

Mercury PBX User Manual

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Mercury PBX User Manual

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Chapter 1. Theory of operation

Numbering Schemes

The Mercury phone system uses several related but distinct numbering schemes to support the features it provides. They are:

1. The physical telephones each have a unique extension number that if dialed will cause that phone, and only that one phone, to ring. All of these extensions are two digits between 10 and 49.
2. Virtual, per user, extensions. These extensions can be joined to and removed from a physical phone at will by dialing special codes. This allows personal calls to find you wherever you may be working at the time. These extensions are six digits beginning with 80 followed by a four digit employee ID code.
3. Call queues. Inbound calls are sorted by the Interactive Voice Response system and queued up for whichever department the patron requests, All phones in that department will ring while the patron listens to music on hold. If it isn't answered in a timely fashion the call will spill over into a overflow queue which rings most phones in the DeRidder branch. Phones can be dynamically added/removed from the various input queues by dialing a code. Call queues are at extensions 61-65.
4. Voicemail boxes. Some physical phones have voicemail boxes, others do not depending on whether it makes sense. Phones which do not have a voicemail box assigned will prompt for a box number. Other boxes include those for the input queues (i.e. Circulation, Reference, IT, etc) and one for each employee. Employee mailboxes are simply your four digit employee number. (no 80 prefix)
5. Special feature extensions. See the detailed dialplan.

Hardware Overview

The phone system is entirely based on Voice over IP (VoIP) technology. Four traditional analog telephone lines (POTS) route from the electrical closet to the server room, into one of two redundant servers. The currently active server connects to the rest of the inhouse network, and thus to the Wide Area Network (WAN) to reach the rural branches and the Wireless Networks. All hard wired stations in DeRidder are Aastra 9133i phones. The branches use D-Link DVG-2001S Analog Terminal Adapters (ATAs) to enable the cordless phone and fax machine at each branch to route calls over the network. Several Wi-Fi cordless VoIP phones are also in use.

Being part of the network, the phone system depends upon several other network services being available for proper operation. Specifically fenris must be up and running to provide DHCP service both to mercury and the phones. Hypatia must be running to route traffic from the DeRidder Staff network and various switches must be up and running.

Software Overview

The software stack consists of White Box Enterprise Linux 4 with the Asterisk PBX compiled locally and installed as binary RPM packages derived from SRPMS obtained from Laimbock Consulting's webpage (<http://www.laimbock.com/asterisk/>).

Differences between a Key System and a PBX

Chapter 2. Controlling the system via the phone

PBX Controller

Several special features, system prompts and messages can be controlled directly from any telephone. The PBX Controller menu is at extension 89. The menu lists library functions as option #1. Option #2 controls the Emergency menu, discussed in another section.

Picking #1 will result in a prompt for a passcode. If you are tasked with changing the configuration of the system or maintaining one or more of the announcements your supervisor will provide you with the current code.

You should hear the following menu of options:

- 01 - Enable a special announcement. This will play after the standard "Welcome to the Beauregard Parish Library" greeting. Record message 0001 before enabling this feature.
- 02 - Disable the special announcement.
- 03 - Override the normal operating hours and force the library to be closed. Play message 0002 to explain why. The normal closed message will also play so try not to duplicate content with it. Use this when the library is closed for holidays, all staff, emergencies, etc.
- 04 - Return to normal operating hours.
- 05 - Enable playing message 0003 in the Library hours and Programming menu (63). One use would be to record a short 'teaser' about an event coming in the near future. Be sure to mention which option contains the details!
- 06 - Disable the special announcement.
- 07 - Enable the playing of message 0004 in the IT Dept's menu (64). This is a good place to announce service outages so that patrons know we are aware of them and do not need to report them.
- 08 - Disable the special IT announcement.
- 09 - Enable a Dept of Homeland Security announcement. When instructed to do so by the Beauregard Parish DHS, enabling this option will put a message and menu controlled by them into our menu right after the "Welcome to the Beauregard Parish Library" message.
- 10 - Disable the DHS announcement.
- 99 - Engage the dictation machine in the system messages directory. See the calling feature "Dictation Machine" for details.

