

# Using the Backup module

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## Overview

It is critical that you have a backup procedure in place. We offer a support package that includes automated offsite backups. This module is used to backup your PBX phone system settings and configurations. If you have a support contract that includes offsite backups, the backup will be defined here. Please do not remove or edit the backup marked "Schmooze POMP", or your backups will no longer be sent to us for offsite storage.

Backing up your PBX is a crucial step in the setup process. You have several ways to automate this process, or you can do an "on the fly" backup as needed. If you are wish to create a Warm Standby with 2 PBX systems please see our [Warm Spare Setup wiki](#).

This information applies to versions 14.x and below.

## Logging In

Logging into the Backup and Restore module and you will see a screen like the one below.

- On the top menu click **Admin**
- In the drop down click **Backup & Restore**

You'll see a list of the current backup jobs you have created, and any that were created by default.

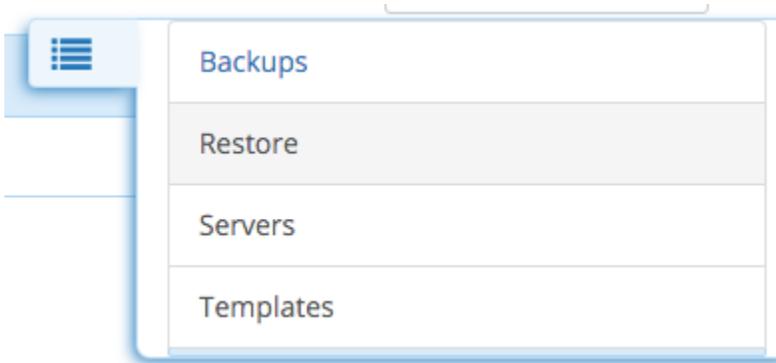
## Backup and Restore

<a href="#">Backup Wizard</a>	<a href="#">+ New Backup</a>	<input type="text" value="Search"/>	
Item	Description	Actions	
Default backup	Default backup; automatically installed		 

Showing 1 to 1 of 1 rows

## Menu Items

Click the menu button  at the right to expand the menu.



## Backups

The Backups section of the backup module is where you actually define a backup job. You can create as many backup jobs as you want and set when and how often they should run, what should be included in the backup, and where to store it.

## Restores

The Restore section of the backup module is where you restore from a backup. You can restore from a backup on your local computer or from any defined FTP, SSH or Local storage server.

## Servers

The Servers section is where you define any PBX servers or database tables that you want to backup configurations from. You also define Linux boxes or FTP servers you want to store the backups on.

## Templates

Templates are used to create groups of files, directories, or databases that you want to include in a backup. We have defined some standard templates for you already, but you can add your own custom templates. When creating a backup job, you can drag one or more templates into it to define what is going to be backed up.

# Backup Settings

Click the **New Backup** button to create a new backup, or click an existing backup to edit its settings.

### Backup

**Backup Name** 

**Description** 

**Status Email** 

## Backup Name

Give your backup job a name to easily identify it.

## Description

Here you can optionally define a longer description or add notes.

## Status Email

If defined, the system will send status updates to this e-mail address when the backup task is run.

## Backup Items

Drag templates and drop them in the items table to add the templates items to the table

Items			
Type	Path/DB	Exclude	Delete
+			

### Templates

-  CDR's
-  Config Backup
-  Exclude Backup Settings
-  Full Backup
-  System Audio
-  Voice Mail

## Items

This is where you choose what will actually be backed up. On the right side you will see a list of standard templates that are included with your PBX. The most standard template you would want to use for a normal daily backup is the **Full Backup**.

To include the full backup template, drag it from the **Templates** bin to the **Items** bin.

### APPLICATION NOTE

Advanced users can also press the plus sign icon  to add your own files or directory paths to be included in a backup.

Please see templates section on how to modify or create your own templates.

Once you add an item, you will see the items that will be backed up, as well as any exclusions:

Type	Path/DB	Exclude	Delete
Mysql	Config server	table names, one per line	
Asterisk DB		Family, one per line	
Mysql	CDR server	table names, one per line	
Directory	__ASTETCDIR__	PATTERNS, one per line	
Directory	__AMPWEBROOT__	PATTERNS, one per line	
Directory	__AMPBIN__	__ASTVARLIBDIR__/moh	
Directory	/etc/dahdi	PATTERNS, one per line	
Directory	/tftpboot	PATTERNS, one per line	

+

#### APPLICATION NOTE

The Full Backup template does not include any voicemails, custom music on hold, or system prompt recordings. If you want these to be included, drag the "System Audio" and "Voicemail Templates" from the **Templates** bin to the **Items** bin.

