
Ensim[®] Pro 4.1.0 for Linux[®] Technical Reference Guide

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Legal and copyright notice

About this guide

Introduction

This guide provides information and instructions on enhancing or customizing Ensim[®] Pro 4.1.0 for Linux[®] running on the Linux operating system using Command Line Interface (CLI) scripts. The scripts enable you to perform basic administrative tasks.



Note

For simplicity and convenience, we refer to Ensim Pro 4.1.0 for Linux as Ensim Pro throughout this document.

Chapters in this guide include:

- [Chapter 1, “An introduction to Ensim Pro”](#)
- [Chapter 2, “Using Command Line Interface scripts”](#)
- [Chapter 3, “Customizing the control panel using skins”](#)
- [Chapter 4, “Customizing Ensim Pro”](#)
- [Chapter 5, “Customizing Tomcat”](#)
- [Appendix A, “Customizing disk partitions”](#)

Intended audience and required skills

This guide is intended for users of Ensim Pro and includes system administrators and technical support staff of Internet Service Providers (ISPs) who use Ensim Pro. To use this guide, you need to be familiar with the working of Ensim Pro. In addition, you should have some or all of the following skills.

- Using the Linux command line interface
- Understanding of HTML and DTML
- Creating and modifying graphics

Related documentation

The following documents provide information about Ensim Pro. You can find them on the Web at <http://www.ensim.com/support/pro/linux/index.html>.

- Ensim Pro and Ensim Basic 4.1.0 for Linux Release Notes
- Appliance Administrator's Help
- Reseller Administrator's Help
- Site Administrator's Help
- User Administrator's Help
- Ensim knowledge base articles

You can find the knowledge base articles on the Web at

http://onlinesupport.ensim.com/kb_search.asp?product=lwp

Ensim Pro 4.1.0 for Linux (Standalone)

You can find the Ensim Pro 4.1.0 for Linux (Standalone) documents on the Web at <http://www.ensim.com/support/pro/linux/index.html>.

- Ensim Pro and Ensim Basic 4.1.0 for Linux (Standalone) Installation Guide
- Ensim Pro and Ensim Basic 4.1.0 for Linux (Standalone) Upgrade Guide
- Setting up a local FTP server to install Ensim Pro and Ensim Basic 4.1.0 for Linux (Standalone)

Document conventions

Throughout this guide, specific fonts are used to identify computer input, output, and interface elements. [Table 1](#) lists the typographic conventions used in this guide.

Table 1. Typographic conventions

Appearance of text	How it is used
Narrow bold text (sans serif font)	Used for button names, column names, field names, file names, keystrokes, menu items, and path names. <i>Example:</i> Click Start , point to Settings , then click Control Panel .
Regular bold text (serif font)	Used for information you type. <i>Example:</i> On the command line, type continue
Bold, italic text (serif font)	Used for variables you replace with appropriate information. <i>Example:</i> Type <i><servername></i> where <i><servername></i> is the host name of your server.
Courier font	Used for system messages and screen text. <i>Example:</i> The following message is displayed: The server has been added.



Tip

In addition, key information is sometimes displayed using special headings and formats, such as this one, to make it stand out from regular text.

Feedback and support

For Ensim online support or feedback, use the following links:

- <http://support.ensim.com> to access product downloads and documentation
- <https://onlinesupport.ensim.com> to file a support ticket or request online support
- http://onlinesupport.ensim.com/kb_search_unify.asp to search the knowledge base
- <http://www.ensim.com/about/feedback.asp> to provide feedback to Ensim

 **Note**

All customers receive passwords that allow access to the Ensim Support site. If you do not have a password, contact your organization's liaison to Ensim.

An introduction to Ensim Pro

About Ensim Pro

Ensim Pro is a powerful Web-hosting platform with a set of control panels that allow efficient management of sites.

Ensim Pro provides the the appliance owner with an easy-to-use Appliance Administrator control panel to manage popular Web hosting software such as the Web server, DNS, Mail, and FTP. It also enables the rapid creation and deployment of hosting plans using templates, where DNS, Mail, FTP, Microsoft® FrontPage®, backup and restore, Web logs, file manager, and many other applications can be enabled or disabled. Ensim Pro supports both IP-based and name-based sites and enables appliance owners to create Site Administrators to administer these sites. Ensim Pro also enables administrators to customize the look-and-feel of their Ensim Pro control panels. Skin customizations allow them to extend their corporate look and feel to affiliated Web sites and thus convey brand association and unity.

Ensim Pro provides separate Web-based control panels for four levels of users:

- [Appliance Administrators](#)
- [Reseller Administrators](#)
- [Site Administrators](#)
- [User Administrators](#)

Appliance Administrators

The **Appliance Administrator** account is set up the first time the appliance owner accesses Ensim Pro. This account holder is different from the UNIX admin user on the server and therefore has no direct access to the server.

Appliance Administrator tasks

Appliance Administrators typically perform the following tasks.

System management tasks

- Reviewing network settings
- Reviewing disk usage
- Changing the user name and password
- Changing the system time
- Restarting Ensim Pro
- Restarting the host server

- Backing up and restoring data

Application management tasks

- Configuring the Web server
- Configuring the DNS server
- Configuring the FTP server
- Configuring the Mail server
- Configuring other applications

Reseller management tasks

- Creating Reseller Plans
- Creating resellers
- Suspending resellers
- Managing reseller sites

Site management tasks

- Creating Service Plans
- Offering IP-based and name-based sites
- Creating sites
- Managing sites
- Suspending sites
- Removing sites
- Securing sites with SSL certification

Reseller Administrators

The **Reseller Administrator** is an individual who wants to resell or manage sites without actually owning or maintaining hardware. The reseller buys sites from an ISP or hosting provider and resells them to individual customers. The Reseller Administrator is strictly limited to the Reseller Administrator control panel and has no access to the server.

Reseller Administrator tasks

Reseller Administrators typically perform the following tasks.

System management tasks

- Reviewing network settings
- Reviewing disk usage
- Changing the user name and password
- Backing up and restoring data

Site management tasks

- Creating site plan
- Offering IP-based and name-based sites
- Creating sites
- Managing sites
- Suspending sites
- Deleting sites
- Securing sites using SSL

Site Administrators

The **Site Administrator** account is created when the site is created. It is both a UNIX account and a Ensim Pro control panel account. Each site has an associated site number. The Site Administrator account maps to an “admin” user and group created in `/etc/passwd` and `/etc/group` that is associated with the site number (for example, admin1).

The Site Administrator’s access depends on the security level configured for the site.