List of customizable messages

- 0001 - Special Announcement for Incoming menu
- 0002 - Special Closing message
- 0003 - Special Event Tease

Chapter 2. Controlling the system via the phone

- 0004 - Special IT Dept message
- 0005 - Special Message for Staff
- 0011 - DeRidder Branch Hours
- 0012 - Branch Hours
- 0013 - Children's Programming Schedule
- 0014 - Adult Programming Schedule
- 0021 - IT Dept - Wireless Info
- 0022 - IT Dept - Dialup Info
- 0023 - IT Dept - Online Services Info
- 0024 - IT Dept - Problem Reporting Info
- 0031 - Bus/Admin - Contact Info
- 0032 - Bus/Admin - Acquisitions Info
- 0101 - Info about Circulation via the Internet
- 0102 - Info about reference/requests via the Internet

Dept. of Homeland Security Menu

NOTE: This information is for the BP DHS. Library personnel should not normally change this.

To edit the items on the Emergency Information menu dial the library's normal telephone number (337-463-6217) and dial 89 when prompted to enter an extension. Select item #2 from the PBX Controller menu. The system will prompt you to enter a passcode.

From here pressing the numbers 1-9 will toggle the respective messages between enabled and disabled. Dialing * will engage the dictation machine to allow recording the welcome, menu prompts and the actual messages. See Dictating Machine in the list of system features for details on recording messages.

To test the system dial into the library and dial extension 60. Once you are satisfied that it is ready for the public you can enable option 0 to begin playing an announcement in our main greeting informing them that they should "dial 60 for Emergency Information."

To prevent distracting shifts in the voice and recording levels the system is not inserting "Dial X" before each menu item. Be sure you include that information in each of the menu prompts. As in "Dial 1 for evacuation routes..." in message 11.

Hint: You can pre-record both the menu items and messages ahead of time and simply leave those items disabled until you want to begin broadcasting them to the public. However, while you can disable the prompt informing the public about the emergency response menu, dialing 60 will always play the menu greeting message (message 00).

Emergency Messages

- 00 - Welcome Message for menu 60
- 1N - Prompt for message N
- 2N - Message N

Chapter 3. Advanced reprogramming via the command line interface

Logging into Mercury

There are two pathways to gain access to Mercury, the host running the phone system. Under normal circumstances ssh is the preferred method. If that isn't available (network problems) or a greater level of access is needed (to boot into maintaince mode, access the BIOS, etc.) remote console access is available via the terminal server via telnet.

SSH access to Mercury

SSH into mercury as the user "asterisk" for almost all administrative tasks. As the number of authorized users is small and the need for secure and reliable service from this host is critical, access via normal passwords is not permitted over the network. A cryptographic "key" installed into your account is required. IT services will take care of this detail for those users who need access. You simply need to issue the command "ssh asterisk@mercury.library.beau.org" in a shell or create a shortcut on your desktop.

Some advanced server management tasks may require you to either log in as the "root" user or to know the root password. See the next chapter, "Server Management" for details on these tasks.

Console access to Mercury via Terminal Server

Some tasks require access to the system console, such as accessing the system BIOS, the boot loader options, etc. Console access is also the only easy way to access the spare server.

The servers support remote console access via serial port. These ports are connected via null modem cables to argus.beau.org, the terminal server that normally handles our patron access lines. Connecting to the terminal server via telnet on alternate ports initiates a connection to these serial lines. Port 136 will connect to server #1 and port 137 gets server #2. Note that these numbers do not refer to which server is currently designated as the "Primary" server, i.e. the one carrying the hostname mercury since that role alternates between the two. Server #1 is simply the topmost server in the rack. The port numbers were selected because they are ports associated with Microsoft LAN filesharing and thus forbidden at the firewall (fenris).

Making changes

Almost all operations are controlled from files in three subdirectories. `/etc/asterisk` holds the configuration files for Asterisk. `/var/lib/asterisk/sounds/bpl` is where the custom voice prompts are located. A `msg` subdirectory within holds the messages recorded by the PBX Controller (ext 89) system. `/tftpboot` is where the configuration and firmware for the phones are located.

All of the files which require regular maintaince are plain text editable/searchable with any of the standard *NIX tools. Vim and GNU Nano (a Pico workalike) are supplied.

A list of the more important files in each location follow, along with some hints for everyday customization.