## Hooks

Hooks allow you to base the backup job on the following actions in order to execute a custom script at the location defined for each action. This is for advanced users who would like to customize the following actions.

#### APPLICATION NOTE

Make sure your script has execute permissions for the Asterisk user.

### – Hooks

Pre-Backup Hook

Post-Backup Hook

Pre-Restore Hook

Post-Restore Hook

### Pre-Backup Hook

Hook to run before starting the actual backup.

### Post-Backup Hook

Hook to run after completing the backup.

### Pre-Restore Hook

Hook to run before starting the actual restore of the backup.

### Post-Restore Hook

Hook to run after completing the restore of the backup.

## Backup Server

This is where you choose which server to back up. This can be the local PBX that the backup module is on, or it could be another PBX as defined in the servers section of the backup module. Please see the server section for more information on defining other servers. Most of the time you will pick "This Server," since that is what we want to back up.

**Backup Server** 

This server 

## Storage Location

Storage locations are servers that have been set up to store the actual backup on. By default we include the local server as a storage location.

Local Storage: The backup tarball file is stored in `"/var/spool/asterisk/backup/(backupjobname)/".tgz"` on the local machine

The **Available Servers** list shows servers that have been set up to store the backup as defined in the servers section of the backup module. Please see server section for more information on defining other servers.

Drag servers from the Available Servers list to add them as Storage Servers

Storage Servers	Available Servers
<div style="border: 1px solid #ccc; height: 80px;"></div>	<ul style="list-style-type: none"><li> Legacy Backup (local)</li><li> Local Storage (local)</li><li> primary (ssh)</li></ul>

The **Storage Servers** list defines where to store the backups. Drag one or more storage servers from the **Available Servers** bin to the **Storage Servers** bin.

Storage Servers	Available Servers
<ul style="list-style-type: none"><li> Local Storage (local)</li></ul>	<ul style="list-style-type: none"><li> Legacy Backup (local)</li><li> primary (ssh)</li></ul>

## Backup Schedule

## – Backup Schedule

### Schedule Help

Run Automatically

Never

### Never

Never run the backup

### Hourly

Every hour at the top of the hour

### Daily

Every day at midnight

### Weekly

Every Sunday at midnight

### Monthly

This first of each month at midnight

### Annually

January 1st at midnight

### Reboot

On a reboot command of the PBX an upgrade will be run.

### Custom

Allows you to define your own schedule on when to run upgrades.

Run Automatically	Custom
Minutes	00 01 02 03 ...
Hours	00 01 02 03 ...
Week Days	Sunday Monday Tuesday Wednesday ...
Months	January February March April ...
Days of Month	01 02 03 04 ...

## Maintenance

Here we can define how many copies of the backup we want to keep and when they should be deleted

**— Maintenance**

Delete After ⓘ

Minutes Hours **Days** Weeks Months Years

Delete After ⓘ  Runs

### Delete After Time Frame

Here you can define increments, for example delete after 3 months or 5 weeks.

### Delete After Runs

Here you can define how many copies of the backup to delete versus deleting backups by time frame such as only keep fifteen. On the 16th backup the oldest backup will be deleted from the system. We recommend keeping 7-10 backups only to conserve hard drive space

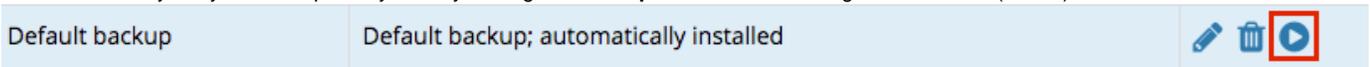
## Save

When you have things the way you want them, click the **Save** button.