High security

High security runs certain services (CGI scripts, Telnet/Secure Shell, `mod_perl/mod_php`) inside the restrictive environment of the site's file system. The Site Administrator cannot access data or resources pertaining to other sites on the Ensim Pro server. The Site Administrator’s access is locked to the home directory, `/home/<admin_user>/`, where `<admin_user>` is the user name of the Site Administrator. The Site Administrator’s UNIX account is located at `/etc/passwd` within the domain.

Important

High security could pose problems if the CGI scripts for a site source required libraries or configuration files from outside the site’s file system, in which case, the necessary files must be copied across to the site's file system. For example, if a CGI script uses Perl, then all the Perl libraries and configuration files must be copied into the site's file system.

High security allows `mod_perl` and `mod_php` services for a site to be run only as CGI scripts within the site. PHP scripts can still be placed in the document root (html folder). If you want to harness the full power of these services, you must opt for 3.1 compatibility or low security.

3.1 compatibility

3.1 compatibility secures remote login services, though CGI scripts run in a vulnerable environment. `mod_perl` and `mod_php` services are enabled for the site. The Site Administrator’s access is locked to the home directory, `/home/<admin_user>/`, where `<admin_user>` is the user name of the Site Administrator. The Site Administrator’s UNIX account is located at `/etc/passwd` within the domain.

Low security

Low security enables all files residing on the Ensim Pro server to be shared or accessed (depending on file access privileges) by the administrator of the site. Users, however, are always restricted to the home directory of the site. The Site Administrator has access to the Ensim Pro server. When a connection is made to the site using SSH or Telnet, the Site Administrator is logged into the home directory, `/home/virtual/site#/fst/home/<admin_user>`, although the Site Administrator has access to files outside the domain. The Site Administrator's UNIX account is located at `/etc/passwd` within the domain. An entry, though, is also made in the `/etc/passwd/` file located at the root level.

Site Administrator tasks

Site Administrators typically perform the following tasks.

Site management tasks

- Manage administrator information
- Backing up and restoring data
- Managing files
- Reviewing site reports

User management tasks

- Adding and managing users

User Administrators

The **User Administrator** is a user on an IP-based or name-based site. The User Administrator has an entry in the virtual site file `/home/virtual/site#/fst/etc/passwd` and is restricted to `/home/virtual/site#/fst`.

User Administrator tasks

User Administrators typically perform the following tasks.

User management tasks

- Updating user information
- Backing up and restoring data
- Reviewing usage data
- Managing email features

Working with Ensim Pro

As the Appliance Administrator, you can perform common administrative tasks in one of two ways. You can log on to Ensim Pro and use the Appliance Administrator control panel or you can use any Telnet or SSH client to access the server running Ensim Pro as a root user and execute a set of scripts from the Command Line Interface.

For information on using the Appliance Administrator control panel, access the integrated online Help. For information on using the Command Line Interface, see [Chapter 2, "Using Command Line Interface scripts"](#).

Using Command Line Interface scripts

Introduction

This chapter provides information on using Command Line Interface scripts.

Topics include:

- “About Command Line Interface scripts” on page 2-1
- “Using Command Line Interface scripts” on page 2-2
- “Using the Reseller Command Line Interface scripts” on page 2-37

Note

Command Line Interface scripts are advanced features for which limited Customer Support is available. The syntax of these commands may change in future releases of Ensim Pro.

Some of the commands in this chapter include the shell primitive `\` which is used to enter a new line, without the shell executing the command. This is included for reasons of clarity and can be omitted if your command fits in one line.

About Command Line Interface scripts

Ensim offers Command Line Interface scripts for automating some of the tasks you perform as an ISP or Appliance Administrator. Most of these scripts reside in the directory `/usr/local/bin` and some in `/usr/sbin`. Use any Telnet or SSH client to access the server running Ensim Pro and execute these scripts.

The command line is composed of PERL programs and modules. The arguments for a script are passed in an encoded format by the interface to avoid security problems with special shell escapes. As a rule the interface fills in defaults and the command line tool checks all the arguments it receives.

The error messages go to `STDERR` and the output goes to `STDOUT`. If the command fails, it exits with code 1. If there are error messages on `STDERR` and the exit code is 0, it means that the operation succeeded, but some problems were encountered.

Functions that add information try to delete all the changes they made if an error occurs (so they either totally succeed with no warning messages, or fail). Functions that delete information try to push through even if some errors (other than invalid parameters or domain not found in the configuration file or some other major problem in the very beginning) occur.

These operations can succeed and still give warnings. The operations that change information behave somewhat similarly to the ones that delete them.

To see the syntax for any command, type the following at the command line.

```
<script name> --help
```

Using Command Line Interface scripts

This section explains the usage and syntax of scripts that you can use for:

- Looking up site information
- Changing the Appliance Administrator password
- Changing the Site Administrator password
- Changing the Site Administrator email address
- Changing the User Administrator password
- Adding a Service Plan
- Modifying a Service Plan
- Removing a Service Plan
- Adding a domain
- Changing the domain quota
- Modifying a domain
- Disabling a domain
- Enabling a domain
- Viewing a list of all the domains
- Removing a domain
- Disabling a service
- Enabling a service
- Hiding a service
- Revealing (unhiding) a service
- Configuring service restart queues
- Adding a user to a domain
- Changing the number of users allowed on a domain
- Changing a user's full name
- Changing a user's information
- Removing a user from a domain
- Configuring logrotate
- Getting quota reports
- Exporting appliance, reseller, site, or user's data for backup
- Importing appliance, reseller, site, or user's data from a backup

Looking up site information

The Ensim Pro file system maintains site information by assigning each domain a number and a corresponding top-level UNIX user through which it identifies the site's following basic information.

- The domain's root directory
- The name of the domain on which the site resides
- The user name of the Site Administrator

Each site on your server is known to the file system as `site<n>` (called the site handle). The top-level UNIX user is known as `admin<n>`, where *n* is a number matching the site number.

The top-level UNIX user is the user handle to the site. Process lists will not show Site Administrator names, but instead show top-level UNIX user names.

Note

Using the `ps` command will not show which process belongs to which domain. Use the `sitelookup` command after `ps`, to map a UNIX user to a site and view information about the sites on your server.

Syntax

```
/usr/local/bin/sitelookup [-a] [-w <wp_user>] [-s <site_handle>] \
[-d <domain>] [-u <site_admin>] \
[domain, wp_user, site_handle, site_root, site_admin]
```

where:

- `-a` returns information for all domains.
- `-w` returns site information for the site identified by the top level UNIX user `<wp_user>` you specify.
- `-s` returns site information for the site identified by the site handle `<site_handle>` you specify.
- `-d` returns site information for the site identified by the domain name `<domain>` you specify.
- `-u` returns site information for the site identified by the user name of the domain's Site Administrator `<site_admin>` you specify.