/etc/asterisk

extensions.conf

This file is the very heart of Asterisk, exercise the utmost caution in altering this file. Be sure you have either backed up this one file or ran a full system backup and have made the fresh copy the Primary server before making changes to this file. (See Chapter 4) The book *Asterisk: The Future of Telephony* should be handy.

sip.conf

Contains a stanza describing each phone. Things you might need to edit here would be the voicemail boxes that trigger a phone's MWI (Message Waiting Indicator) or to add new stations to the system.

queues.conf

Edit this file to reassign which stations are in which queues by default. Note that the 83QQA dialing sequence can alter the members of the queues dynamically.

voicemail.conf

Edit this file to add/remove mailboxes as staff changes. Create new mailboxes with a password the same as the box number. Doing this will cause the system to force the new employee to set a new password the first time they log into the Voicemail system.

/tftpboot

aastra.cfg

This file configures all of the Aastra 9133i SIP phones. During boot the phones load this file, then the <mac address>.cfg file adds the individual phone number, name, etc. Finally, any changes made from the phone's **Options** menu override the server supplied configuration.

directory.csv

This file is the sitewide dialing directory. It is a simple text file with one entry per line in name,number form. Put names inside double quotes if they contain a comma.

9133i.st

This is the operating software for the Aastra phones. If a new version is released by Aastra, unpack it and put it in place of the existing version. Then either reboot the phones or allow them to automatically find it overnite.

Loading your changes into the running system

A few configuration files, such as `voicemail.conf`, take effect as soon as they are saved. Most require that Asterisk be notified somehow. Most can be reloaded from the Asterisk command line console without needing to restart the entire system. A few do require restarting the PBX though.

Both of these routine operations has been make available via the `sudo` command and thus do not require the root password.

Running the Asterisk Console

To run the Asterisk Console type **asterisk-console**. You should see something like the example below:

```
[asterisk@mercury ~]$ asterisk-console
Asterisk 1.2.9 svn rev 32521, Copyright (C) 1999 - 2006 Digium, Inc. and others.
Created by Mark Spencer <markster@digium.com>
Asterisk comes with ABSOLUTELY NO WARRANTY; type 'show warranty' for details.
This is free software, with components licensed under the GNU General Public
License version 2 and other licenses; you are welcome to redistribute it under
certain conditions. Type 'show license' for details.
=====
Connected to Asterisk 1.2.9 svn rev 32521 currently running on mercury (pid = 14845)
Verbosity is at least 1
Core debug is at least 1
mercury*CLI>
```

The most common commands you will use are **extensions reload** to reload the `extensions.conf` file and **sip reload** to reread `sip.conf`. Type a question mark to access the online help, consult *Asterisk: The Future of Telephony* or look at the files in `/usr/share/docs/asterisk-{version}` for more details.

Restarting the Asterisk PBX software

To do a full restart of Asterisk, use the **asterisk-restart** command. You should only use this command after hours if at all possible since calls can be dropped, phones may lose their registration for several minutes, etc.

Chapter 4. Server Management

Chapter 4. Server Management

Chapter 5. Dialplan

Most of this material needs to be reformatted into more usable form, but at least it is available this way.

Beauregard Parish Library Dialplan

Phones & Queues

0	Operator
10	Command
11	Administrative Librarian
12	Tech Services - Cataloging
13	Staff Room
14	Scheduling & Mends
15	REF/Literacy/Grants
16	Security
17	ILL Desk
18	Programming
19	IT (Cordless)
20	IT Automation
21	IT Network
22	Assistant Director
23	Circulation backup desk (Cordless)
24	Payroll
25	Tech Services & Bookkeeping
26	Tech Services - Processing
27	Collection Devel & Acquisition
28	Circ (temporary covering for cordless)
29	Computer Lab
30	Reference/Reader Serv (Cordless)
31	-
32	Branch Office
33	-
34	-
35	-
36	-
37	-
38	-
39	Courtesy Phone in lobby
40	-
41	Merryville
42	Longville (currently defunct)
43	East Beauregard
44	South Beauregard
45	Singer
46	Fields
47	-
48	-
49	-
50	Fax Machine (DeRidder)
51-59	Reserved for Faxes at branches
60	Emergency Messages (BP Dept of Homeland Security)
61	Circulation & Overdues & Renewals
62	Reference & Reserves
63	Locations/hours & Programs

Chapter 5. Dialplan

```
64      IT menu
65      Administration menu
66      Story Time
67      Staff Hidden Menu
68      Record Prompt in /tmp/prompt.au
69      -
```

