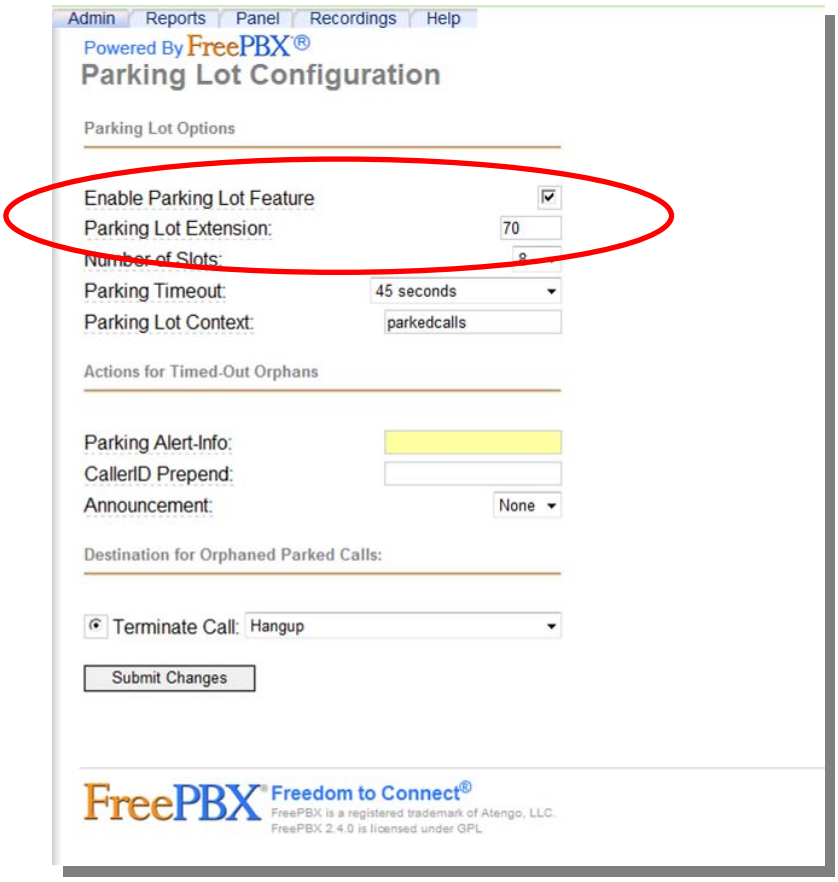


Figure 2: Parking lot configuration

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.

2.4.5 Create an extension on Asterisk (mode 'extensions')

Depending on the configuration (see chapter 10.2 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.conf.

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.

Note: The XML scripts are designed to work only if the voicemail context is "default".

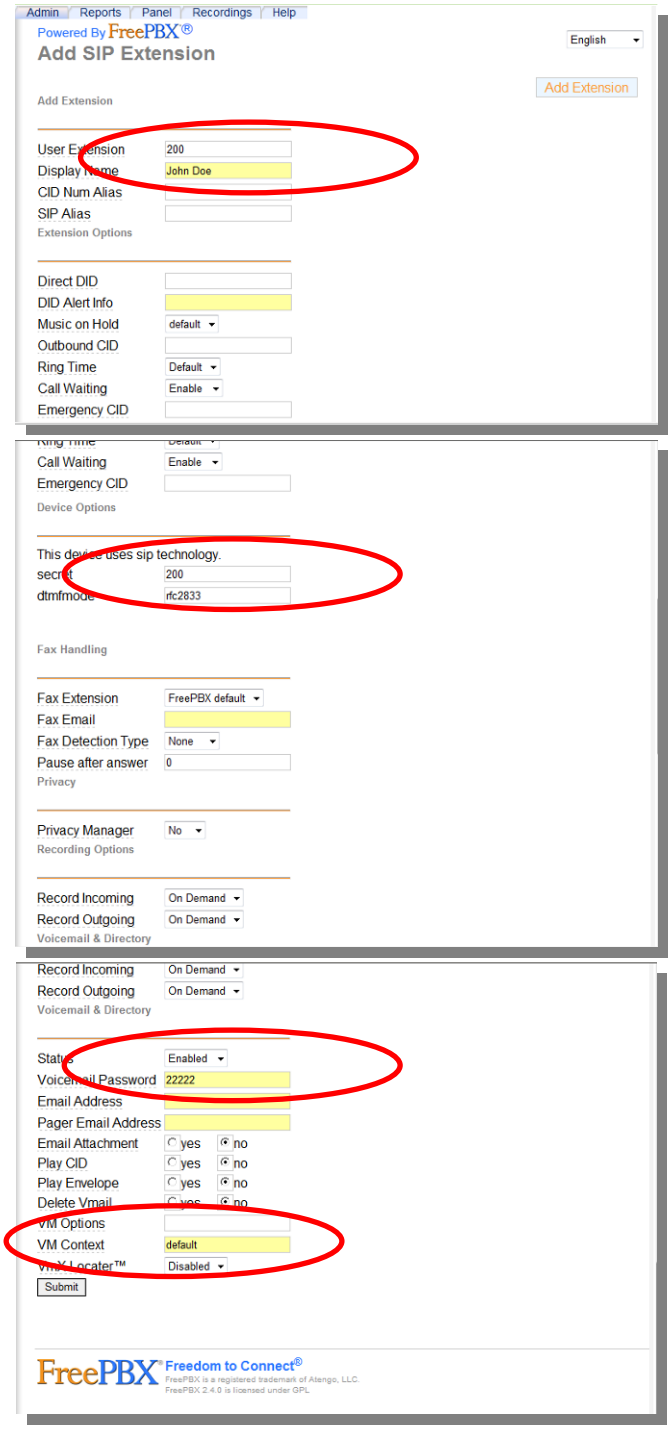


Figure 3: Extension configuration

2.4.6 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)

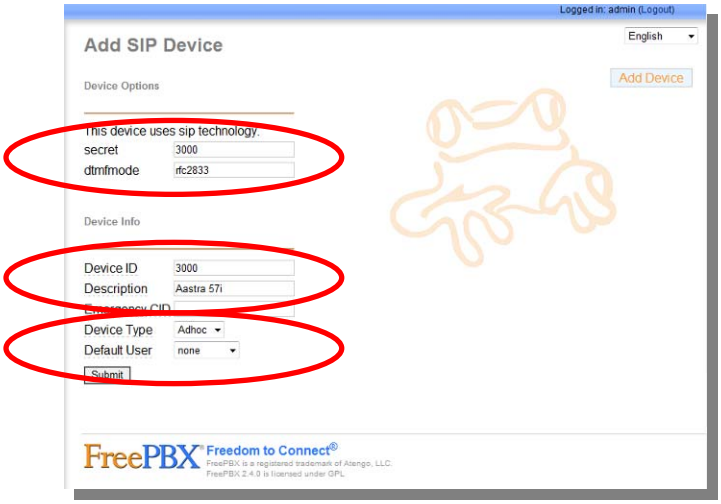


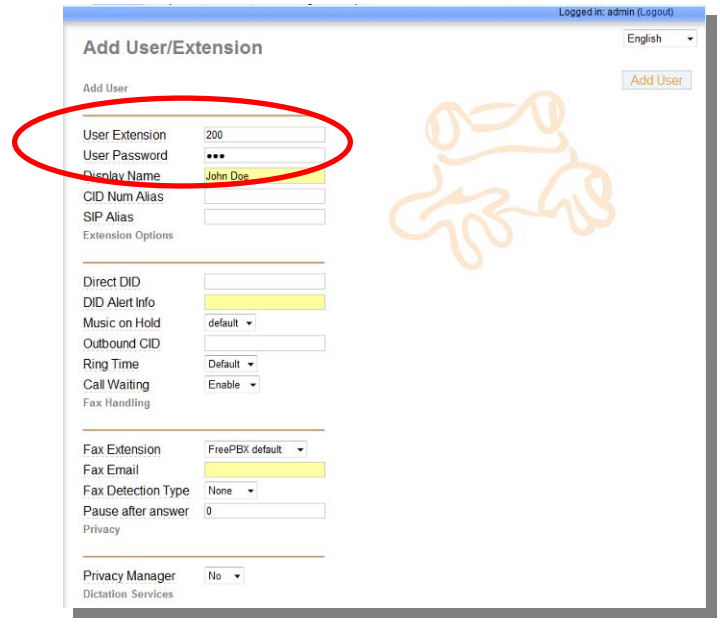
Figure 4: Device configuration

User configuration

A user is identified by

- its extension
- its user password

Note: The XML scripts are designed to work only if the voicemail context is “default”.



…

Figure 5: User configuration

2.4.7 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.

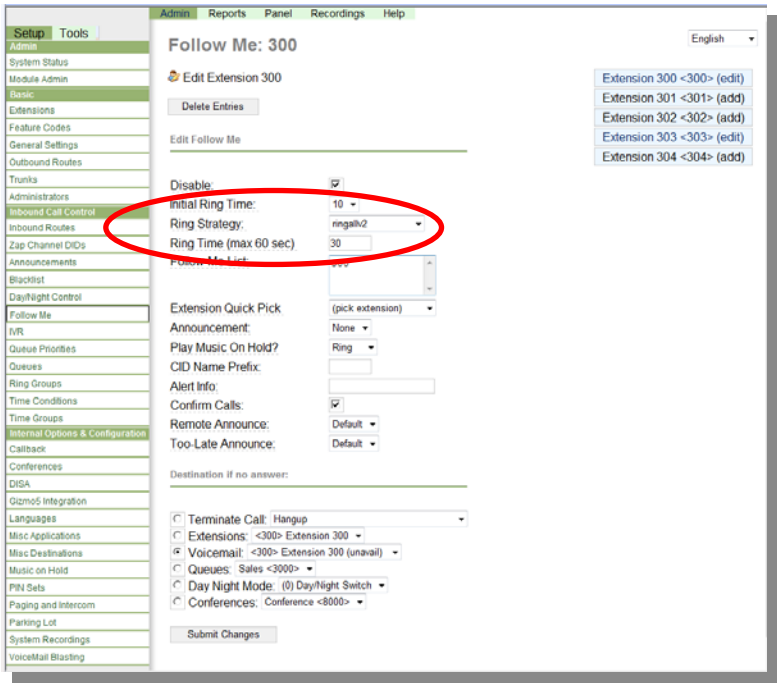


Figure 6: Find-me Follow-me configuration

2.4.8 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.

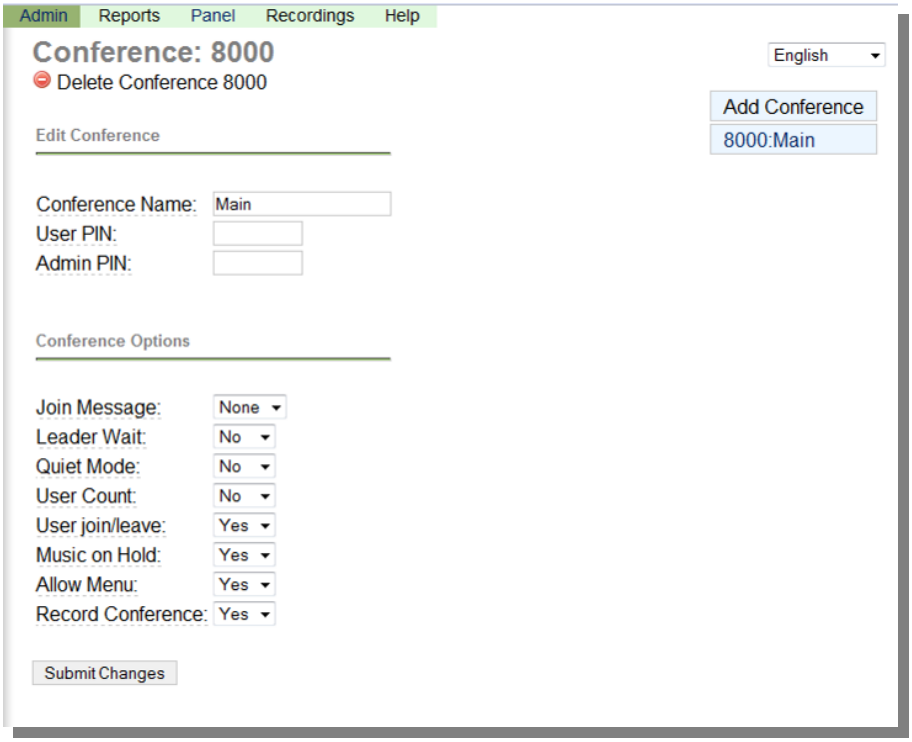


Figure 7: Conference configuration

2.4.9 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.

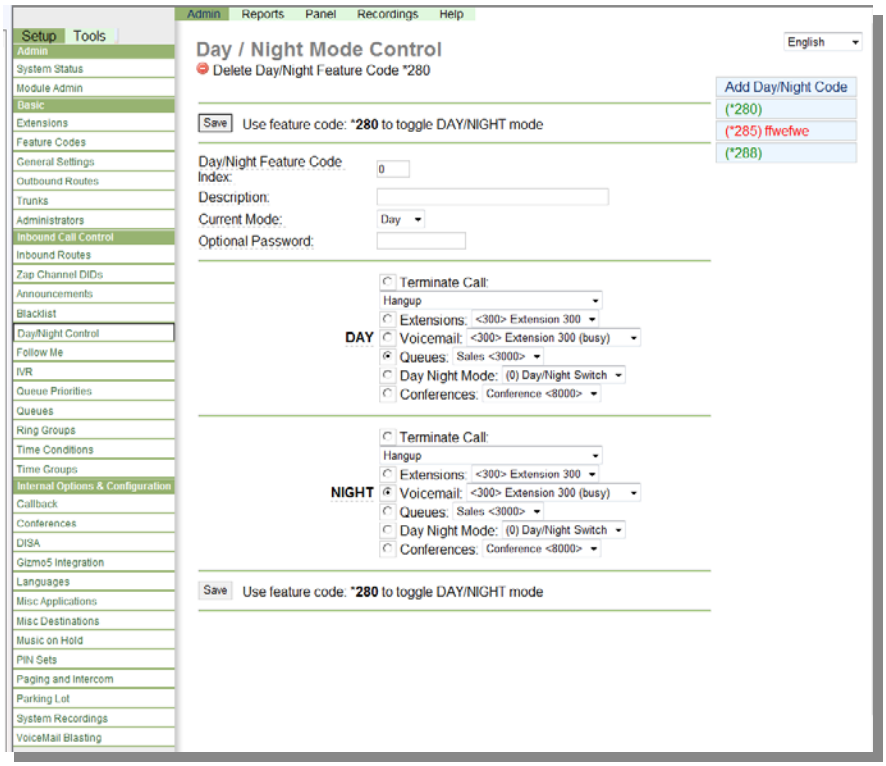


Figure 8: Day/Night configuration

2.4.10 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.