The command returns the following information, as instructed.

- `site_root` - the domain's root directory.
- `domain` - the name of the domain on which the site resides.
- `wp user` - the top level UNIX user.
- `site admin` - the user name of the Site Administrator.
- `site handle` - the file system's name for the site.

The following section lists some examples of this syntax.

Example

1

The command:

```
sitelookup -w admin1 domain,site_handle
```

returns the following information associated with the top level UNIX user **admin1**:

- domain name
- file system's name of the site

For example:

```
example.com,site1
```

Example

2

The command:

```
sitelookup -s site25 site_root
```

returns the name of the root directory of the site with the site handle **site25**.

For example:

```
/home/virtual/example1.example.com
```

Example

3

The command:

```
sitelookup -a
```

returns the following for all the sites you manage.

- domain name
- top-level UNIX user
- site handle
- site root directory
- name of the Site Administrator

For example:

```
example1.example.com,admin1,site1,  
/home/virtual/example1.example.com,Pawan  
example2.example.com,admin2,site2,  
/home/virtual/example2.example.com,Dave
```


Changing the Appliance Administrator password

To change the password of the Appliance Administrator (appliance owner), use the **passwd_appl_admin** script. The new password must be entered on standard input to complete the script. The change is effected immediately without the need to restart Ensim Pro.

Syntax

```
/usr/sbin/passwd_appl_admin <appl_admin_name>
```

where:

<appl_admin_name> is the login name of the Appliance Administrator.

Changing the Site Administrator password

To change the password of the Site Administrator (domain owner), use the **ChangeDomainPasswd** script. This script will not exit until you complete the operation by entering the new password for the domain on standard input.

Syntax

```
/usr/local/bin/ChangeDomainPasswd <domain name> <domain password on stdin>
```

where:

- <domain name> is the name of the domain for which you want to change the password.
- <domain password on stdin> is the new password for the Site Administrator that you must enter to complete the script.

Changing the Site Administrator email address

To change the Site Administrator's email address, use the **ChangeEmail** script.

Syntax

```
/usr/local/bin/ChangeEmail <domain name> <email address>
```

where:

- <domain name> is the name of the domain for which you want to change the password.
- <email address> is the Site Administrator's new email address.

Changing the User Administrator password

To change the password of the User Administrator (domain user), use the **ChangePasswdVirtUser** script. This script will not exit until you complete the operation by entering the user's new password on standard input.

Syntax

```
/usr/local/bin/ChangePasswdVirtUser <domain name> <username>
<user's password on stdin>
```

where:

- **<domain name>** is the name of the domain.
- **<username>** is the user's login name.
- **<user's password on stdin>** is the user password you must enter on the standard input to complete the script.

Example

```
ChangePasswdVirtUser example.com myname newpass
```

In this example, the script changes a user's password with the following specifications.

- The domain is called example.com.
- The username is Myname.
- The user's new password is newpass (entered by you on stdin).

Adding a Service Plan

Ensim Pro is shipped with a single default Service Plan that contains all the services and options you need to create and make Ensim Pro domains usable by your customers. However, you can add any number of additional Service Plans to suit the needs of your customers and their businesses.

Many Internet service providers find it most efficient to use a template-type Service Plan that provides the basic services and options that all their customers will use; then create additional Service Plans that add other optional services to meet specific customer needs. This way, they do not have to specify all services and options whenever they create a new Service Plan. By using a template Service Plan, they can automatically assign most services and options; then add specific additional services and options for new Service Plans.

To add a new Service Plan, use the **AddPlan** script.

Syntax

```
/usr/local/bin/AddPlan
  [-p <source plan> | -s <source site> | -d <source domain> |
  -i <source IP> | -t <source path>]
  [-c <service>, <option>=<value>, [on|off], ... ..]
  [-f | --force] <target plan>
```

where:

- **<source plan>** is the name of an existing Service Plan you want to use as the foundation or template for the new Service Plan. This option can be omitted, in which case the default Service Plan is used.
- **<source site>**, **<source domain>**, and **<source IP>** are three ways to specify a site whose configuration you want to use as the foundation or template for the new Service Plan.

Note

If the **-t** option is used, the path will be **/home/virtual/<sourcepath>/info/current**.

- **<service>** is the name of the service for which you want to specify options in this Service Plan.
- **<option>** is optional features, if any, that you want to specify for the service.
- **<value>** is what the option specifies, such as a name, password, or measurement. **<value>** may be a single string (for example, **1** or **My User**) or a list (for example, **\[1, 2, 3\]**)
- Each service has an **enabled** option, which may be used to enable or disable the service by setting this option to **1** or **0**, respectively. Alternatively, the strings **on** and **off** may be used as abbreviations for the strings: **enabled=1** and **enabled=0**.
- **<target plan>** is the name of the new Service Plan.

The following services, with a description of their options, if any, are available.

Table 2-1 lists the services you can specify when you create a new Service Plan, as well as the services' options and their values.

Table 2-1. Service Plan services and options - I

Service	Option	Value	Description
siteinfo	enabled	1 (enabled) or 0 (disabled)	Whether site information is enabled or disabled for the site.
spam_filter	None	on (enabled) or off (disabled)	Whether spamfilter is enabled or disabled for the site.
mailscanner		on (enabled) or off (disabled)	Whether virus scanning is enabled or disabled for the site.
	scan_incoming	1 (enabled) or 0(disabled)	Whether virus scanning is enabled or disabled for incoming emails to the site.

Table 2-1. Service Plan services and options - I (continued)

Service	Option	Value	Description
	scan_outgoing	1 (enabled) or 0(disabled)	Whether virus scanning is enabled or disabled for outgoing emails from the site.
	domain	plain text (for example: myco.com)	The default domain name for a site created with this Service Plan.
	admin_user	plain text	The user name for the Site Administrator.
	password	plain text	The Site Administrator's password. The administrator will be prompted for the plain text password.
	tpasswd	plain text	The Site Administrator's password. Specify the password by typing tpasswd=<plain text password> at the command line.
	cpasswd	encrypted text	The Site Administrator's password. Specify the password by typing cpasswd=<password in encrypted text> at the command line.
	email	plain text (for example: admin@myco.com)	The Site Administrator's email address.
aliases	enabled	1 (enabled) or 0 (disabled)	Whether the aliases option is enabled or disabled for the site.
	aliases	list of text items	The domain's aliases. Each alias can be used as the domain portion of an email address, a URL, or the target host of an FTP, Telnet, SSH, IMAP, or POP connection. This must be specified as a list, as described for ipaddrs (see page 2-9).
analog	enabled	1 (enabled) or 0 (disabled)	Whether Analog log analyzer is enabled or disabled for the site.
logrotate	enabled	1 (enabled) or 0 (disabled)	Whether logrotate is enabled or disabled for the site.