Special Features

```
70      Park Call
71-75   Parking spaces
76-79   Conference Rooms
80      People extension prefix i.e. 80XXXX
81      People login prefix
82      People logout prefix
83      Add/remove phone to/from call queue
          83QQA
          QQ=Queue number
          A=0 to remove 1 to add
84      Intercom call
          8401   Pages all back offices
          8402   Pages Circ and a couple of phones in back
          84XX   XX=Extension
85      DISA - Obtain an outbound dialtone. Password protected.
86      VoiceMailMain
87      VoiceMail no login
88      Amusements
89      Control Menu - Password protected.
9+      Outbound Calls
```

-- Menus --

Incoming Menu

```
          Play Welcome          "Welcome to the Beauregard Parish Library"
If(emergency)
          Play Emergency        "Dial 60 for emergency information."
Fi
If(specialmessage)
          Play msg/0001        Special announcement
fi
If(specialclosed)
          Play msg/0002        Message describing why we are closed
          Goto Closed Menu
Fi
If(time==open)
          GoTo Open Menu
Fi
          GoTo Closed Menu
```

Closed Menu

Include amusements and storytime

```
          Play closedmsg        "All branches of the Beauregard Parish Library"
```

are now closed. However, one of the following options may help you."

```

Play if-u-know-ext-dial
Play prompt-circ      "For overdues, renewals or circulation, dial 61."
Play prompt-ref       "For reference, reserves or other information
                       dial 62"
Play prompt-hours     "For library hours, locations and programs
                       dial 63."
Play prompt-it        "For Information Technology Services dial 64."
Play prompt-bus       "For Business and Administration dial 65."
Play prompt-message   "To leave a message for library staff dial 0
                       or simply wait on the line."
Play prompt-repeat    "To repeat this menu press the pound key."
Waitexten

```

Open Menu

```
include primary-queues
```

```

Play this-call-may-be-monitored-or-recorded
Play for-qc-and-training-purposes
Play if-u-know-ext-dial
Play prompt-circ      "For overdues, renewals or circulation, dial 61."
Play prompt-ref       "For reference, reserves or other information
                       dial 62"
Play prompt-hours     "For library hours, location and programs
                       dial 63."
Play prompt-it        "For Information Technology Services dial 64."
Play prompt-bus       "For Business and Administration dial 65."
Play prompt-operator   "To hold for the next available operator dial
                       0 or remain on the line."
Play prompt-repeat    "To repeat this menu press the pound key."
WaitExten

```

Circ Menu

```

If(open)
    Play prompt-operator "To hold for the next available operator dial
                          0 or remain on the line."
else
    Play prompt-message  "To leave a message for library staff dial 0
                          or simply wait on the line."
fi
    Play circ-net        "To learn about managing your library
                          information online, dial 1."
    WaitExten

```

Reference Menu

```

If(open)
    Play prompt-operator "To hold for the next available operator dial
                          0 or remain on the line."
else
    Play prompt-message  "To leave a message for library staff dial 0
                          or simply wait on the line."
fi
    Play ref-net         "If you have Internet access you can request

```

Chapter 5. Dialplan

information or library materials online at
library.beau.org."

Hours Menu

```
If(specialprogram)
    Play msg-0003      Message about special program/event
Fi
    Play sched-der    "For DeRidder Branch Hours dial 1."
    Play sched-branch "For rural Branch hours dial 2."
    Play sched-child  "For a schedule of children's programs dial 3."
    Play sched-adult  "For a schedule of adult programs dial 4."
If(open)
    Play prompt-operator "To hold for the next available operator dial
    0 or remain on the line."
else
    Play prompt-message "To leave a message for library staff dial 0
    or simply wait on the line."
fi
```

IT Menu

```
If(ITnotice)
    Play msg-0004      Special IT Dept message, i.e. problems
Fi
    Play it-wireless   "For information about our Wireless
    Internet dial 1."
    Play it-dialup     "For information about our dialup access
    dial 2."
    Play it-online     "For information about our online services
    dial 3."
    Play it-prob       "To report a problem with library technology
    services dial 4."
If(open)
    Play prompt-operator "To hold for the next available operator dial
    0 or remain on the line."
else
    Play prompt-message "To leave a message for library staff dial 0
    or simply wait on the line."
fi
```