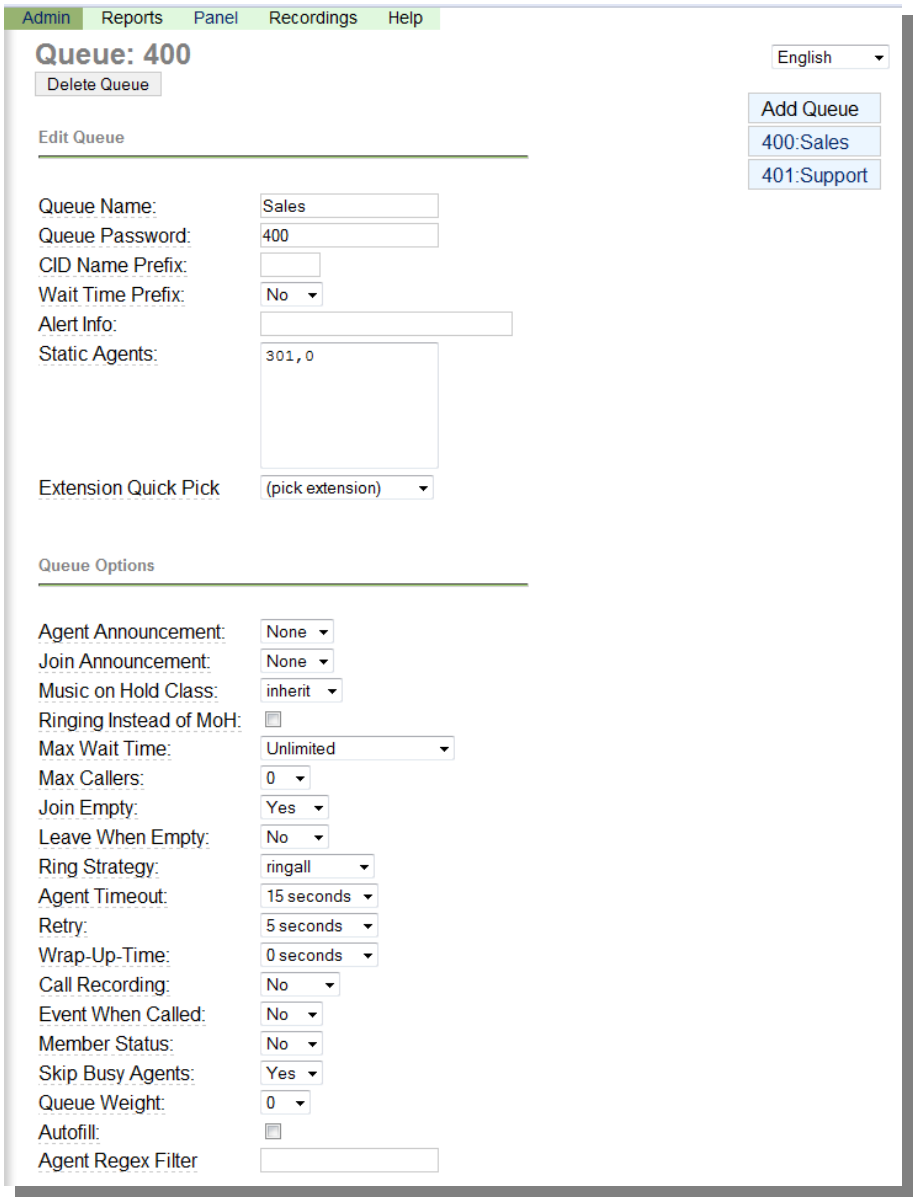


Figure 9: Queue configuration

2.4.11 Configure g722 wideband codec

All Aastra SIP phones except the phones running 1.4.x (9112i, 9133i, 480i and 480iCT) support g722 wideband codec which provides a much better sound quality for internal calls.

Configuration must be done on the Asterisk server and on the phones.

Server side

You can either use the freePBX module called “Asterisk SIP Settings” to add g722 as an available codec or manually modify /etc/asterisk/sip_general_custom.conf to add the following lines (for instance)

```
disallow=all
allow=g722
allow=ulaw
allow=alaw
```

```
allow=gsm
```

It is important that the g722 codec is the first codec in the list, the following codecs are your choice depending on your network and on the SIP trunks you are using.

Asterisk must be reloaded or restarted after the file modification.

Phone side

The phone must also be modified to allow the g722 codec, this is done via configuration.

For example

```
# Codecs
sip customized codec:
payload=9;ptime=20;silsupp=on,payload=0;ptime=20;silsupp=on,payload=8;ptime=20;si
lsupp=on
```

Will configure the g722, g711 uLaw and g711 aLaw codecs in this order. Please refer to the SIP phone administration guide for more details.

Note: the provided templates (.prf) files enable g722 on the phones.

2.5 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) as well as aastra-daemon1 and aastra-daemon2. 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.

If you plan to use the 'deviceanduser' mode, as a bug has been identified in the agi script performing the user login/logout (freePBX 2.5, 2.6, and 2.7). It is recommended that you download the fixed script from the Aastra server.

```
# cd /var/lib/asterisk/agi-bin
# wget http://65.205.71.13/2.3.0/user_login_out.agi
# cd /var/www/html/admin/modules/core/agi-bin
# wget http://65.205.71.13/2.3.0/user_login_out.agi
```

These commands will override freePBX script with the correct one.

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.

Note: This feature is not yet available in the Aastra 6739i running firmware 3.0.1.

4.1 Compatibility

The Server auto-discovery mechanism is supported by all the Aastra SIP Phones (running 1.4.3 or 2.5.3) but not by the 6739i running 3.0.1.

What to do on the 6739i

As the server auto-discovery mechanism is not supported by the 6739i running 3.0.1, the configuration server parameter must be configured manually on the phone.

- Boot the Phone
- Press “Options”
- Press “Advanced”
- Enter Admin password (22222 by default)
- Press “Cfg. Svr.”
- Press “TFTP” (the second one)
- Press “TFTP Server”
- Enter the IP address or name of your server
- Reboot
- Phone asks you for the self-configuration screen.

4.2 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.

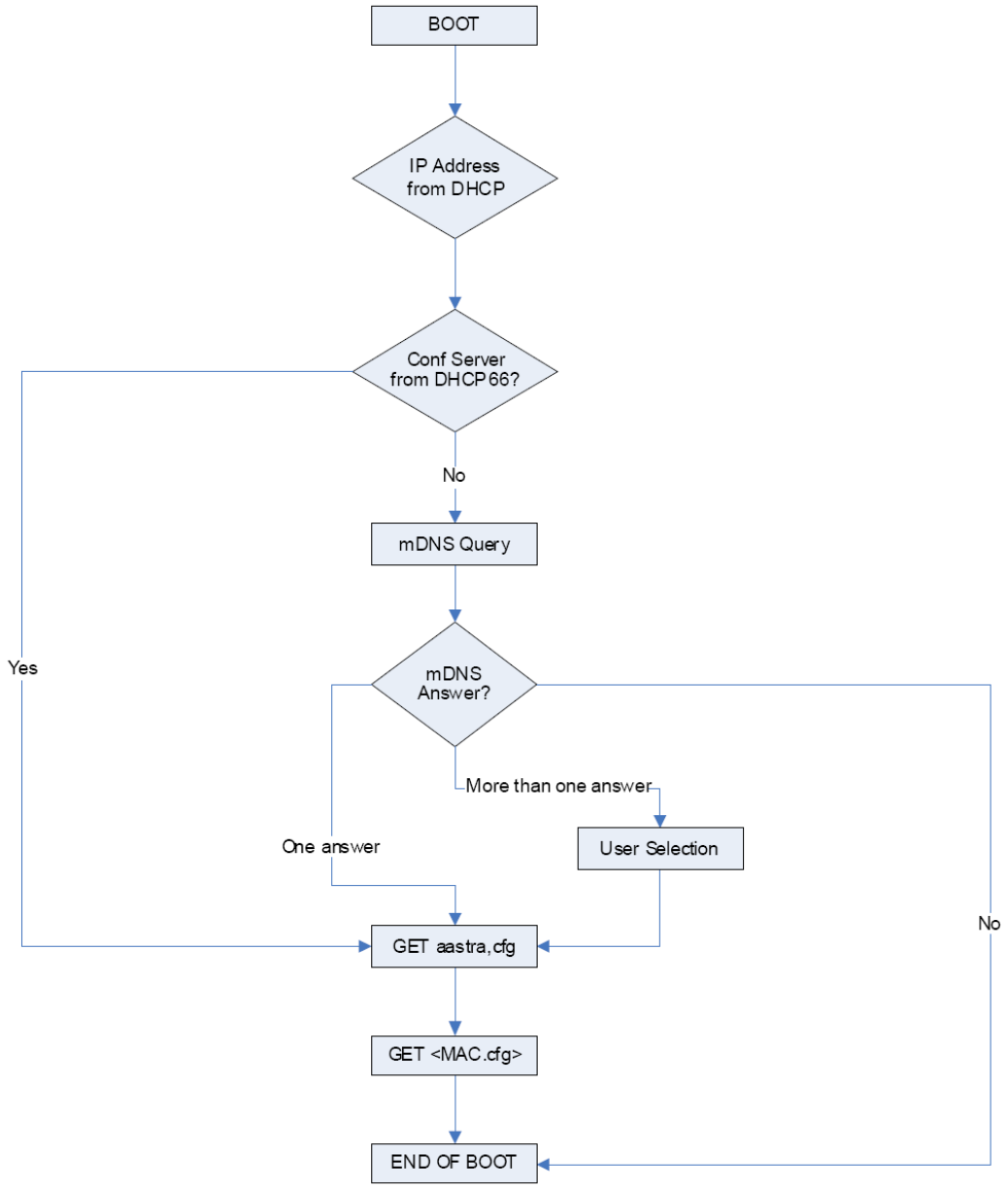


Figure 10: Phone boot sequence

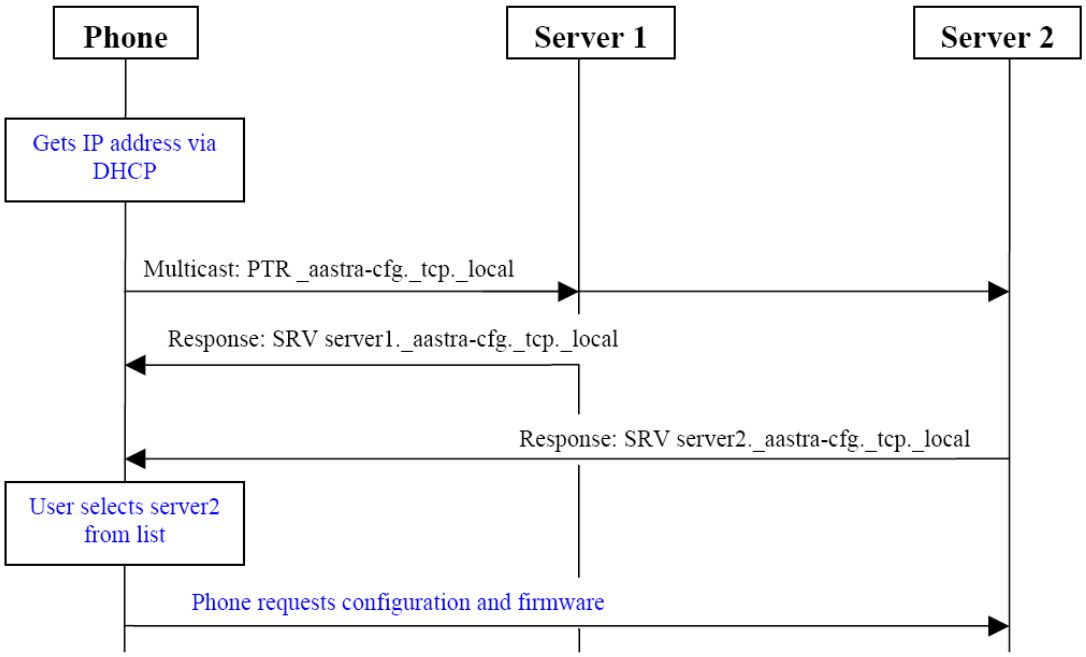


Figure 11: Multicast DNS query

4.3 Implementation on the server

The mDNS Responder service is provided by the avahi package which is available from the standard centOS yum repository.

This package is a dependency of the aastra-xml-scripts package so it should be automatically installed when you install the package. The XML script package installs the avahi configuration for Aastra phones.

If not installed, you can install it using the following command (logged as root on the console)

```
# yum install avahi
```

The avahi service must be configured as a Linux service running at init level 3, 4 and 5, which is done by the XML scripts package installation.

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

avahi configuration

The service needed for Aastra SIP phones auto-discovery is located at /etc/avahi/services/tftp.service and is automatically installed by the aastra-xml-scripts package.

```
<?xml version="1.0" standalone='no'?>
<!DOCTYPE service-group SYSTEM "avahi-service.dtd">
<service-group>
<name replace-wildcards="yes">Aastra self-configuration on %h</name>
<service>
       <type>_aastra-cfg._tcp</type>
       <txt-record>protocol=tftp</txt-record>
</service>
</service-group>
```

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).

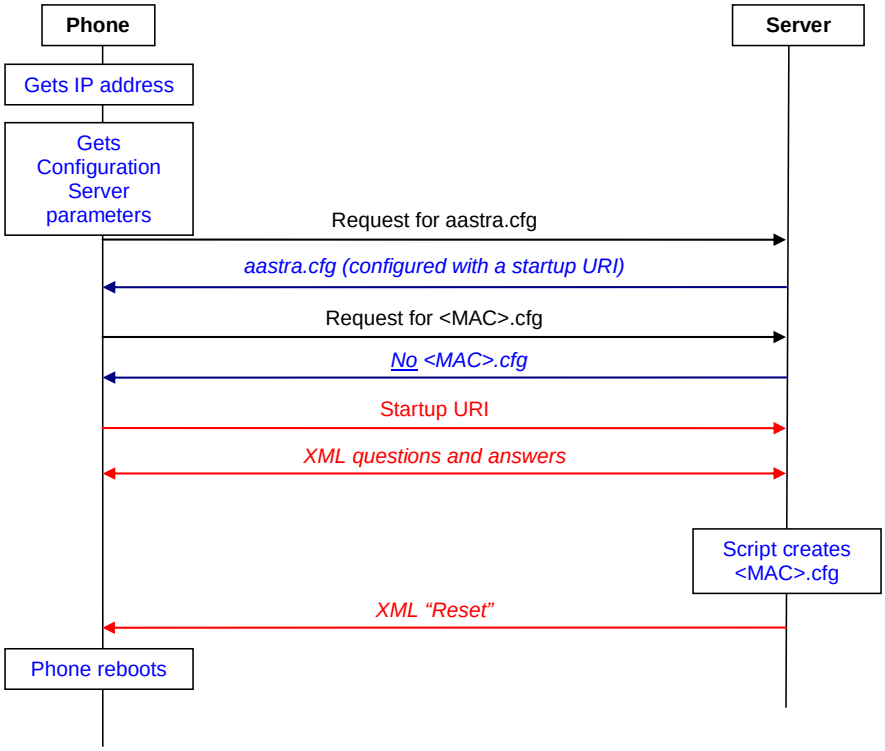


Figure 12: Self-Configuration message flow

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
- If user is already logged somewhere else, forces a logout on the other phone.
- Retrieve all the SIP parameters from the asterisk configuration
- Creates MAC.cfg file on the TFTP server root directory
    - Using the configured template xxx-user.prf (defined in config/asterisk.conf)

    or

    - Using the custom template for this user (defined in config/asterisk.conf)
    - And also using the user extra customization (defined in asterisk/user-custom.prf)
- Updates the cache file with the user information
- Sends an email (optional) to log the operation.

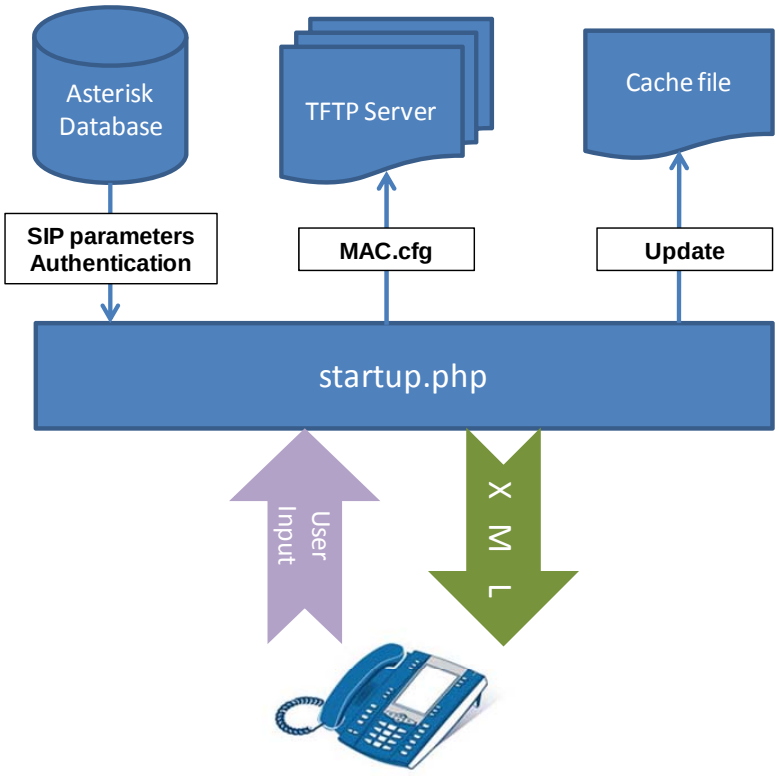


Figure 13: startup.php software architecture

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 can be configured in /var/www/html/aastra/config/asterisk.conf. See chapter 10.2 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 admin/user password), the script:

- Checks the authentication parameters (authentication can be disabled by configuration see chapter 10.2 for more details)
- 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.