Table 2-1. Service Plan services and options - I (continued)

Service	Option	Value	Description
ipinfo	namebased	1 (name-based). or 0 (IP-based)	Whether the site is name-based or IP-based.
	ipaddr	One or more IP addresses, separated by commas.	The list of IP addresses that will be configured if this site is IP-based. The format requires brackets: [<address1> , <address2>] Note: Some shells treat brackets as special characters. You may need to include escape characters for the brackets: \[<address1> , <address2> \]
diskquota	enabled	1 (enabled) or 0 (disabled)	Whether disk quota is enabled or disabled for the site.
	units	<ul style="list-style-type: none"> • B or b for bytes • KB or kb for kilobytes • MB or mb for megabytes • GB or gb for gigabytes 	The unit of measurement for the disk quota.
	quota	<quota> <unit> (for example: 500 MB)	The number specifying the size of the quota, in the units specified.
telnet	enabled	1 (enabled) or 0 (disabled)	Whether Telnet is enabled or disabled for the site.
	jail	1 or 0	If set to 1, the Site Administrator's shell access to the site through Telnet will be jailed within the site's file system. If set to 0, the Site Administrator may browse the entire server's file system, except where restricted by directory ownership or permissions.

Table 2-1. Service Plan services and options - I (continued)

Service	Option	Value	Description
bandwidth	enabled	1 (enabled) or 0 (disabled)	Whether bandwidth monitoring is enabled or disabled for the site. Important: Disabling bandwidth while adding a domain using the AddVirtDomain script induces erratic mail behavior. Do not disable bandwidth when you add a domain using the AddVirtDomain script.
	threshold	number	The number of bytes, after which the Site Administrator should be notified that the site has exceeded its bandwidth allocation.
	rollover	number (any number between 1 and 31)	The date that will be used to calculate monthly totals. Note: If set to 0, the last date of each month will be used.
	units	B or b (Bytes) KB or kb (Kilobytes) MB or mb (Megabytes) GB or gb (Gigabytes)	The unit of measurement used to indicate bandwidth threshold.
ssh	enabled	1 (enabled) or 0 (disabled)	Whether SSH access is enabled or disabled for the site.
	jail	1 or 0	If set to 1, the Site Administrator's shell access to the site through SSH will be jailed within the site's file system. If set to 0, the Site Administrator may browse the entire server's file system, except where restricted by directory ownership or permissions.

Table 2-1. Service Plan services and options - I (continued)

Service	Option	Value	Description
imap	enabled	1 (enabled) or 0 (disabled)	Whether the IMAP mail protocol is enabled or disabled for the site.
bind	enabled	1 (enabled) or 0 (disabled)	Whether the BIND name server protocol is enabled or disabled for the site.
users	maxusers	number	The maximum number of users allowed on this site.
proftpd	ftpservers	plain text	The FTP server's domain name. Note: If you are using domain aliasing, and the name of this server contains a prefix (such as FTP), followed by the domain name as specified in siteinfo (see page 2-7), the aliasing function will attach this prefix to all other aliases to generate FTP server names.
apache	enabled	1 (enabled) or 0 (disabled)	Whether the Apache Web server protocol is enabled or disabled for the site.
	jail	1 (enabled) or 0 (disabled)	If set to 1, a high security site will be created. If set to 0, a 3.1 compatible site or low security site will be created.

Table 2-1. Service Plan services and options - I (continued)

Service	Option	Value	Description
	webservers	plain text	<p>The Apache Web server's domain name.</p> <p>Note: If you are using domain aliasing, and the name of this server contains a prefix (such as apache), followed by the domain name as specified in siteinfo (see page 2-7), the aliasing function will attach this prefix to all other aliases to generate Web server names.</p>
	jail	1 or 0	<p>If set to 1, certain Apache features and Apache-related services will either be restricted or constrained to prevent access to other sites' data. In particular, mod_perl and mod_php will be disabled for the domain (interpretation and execution of PHP and Perl scripts will be re-routed through jailed CGI versions of PHP and Perl), and the use of "Options FollowSymlinks" will be denied.</p> <p>If set to 0, these restrictions will be removed.</p>
	mailserver	plain text	<p>The mail server's domain name.</p> <p>Note: If you are using domain aliasing, and the name of this server contains a prefix (such as mail), followed by the domain name as specified in siteinfo (see page 2-7), the aliasing function will attach this prefix to all other aliases to generate mail server names.</p>
	preference	number	<p>The preference to give to MX records for the mail server names.</p>

Table 2-1. Service Plan services and options - I (continued)

Service	Option	Value	Description
anonftp	enabled	1 (enabled) or 0 (disabled)	Whether Anonymous FTP access enabled or disabled for the site.
openssl	enabled	1 (enabled) or 0 (disabled)	Whether OpenSSL access is enabled or disabled for the site.
cgi	enabled	1 (enabled) or 0 (disabled)	Whether CGI scripting is enabled or disabled for the site.
	scriptalias	plain text	The leading component (after the host name) of URLs referencing CGI scripts for this site.
mod_perl	enabled	1 (enabled) or 0 (disabled)	Whether mod_perl for Apache is enabled or disabled for the site.
	alias	plain text	The leading component (after the host name) of URLs referencing Perl scripts for this site.
reseller	enabled	1 (enabled) or 0 (disabled)	Whether reseller access is enabled or disabled for the site.
	reseller_id	plain text	The name of the reseller.
tomcat4	enabled	1 (enabled) or 0 (disabled)	Whether Tomcat is enabled or disabled for the site.
develenv	enabled	1 (enabled) or 0 (disabled)	Whether GNU development tools is enabled or disabled for the site.
ssi	enabled	1 (enabled) or 0 (disabled)	Whether Server Side Includes (SSI) is enabled or disabled for the site.
sendmail	enabled	1 (enabled) or 0 (disabled)	Whether the Sendmail mail server protocol is enabled or disabled for the site.