Business Menu

```
    Play bus-contact   "For contact information dial 1."
    Play bus-acquisition "For information about acquisitions dial 2."
    Play bus-bookkeeping "To speak to the Bookkeeping department dial 3."
    Play bus-personnel  "To speak to the Personnel department dial 4."
    Play bus-admin      "To speak to an administrator dial 5."
    Play bus-return     "To return to the main menu press #."
```

Control Main Menu

```
    Play ctrl-banner   "Welcome to the PBX Controller."
    Play ctrl-options  "To control Library functions dial 1
    To Control Emergency Services messages dial 2."
```

WaitExten

Control Library Flags

Play ctrl-specannounce "To Enable a special announcement dial 01."
 "To disable the special announcement dial 02."
 Play ctrl-specialclose "To Switch to Forced Closed Mode Dial 03."
 "To Return to normal operation Dial 04."
 Play ctrl-specprogram "To Enable a Special Programming message dial 05."
 "To Disable the Special Programming message dial 06."
 Play ctrl-itspecial "To Enable a special IT Announcement dial 07."
 "To Disable the Special IT Announcement dial 08."
 Play ctrl-emergency "To Enable the Emergency Announcement dial 09."
 "To Disable the Emergency Announcement dial 10."
 Play ctrl-messages "To record messages dial 99."

Control Emergency Menu

Validate

Play emergcontrol-menu "To toggle the menu items dial 1 through 9.
 To record prompts and messages dial *.
 To activate the emergency menu on the library
 main menu dial 0. To exit this menu dial #."

WaitExten

Special messages

0001 Spacial Announcement for Incoming menu
 0002 Special Closure Message
 0003 Special Event Tease
 0004 Special IT Dept message
 0005 Special message for Staff

0011 DeRidder hours
 0012 Branch Hours
 0013 Children's Programming Schedule
 0014 Adult Programming Schedule

0021 IT Dept - Wireless Info
 0022 IT Dept - Dialup Info
 0023 IT Dept - Online Services
 0024 IT Dept - Problem Reporting info

0031 Bus/admin - Contact info
 0032 Bus/admin - Acquisitions

0101 Info about circulation via internet
 0102 Info about reference/requests via the internet

Emergency Messages

00 Message played on menu entry
 1N Menu Item
 2N Message to play for menu item 1N

I. How to use the special features

Most of the system's features work as one would expect. However this Reference provides precise details on each of the system's features.

Call Parking

Name

Call Parking — Places a call in a “Parking Lot”

Details

Pressing the **Park** button or transferring a call to extension 70 “Parks” a call. The caller will instantly begin hearing music and you will hear the system announce a “Lot Number”. Any phone in the system can then take the call by dialing the lot number as an extension.

Unlike Hold, Parking is a feature of the Asterisk PBX software and is thus more intelligent. For example, should the ultimate destination you attempted to pass the call off to fail to respond, you become distracted and forget, etc., the system will remember who parked the call and transfer them back to you in a minute or two. (The exact time is configurable and subject to change.)

Caller List

Name

Caller List — List of inbound calls (Aastra phones only)

Details

Pressing the **Phone** key (icon of a phone) displays the number of inbound calls since you cleared the list (max 200). Pressing **Delete** here offers to delete the whole list. Pressing **Up** and **Down** will navigate the list.

Each call shows the name, number, date and time. The icon to the left will show an on-hook phone if the call wasn’t unanswered or an off-hook phone for calls taken. Pressing **Delete** while viewing a call will delete that entry. Pressing one of the Line buttons will dial the number.

Conference

Name

Conference — Multi User Teleconferencing system

Details

Extensions 76-79

Fill in details here.

Do Not Disturb

Name

Do Not Disturb (DND) — Disable the Ringer and mark the phone as Busy

Details

If Do Not Disturb is ON, callers will get dumped into Voicemail or get a busy signal if no Voicemail box is assigned to the phone.

The Aastra phones will light up a red light and show an icon in the LCD display beside your extension number when DND is enabled. The cordless phones will have a different user interface but give callers the same experience. The regular phones at the branches do not offer this feature.

It goes without saying that you should use this feature sparingly.

Dialing Directory

Name

Dialing Directory — Speed dialing (Aastra Phones Only)

Details

The phones have most of the phone numbers you will need on a day to day basis programmed into them. Press the **Directory** button to bring up the directory. The **Up** and **Down** buttons will scroll through the entries. The dialpad will also jump to the first entry beginning with the letters on the key. For example, Press **3** to jump to the first entry beginning with D. Press again to get E, etc.