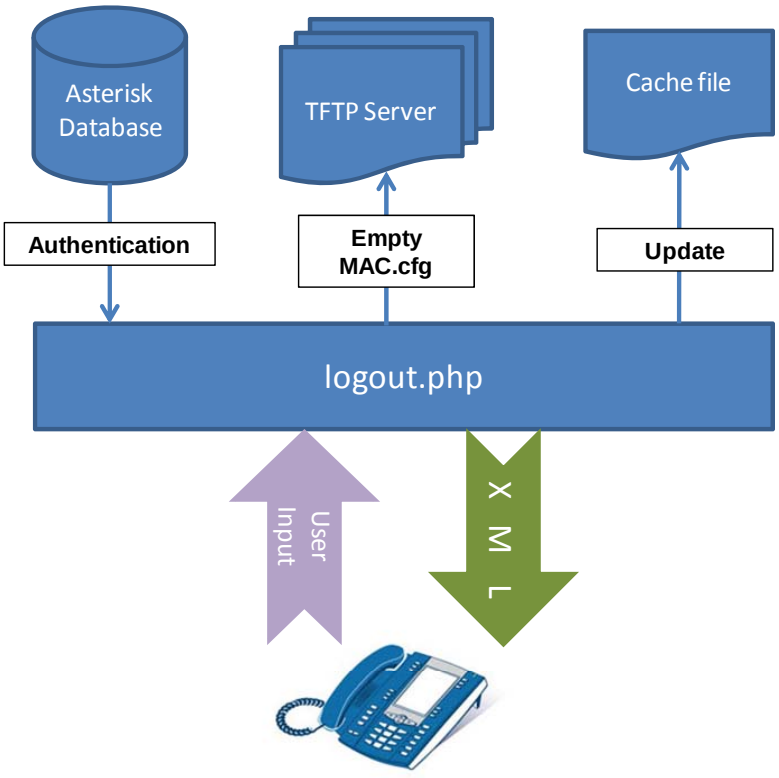
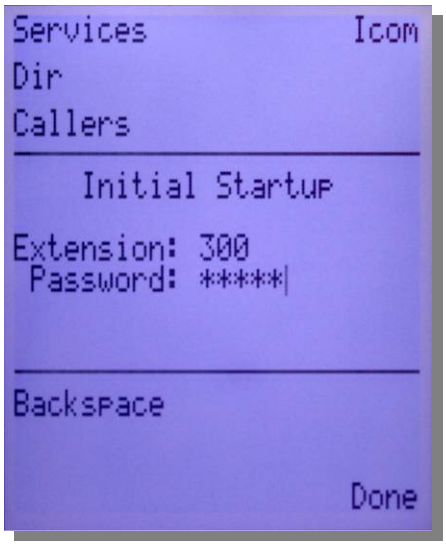
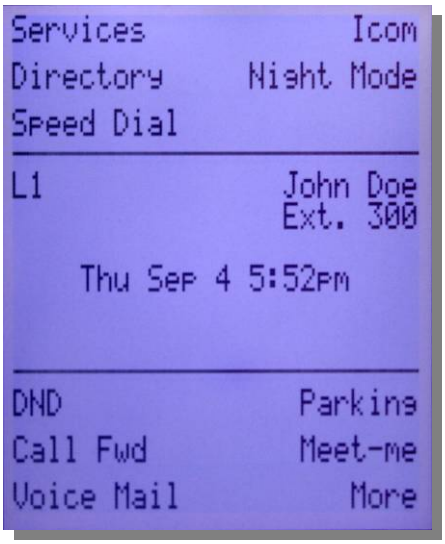


Figure 14: logout.php software architecture

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 10.2 for more details.

5.3.2 Extension login

<table>
<tr>
<td>
</td>
<td>Phone
• Boots
• Gets an IP address
• Automatically discovers the server
• Check firmware and upgrade if needed
• 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.
Language selection takes place here.</td>
</tr>
<tr>
<td> 
</td>
<td>Depending on configuration.
User enters:
• his extension
• his voice mail password
OR
• his extension
• the platform password
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. User selects the time zone
	Depending on phone firmware <u>2.5.0 or better</u> • Configuration is sent to the phone • No reboot <u>Previous firmware</u> • Phone reboots 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 config/asterisk.conf, see chapter 10.2 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
$$AA_INTERCOM_CODE_AA	Intercom code	freePBX
$$AA_POLLING_INT_AA$$	Sync polling value	XML scripts, configuration

Phone template

Aastra9112i

- Key 1: Logout
- Key 2: Park

Aastra9133i/9143i

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

Aastra480i/Aastra480iCT

- 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

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 19: Keys (9480i/9480iCT only)
- Key 20: Logout
- Services key Menu

Aastra6730i/6731i

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

Aastra6751i

The following applications are available through the Services key.

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

Aastra6753i

- Key 1: Logout
- Key 2: Delete (backspace key)
- Key 3: Park/Pickup
- Key 4: DND
- Key 5: Call Forward
- Key 6: Voice Mail

Aastra6755i

- Top Key 1: Services
- Top Key 2: Parking
- 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: Meet-me
- Key 6: ACD Agent
- Key 7: Queues
- Key 19: Keys
- Key 20: Logout
- Services key Menu

Aastra57i/Aastra57iCT

- Top Key 1: Services
- Top Key 2: Parking
- 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: Meet-me

- Key 6: ACD Agent
- Key 7: Queues
- Key 19: Keys
- Key 20: Logout
- Services key Menu

Aastra6739i

- Key 1: Parking
- Key 2: Call Park (connected state)
- Key 3: DND
- Key 4: Call Forward
- Key 5: Follow-me
- Key 6: Presence
- Key 7: Speed Dial
- Key 8: Intercom
- Key 9: Day/Night
- Key 10: Meet-me
- Key 11: ACD Agent
- Key 12: Queues
- Key 54: Keys
- Key 55: Logout
- Directory Key: Directory
- Messages Key: Voice Mail
- Services Key: XML applications

Extra keys (only for 2.x and 3.x phones)

You can also define extra keys that will not be applied as part of the template but made available to the user via the “Key” application.

The syntax is similar to the regular softkey or prgkey definition except it also supports a parameter to define which phone model is supported.

Variables

Variable	Value	Origin
$$AA_XML_SERVER_AA$$	XML Server IP address	asterisk.conf
$$AA_XMLDIRECTORY_AA$$	XML directory	asterisk.conf

Example

```
extrakeyXX type:xml
extrakeyXX label:Clock
extrakeyXX value:http://$$AA_XML_SERVER_AA$$/$$AA_XMLDIRECTORY_AA$$/clock/clock.php?user=$$SIPUSERNAME$$
extrakeyXX exclude=Aastra51i,Aastra53i,Aastra9143i,Aastra6730i,Aastra6731i
```

This configuration will make the “Clock” application available to the user via the “key” application as long as the application is supported by the phone.

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 config/asterisk.conf.

Example

With the following configuration in config/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 Custom user configuration

The self-configuration script uses a user based customization to add extra configuration to a user: asterisk/user-custom.prf.

Example

With the following configuration in asterisk/user-custom.prf for the '300' tag:

```
[300]
call waiting tone: 0
audio mode: 1
```

the self-configuration scripts will add

- call waiting tone: 0
- audio mode: 1

to the user 300 configuration.

Parameters

The configuration file supports the following variables which will be replaced by their value when the parameters are added.

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

Variable	Value	Origin
$$AA_PROXY_SERVER_AA$$	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
$$AA_INTERCOM_CODE_AA	Intercom code	freePBX
$$AA_POLLING_INT_AA$$	Sync polling value	XML scripts, configuration

Notes:

- This configuration file is not phone dependent so the parameters will be added whatever phone model is used.
- Because of the user key customization feature, adding the configuration of a key is not taken into account unless:
  - the configuration is done before the user's first login
  - you use the "apply_prf" tool with the reboot option as it removes the user key customization.

5.3.6 Phone configuration update

Once a phone has been configured using the self-configuration, as an administrator you have 2 ways to change the phone configuration, as a user the "Keys" application allows you to create some new keys (BLF/Speeddial) or move your keys around.

Modify MAC.cfg (administrator)

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) (administrator)

You can also modify the default profile file (/var/www/html/aastra/asterisk/demo-user.prf) as well as the custom profile and the custom user configuration, the changes will apply when you 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/utilities
      ./apply_prf {-r} user1 user2…
      Or
      ./apply_prf {-r} ALL
```

Where

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

Note: NEVER use the phone Web interface to modify the phone configuration or the XML

scripts will not work properly.

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.

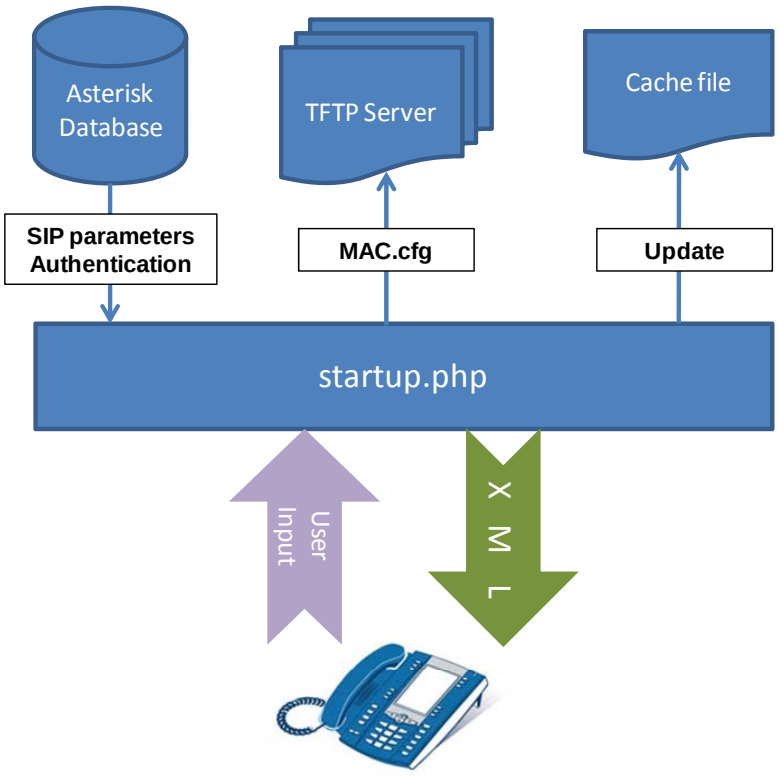


Figure 15: startup.php software architecture

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 10.2 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.

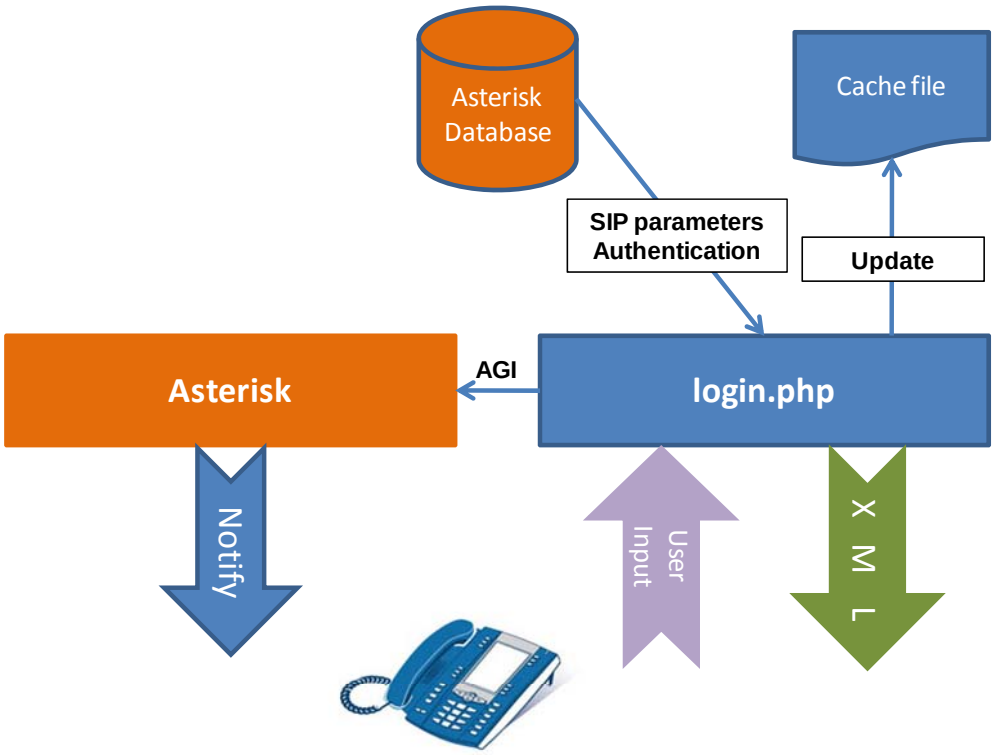


Figure 16: login.php software architecture

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 scripts will logout the previous user.

5.4.1.3 User Logout

The logout script is called by the user. Once activated, the script:

- Clears 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.

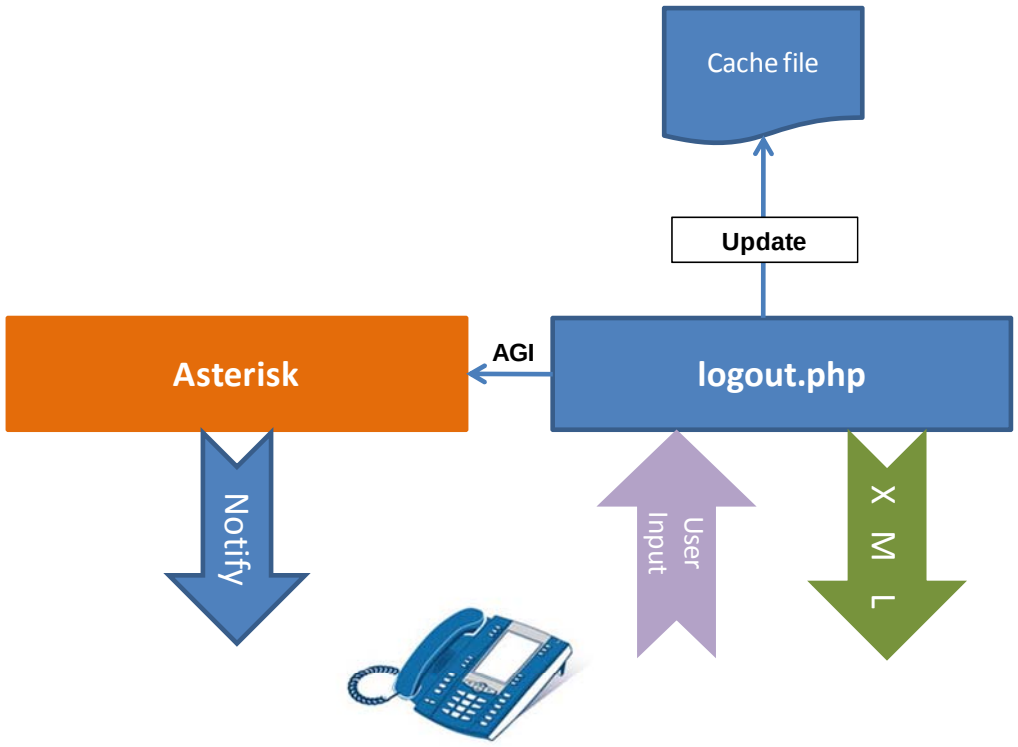
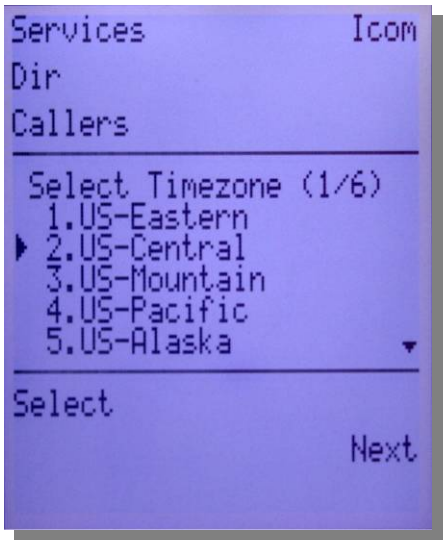
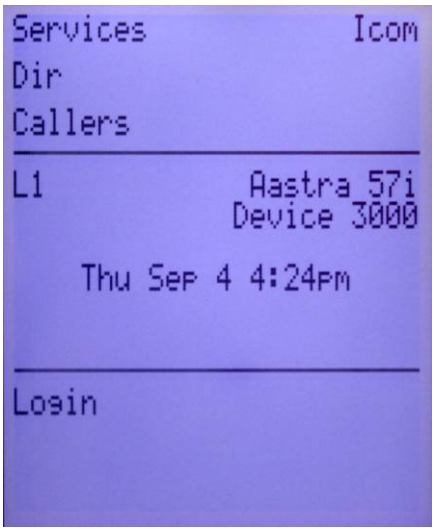


Figure 17: logout.php software architecture

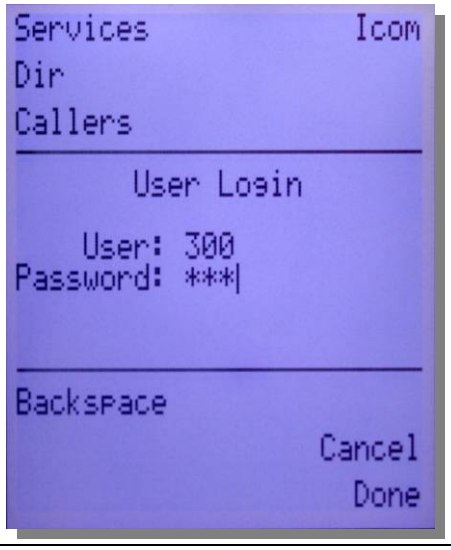
5.4.2 Device Login

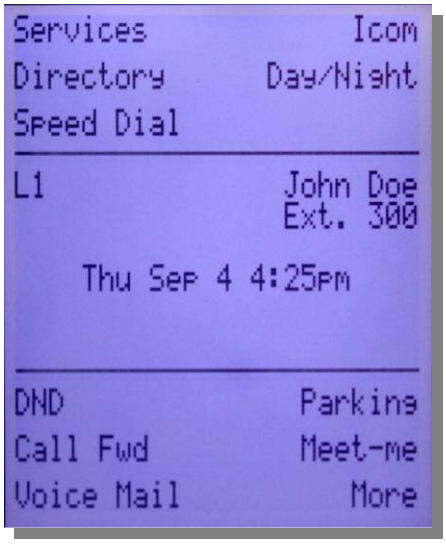
	Phone: • Boots • Gets an IP address • Automatically discovers the server • Load aastra.cfg from the TFTP Server

	Administrator enters • Device ID • Device password 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. User selects the time zone
	With firmware 2.5 or better • Configuration is dynamically sent to the phone, no reboot needed. With previous firmware • Phone reboots For both modes, the MAC.cfg has been created for the device

	Phone is ready to use as a device. Note: in this example, the device has been configured as adhoc with no default user.

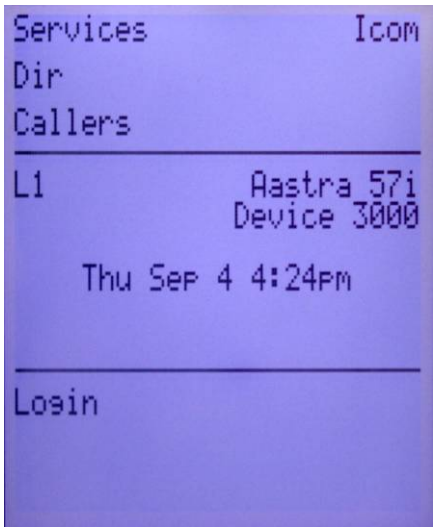
5.4.3 User Login

If multiple languages have been installed and user language selection is enabled. Language selection takes place here.	
	User enters his credentials. 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. Note: no reboot necessary

5.4.4 User Logout

	User confirms logout

	Phone is back to its device configuration. 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 10.2 for more details.

Note: 'deviceanduser' mode is only supported by the phones running firmware 2.5.3 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
$$AA_SIPAUTHNAME_AA$$	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
$$AA_INTERCOM_CODE_AA	Intercom code	freePBX
$$AA_POLLING_INT_AA$$	Sync polling value	XML scripts, configuration

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

Aastra6739i/6755i/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: Logout
- Key 2: Parking
- Key 3: DND
- Key 4: Call Forward
- Key 5: Directory
- Key 6: Presence
- Key 7: Voice Mail

Aastra9480i/Aastra9480iCT

- Key 1: Directory
- Key 2: Speed Dial
- Key 3: DND
- Key 4: Call Forward
- Key 5: Follow-me
- Key 6: Presence
- Key 7: Agent
- Key 8: Voice Mail
- Key 9: Parking
- Key 10: Meet-me
- Key 20: Logout
- Services key Menu

Aastra6730i/6731i

- Key 1: Logout
- Key 2: Parking

- Key 2: DND
- Key 3: Call Forward
- Key 4: Presence
- Key 5: Delete
- Key 6: Parking
- Key 7: Directory
- Key 8: Voice Mail

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: Logout
- Key 2: Delete (backspace key)
- Key 3: Park/Pickup
- Key 4: DND
- Key 5: Call Forward
- Key 6: Voice Mail

Aastra6755i

- Top Key 1: Services
- Top Key 2: Park/Pickup
- 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: Meet-me
- Key 6: ACD Agent
- Key 7: Queues
- Key 20: Logout
- Services key Menu

Aastra57i/Aastra57iCT

- Top Key 1: Services
- Top Key 2: Park/Pickup
- 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: Meet-me
- Key 6: ACD Agent
- Key 7: Queues
- Key 20: Logout

5.4.6 Custom phone templates

The self-configuration script uses the default template configured in config/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 Custom user configuration

The self-configuration script uses a user based customization to add extra configuration to a user: asterisk/user-custom.prf.

Example

With the following configuration in asterisk/user-custom.prf for the '300' tag.