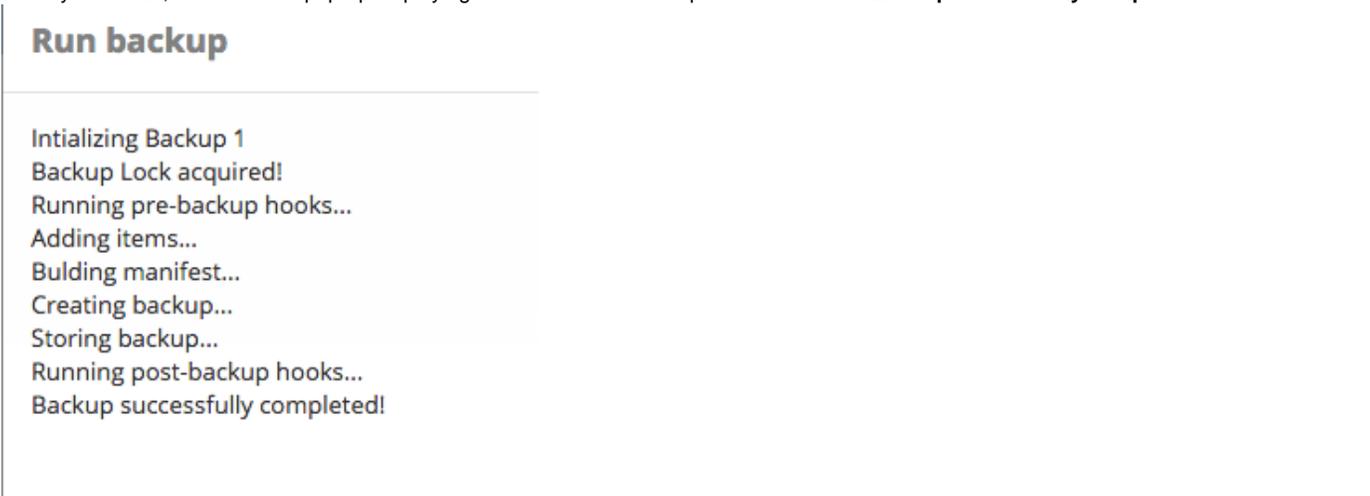


## Run

You can manually run your backup at any time by visiting the **Backups** section and clicking the run button (  ).



When you do this, a window will pop-up displaying the status of the backup. You should see "**Backup successfully completed!**"



## Restore

In the Restore section, you can select a server to restore the backup from, or select a backup file on your local computer.

## Restoring from a Server

Available servers are shown at the bottom of the list on the right side of the screen. Select a server.

Backups
Restore
Servers
Templates
Legacy Backup (local)
Local Storage (local)
primary (ssh)

Available backups will be displayed. Browse the folders to view available files.

## Restore

### Restore

Select a file and click go

- ▶ Backup\_8
- ▶ Daily\_Backup
- ▶ Default\_backup
- ▶ Warm\_Standby

Go!

Download

Browse the folders and select a backup to restore from. More details will be shown to the right.

- ▶ Backup\_8
- ▶ Daily\_Backup
  - 20150803-000003-1438578003-1928827862.tgz Name: Daily Backup
  - 20150804-000003-1438664403-1687403584.tgz Created: Mon Aug 03 2015 00:00:03 GMT-0500 (CDT)
  - 20150805-000003-1438750803-856467080.tgz Files: 13433
  - 20150806-000003-1438837203-1431082148.tgz Mysql DB's: 2
  - 20150807-000003-1438923603-619824859.tgz AstDB's: 1
- ▶ Default\_backup
- ▶ Warm\_Standby

Go!

Download

Click the **Go!** button. You will be taken to a page where you can select which items to restore.

Use the checkboxes to select which items you would like to restore, then click the **Restore** button.

## Restore

### Select files and databases to restore: Templates

- ▶   var
- ▶   etc
- ▶   tftpboot

-  CDR's
-  Config Backup
-  Exclude Backup Settings
-  Full Backup
-  System Audio
-  Voice Mail

PBX Settings 

CDR's 

Restore

A window will pop up showing the status of the restore.

## Run restore

Intialized!!  
Intializing Restore...  
Running pre-restore hooks, if any...  
Restoring files (this may take some time)...

The status window will say **Done!** when the restore is complete.

## Run restore

Restoring files (this may take some time)...  
File restore complete!  
Restoring CDRs...  
Getting CDR size...  
Restoring CDRs complete  
Restoring Database...  
Restored Database  
Restoring astDB...  
Restoring Settings complete  
Running post-restore hooks, if any...  
Cleaning up...  
Restore complete!  
Reloading...  
Done!

## Restoring from a Local File

You can upload a backup file from your local computer if you have it stored on the same computer you are using to log into the Backup & Restore module.

In the **Restore** section of the Backup & Restore module, click the **Browse** button.