Once you have found the correct entry, Either pick up the receiver or press one of the Line Presence keys, i.e. **L1**, **L2** or **L3**. If you are performing a Transfer press the line that is currently active. (It will be the only one lit up solid.)

The dialing directory on your phone is the result of merging three different data sources. One is a sitewide directory of numbers useful to all employees. Second is a departmental list. The third source is numbers you have entered yourself. The first two are stored on the central server and your phone will automatically update itself when entries are changed. Numbers you enter yourself are stored in your phone's internal memory.

The best source of new directory entries is the Redial and Caller List. While displaying one press the **Save** button followed by the **Directory** button. You can also save a contact during a call. It is also possible to create a new entry by much tedious typing using the keypad but that will not be documented here, see the *Aastra 9133i IP Phone Release 1.4 User Guide* for details.

To delete an entry call it up on the display and press the **Delete** button. Press it a second time when prompted to confirm the action. Pressing **Delete** right after **Directory** will offer to delete all speed dial entries. This is a quick and safe way to remove all of your customized entries as the server based entries will reappear after a reboot. (Use the menu under **Options** to reboot or simply unplug the power for a few seconds.)

The IT dept can offload your customized entries and merge them into one of the two server based lists if they would be generally useful. Just let them know which entries to take.

Be aware that since your customized entries are stored in your phone that they will not survive the death of the phone. If IT has to drop a spare on your desk to replace a failed phone the numbers may not be recoverable.

Dictating Machine

Name

Dictating Machine — Record messages into numbered files

Details

This function was intended as a dictating machine, and might someday be used on our system as such. Currently it is used to record custom announcements and system prompts.

One consequence of this is that existing messages are not automatically erased. Be sure to use the 8 key to truncate the old message before recording a new replacement.

The dictating system works inside a sub directory, with numerically named files entered on the dialpad. Each appearance of the dictate command is pointed into a system directory. For the current use we record new system prompts into `/var/lib/asterisk/sounds/bpl/msg`. See Chapter 2 for the list of messages and their uses.

Commands in Playback mode:

- 1 - Switch to Record mode
- 2 - Toggle fast playback
- 7 - Skip Backwards
- 8 - Skip Forwards
- 0 - Help
- * - Play/Pause
- # - Switch to a new file

How to use the special features

Commands in Record mode:

- 1 - Switch to Playback mode
- 8 - Truncate File
- 0 - Help
- * - Record/Pause
- # - Switch to a new file

DISA (Direct Inward System Access)

Name

DISA — Direct Inward System Access

Details

Direct Inward System Access allows a caller on the inbound lines to obtain an "internal" system dialtone and place calls from inside the PBX. It is accessed by dialing extension 85.

DISA plays a dialtone. You enter the secret passcode, followed by the pound sign (#). If the passcode is correct, you will be given system dialtone on which a call may be placed. Obviously, this type of access has serious security implications, and great care must be taken not to compromise our security since any long distance call which would be allowed from a staff telephone would be available to someone learning the passcode. Caller-ID will show the call as originating from this system.

If you need access to DISA your supervisor will supply you with the current passcode and advise you when it changes.

Follow Me

Name

Follow Me — Allows personal calls to find you

Details

This feature allows you to 'login' to a phone and have your personal calls ring that phone until you either login to another phone or explicitly logout.

The system is based on your four digit employee ID number (i.e. the number you use with the time clock) and a dialing prefix.

- 80+ID This is the number you give out so that people can call you. When a call comes in the display will show "Personal: XXXX" (where XXXX is your ID code) instead of the caller's name. The second line will show the caller's phone number.

If multiple people are sharing a station try to avoid answering someone else's calls so that unanswered calls will fall over to voicemail. If you know the person is not currently near your phone press the hangup button. This will make the call move on to voicemail instead of continuing to ring. You might also want to log them off by dialing 82+XXXX. (See below)

- 81+ID Dial this to log your self onto a phone. You should hear a confirmation that includes your name. If you were logged onto a different phone this will automatically redirect calls to the current phone.
- 82+ID Dial this to log off. Any calls for you will go directly to voicemail.

Hold

Name

Hold — Places a caller on hold

Details

Pressing the HOLD button places a caller on hold. While on hold the caller will hear "Music On Hold".