```
[300]
call waiting tone: 0
audio mode: 1
```

the self-configuration scripts will add

- call waiting tone: 0
- audio mode: 1

to the user 300 configuration at the next user login.

Notes:

- This configuration file is used only for user configuration not for the device configuration,
- This configuration file is not phone dependent so the parameters will be added whatever phone model is used.

Parameters

The configuration file supports the following variables which will be replaced by their value when the parameters are added.

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
$$AA_INTERCOM_CODE_AA	Intercom code	freePBX
$$AA_POLLING_INT_AA$$	Sync polling value	XML scripts, configuration

5.4.8 Phone configuration update

5.4.8.1 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
```

5.4.8.2 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. Same thing with the user custom configuration.

5.5 Before you connect the first phone

Make sure that you have followed all the steps detailed in chapter 0.

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 Asterisk server hosting the XML applications.

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.

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

Also by configuration the scripts can automatically pause/unpause the user on all logged in ACD queues when DND is activated/deactivated. See chapter 10.2 for configuration details.

6.1.1 Phone Compatibility

All Aastra phones.

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

6.1.2 Synchronization mechanism

The DND status can also be changed outside of the XML scripts using feature codes or external applications. To keep the phone status current on the phones, multiple synchronization mechanisms have been implemented depending on the phone and on the platform.

9112i/9133i/480i/480iCT running 1.4.3

- After a reboot

As these phones cannot perform a periodic check, it is recommended to disable the feature codes for the feature.

6730i/6731i/675xi/6757iCT/9143i/9480i/9480iCT running 2.5.3 and 6739i running 3.0.1

If DEVSTATE is configured

- After a reboot
- Every time asterisk internal status is changed
- On a regular basis (every 24 hours)

If DEVSTATE is not configured

- After a reboot
- On a regular basis (every 30 minutes)

6.1.3 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.

6.1.4 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: depends on DEVSTATE
- 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, 6730i/6731i/6739i

- 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: depends on DEVSTATE
- 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=$$SIPUSERNAME$$`

6.1.5 Configuration files

The DND application uses the following configuration files

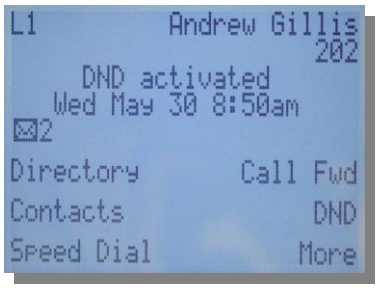
server.conf

- General tag, language

asterisk.conf

- [DND] tag

6.1.6 Screenshots



6.1.7 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.

6.2 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’.

6.2.1 Phone Compatibility

All Aastra phones.

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

6.2.2 Synchronization mechanism

The CFWD status can also be changed outside of the XML scripts using feature codes or external applications. To keep the phone status current on the phones, multiple synchronization mechanisms have been implemented depending on the phone and on the platform.

9112i/9133i/480i/480iCT running 1.4.3

- After a reboot

As these phones cannot perform a periodic check, it is recommended to disable the feature codes for the feature.

6730i/6731i/675xi/6757iCT/9143i/9480i/9480iCT running 2.5.3 and 6739i running 3.0.1

If DEVSTATE is configured and freePBX is version 2.6 or better

- After a reboot

- Every time asterisk internal status is changed
- On a regular basis (every 24 hours)

If DEVSTATE is not configured or freePBX is version 2.5

- After a reboot
- On a regular basis (every 30 minutes)

6.2.3 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.

6.2.4 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: depends on DEVSTATE
- 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/6739i

- 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: depends on DEVSTATE
- 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=$$SIPUSERNAME$$`

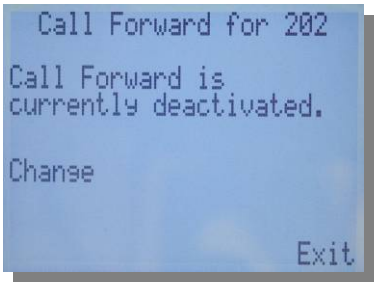
6.2.5 Configuration files

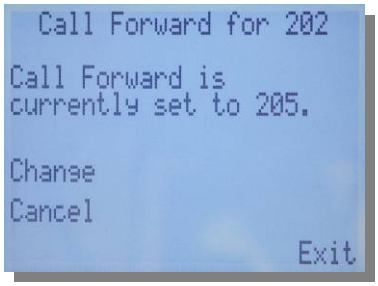
The Call Forward application uses the following configuration files

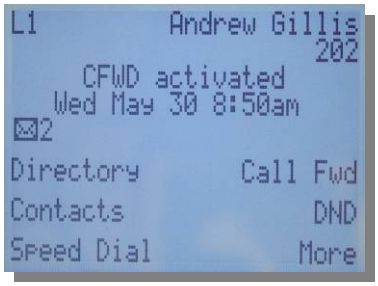
server.conf

- General tag, language

6.2.6 Screenshots







6.2.7 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.

6.3 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.

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 Synchronization mechanism

The Follow-me status can also be changed outside of the XML scripts using feature codes or external applications. To keep the phone status current on the phones, multiple synchronization mechanisms have been implemented depending on the phone and on the platform.

9112i/9133i/480i/480iCT running 1.4.3

- After a reboot

As these phones cannot perform a periodic check, it is recommended to disable the feature codes for the feature.

6730i/6731i/675xi/6757iCT/9143i/9480i/9480iCT running 2.5.3 and 6739i running 3.0.1

If DEVSTATE is configured

- After a reboot
- Every time asterisk internal status is changed
- On a regular basis (every 24 hours)

If DEVSTATE is not configured

- After a reboot
- On a regular basis (every 30 minutes)

6.3.3 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.

6.3.4 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: depends on DEVSTATE
- 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/6739i

- 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: depends on DEVSTATE
- 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=$$SIPUSERNAME$$`

6.3.5 Configuration files

The Follow-me application uses the following configuration files

server.conf

- General tag, language

6.3.6 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 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 list of users allowed to have this application on their phone as well as the list of users being notified is configurable in the daynight.conf configuration file see chapter 10.2 for more details.

The script has two launch modes:

- Global which allows controlling all the day/night indexes
- Individual which allows controlling an individual index

6.4.1 Phone Compatibility

All Aastra phones.

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

6.4.2 Synchronization mechanisms

The day/night status can also be changed outside of the XML scripts using feature codes or external applications. To keep the phone status current on the phones, multiple synchronization mechanisms have been implemented depending on the phone and on the platform.

9112i/9133i/480i/480iCT running 1.4.3

- After a reboot

As these phones cannot perform a periodic check, it is recommended to disable the feature codes for the feature.

6730i/6731i/675xi/6757iCT/9143i/9480i/9480iCT running 2.5.3 and 6739i running 3.0.1

If DEVSTATE is configured

- After a reboot
- Every time asterisk internal status is changed
- On a regular basis (every 24 hours)

If DEVSTATE is not configured

- After a reboot
- On a regular basis (every 30 minutes)

6.4.3 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.

- index=Y [Optional]

  where Y is the day/night index to use, when defined the control is limited to the given index, when omitted the application allows to control all the indexes.

Notes:

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

6.4.4 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: depends on DEVSTATE
- 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/6739i

- 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: depends on DEVSTATE
- 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=$$SIPUSERNAME$$`

6.4.5 Configuration files

The Daynight application uses the following configuration files

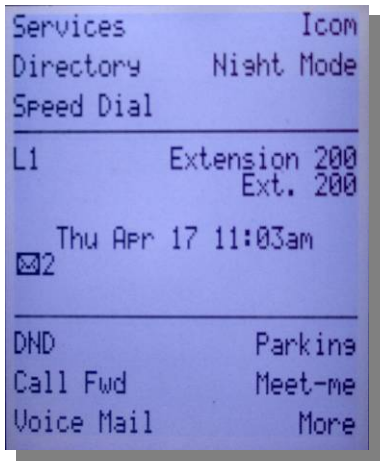
server.conf

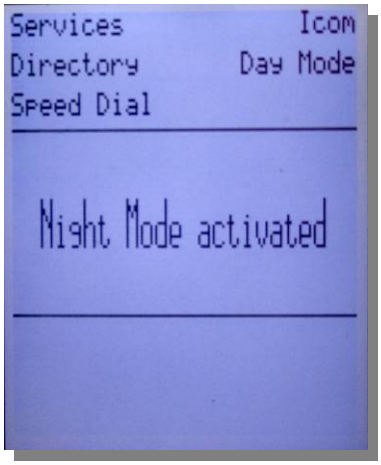
- General tag, language

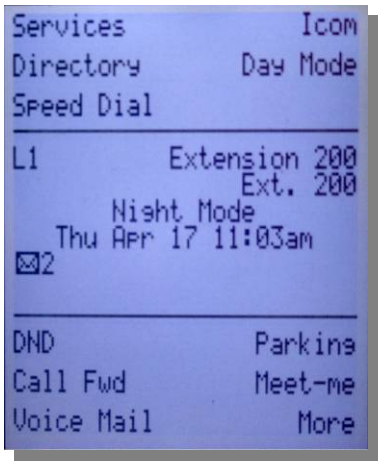
daynight.conf

- All parameters

6.4.6 Screenshots







6.4.7 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 (default configuration) are:

- *Available*
- Away
- At Lunch
- In a Meeting
- Out of Office
- At Home
- *Disconnected*

Away, At Lunch, In a Meeting, Out of Office, At Home: Configurable (/var/www/html/asterisk/config/status.conf)
See chapter 10.7 for more details

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

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

Also the user can configure a default phone behavior for each status other than available (Preferences):

- Activate DND
- Activate Find-Me Follow-Me
- Activate Call Forward

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 user to be notified (voice or text message) when you are back to available, this is done via the directory application.