Table 2-1. Service Plan services and options - I (continued)

Service	Option	Value	Description
subdomain	enabled	1 (enabled) or 0 (disabled)	Whether subdomains are enabled or disabled for the site.
	max	number	The maximum number of subdomains that can be created for a site. Note: -1 indicates unlimited subdomains for a site.
	wildcards	1 (enabled) or 0 (disabled)	Whether subdomain wildcards are enabled or disabled for the site. Note: Enabling subdomain wildcards for a site (for example, example1.com), will cause the range of (sub)domain names, "*.example1.com" to be reserved for the site. No other site on the Ensim Pro server will be allowed to have a site name like 'xxx.example1.com'.
	base	plain text	This indicates the base directory, relative to the site's file system, under which all subdomains for the site will be located. Note: This restriction only applies to regular subdomains. User subdomains will have their directory in /home/<owner>/public_html/
weblogs	enabled	1 (enabled) or 0 (disabled)	Whether Web logs is enabled or disabled for the site.
vacation	enabled	1 (enabled) or 0 (disabled)	Whether vacation message is enabled or disabled for the site.
majordomo	enabled	1 (enabled) or 0 (disabled)	Whether Majordomo mailing lists is enabled or disabled for the site.
sqmail	enabled	1 (enabled) or 0 (disabled)	Whether SquirrelMail Web-based email is enabled or disabled for the site.

Table 2-1. Service Plan services and options - I (continued)

Service	Option	Value	Description
frontpage	enabled	1 (enabled) or 0 (disabled)	Whether Microsoft FrontPage is enabled or disabled for the site.
mivamerchant	enabled	1 (enabled) or 0 (disabled)	Whether Miva Merchant is enabled or disabled for the site.
webalizer	enabled	1 (enabled) or 0 (disabled)	Whether Webalizer log analysis is enabled or disabled for the site.
mysql	enabled	1 (enabled) or 0 (disabled)	Whether the MySQL database server protocol is enabled or disabled for the site.
	dbaseadmin	plain text	The user name of the site's database administrator.
	dbaseprefix	plain text	The specified string that will be prefixed to the name of any database that the Site Administrator creates. Note: Since this prefix defaults to the first 30 characters of the main site domain name, we recommend that you not change this unless it conflicts with an already existing prefix.
	dbasenum	number	The number of databases that can be created by the Site Administrator.
vhbackup	enabled	1 (enabled) or 0 (disabled)	Whether site and user level backup is available for a site.
files	enabled	1 (enabled) or 0 (disabled)	Whether File Manager access is enabled or disabled for the site.
Power Tools			
scriptsmgr	enabled	on (enabled) or off (disabled)	Whether Power Tools is enabled or disabled for the site.

Table 2-1. Service Plan services and options - I (continued)

Service	Option	Value	Description
<ul style="list-style-type: none"> • formmail-4.2b • gallery-1.3.4 • invboard-1.1.2 • oscommerce-2.2ms2 • phpbb-2.0.6 • phpnuke-6.9 • phppopenchat-3.0.0b3 • postnuke-0.7.2.6 	enabled	1 (enabled) or 0 (disabled)	Whether the tools are enabled or disabled for the site. You must specify the appropriate value for each tool.
Ignite services			
aspmgr	enabled	1 (enabled) or 0 (disabled)	Whether the service Ignite is enabled or disabled for the site.
	siteopti_add	1 (enabled) or 0 (disabled)	Whether the Site Administrator is enabled to subscribe to the Site Optimization service.
	siteopti_manage	1 (enabled) or 0 (disabled)	Whether the Site Administrator is enabled to manage the Site Optimization service.
	sslcerts_add	1 (enabled) or off (disabled)	Whether the Site Administrator is enabled to subscribe to the SSL Certs service.
	sslcerts_manage	1 (enabled) or 0 (disabled)	Whether the Site Administrator is enabled to manage the SSL Certs service.
	payment_add	1 (enabled) or 0 (disabled)	Whether the Site Administrator is enabled to subscribe to the Payment Processing service.
	payment_manage	1 (enabled) or 0 (disabled)	Whether the Site Administrator is enabled to manage the Payment Processing service.
	emailmark_add	1 (enabled) or 0 (disabled)	Whether the Site Administrator is enabled to subscribe to the Email Marketing service.
	emailmark_manage	1 (enabled) or 0 (disabled)	Whether the Site Administrator is enabled to manage the Email Marketing service.

The following section lists some examples of the service plan syntax.

Example

1

This example adds a new Service Plan called Gold. Gold uses the default Service Plan as its template, but excludes the CGI service.

```
AddPlan -p default -c cgi,off Gold
```

Example

2

This example adds a new Service Plan called Gold. Gold uses the default Service Plan as its template, but includes the aliases service.

```
AddPlan -p default -c aliases,on,aliases=\[.org,.net\] Gold
```

Modifying a Service Plan

To modify a Service Plan, use the **EditPlan** script.

Syntax

```
/usr/local/bin/EditPlan
```

```
[-p <source plan> | -s <source site> | -d <source domain> |  
-i <source IP> | -t <source path>]  
[-c <service>, <option>=<value>, [on|off], ... ...]  
[-f | --force] <target plan>
```

where:

- **<source plan>** is the name of an existing Service Plan you want to use as the foundation or template to edit when editing the Service Plan. This option can be omitted, in which case the target Service Plan is used as the basis of the edit operation.
- **<source site>**, **<source domain>**, and **<source IP>** are three ways to specify a site whose configuration you want to use as the foundation or template to edit when editing the Service Plan.

Note

If the **-t** option is used, the path will be **/home/virtual/<sourcepath>/info/current**.

- **<service>** is the name of the service for which you want to specify options in this Service Plan.
- **<option>** is optional features, if any, that you want to specify for the service.
- **<value>** is what the option specifies, such as a name, password, or measurement. **<value>** may be a single string (for example, **1** or **My User**) or a list (for example, **\[1, 2, 3\]**)
- Each service has an **enabled** option, which may be used to enable or disable the service by setting this option to **1** or **0**, respectively. Alternatively, the strings **on** and **off** may be used as abbreviations for the strings: **enabled=1** and **enabled=0**.
- **<target plan>** is the name of the Service Plan created as a result of the edit operation.

See [Table 2-1](#) for a list of the services you can change or add to a Service Plan, as well as the services' options and their values.

Removing a Service Plan

To remove a Service Plan, use the **DeletePlan** script.

Syntax

```
/usr/local/bin/DeletePlan <plan name>
```

where <plan name> is the name of the Service Plan you want to remove.

Adding a domain

To add a domain, use the **AddVirtDomain** script. This script adds a domain with the specified domain information and services. If you want to create a domain using pre-configured settings, specify the name of the corresponding Service Plan.

Important

Disabling bandwidth while adding a domain using the **AddVirtDomain** script induces erratic mail behavior. Do not disable bandwidth when you add a domain using the **AddVirtDomain** script.