Browse

Select a file from your local computer.

Click the **Restore** button to begin the restore process. You will be taken to a page where you can select which items to restore.

Use the checkboxes to select which items you would like to restore, then click the **Restore** button.

## Restore

Select files and databases to restore: **Templates**

- ▶   var
- ▶   etc
- ▶   tftpboot

PBX Settings  

CDR's  

-  CDR's
-  Config Backup
-  Exclude Backup Settings
-  Full Backup
-  System Audio
-  Voice Mail

**Restore**

A window will pop up showing the status of the restore.

## Run restore

Intialized!!  
Intializing Restore...  
Running pre-restore hooks, if any...  
Restoring files (this may take some time)...

The status window will say **Done!** when the restore is complete.

## Run restore

Restoring files (this may take some time)...  
File restore complete!  
Restoring CDRs...  
Getting CDR size...  
Restoring CDRs complete  
Restoring Database...  
Restored Database  
Restoring astDB...  
Restoring Settings complete  
Running post-restore hooks, if any...  
Cleaning up...  
Restore complete!  
Reloading...  
Done!

## Servers

The Servers section shows the servers that have been created and allows you to create new servers.

## Servers

[Add Server](#)

Item	Description	Type	Actions
CDR server	CDR server, generally a local database server	mysql	
Config server	PBX config server, generally a local database server	mysql	
Legacy Backup	Location of backups pre 2.10	local	
Local Storage	Storage location for backups	local	

Showing 1 to 4 of 4 rows

Backups
Restore
Servers
Templates
CDR server (mysql)
Config server (mysql)
Legacy Backup (local)
Local Storage (local)

## Backup Server Types

### Email

Sends a backup file as an email attachment.

### FTP

Sends a backup file to an FTP server. The backup can be directly restored from the FTP server.

### Local

This is the local PBX (server) that the backup is stored on. The backup job will be performed on this local server and can be restored from here as well.

### MySQL Server

This is where we define where the MySQL server is located and how to log into it so we can back up the database.

### SSH Server

This could be another PBX that you log into and perform the backup on. For example, if you have a warm spare backup box, you would set up the backup job on the warm spare to log into the production server, perform the backup on the production server, and then move the backup file to the backup server and restore it on a nightly basis.

#### APPLICATION NOTE

You can also define a SSH server for storing backups just like an FTP server, and using SCP to copy the files over to the SSH server. Any Linux box that supports SCP can be an SSH Server.

## Templates

The Templates section shows the templates that have been created and allows you to create or edit templates.

## Templates

**New Template**

Item	Description	Actions
CDR's	Call Detail Records	
Config Backup	Configurations only	
Exclude Backup Settings	Exclude Backup's settings so that they dont get restored, usefull for a remote restore	
Full Backup	A full backup of core settings and web files, doesn't include system sounds or recordings.	
System Audio	All system audio - including IVR prompts and Music On Hold. DOES NOT BACKUP VOICEMAIL	
Voice Mail	Voice Mail Storage	

Backups
Restore
Servers
Templates
CDR's
Config Backup
Exclude Backup Settings
Full Backup
System Audio
Voice Mail

Showing 1 to 6 of 6 rows

Templates that were included at install cannot be modified. You can create your own templates, but there typically is no need for this unless you need to want to simplify the process of including custom files, directories, or databases in a backup. You can create a template for the custom files, then drag that template into a backup job instead of adding the custom files to the backup one-by-one.

## Creating a Template

In the Templates section of the Backup & Restore module, click the **New Template** button.

When creating a template you will need to give it a name and optionally, a description.

### Backup Template

**Template Name**

**Description**

Click the plus sign button ( ) to select which files, directories or databases will be included. Select the item type and then fill in the appropriate fields. Repeat the process for each type of item you would like to add to the template.

Type	Path/DB	Exclude	Delete

- ✓ == chose ==
- File
- Directory
- Mysql
- Asterisk Database

The example below shows the four types of items that can be chosen from the drop-down menu.

Type	Path/DB	Exclude	Delete
File	<input type="text" value="/path/to/file"/>		
Directory	<input type="text" value="/path/to/dir"/>	<input type="text" value="PATTERNS, one per line"/>	
Mysql	<input type="text" value="CDR server"/>	<input type="text" value="table names, one per line"/>	
Asterisk DB		<input type="text" value="Family, one per line"/>	

+

Click the **Save** button when finished.

**Save**