The presence application can be disabled via configuration, see chapter 10.2 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 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.

- 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

- 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:

- Join a conference
- 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
- Aastra6739i

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.

- number=YYY [Mandatory]

where YYY is the remote number of the current active call (if any), variable $$REMOTENUMBER$$ must be used there.

6.6.3 Configuration

- uri

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

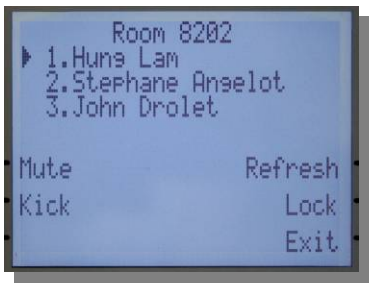
6.6.4 Configuration files

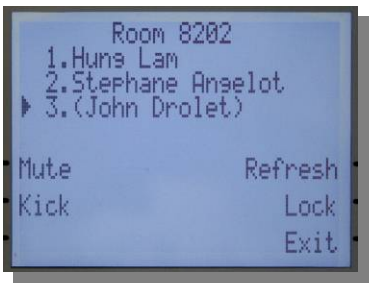
The Meet-me application uses the following configuration files

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/6739i 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
- Reset all his voicemail greetings
- 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, 6757iCT and 6739i 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

- Aastra480i/480iCT
- Aastra9480i/9480iCT
- Aastra6751i/6753i/6755i/6757i/6757iCT
- Aastra6730i/6731i/6739i

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=$$SIPUSERNAME$$`

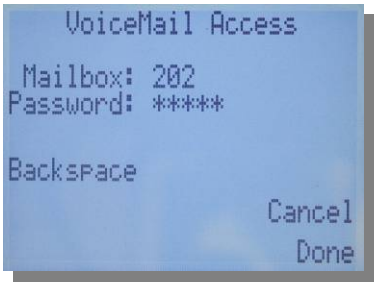
6.7.5 Configuration files

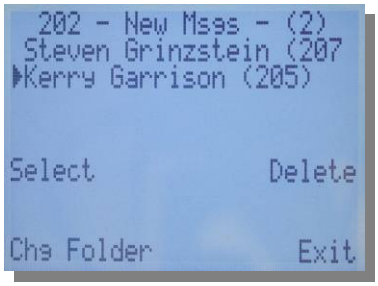
The Visual voice mail application uses the following configuration files

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

6.8 Asterisk 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 (2.5.3 or 3.0.1) 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 10.2 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. If the presence status is “Available”, the application displays the dynamic status of the phone (idle, in use, ringing…).

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

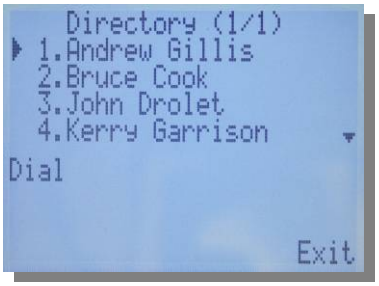
- General tag, language

asterisk.conf

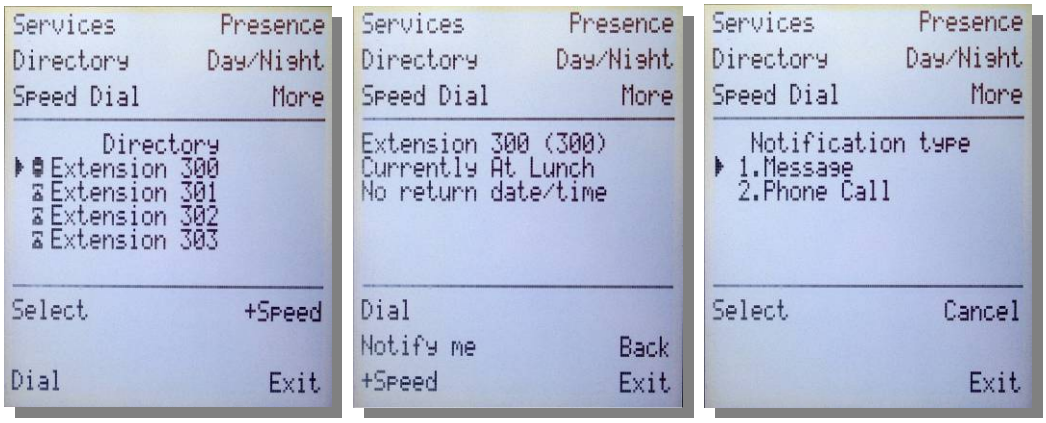
- Directory tag, all parameters
- SpeedDial tag, all parameters

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 CSV directory

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 AND company 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/6739i

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

[1] Not available for non-softkey phones.

- access to record details
- perform a search using first name or last name

6.9.2 PHP script

Location

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

Parameters

- user=XXX [Mandatory]

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

- source=YYY [Mandatory]

where YYY refers to an entry in /var/www/html/aastra/config/directory.conf. See Chapter 10.3 for details.

6.9.3 Configuration

- uri

```
http://XML_SERVER/aastra/directory/csv_directory.php    ?user=$$SIPUSERNAME$$
                                                        &source=SOURCE
```

6.9.4 Configuration files

The CSV directory application uses the following configuration files

server.conf

- General tag, location of the cache directory and language

asterisk.conf

- SpeedDial tag, all parameters

directory.conf

- DialPlan tag, all parameters
- Source tag, all parameters

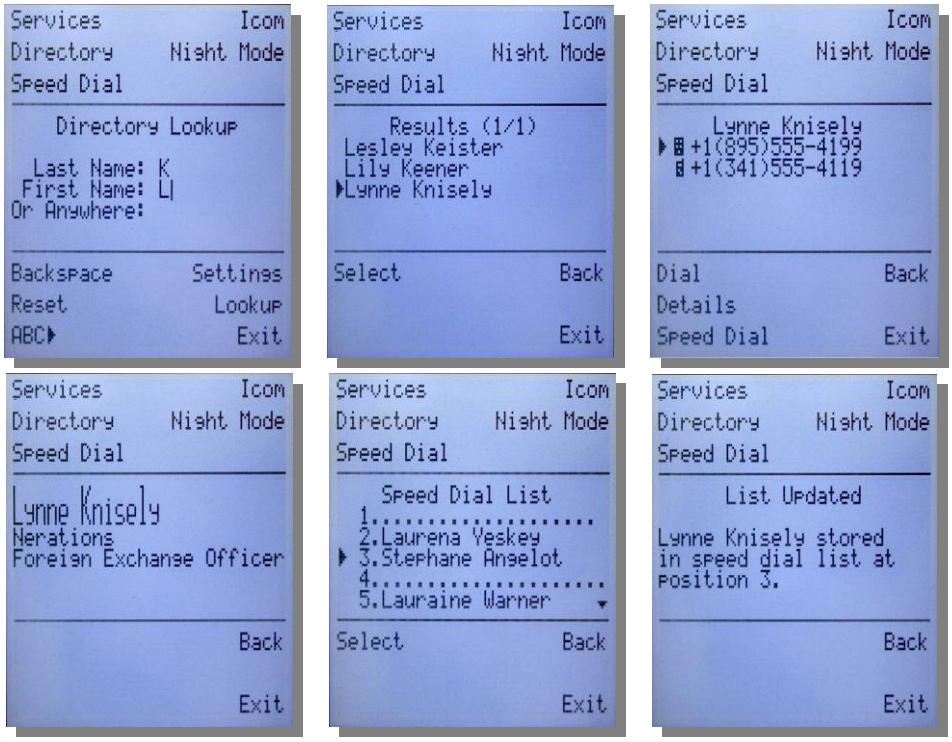
6.9.5 CSV file format

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 LDAP directory

The application described in this chapter is a generic directory application using a LDAP database such as Microsoft Exchange) 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’

6.10.1 Phone Compatibility

The LDAP directory application is available for

- Aastra 51i, 53i, 55i, 57i, 57iCT

[1] Not available for non-softkey phones.

- Aastra 9143i, 9480i, 9480iCT
- Aastra 6730i/6731i/6739i

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

- change sorting index and display format
- access to record details
- perform a search using first name or last name

6.10.2 PHP script

Location

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

Parameters

- user=XXX [Mandatory]

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

- source=YYY [Mandatory]

  where YYY refers to an entry in /var/www/html/aastra/config/directory.conf. See Chapter 10.3 for details.

6.10.3 Configuration

- uri

```
http://XML_SERVER/aastra/directory/ldap_directory.php    ?user=$$SIPUSERNAME$$
                                                         &source=SOURCE
```

6.10.4 Configuration files

The LDAP directory application uses the following configuration files

server.conf

- General tag, location of the cache directory and language

asterisk.conf

- SpeedDial tag, all parameters

directory.conf

- DialPlan tag, all parameters
- Source tag, all parameters

6.11 Directory Menu

The application described in this chapter is a wrapper for all the directory applications available:

- Asterisk directory
- CSV directory
- LDAP directory

- Any other Aastra XML compatible directory application

The application uses all the potential sources as configured in /var/www/html/aastra/config/directory.conf to display a list of all the available directories. See chapter 10.3 for more details.

6.11.1 Phone Compatibility

The directory menu application is available for

- Aastra 51i, 53i, 55i, 57i, 57iCT
- Aastra 9143i, 9480i, 9480iCT
- Aastra 6730i/6731i/6739i

6.11.2 PHP script

Location

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

Parameters

- user=XXX [Mandatory]

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

6.11.3 Configuration

- uri

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

6.11.4 Configuration files

The meun directory application uses the following configuration files

server.conf

- General tag, location of the cache directory and language

directory.conf

- All parameters

6.12 Speed Dial

This application allows a user to manage a list of 30 (2.5.3 or 3.0.1) 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).

6.12.1 Phone Compatibility

All Aastra phones with softkeys

- Aastra480i/480iCT
- Aastra9480i/9480iCT
- Aastra6755i/6757i/6757iCT
- Aastra6739i

6.12.2 PHP script

Location

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

6.12.3 Configuration

- uri

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

6.12.4 Configuration files

The Directory application uses the following configuration files

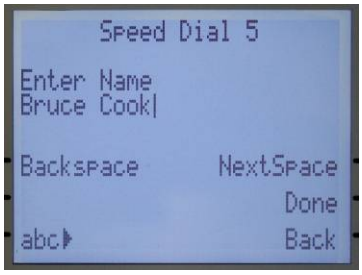
server.conf

- General tag, language

asterisk.conf

- SpeedDial tag, all parameters

6.12.5 Screenshots



6.12.6 Comments

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

6.13 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 (2.5.3 or 3.0.1) items per page.

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

6.13.1 Phone Compatibility

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

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

6.13.2 PHP script

Location

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

Parameters

None

6.13.3 Configuration files

The SugarCRM application uses the following configuration files

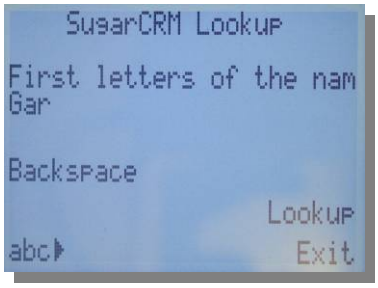
server.conf

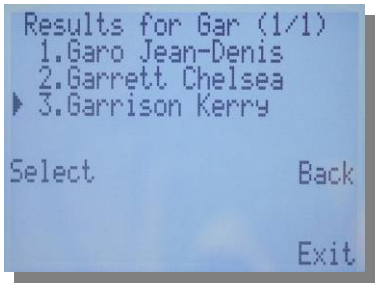
- General tag, language

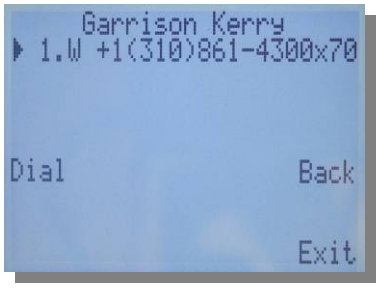
asterisk.conf

- DialPlan tag, all parameters

6.13.4 Screenshots







6.13.5 Comments

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

6.14 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 10.2 for more details.

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/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.

- linestate=$$LINESTATE$$ [optional]

  If this parameter is added to the command line, the key will park a call when the phone is in "connected" state or display the list of parked calls in "idle" state.

  Not available for phones running 1.4.x

- autopick=1 [optional]

  If this parameter is added to the command line, the key will automatically pickup a parked call if there is only one.

6.14.3 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 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 xml sip notify:

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

- uri

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

6.14.4 Configuration files

The Parking application uses the following configuration files

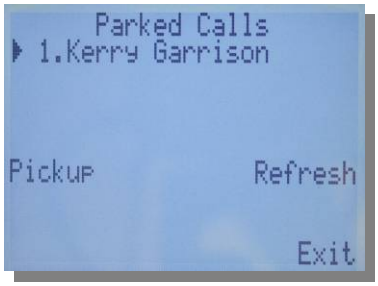
server.conf

- General tag, language

asterisk.conf

- Parking tag, all parameters

6.14.5 Screenshots



6.14.6 Comments

This application works only if the parking lot has been configured using FreePBX (see chapter 2.4.3.3 for details on the configuration).

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

6.15 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.

6.15.1 Phone Compatibility

All Aastra phones.

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

6.15.2 Synchronization mechanisms

The agent status can also be changed outside of the XML scripts using feature codes or external applications. To keep the phone status current on the phones, multiple synchronization mechanisms have been implemented depending on the phone and on the platform.

9112i/9133i/480i/480iCT running 1.4.3

- After a reboot

As these phones cannot perform a periodic check, it is recommended to disable the feature codes for the feature.

6730i/6731i/675xi/6757iCT/9143i/9480i/9480iCT running 2.5.3 and 6739i running 3.0.1

If DEVSTATE is configured

- After a reboot
- Every time asterisk internal status is changed
- On a regular basis (every 24 hours)

If DEVSTATE is not configured

- After a reboot
- On a regular basis (every 30 minutes)

6.15.3 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.

6.15.4 Configuration

- uri

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

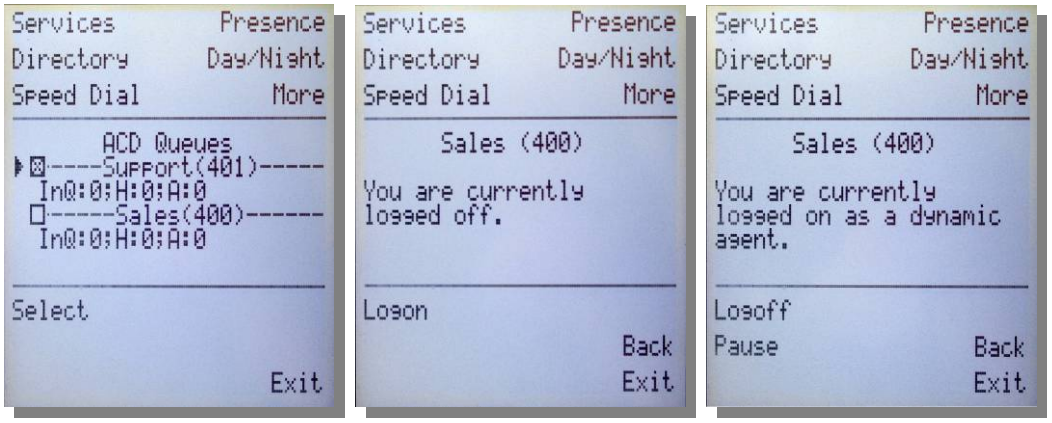
6.15.5 Configuration files

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

server.conf

- General tag, language

6.15.6 Screenshots



6.15.7 Comments

'deviceanduser' mode

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

6.16 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.

6.16.1 Phone Compatibility

All Aastra phones with softkeys.