Enabling Power Tools for a domain

Power Tools, a powerful new feature of Ensim Pro, can be enabled for a site using the **scriptsmgr** option. Once you enable Power Tools, Site Administrators can install and manage these tools using the Site Administrator control panel. Each tool follows the naming convention <tool_name>-<tool_version>, where <tool_name> is the name of the tool and <tool_version> is the version number of the tool. **Example.** gallery-1.3.4. Refer to the tabulated section “[Power Tools](#)” on [page 2-15](#) for the list of tools that are provided by Ensim Pro.

To enable Power Tools for a domain, enable the **scriptsmgr** option and the individual tools you want to enable. Individual tools that are not explicitly enabled will not be available to the site even if you enable the **scriptsmgr** option. Please refer to the [example](#) for help on enabling Power Tools for a domain.

Enabling email scanning services for a domain

Beginning with Ensim Pro 3.7, you can offer the following email scanning services for a site.

- **Spam Filtering.** The Spam Filtering service scans email messages for spam. When you enable the service for a site, users of the site are automatically empowered with discretionary spam control and management capabilities. You must use the **spam_filter** option to enable or disable the service for a site.
- **Mail Scanning.** The Mail Scanning service scans email messages for viruses. When you enable the service, incoming or outgoing emails or both are scanned for viruses. You must use the **mailscanner** option to enable or disable the service for a site.

Please refer to the [example](#) for help on enabling the email scanning services for a domain.

Enabling Ignite services for a domain

Ensim Pro 4.1.0 introduces a suite of Web services called **Ignite** that provide cutting-edge business solutions to help enhance your business. Services include email marketing solutions to help you market your product and services, search engine optimization services to help you promote your Web site, and payment systems and site authentication services for your ecommerce business. These services are also available to your resellers.

You can enable Ignite services when you create or update a Service Plan or a site.

Please refer to the [example](#) for help on enabling the Ignite services for a domain. The tabulated section “[Ignite services](#)” on page 2-16 lists the various Ignite options you can use on the command line.

Syntax

```
/usr/local/bin/AddVirtDomain
    [-p <source plan> | -s <source site> | -d <source domain> |
    -i <source IP> | -t <source path>]
    [-c <service>,<option>=<value>,[on|off],... ..] [-f | --force]
```

where:

- **<source plan>** is the name of an existing Service Plan you want to use as the foundation or template to edit when editing the Service Plan. This option can be omitted, in which case the target Service Plan is used as the basis of the edit operation.
- **<source site>**, **<source domain>**, and **<source IP>** are three ways to specify a site whose configuration you want to use as the foundation or template to edit when editing the Service Plan.

Note


If the **-t** option is used, the path will be **/home/virtual/<sourcepath>/info/current**.

- **<service>** is the name of the service for which you want to specify options in this Service Plan.
- **<option>** is optional features, if any, that you want to specify for the service.
- **<value>** is what the option specifies, such as a name, password, or measurement. **<value>** may be a single string (for example, **1** or **My User**) or a list (for example, **\[1, 2, 3\]**).
- Each service has an **enabled** option, which may be used to enable or disable the service by setting this option to **1** or **0**, respectively. Alternatively, the strings **on** and **off** may be used as abbreviations for the strings: **enabled=1** and **enabled=0**.

See [Table 2-1](#) for a list of service options, and their respective values, that you can specify on the command line while adding a domain.

Note

Options specified on the command line override the corresponding default values set in the Service Plan.

 Example

To add a domain

```
AddVirtDomain -p default \  
-c siteinfo, domain=example.com, admin_user=myname, tpasswd=go12 \  
-c ipinfo, namebased=0, ipaddr=[10.8.3.65] \  
-c telnet, off \  
-c analog, on \  
-c scriptsmgr, on, formmail-4.2b=1, gallery-1.3.4=1 \  
-c users, maxusers=75 \  
-c spam_filter, on \  
-c mailsScanner, on, scan_incoming=1, scan_outgoing=1 \  
-c aspmgr, on, siteopti_add=1, siteopti_manage=1, emailmark_manage=1
```

In this example, the script adds a domain **example.com** with the following specifications.

- The domain uses the default Service Plan.
- The domain is called example.com.
- The Site Administrator's user name is myname, whose password is go12.
- The domain's IP address is 10.8.3.65.
- The Telnet service, originally a part of the default Service Plan is disabled.
- The Analog service, which was not originally in the default Service Plan, has been added to the domain.
- The tools, formmail-4.2b and gallery-1.3.4, which was not originally in the default Service Plan, have been enabled for the domain.
- The maximum number of users allowed on the domain is 75.
- The Mail Scanning service and the Spam Filtering service is enabled for the domain.
- The Site Optimization and Email Marketing services are enabled for the domain. Site Administrators are enabled to:
 - Subscribe to and manage the Site Optimization service
 - Manage the Email Marketing service

Changing the domain quota

To change the disk space allocated to a domain, use the **ChangeQuota** script.

Syntax

```
/usr/local/bin/ChangeQuota <domain name> <quota>
```

where:

- **<domain name>** is the name of the domain for which you want to change the disk quota.
- **<quota>** is the amount of disk space you want to allocate to the domain.

Modifying a domain

To modify a domain's information or Service Plan, use the **EditVirtDomain** script. The script allows you to update domain information and service settings, and enable or disable Power Tools and other services for a domain. Please refer to the examples for help on usage of the script.

Syntax

```
/usr/local/bin/EditVirtDomain
    [-p <source plan> | -s <source site> | -d <source domain> |
    -i <source IP> | -t <source path>]
    [-c <service>,<option>=<value>,[on|off],... ...]
    [-f | --force]
    [<target site> | -I <target IP> | -D <target domain>]
```

where:

- **<source plan>** is the name of an existing Service Plan you want to use as the foundation or template to edit when editing the site. This option can be omitted, in which case the target site's current service options are used as the basis of the edit operation.
- **<source site>**, **<source domain>**, and **<source IP>** are three ways to specify a site whose configuration you want to use as the foundation or template to edit when editing the Service Plan.

Note

If the **-t** option is used, the path will be **/home/virtual/<sourcepath>/info/current**.

- **<service>** is the name of the service for which you want to specify options in this Service Plan.
- **<option>** is optional features, if any, that you want to specify for the service.
- **<value>** is what the option specifies, such as a name, password, or measurement. **<value>** may be a single string (for example, **1** or **My User**) or a list (for example, **\[1, 2, 3\]**).
- Each service has an **enabled** option, which may be used to enable or disable the service by setting this option to **1** or **0**, respectively. Alternatively, the strings **on** and **off** may be used as abbreviations for the strings: **enabled=1** and **enabled=0**.
- **<target site>**, **<target IP>** and **<target domain>** are three ways in which to specify the site you want to edit.