Note that Hold is mostly a feature of the phone and not the PBX. This means that a call on hold may only be resumed from the same phone. There is also no timeout or reminders other than a blinking line indicator and a small icon on the display. If you want to place a caller on hold with the intention of passing them off to another station you should use Transfer or Call Parking instead.

Intercom

Name

Intercom — Use Speakerphone as an Intercom

Details

Dialing 84NN where NN is a two digit extension will cause the phone to automatically go offhook and activate it's speakerphone. This will allow you to announce through a phone. When the connection is made the remote phone will emit two short, quiet beeps instead of a ring. This means this feature has some potential for privacy violation, please use it responsibly and announce yourself.

This feature is currently only available if the remote extension is an Aastra 9133i.

Redial

Name

Redial — Quickly redials recently called numbers (Aastra phones only)

Details

If the phone is off-hook, pressing the **Redial** (Stylized R) button redials the last number called. If the phone is on-hook it opens a display similar to the Caller List except it shows outbound calls instead of inbound. The same keys to navigate and delete entries operate.

Transfer

Name

Transfer — Transfer a call to another station

Details

To transfer a call to another station press the **Transfer** button. (Use the # key on a regular phone, such as at a rural branch.) When you hear dialtone return, dial the extension (or outside number) normally.

If you don't care if anyone answers (i.e. if voicemail is an acceptable resolution of the call) you can simply hang up. Otherwise remain on the line until you have confirmed the called party is actually available and informed them who is calling, etc. Then either press **Transfer** again or simply hang up.

Transferring a call to extension 70 activates Call Parking, see that entry for details.

Voicemail

Name

Voicemail — Comedian Mail Voice Messaging System

Details

Full Voicemail functionality is present in this new system. It is accessed either by dialing 86 (VM on a touchtone keypad) or pressing the dedicated button on the Aastra phones. Every employee should have at least one box and probably also shares access to a departmental mailbox.

Each phone is programmed with a list of mailboxes to monitor and displaying an indicator, a light on the phones, an icon of an envelope, or a stuttered dialtone, when there are new messages in one or more of the boxes being monitored. The system also sends an email notifying you of new messages.

Each mailbox is protected with a PIN number. The first time you access a newly created box the password is set to be the same as the mailbox number. The system will detect this condition and force you to change the password to something more secure. Please do not use the same PIN you use for anything critical like an ATM card because it is stored in plain text on the server and several staff members must have access to the file to add/remove mailboxes.

If accessing voicemail by pressing the dedicated VoiceMail button on a phone no password is needed if there is a mailbox corresponding to the phone's extension. I.e. if you press the Voicemail button at extension 33 and there is a mailbox 33 it drops directly into that mailbox. Otherwise, for example the phone in the Staff Lounge which has no mailbox, the system prompts for a box number and a PIN.

Comedian Mail Voicemail MENU

- 1 - Read Voicemail Messages
 - 3 - Advanced Options
 - 1 - Reply
 - 2 - Call Back
 - 3 - Envelope
 - 4 - Play Previous Message
 - 5 - Repeat current Message
 - 6 - Play Next Message
 - 7 - Delete Current Message
 - 8 - Forward Message to another Mailbox
 - 9 - Save Message to a Folder
 - * - Help; During Message playback: Rewind
 - # - Exit; During Message playback: Skip Forward
- 2 - Change Folders
 - 0 - Inbox
 - 1 - Old Messages
 - 2 - Work
 - 3 - Family

How to use the special features

- 4 - Friends
- # - Exit
- 3 - Advanced Options
 - 1 - Send Reply
 - 2 - Return Call
 - 3 - Hear Envelope
 - * - Return to the Main Menu
- 0 - Mailbox Options
 - 1 - Record your Unavailable Message
 - 2 - Record your Busy Message
 - 3 - Record your Name
 - 4 - Record your Temporary Greeting
 - 5 - Change your Password
 - * - Return to the Main Menu
- * - Help
- # - Exit

After recording a message (busy, unavailable, etc):

- 1 - Accept
- 2 - Review
- 3 - Re-Record

Notes:

The temporary message option allows you to quickly add in an announcement which will override the busy and unavailable message. If one exists selecting the option gives the choices of rerecording it or removing it and returning to using the standard busy/unavailable messages again. Use this to update callers as to where you are, etc.