6.16.2 PHP script

Location

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

Parameters

- user=XXX [Mandatory]

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

6.16.3 Configuration

- uri

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

6.16.4 Configuration files

The Queues application uses the following configuration files

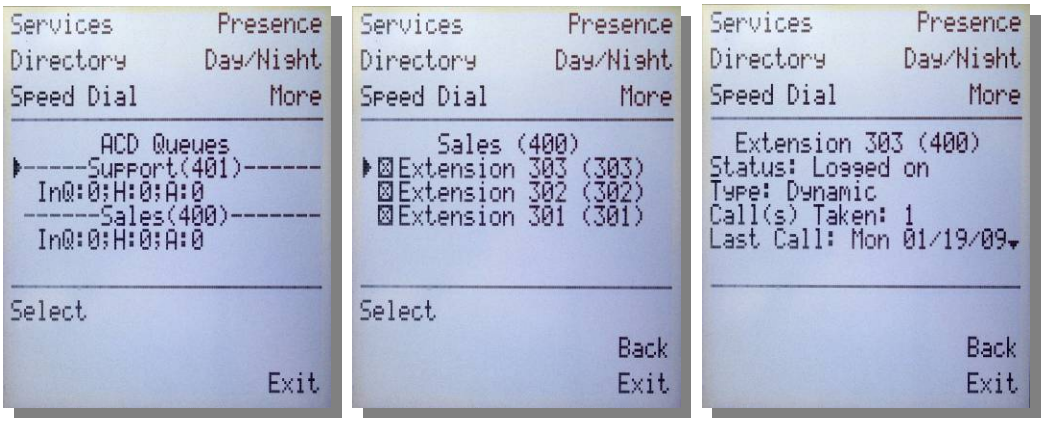
server.conf

- General tag, language

queues.conf

- All parameters

6.16.5 Screenshots



6.17 User Key management

This application allows a user to configure the keys of his phone, a user can:

- Create keys on an empty position (limited to BLF, Speed dial and removed keys)
- Change the label of the keys (if the key is not locked)
- Remove keys (if the key is not locked)
- Move the keys (if the key is not locked)

Notes:

- The key management is only available in freePBX ‘extensions’ mode
- The application uses aastra.cfg and MAC.cfg to display the current configuration
- Expansion modules are also supported.
- When the user wants to configure a BLF, the directory is displayed excluding its own extension as well as the BLF already configured on his phone.

So besides BLF and Speed dial keys a user cannot add any other type of keys, only the keys available in his profile can be used.

When a user removes a key, the removed key configuration will be proposed on top of BLF and speed dial when editing an empty key position.

The new key configuration is stored in the user context and will be used as a profile the next time the user logs in on the same model of phone.

To reset the phone back to its “standard” template, the administrator must use the ‘apply_prf’ tool.

6.17.1 Phone Compatibility

- Aastra6730i/6731i/6739i
- Aastra675xi
- Aastra9143i/9480i/9480iCT

Better user experience on softkey phones.

6.17.2 PHP script

Location

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

Parameters

- user=XXX [Mandatory]

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

6.17.3 Configuration

- uri

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

6.17.4 Configuration files

The Key management application uses the following configuration files

server.conf

- General tag, language

6.17.5 Screenshots

6.18 Picture CallerID (6739i only)

The Aastra6739i has a unique feature in the Aastra range of SIP phones, it can fetch and display a picture based on the caller ID of incoming and outgoing calls.

The protocol used is either TFTP or HTTP.

To be displayed the picture must be:

- a png file
- 150x200 pixels
- 24 Bit depth

To make the administrator life easier and avoid rescaling and converting pictures, we have added a script which does it for you.

The script will convert and cache on the fly any gif, png or jpeg picture of any size, they just have to be named NUMBER.xxx where NUMBER is the callerID and put in /var/cache/aastra/pictures (the location is configurable).

Example 1

300.jpeg would be a valid name for the picture of extension 300.

Also to limit the number of copies of the same image if a user has multiple numbers, you can by configuration define lists of equivalences between callerID and pictures.

Example 2

9725551234,9785554321=300 will display the same picture as if the caller ID was 300

Some of these equivalences are automatically detected by the script and don't need to be configured:

- Intercom calls
- User personal numbers configured via the CFWD or Follow-me application

---

Note: you can also use names for the equivalence.

Example: *98,*97=vmail will use vmail.xxx file when *98 or *97 is called or calling

---

Using prefixes

You can also have prefixes to match a picture.

P972555=300 will display the same picture as if the caller ID was 300 for any number like 972555XXXX.

Picture customization

On top of providing equivalences and pattern matching, the application also allows adding a custom label on a picture by defining:

- the label itself
- its vertical position in pixels (1 to 200)
- its alignment (left, center, right)
- its color
- its font size

Please refer to chapter 10.8 for more details on the configuration.

6.18.1 Phone Compatibility

- Aastra6739i only

6.18.2 PHP script

Location

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

Parameters

None the callerID number is automatically added by the phone

6.18.3 Configuration (aastra.cfg or MAC.cfg)

```
image server uri: http://XML_SERVER/aastra/asterisk/imageServer.php?
```

Note: the '?' at the end of the uri is mandatory.

6.18.4 Configuration files

The Picture CallerID application uses the following configuration files

pictureID.conf

- All parameters

directory.conf

- DialPlan tag

6.18.5 Screenshots

In this example, when calling the voicemail the default picture (the blue man) is replaced by a more appropriate picture.

7 Action uris

This chapter describes why and how the phone action uris are configured.

7.1 Action uri registered

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

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

This synchronization is needed because after a reboot, the phone loses the 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.

7.2 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
- ACD Agent
- Follow-me

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.

7.3 Action uri xml sip notify

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

- DND
- Call forward
- Follow-me
- Day/Night
- 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.

7.4 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 visual voice mail application.

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 number of the incoming call, variable $$REMOTENUMBER$$ must be used there.

7.5 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
- 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.

7.6 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 AAA is the dialed number, variable $$REMOTENUMBER$$ must be used there.
- user=BBB [Mandatory for 6739i]

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

This internal directory lookup as well as an external web service lookup are configurable in asterisk.conf (see chapter 10.2 for more details)

8 Utilities

This chapter describes some useful administrator tools to manage the platform. All these tools are located at /var/www/html/aastra/utilities

8.1 apply_prf

This tool allows an administrator to apply (or reapply) the auto-configuration on a list of Aastra phones.

Usage

```
Usage: ./apply_prf [user/device or ALL] [user/device or ALL]...
OR
Usage: ./apply_prf -r [user/device or ALL] [user/device or ALL] to remotely reboot the
phone
```

Note: The phone will only reboot if MAC.cfg has been changed by the tool.

8.2 backup

This tool allows the administrator to backup data and configuration needed by the XML scripts.

```
# ./backup
Creating backup.....................................Done
Backup file is /tmp/aastra_backup_20100415.tgz
```

The backup file is generated in the /tmp directory and uses the date in the name. As it is a .tgz file restoration is simple.

8.3 check_install

This tool allows an administrator to check the platform configuration.

See chapter 2.4.2 for more details

8.4 read_context

This tool allows an administrator to access to user and application data used by the XML scripts, these data are stored in /var/cache/aastra and are the ".context" files.

Usage

```
./read_context
Usage: ./read_context contextID [appli]
```

Examples

Read the dnd data for user 300

```
# ./read_context 300 dnd
Application dnd
Array
(
    [key] => softkey1
    [last] => 1
)
```

8.5 read_database

This tool allows an administrator to access the Asterisk database and display the user configuration stored in the Asterisk database (DND, CFWD, Follow-me, personal numbers…).

Usage

```
./read_database
Usage: ./read_context user
```

Examples

Read the database for user 300

```
# ./read_database 300
CallerID  ..............................  Extension 300
Personal numbers/Cell  .................  9725551234
Personal numbers/Home  .................  Not configured
Personal numbers/Other  ................  Not configured
DND  ...................................  Activated
CFWD  ..................................  Deactivated
Follow-me/Status  ......................  Deactivated
Follow-me/Initial Ring time  ...........  10
Follow-me/Ring time  ...................  20
Follow-me/Confirm Calls  ...............  Yes
Follow-me/Numbers  .....................  2
-> 300 9725551234#
Presence/Status  .......................  Disconnected
Presence/Return Date/Time  .............  No return date/time
Presence/Action if Away  ...............  DND
Presence/Action if At Lunch  ...........  DO NOTHING
Presence/Action if In Meeting  .........  DO NOTHING
Presence/Action if Out of Office  ......  DO NOTHING
Presence/Action if At Home  ............  DO NOTHING
Presence/Action if Disconnected  .......  DO NOTHING
Auto-logout  ...........................  Not set
```

8.6 set_autologout

This tool allows an administrator to configure the automatic logout time for a user or a group of users.

Usage

```
./set_autologout
Usage: ./set_autologout user1,user2... [HHMM]
```

Examples

Configure automatic logout time to 6:00PM for users 300 and 301

```
#./set_autologout 300,301 1800
Processing user 300  .........  Done
-> Auto-logout set to 6:00 PM
-> Phone idle screen updated
Processing user 301  .........  Done
-> Auto-logout set to 6:00 PM
-> Phone idle screen updated
```

9 Media Applications

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

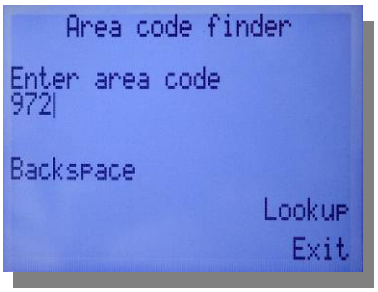
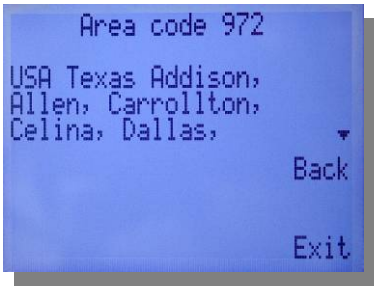
- Area code
- Ask Google
- Biorhythms
- Currency converter
- CNN News
- ESPN News
- Fox News
- Horoscope
- Local Weather
- Netflix
- Movies
- Stock
- Today…
- World Clock
- Yahtzee

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

9.1 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/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i
PHP script			
Location `/var/www/html/aastra/area/area.php` Parameters None			
Configuration			
• uri `http://XML_SERVER/aastra/area/area.php`			

Screenshots
 

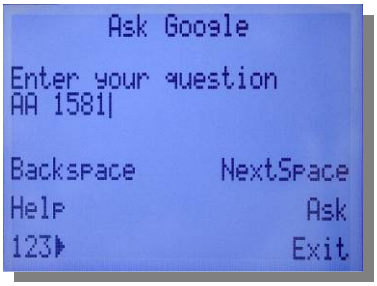
9.2 Ask Google

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. Questions • 1 USD in Euro • Define TCP • Movies 90210 • Translate bread in French • …

Phone compatibility			
✓	Aastra9112i	✓	Aastra6751i
✓	Aastra9133i	✓	Aastra6753i
✓	Aastra480i/480iCT	✓	Aastra6755i/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

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

9.3 Biorhythms

Description			
Check your Biorhythms.			
Phone compatibility			
✗	Aastra9112i	✓	Aastra6751i
✗	Aastra9133i	✓	Aastra6753i
✗	Aastra480i/480iCT	✓	Aastra6755i/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

PHP script

Location

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

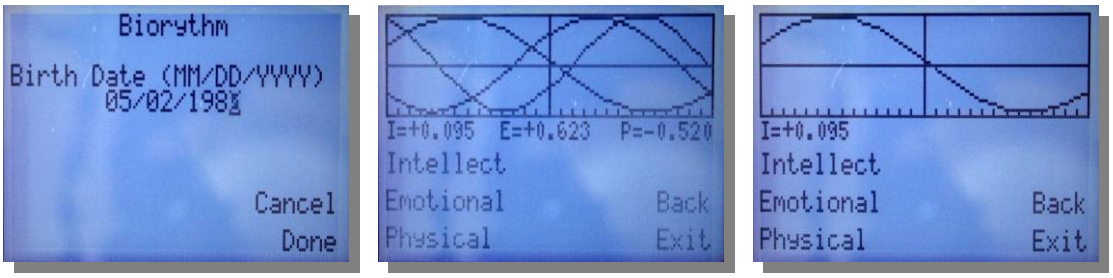
Parameters

- 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. Only phones with graphical display (55i/57i and 57iCT) will display the charts PHP-GD extension is needed for this XML script.

9.4 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/6757i/6757iCT
✘	Aastra9143i	✘	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

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=$$SIPUSERNAME$$`

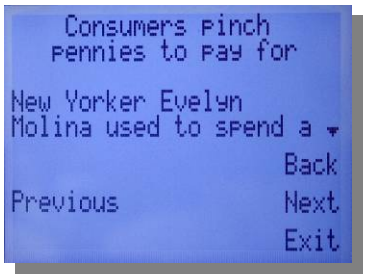
Screenshots
Comments
User's last request and favorites are stored on the server. Internet access needed

9.5 CNN News

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

Phone compatibility			
✓	Aastra9112i	✓	Aastra6751i
✓	Aastra9133i	✓	Aastra6753i
✓	Aastra480i/480iCT	✓	Aastra6755i/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

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

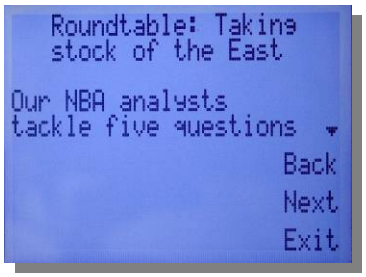
Configuration
• uri `http://XML_SERVER/aastra/rss/rss.php?feed=cnn`
Screenshots

Comments
Internet access needed RSS feed files are cached in the cache directory /var/cache/aastra

9.6 ESPN News

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

Phone compatibility			
✓	Aastra9112i	✓	Aastra6751i
✓	Aastra9133i	✓	Aastra6753i
✓	Aastra480i/480iCT	✓	Aastra6755i/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

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=espn`
Screenshots

Comments
Internet access needed RSS feed files are cached in the cache directory /var/cache/aastra

9.7 FOX News

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

Phone compatibility			
✓	Aastra9112i	✓	Aastra6751i
✓	Aastra9133i	✓	Aastra6753i
✓	Aastra480i/480iCT	✓	Aastra6755i/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

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=foxnews`

Comments
Internet access needed RSS feed files are cached in the cache directory /var/cache/aastra

9.8 Horoscope

Description			
RSS feed from astrosage.com providing a daily horoscope.			
Phone compatibility			
✓	Aastra9112i	✓	Aastra6751i
✓	Aastra9133i	✓	Aastra6753i
✓	Aastra480i/480iCT	✓	Aastra6755i/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

PHP script

Location

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

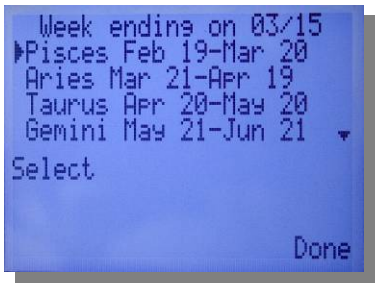
Parameters

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

9.9 Movies

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

Phone compatibility			
✓	Aastra9112i	✓	Aastra6751i
✓	Aastra9133i	✓	Aastra6753i
✓	Aastra480i/480iCT	✓	Aastra6755i/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

PHP script

Location

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

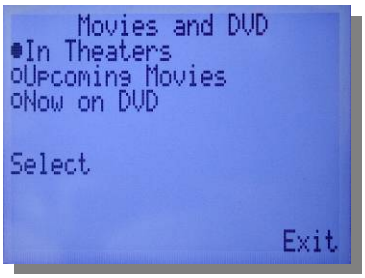
Parameters

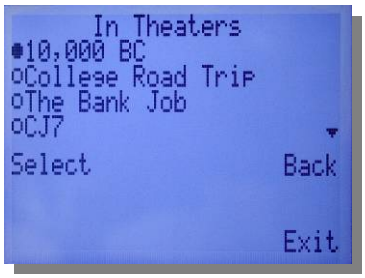
- feed=XXX [Mandatory]
  where XXX is the name of the RSS configuration file to use

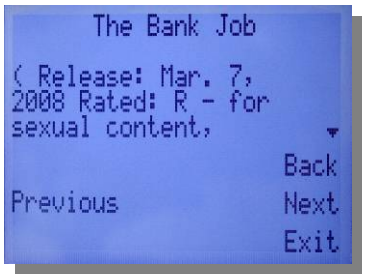
Configuration

- 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

9.10 Netflix

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

Phone compatibility			
✓	Aastra9112i	✓	Aastra6751i
✓	Aastra9133i	✓	Aastra6753i
✓	Aastra480i/480iCT	✓	Aastra6755i/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

PHP script

Location

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

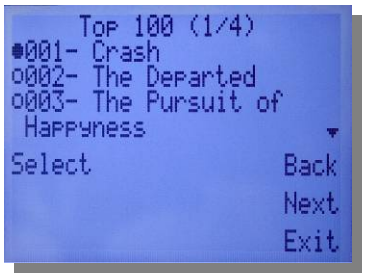
Parameters

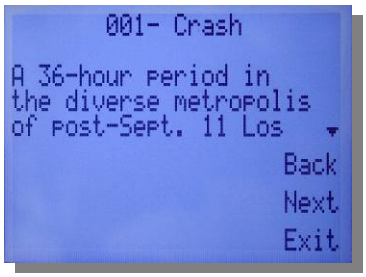
- feed=XXX [Mandatory]
  where XXX is the name of the RSS configuration file to use

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

9.11 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/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

PHP script

Location

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

Parameters

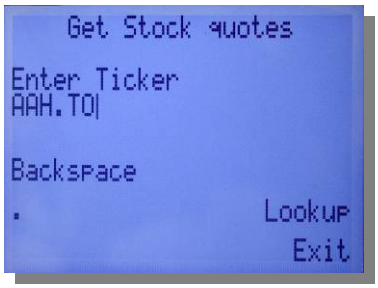
- user=XXX [Optional]
- where XXX is the extension of the phone on the platform, variable $$SIPUSERNAME$$ should be used there. If not provided, the MAC address of the phone is used.