See [Table 2-1](#) for a list of service options you can change or add to a domain, as well as the options' values.

The following section lists some examples of this syntax.

Example

1

In this example, the script changes the Service Plan of the domain example.com to Gold, disables the formmail-4.2b tool, and enables the phpnuke-6.9 tool and CGI service for the domain, not originally a part of the Gold Service Plan.

```
EditVirtDomain -p Gold -c cgi,on, -c scriptsmgr,on,formmail-4.2b=0,phpnuke-6.9=1 example.com
```

Example

2

In this example, the script changes the Service Plan of the domain example.com to Basic, disables the Spam Filtering service, disables virus scanning for outgoing emails, and enables the aliases service for the domain.

```
EditVirtDomain -p Basic -c spam_filter,off \
-c mailscanner,on,scan_outgoing=0 \
-c aliases,on,aliases=[domainname.org,domainname.net] \
-c aspmgr,siteopti_add=1,siteopti_manage=1,emailmark_manage=0 \
example.com
```

Disabling a domain

Disabling a domain can be useful in managing customers whose accounts are overdue or in question. To disable a domain, use the **DisableVirtDomain** script.

Syntax

```
/usr/local/bin/DisableVirtDomain <domain name>
```

where <domain name> is the name of the domain you want to disable.

Enabling a domain

To enable a domain, use the **EnableVirtDomain** script.

Syntax

```
/usr/local/bin/EnableVirtDomain <domain name>
```

where <domain name> is the name of the domain you want to enable.

Viewing a list of all the domains

To view a list of all the domains on a specific Ensim Pro server, use the **ListAllVirtDomains** script.

This script returns the following:

- The name of the domain
- Whether the domain is enabled or disabled (1/0)
- Whether the domain is name-based or IP-based
- The Site Administrator's user name and email address
- All the services and options of the Service Plan that were provided to the domain

Syntax

```
/usr/local/bin/ListAllVirtDomains
```

Removing a domain

To remove a domain from a server, use the **DeleteVirtDomain** script.

Syntax

```
/usr/local/bin/DeleteVirtDomain <domain name>
```

where <domain name> is the name of the domain you want to remove.

Disabling a service

To disable a service on a specific domain, use the **DisableVirtOption** script. This script disables a specific service, but otherwise does not change the domain's Service Plan.

Syntax

```
/usr/local/bin/DisableVirtOption <domain name> <service>
```

where:

- <domain name> is the name of the domain for which you want to disable the service
- <service> is the name of the service you want to disable as described in [Table 2-1](#).

Enabling a service

To enable a service on a specific domain, use the **EnableVirtOption** script.

Syntax

```
/usr/local/bin/EnableVirtOption <domain name> <service>
```

where:

- <domain name> is the name of the domain for which the service is enabled.
- <service> is the name of the service you want to enable as described in [Table 2-1](#).

Hiding a service

To hide a service, use the **hide_service** script. This script removes the service from the Ensim Pro control panel so that the Appliance Administrator cannot create domains with this service enabled.

Note

The services that you can hide or reveal are:

- * bind
- * mivamerchant
- * mysql
- * telnet
- * tomcat

Syntax

```
/usr/local/bin/hide_service <service>
```

where **<service>** is the name of the service you want to hide from the Ensim Pro control panel.

Example:

```
/usr/local/bin/hide_service bind
```

or

```
/usr/local/bin/hide_service telnet
```

Configuring service restart queues

Ensim Pro restarts services on a domain after each of the following site operations: add, update, suspend, and resume. These site operations modify the configuration file of the services. The restart operation ensures that the services operate with new or updated settings. However, restarting services after every operation results in disconnected sessions, inaccessibility to sites, and inordinate resource consumption.

Ensim Pro now provides a configuration tool **QConfigurator** that allows you to create service queues for the services that need to be restarted and configure a time interval at which these services can be restarted. It provides a command line interface to configure the **qsvcd** daemon that creates and manages the service queues. The settings are stored in the database (**qsvc_conf** table) and are retained even after migrating or upgrading to later versions.

The current release supports queued restarts for the following services:

- Apache
- MailScanner

Important

The **qsvcd** daemon must be running at all times. By default, it is disabled for each service.

The tool is located at **/usr/sbin/QConfigurator** and must be run as a **root** user.

How QConfigurator works

Each service has its own queue. You must configure the queue for each service using the **QConfigurator** tool. When you perform any operation that requires a service to be restarted, the tool adds the request to the service queue. As you perform more operations that require services to be restarted, the queue is updated. When the queue interval reaches the set threshold, the service is restarted for all the queued requests. The consolidated restart operation is an improvement on previous versions of Ensim Pro wherein a service was restarted everytime an action mandated a restart operation stalling access to services and leading to excessive resource consumption. The QConfigurator tool cuts back on frequent expensive restart operations enhancing service accessibility and ensuring better utilization of system resources. If you disable a service before a queued restart operation, the current queue is flushed and further restarts for the service are not attempted.

You can force the **qsvcd** daemon to review the current service configuration and reset the queues. The restart requests that are queued prior to the resetting are retained to be addressed in the next cycle.

Syntax

To view the list of services on the Ensim Pro server, type the following command:

```
QConfigurator -l
```

To view help on the various command options you can use, type the following command:

```
QConfigurator -h
```

To configure the service queues, type the following command:

```
QConfigurator -s <service> <command_options>
```

where:

-s <service> is the name of the service for which you want to configure the restart interval. The service names are case-sensitive. To configure queued restart for the apache service, type **apache**; to configure queued restart for the mailscanner service, type **MailScanner**.

<command_options> is the option you want to use for configuring the service queues. [Table 2-2](#) lists the various options that you can use with the command.

Table 2-2. QConfigurator command options

Option	Value	Description
-e	1 (enabled) or 0 (disabled)	If set to 1, the service is enabled. If set to 0, the service is disabled.
-q	Number	The restart interval in seconds. The restart interval should range between 300 to 86400 seconds. Values outside this range are considered invalid. Note: Type 0 to disable queued restart for a service. Once you disable, you must manually restart the service. It may be useful to set the restart interval to 0 when you perform script operations.