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.

9.12 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/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

PHP script

Location

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

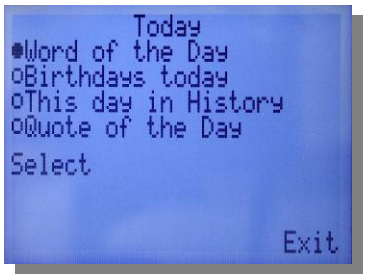
Parameters

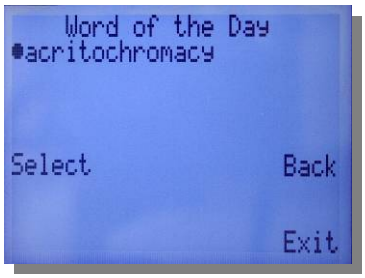
- feed=XXX [Mandatory]
  where XXX is the name of the RSS configuration file to use

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

9.13 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/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

PHP script

Location

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

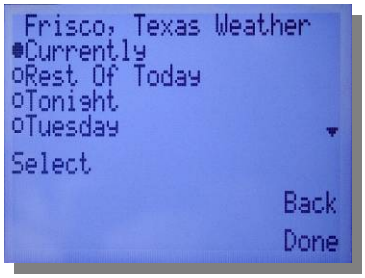
Parameters

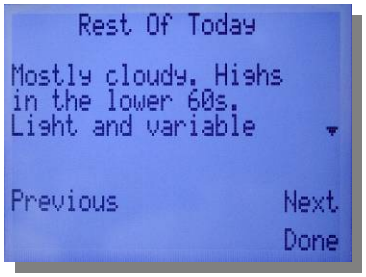
None

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

9.14 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/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

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.

9.15 Yahtzee

Description

A Yahtzee game…

Phone compatibility

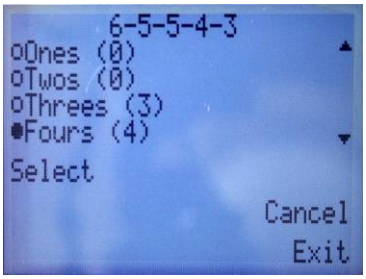
✘	Aastra9112i	✘	Aastra6751i
✘	Aastra9133i	✘	Aastra6753i
✘	Aastra480i/480iCT	✓	Aastra6755i/6757i/6757iCT
✘	Aastra9143i	✘	Aastra6730i/6731i
✘	Aastra9480i/9480iCT	✘	Aastra6739i

PHP script

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

Configuration

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

Screenshots


9.16 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/6757i/6757iCT
✓	Aastra9143i	✓	Aastra6730i/6731i
✓	Aastra9480i/9480iCT	✓	Aastra6739i

PHP script

Location

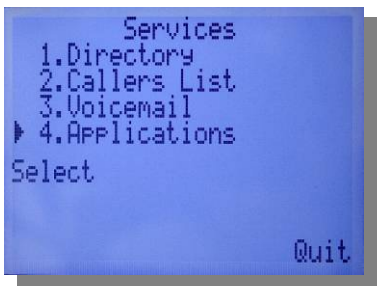
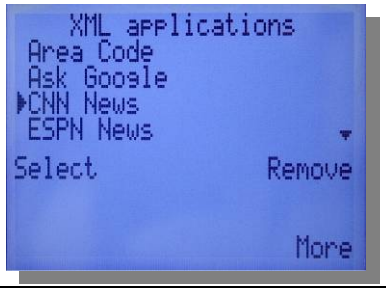
`/var/www/html/aastra/menu/mymenu.php`

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 Only Aastra phones with softkeys are able to customize the list of applications. The configuration file with the list of applications behind the ‘menu’ key is /var/www/html/aastra/menu/menu1.menu

10 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.

10.1 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.

10.2 asterisk.conf

This file includes configuration parameters for

- The Asterisk application [General] tab
  - SIP proxy IP address,
  - SIP registrar IP address,
  - Asterisk manager password for the ‘aastra-xml’ user which must match what is in /etc/asterisk/manager_custom.conf
  - Enable or disable the phone signature check in ‘extensions’ mode
- The self-configuration [Startup] tab
  - 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
  - Admin/user passwords

- Custom profiles for self-configuration [Profiles] tab
- The DND [DND] tab
    - enable or disable automatic pause/unpause from ACD queues
- The directory [Directory] tab
    - list of extensions you want to keep secret
- The Presence application [Presence] tab
    - enabled or disabled
- The Parking application [Parking] tab
    - list of users not having the updated LED
- The outgoing lookup application
    - enabled or disabled
    - external lookup uri

```
################################################################################
# asterisk.conf
#
# Configuration file for Aastra XML scripts
#
# Version: 2.3.0
#
# Copyright 2005-2010 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=
# Password attached to the aastra-xml user in /etc/asterisk/manager_custom.conf
password=aastra227872
# Enable or disable phone signature check (0 or 1) in 'extensions' mode, default is enabled
signature=

[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=
# Admin password for self-configuration, must be a number. Used in 'extensions' mode
pw_admin=
# User password for self-configuration, must be a number. Used when user has no voicemail
in 'extensions' mode.
pw_user=
# Request password for Logout in "extensions" mode (optional). Default is enabled (1), 0
for disabled
logout_pw_enabled=
# Auto-logout enabled or disabled in "extensions" mode (optional). Default is enabled (1),
0 for disabled
# aastra-daemon2 must be restarted if you change this parameter
autologout_enabled=
# Auto-logout idle screen message enabled or disabled in "extensions" mode (optional).
Default is enabled (1), 0 for disabled
autologout_message=

################################################################################
# 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 to be applied separated by a comma
#         (xxx,xxx-yyy,-yyy,xxx-)
#
# Example
#   [Profiles]
#   standard=200-249,251-299
#   agent=300-
#   special=250
#
################################################################################
[Profiles]

[DND]
# Enable(1) or disable(0) DND will pause/unpause on all ACD queues (enabled by default)
dnd_pause_queues=

[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

[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=
# External lookup uri, phone adds the number at the end of the uri
# example for superfecta module
external=http://maint:password@127.0.0.1/admin/modules/superfecta/bin/callerid.php?thenumbe
r=
external=
```

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

10.3 directory.conf

This file includes configuration parameters for all the directory applications

- The server dial plan
  - country code,
  - long distance prefix
  - international prefix
  - outgoing prefix
  - local extension length
- CSV directory
  - directory name

- location of the CSV file
- password protection enabled or not
- speed dial application access

- LDAP directory
  - directory name
  - password protection enabled or not
  - hostname and port of the LDAP server
  - LDAP user credentials
- Generic directory
  - directory name
  - uri to launch

```
################################################################################
# directory.conf
#
# Configuration file for the directory applications
#
# Version: 2.3.0
#
# Copyright 2010 Aastra Telecom Ltd
################################################################################

################################################################################
# Dialing profile
#
# [Dialplan]
# country             Country code
#                     If phone number starts with "+<country>", this will be
#                     removed
#
# long distance       Long distance prefix
#                     This prefix will be added to the number in case +<country>
#                     has been stripped.
#                     Leave blank if not needed.
#
# international       International prefix
#                     The "+" sign will be replaced with this prefix
#
# outgoing            Outgoing prefix
#                     Prefix that needs to be appended for outgoing calls
#                     (all call but local calls), e.g. 0 or 9
#
# local               List of local PBX number prefixes separated by a comma
#                     (in national format). Prefix will be removed, no outgoing
#                     prefix will be added.
#                     Examples: local=905760,978262
#                     --> 9057602222 will be replaced by 2222 and 9782623333 will
#                     be replaced by 3333.
#
# localextlen         Numbers with this number of digits or less will be treated
#                     as local PBX extensions. No prefix added (useful in case
#                     numbers are stored in local format in LDAP)
################################################################################
[Dialplan]
country=1
long distance=1
international=011
outgoing=
local=
localextlen=
```

```
################################################################################
# Directory entries
#
# [DirectoryID]
# type                csv, ldap or script
#       csv
#          label               Directory label
#          location            location of the csv file
#          password            if not empty directory is password protected the
#                              first time it is used
#          speed               0 or 1 (1 by default) indicates if the directory
#                              is linked to the speed dial application.
#                              In asterisk mode if speedial is not enabled, this
#                              parameter is ignored.
#       ldap
#          label               Directory label
#          password            if not empty directory is password protected the
#                              first time it is used
#          hostname     Hostname or IP address of LDAP server
#          port         TCP server port of LDAP server. Typically this is 389
#                              or 3268
#          baseDN       Base / Root Search DN.
#                              Example: dc=company, dc=com
#          userdomain   User domain to connect to the LDAP server (optional)
#          username     User DN to connect to the LDAP server. Leave blank
#                              if anonymous bind is used.
#          userpassword        Password for the User DN. Leave blank if anonymous
#                              bind is used.
#       script
#          label               Directory label
#          uri                 uri to call to launch the script,
#                              $$AA_XML_SERVER_AA$$ and $$AA_XMLDIRECTORY_AA$$ are
#                              supported system variables
#
# Examples
# --------
#
# [Contacts]
# label=Contacts
# type=csv
# location=/var/cache/aastra/contacts.txt
# speed=1
#
# [ACME]
# label=Corporate Directory
# type=ldap
# password=
# hostname=mail.acme.com
# port=3268
# basedn=dc=acme, dc=com
# userdomain=
# username=acmeuser
# userpassword=acmepasswd
#
# [Asterisk]
# label=PBX Directory
# type=script
#
uri=http://$$AA_XML_SERVER_AA$$/$$AA_XMLDIRECTORY_AA$$/asterisk/directory.php?user=$$SIPUSE
RNAME$$
################################################################################
[Contacts]
label=Contacts
type=csv
location=/var/cache/aastra/contacts.txt
password=
speed=1
[Asterisk]
label=PBX Directory
type=script
```

```
uri=http://$$AA_XML_SERVER_AA$$/$$AA_XMLDIRECTORY_AA$$/asterisk/directory.php?user=$$SIPUSE
RNAME$$
```

10.4 daynight.conf

This file includes configuration parameters for the daynight application describing for each index or all indexes:

- list of users allowed to use the application
- list of users being notified
- enable or disable label changes on the keys
- define the status message format to be displayed on the idle screen

```
##############################################################################
# daynight.conf
#
# Configuration file for Aastra XML scripts
#
# Version: 2.3.0
#
# Copyright 2007-2010 Aastra Telecom Ltd
#
# Description
#   This configuration files allows you to define the behavior of the
#   day/night application for each day/night index.
#
##############################################################################
[ALL]
# List of users having the global day/night application separated by a comma or ALL
appli=ALL

[0]
# 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
# Indicates if the label of the key changes or not (enabled by default)
chg_label=1
# Status message for the night (default is Night Mode (%1$d) where %1$d is the day/night
index number and %2$s is the index name)
label_night=Night Mode (%d)

[1]
# 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
# Indicates if the label of the key changes or not (enabled by default)
chg_label=1
# Status message for the night (default is Night Mode (%1$d) where %1$d is the day/night
index number and %2$s is the index name)
label_night=Night Mode (%d)

[2]
# 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
# Indicates if the label of the key changes or not (enabled by default)
chg_label=1
# Status message for the night (default is Night Mode (%1$d) where %1$d is the day/night
index number and %2$s is the index name)
label_night=Night Mode (%d)
```

```
[3]
# 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
# Indicates if the label of the key changes or not (enabled by default)
chg_label=1
# Status message for the night (default is Night Mode (%1$d) where %1$d is the day/night
index number and %2$s is the index name)
label_night=Night Mode (%d)

[4]
# 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
# Indicates if the label of the key changes or not (enabled by default)
chg_label=1
# Status message for the night (default is Night Mode (%1$d) where %1$d is the day/night
index number and %2$s is the index name)
label_night=Night Mode (%d)

[5]
# 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
# Indicates if the label of the key changes or not (enabled by default)
chg_label=1
# Status message for the night (default is Night Mode (%1$d) where %1$d is the day/night
index number and %2$s is the index name)
label_night=Night Mode (%d)

[6]
# 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
# Indicates if the label of the key changes or not (enabled by default)
chg_label=1
# Status message for the night (default is Night Mode (%1$d) where %1$d is the day/night
index number and %2$s is the index name)
label_night=Night Mode (%d)

[7]
# 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
# Indicates if the label of the key changes or not (enabled by default)
chg_label=1
# Status message for the night (default is Night Mode (%1$d) where %1$d is the day/night
index number and %2$s is the index name)
label_night=Night Mode (%d)

[8]
# 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
# Indicates if the label of the key changes or not (enabled by default)
chg_label=1
# Status message for the night (default is Night Mode (%1$d) where %1$d is the day/night
index number and %2$s is the index name)
```

```
label_night=Night Mode (%d)

[9]
# 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
# Indicates if the label of the key changes or not (enabled by default)
chg_label=1
# Status message for the night (default is Night Mode (%1$d) where %1$d is the day/night
index number and %2$s is the index name)
label_night=Night Mode (%d)
```

10.5 httpd.conf

This file is a configuration file for Apache in order to deny access to the config directory which now includes passwords.

It should not be modified.

10.6 queues.conf

This file includes the configuration for the ACD queues supervisors, it defines the list of users having access to an ACD queue as a supervisor.

```
##############################################################################
# queues.conf
#
# Configuration file for Aastra XML scripts
#
# Version: 2.3.0
#
# Copyright 2010 Aastra Telecom Ltd
#
# Description
#   This configuration files allows you to define the rules to apply to
#   users to access to the ACD queues when using the "Queue" application.
#
# Format
#   [QUEUE]
#   allowed=List of users having access to the queue separated by a comma or ALL
#   Where QUEUE is the queue number or ALL (for all queues)
#   When QUEUE=ALL the section applies to ALL queues configured unless the
#   queue is also defined in this file.
#
# Example
#   [ALL]
#   allowed=ALL
#   [4000]
#   allowed=300,301
#   With this configuration, ALL queues are accessible to everybody except
#   queue 4000 available only for user 300 and 301.
##############################################################################
[ALL]
# This section applies to ALL queues configured unless the queue is also defined in this
file
# List of users having access to the queue separated by a comma or ALL
allowed=ALL
```

10.7 status.conf

This file includes the configuration parameters for the statuses of the presence application:

- Label
- Type (available/out/unavailable)
- Mnemonic (First letter used in the directory application)

“Available” and “Disconnected” are reserved (1 and 99).

Note: The aastra-daemons must be restarted if tis file is modified.

```
################################################################################
# status.conf
#
# Configuration file for Aastra XML scripts
#
# Version: 2.3.0
#
# Copyright 2010 Aastra Telecom Ltd
#
# Description
#   This configuration files allows you to define the possible statuses for
# the presence application.
#   After modification aastra-daemons must be restarted
#
# Format
#   [STATUS_INDEX]
#   label=status label
#   type=status type (available/out/unavailable)
#   mnemonic=Status as a single letter (D is reserved for Disconnected)
#   STATUS_INDEX is a number between 1 and 98.
#
# Example
# [1]
# label=Away
################################################################################
[1]
label=Away
type=out
mnemonic=A
[2]
label=At Lunch
type=out
mnemonic=L
[3]
label=In Meeting
type=unavailable
mnemonic=M
[4]
label=Out of Office
type=out
mnemonic=O
[5]
label=At Home
type=available
mnemonic=H
```

10.8 pictureID.conf (for 6739i only)

This file includes the configuration parameters of the picture callerID application:

- directory locations
- number/pattern equivalences
- picture customization

Note: Changes in this file are dynamic.

10.8.1 General parameters

This section includes the global configuration parameters:

- Location of the 'pictures' directory
- Location of the 'cache' directory
- Enable or disable upscaling pictures
- Name and customization of the default picture (optional)

```
################################################################################
# Global parameters
#
# [General]
# pictures          Directory for the raw pictures
#                    Default is /var/cache/aastra/pictures
#                   Must be r for user asterisk
#
# cache             Directory for the cached pictures
#                    /var/cache/aastra/imagecache
#                   Must be r/w for user asterisk
#
# blowup            Enable (1) or disable (0) image scaling smaller than 150x200
pixels.
#                   This may/will lead to grainy/pixelized images.
#                   Default is disable
# default           Provides a default image when the number does not match
#                   any picture. A 404 is sent if no number is provided though.
#                   default=mapped_number or
mappedname,LABEL|YPOSITION|ALIGNMENT|COLOR|FONTSIZE
#                    See the [Numbers] section for the format of the line
################################################################################
[General]
pictures=
cache=
blowup=
default=
```

10.8.2 Number transformations

This section describes the number transformations you want the application to use to display a given picture as well as the optional customization of the picture.

Each line is formatted like this

- Number and/or patterns=picture number or name,[Optional customization]

Pattern format is P followed by:

- any digit including * or #
- X digit between 0 and 9

- Z digit between 1 and 9
- N digit between 2 and 9

The optional customization allows you to add a label on the displayed picture by defining:

- the label itself
- its vertical position in pixels (1 to 200)
- its alignment (left, center, right)
- its color
- its font size

```
################################################################################
# Number mapping
#
# Line Format
# [Numbers]
#    number and/or patterns comma separated=mapped_number or
mappedname,LABEL|YPOSITION|ALIGNMENT|COLOR|FONTSIZE
#    Simple number matching
#        it can be used to map multiple phone numbers (cell, home , other) to a
user
#    Pattern matching
#        it can be used to map open numbers
#        Pattern format is P followed by
#             any digit including * or #
#             X digit between 0 and 9
#             Z digit between 1 and 9
#             N digit between 2 and 9
#             . indicates an open length number, must be positioned at the end of
the pattern
#    The entries in the [Numbers] section are processed based on the order in
#    the file, so it is recommended to put the open patterns at the end.
#
# Where
#    LABEL is the label to be displayed on the picture
#    YPOSITION is the vertical position of the label (between 1 and 200), default
is 100
#    ALIGNMENT is the horizontal alignment left|center|right, default is center
#    COLOR is the label color
yellow|orange|pink|purple|black|grey|red|brown|tan|magenta|blue|green|white
(default is white)
#    FONTSIZE is the font size in pixels (between 8 and 24) default is 10
#
# Example
# [Numbers]
# 0795551234=2299
#  Will display the picture "2299" when 0795551234 is dialed or incoming
# P972XXXXXXX,P469XXXXXXX,P214XXXXXXX=default,"DALLAS, TX"|187|center|blue|10
#  Will display the picture "default" with a centered blue label "Dallas, TX"
font size 10 at vertical position 187 when 10 digits numbers starting with 972 or
469 or 214 are dialed or incoming
# P44.=UK
#  Will display the picture "UK" when any number starting with 44 is dialed or is
incoming
################################################################################
[Numbers]
*97,*98=voicemail
*76,*78,*79,*21,*65=phone
```

10.8.3 Number matching examples

The number matching can be used to map external phone numbers (cell phone, home…) to a local extension.

John Doe is extension 2000 on the local PBX, '2000.jpg' is available is the "pictures" directory.

The following line in the configuration file

```
4085551234,3105551234=2000
```

Will display the '2000.jpeg' picture when '4085551234' or '3105551234' are calling or being called.

10.8.4 Pattern matching examples

The pattern matching allows you to define hierarchical rules to match a number with a picture; the order in the configuration file is significant.

Example 1

```
P972XXXXXXX,P469XXXXXXX,P214XXXXXXX =default,"DALLAS, TX"|187|center|red|10
```

Will display the following picture on the phone when a 10 digit number starting with 972, 469 or 214 is calling or being called.

Example 2

This example demonstrates the relevance of the lines order in the configuration files.

```
P972555XXXX=default,"ACME Dallas"|187|center|blue|10
P972XXXXXXX,P469XXXXXXX,P214XXXXXXX=default,"DALLAS, TX"|187|center|red|10
```

Will display the following picture on the phone when a 10 digit number starting with 972555 is calling or being called.

But will display

When a 10 digit number starting with 972 (except if it is starting with 972555), 469 or 214 is calling or being called.

Example 3

This example demonstrates how to use undefined length patterns.

```
P44.= default,"United Kingdom"|187|center|red|10
```

Will display the following picture on the phone when a number (any number of digits) starting with 44 is calling or being called.

10.9 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.

11 Appendix B: Description of the Files

Directory /File	Comment
/etc/asterisk	
asterisk/extensions_aastra.conf	Presence context
/etc/avahi/services	
tftp.service	Avahi configuration for Aastra phone
/etc/rc.d/init.d	
aastra-daemon1	Service files for the daemons control
aastra-daemon2	
/var/cache/aastra	
contacts.php	Sample CSV directory file
/var/cache/aastra/cache	Default cache directory for the pictureCallerID
/var/cache/aastra/pictures	
conference.png	Demo picture files for the pictureCallerID
phone.png	
time.png	
voicemail.png	
Aastra.gif	
/usr/local/sbin/	
setup-aastra-xml	aastra.cfg generator
/var/lib/asterisk/agi-bin/	
aastra-vm.php	AGI script for the voicemail application
aastra-vm-greetings.php	AGI script for the voicemail application
/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	
would-you-like-to-connect.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

Directory /File	Comment
/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
cfwd.php	Call Forward
daynight.php	Day/Night
demo-device-nouser.prf	Profiles for self-configuration
demo-device-user.prf	
demo-user.prf	
directory.php	Asterisk Directory launcher
directory_1.php	Asterisk directory for 9112i, 9133i
directory_2.php	Asterisk directory for 480i, 480iCT
directory_3.php	Asterisk directory for 6730i,6731i, 51i, 53i, 9143i
directory_4.php	Asterisk directory for 55i, 57i, 57iCT, 9480i, 9480iCT
directory_5.php	Asterisk directory for 6739i
dnd.php	DND
follow.php	Follow-me application
imageServer.php	Picture CallerID application
incoming.php	Incoming call handler
key.ini	Init file for the Keys application
key.php	Keys application
login.php	Login for device and user mode
logout.php	Logout
meetme.php	Meet-me
notify.php	Presence notification
onhook.php	On hook handler
outgoing.php	Outgoing call handler
park.php	Parking lot
queues.php	Queue
startup.php	Self-configuration
sugarCRM.php	Sugar CRM
sync.php	Synchronization handler
user-custom.prf	User profile customization

Directory /File	Comment
vmail.php	Visual voice-mail launcher
vmail_2.php	Voice mail for 480i, 480iCT
vmail _3.php	Voice mail for 6730i,6731i, 51i, 53i, 9143i
vmail _4.php	Voice mail for 55i, 57i, 57iCT, 9480i, 9480iCT
vmail _5.php	Voice mail for 6739i
/var/www/html/aastra/clock/	
clock.ini	Data file for world clock application
clock.php	World clock
/var/www/html/aastra/config/	
asterisk.conf	Asterisk config file
daynight.conf	Day/Night config file
directory.conf	Directories config file
httpd.conf	Apache security config file
pictureID.conf	Picture Caller ID config file
queues.conf	ACD queues config files
server.conf	Server config file
timezone.conf	List of timezones
/avar/www/html/aastra/directory	
csv_directory.php	CSV directory application
directory.php	Directory launcher application
ldap_directory.php	LDAP directory application
speed.php	Speed Dial application
/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
AastraAsterisk.php	
AastraCommon.php	Common Aastra functions
AastraIPPhone.class.php	Aastra XML php classes
AastraIPPhone.php	
AastraIPPhoneConfiguration.class.php	

Directory /File	Comment
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	
AastraIPPhoneScrollableDirectory.class.php	
AastraIPPhoneScrollableTextMenu.class.php	
AastraIPPhoneScrollHandler.class.php	
AastraIPPhoneSoftkeyEntry.class.php	
AastraIPPhoneSPImage.class.php	
AastraIPPhoneStatus.class.php	
AastraIPPhoneStatusEntry.class.php	
AastraIPPhoneTextMenu.class.php	
AastraIPPhoneTextMenuEntry.class.php	
AastraIPPhoneTextScreen.class.php	
htmlparser.class.php	HTML parser
License.txt	License file
/var/www/html/aastra/menu/	
menu1.menu	Custom menu 1 (Most phones)
menu2.menu	Custom menu 2 (Aastra6751i)
mymenu.php	Menu application
/var/www/html/aastra/rss/	
cnn.rss	CNN feed
day.rss	Day feed
espn.rss	ESPN feed

Directory /File	Comment
fox.rss	FOX News feed
horoscope.rss	Daily horoscope
movies.rss	Movies feed
netflix.rss	Netflix feed
rss.php	RSS reader application
/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/utilities	
apply_prf	Utility to reapply standard profile
backup	Backup utility
check_install	Utility to check XML scripts installation
read_context	Utility to read cached data
read_database	Utility to read asterisk database portions
set_autologout	Utility to configure automatic logout time
/var/www/html/aastra/weather/	
weather_us.php	Local weather (US zip code)

12 Appendix C: RPM Spec file

```
Summary:     Aastra Telecom XML scripts
Name:        aastra-xml-scripts
Version:     2.3.0
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:    aastra-ipphone >= 2.5.3,avahi,php-gd,php-ldap
AutoReqProv: no

%description
PHP scripts which enable the Aastra Telecom SIP Phones XML browser to interact
with the asterisk/freePBX 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 INSTALL/scripts/setup-aastra-xml %{buildroot}/usr/local/sbin/setup-
aastra-xml

install -D INSTALL/agi-bin/aastra-vm-greetings.php
%{buildroot}/var/lib/asterisk/agi-bin/aastra-vm-greetings.php
install -D INSTALL/agi-bin/aastra-vm.php %{buildroot}/var/lib/asterisk/agi-
bin/aastra-vm.php
install -D INSTALL/asterisk/extensions_aastra.conf
%{buildroot}/etc/asterisk/extensions_aastra.conf

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

install -D INSTALL/etc/aastra-daemon1 %{buildroot}/etc/rc.d/init.d/aastra-daemon1
install -D INSTALL/etc/aastra-daemon2 %{buildroot}/etc/rc.d/init.d/aastra-daemon2

install -D INSTALL/etc/tftp.service %{buildroot}/etc/avahi/services/tftp.service

%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_aastra /etc/asterisk/extensions_custom.conf`
if [ $res -eq 0 ]
then
  cat >> /etc/asterisk/extensions_custom.conf <<EOF

#include extensions_aastra.conf
EOF
fi

res=`grep -c aastra/config/httpd.conf /etc/httpd/conf/httpd.conf`
if [ $res -eq 0 ]
then
  cat >> /etc/httpd/conf/httpd.conf <<EOF
Include /var/www/html/aastra/config/httpd.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
chmod +x /etc/rc.d/rc.local

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

[aastra-xml]
secret = aastra227872
deny=0.0.0.0/0.0.0.0
permit=127.0.0.1/255.255.255.0
read = system,call,log,verbose,command,agent,user,originate
write = system,call,log,verbose,command,agent,user,originate
EOF
fi

ln -s /var/www/html/aastra/config/server.conf /etc/aastra-xml.conf
```

```
chmod +x /etc/rc.d/init.d/aastra-daemon1 >/dev/null 2>/dev/null
chmod +x /etc/rc.d/init.d/aastra-daemon2 >/dev/null 2>/dev/null
chkconfig --add aastra-daemon1 >/dev/null 2>/dev/null
chkconfig --add aastra-daemon2 >/dev/null 2>/dev/null
/etc/rc.d/init.d/aastra-daemon1 restart >/dev/null 2>/dev/null
/etc/rc.d/init.d/aastra-daemon2 restart >/dev/null 2>/dev/null
asterisk -rx 'module reload' >/dev/null 2>/dev/null
/etc/rc.d/init.d/avahi-daemon restart >/dev/null 2>/dev/null
chkconfig --level 345 avahi-daemon on >/dev/null 2>/dev/null
/etc/rc.d/init.d/httpd restart >/dev/null 2>/dev/null

%preun
if [ $1 -eq 0 ]
then
      /etc/rc.d/init.d/aastra-daemon1 stop  >/dev/null 2>/dev/null
      /etc/rc.d/init.d/aastra-daemon2 stop  >/dev/null 2>/dev/null
      chkconfig --del aastra-daemon1
      chkconfig --del aastra-daemon2
      rm -rf /etc/rc.d/init.d/aastra-daemon1
      rm -rf /etc/rc.d/init.d/aastra-daemon2
fi

%postun
res=`grep -c extensions_aastra /etc/asterisk/extensions_custom.conf`
if [ $res -eq 1 ]
then
      sed '/extensions-aastra/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 aastra-xml /etc/asterisk/manager_custom.conf`
if [ $res -eq 1 ]
then
      sed '/aastra-xml/,/write/d' /etc/asterisk/manager_custom.conf >
/etc/asterisk/manager_custom.conf.temp
      mv /etc/asterisk/manager_custom.conf.temp
/etc/asterisk/manager_custom.conf
fi


res=`grep -c aastra/config/httpd.conf /etc/httpd/conf/httpd.conf`
if [ $res -eq 1 ]
then
      sed '/aastra\/config\/httpd.conf/,/write/d' /etc/httpd/conf/httpd.conf >
/etc/httpd/conf/httpd.conf.temp
      mv /etc/httpd/conf/httpd.conf.temp /etc/httpd/conf/httpd.conf
fi

rm -rf /etc/aastra-xml.conf
/etc/rc.d/init.d/avahi-daemon restart >/dev/null 2>/dev/null
/etc/rc.d/init.d/httpd restart >/dev/null 2>/dev/null
asterisk -rx 'module reload' >/dev/null 2>/dev/null

%files
%defattr(755,asterisk,asterisk)
/etc/avahi/services/tftp.service
/etc/rc.d/init.d/aastra-daemon1
/etc/rc.d/init.d/aastra-daemon2
/etc/asterisk/extensions_aastra.conf
/var/cache/aastra
```

```
/usr/local/sbin/setup-aastra-xml
/var/lib/asterisk/agi-bin/aastra-vm-greetings.php
/var/lib/asterisk/agi-bin/aastra-vm.php
/var/lib/asterisk/sounds/custom
/var/www/html/aastra

%changelog
* Fri Jul 16 2010  Aastra Support
- Release 2.3.0
- Dependency for firmware 2.5.3
- Support for Aastra6739i (3.0.1)
- Too many to list here, please refer to documentation

* 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
```

13 LAST PAGE OF THE DOCUMENT

This page is intentionally left blank

PA-001009-01-04