Table 2-2. QConfigurator command options

Option	Value	Description
-r	Text	The type of restart you want to configure for the service. Each service has its own restart options. Refer to the service help for the restart options you can use.
-c	1 (enabled) or 0 (disabled)	If set to 1, the service is enabled to restart one more time. If set to 0, the restart operation is not repeated.
-x	Text	Restart the operating environment with the specified environment.
-v	None	Shows the current service configuration. It also shows the queue status for the specified service.
-a	1 (enabled) or 0 (disabled)	Autostart starts a service each time the service queue is refreshed and finds that the service is not running. Service restart requests will not be queued if Autostart is enabled. If set to 1, autostart is enabled for the services enabled. If set to 0, the autostart is disabled.

Example

The following example sets the queue interval for the Apache service to 1000 seconds.

```
QConfigurator -s apache -q1000
```

Revealing (unhiding) a service

To reveal a hidden service, use the **unhide_service** script. This script reinstates the service in the Ensim Pro control panel.

Note

The services that you can hide or reveal are:

- * bind
- * mivamerchant
- * mysql
- * telnet
- * tomcat

Syntax

```
/usr/local/bin/unhide_service <service>
```

where **<service>** is the name of the service you want to reinstate in the Ensim Pro control panel.

Example:

```
/usr/local/bin/unhide_service bind
```

or

```
/usr/local/bin/unhide_service telnet
```

Adding a user to a domain

To add a user to a domain, use the **AddVirtUser** script. This script adds a user to a domain, specifying the information Ensimg Pro needs to establish the user, as well as the server applications to which the user should be granted access.

You can specify the user's password in either of two ways.

- By including the user's password as part of the command syntax.
- By entering the new user's password on standard input.

Syntax

```
/usr/local/bin/AddVirtUser [tpasswd=<ctxtpwd> | cpasswd=<crpwd> |  
passwd] \ <domain name> <username> <user's full name> <user's disk  
quota> \ <service>=<value>
```

where:

- **<ctxtpwd>** is the user's password in plain text. Use the **tpasswd** option to include the user's password in the command in plain text.
- **<crpwd>** is the user's password in encrypted text. Use the **cpasswd** option to include the user's password in the command in encrypted text.

Note

To use this option, you first need to employ encryption software to encrypt the password. Enter the encrypted text in this variable.

- **passwd** Use this option to enter the user's password on the standard input. The command will not exit until you enter and confirm the password.

Note

Use any one of the above three options to enter the user's password depending on the security level desired while entering the password.

- **<domain name>** is the name of the domain to which you are adding the user.
- **<username>** is the user's login name.
- **<user's full name>** is the user's first and last name. To include spaces between the first and last name, enclose the full name in "".
- **<user's disk quota>** is the amount of disk space you are allocating to this user.
- **<service>** is the server application to which you are granting the user access.

Note

The services currently available are Telnet, ProFTPd, and SSH.

- **<value>** is a number, either 1 to enable or 0 to disable, the service.

Example

```
AddVirtUser tpasswd=MTVrules example.com JoBoy "John Doe" 20 \  
telnet=1 ssh=1 proftpd=1
```

In this example, the script adds a user with the following specifications.

- The user's password entered in plain text is MTVrules.
- The domain is called example.com.
- The user's user name is JoBoy and his full name is John Doe.
- The user was given 20 MB quota for disk space.
- The user was granted access to Telnet, ProFTPD and SSH connections.

Changing the number of users allowed on a domain

To change the maximum number of users allowed on a domain, use the **ChangeMaxUsers** script.

Syntax

```
/usr/local/bin/ChangeMaxUsers <domain name> <number of users>
```

where:

- **<domain name>** is the name of the domain for which you want to change the number of users.
- **<number of users>** is the new maximum number of users you want to specify.

Changing a user's full name

To change a user's full name, use the **ChangeFullNameVirtUser** script.

Syntax

```
/usr/local/bin/ChangeFullNameVirtUser <domain name> <username>  
<user's full name>
```

where:

- **<domain name>** is the name of the domain.
- **<username>** is the user's login name.
- **<user's full name>** is the user's first and last name. To include spaces between the first and last name enclose the full name in "".

Example

```
ChangeFullNameVirtUser example.com Myname "Myname New"
```

Here, the script changes the user's full name with the following specifications.

- The domain is called example.com.
- The username is Myname; her new full name is Myname New.

Changing a user's information

To change a user's information, use the **ChangeInfoVirtUser** script. This script changes a user's full name and the amount of disk space allocated to the user.

Syntax

```
/usr/local/bin/ChangeInfoVirtUser <domain name> <username> <user's full name> <quota>
```

where:

- **<domain name>** is the name of the domain.
- **<username>** is the user's login name.
- **<user's full name>** is the user's first and last name. To include spaces between the first and last name enclose the full name in "".
- **<quota>** is the new amount of disk space you are allocating to this user.

Example

```
ChangeInfoVirtUser example.com Myname "Myname New" 30
```

Here, the script changes the user's information with the following specifications.

- The domain is called example.com.
- The user's user name is Myname and her new full name is Myname New.
- The user was given 30 MB of disk space.

Removing a user from a domain

To remove a user from a domain, use the **DeleteVirtUser** script.

Syntax

```
/usr/local/bin/DeleteVirtUser <domain name> <username>
```

where:

- **<domain name>** is the name of the domain from which you are deleting this user.
- **<username>** is the user's login name.

Configuring logrotate

To configure logrotate settings, use the **logrotate_be** script

Syntax

```
logrotate_be [options]
```

Options

- a, --action specify the action to perform (0)
- c, --compress whether compression is enabled (1)
- d, --domain name of the domain of interest (2)
- e, --email address for sending out-of-existence logs (!)

- ❑ -f, --frequency of log rotation (3)
- ❑ -h, --help print this help message and exit
- ❑ -m, --missingok whether missing log files is OK (4)
- ❑ -n, --narchives number of archives to keep (5)
- ❑ -s, --size maximum log file size for rotation (6)
- ❑ -v, --version print version information and exit

Notes

- ❑ (!) Disabled in this version
- ❑ (0) One of the following strings: disable, enable, read, rotate, or write.
- ❑ (1) Either “y” or “n”, indicating whether compression is off or on.
- ❑ (2) Mandatory argument.
- ❑ (3) One of the following strings: “daily4”, “daily”, or “weekly”—representing log rotation frequency (4 times a day, daily, or weekly).
- ❑ (4) Either “y” or “n”, indicating whether missing log files is okay.
- ❑ (5) A non-zero integer with a maximum value of 5.
- ❑ (6) A non-zero integer representing maximum log size, optionally followed by “k” (for kilobytes) or “M” (for megabytes). For example, 100, 100k and 100M are valid specifications.

Getting quota reports

You can use the **quota_report** script to obtain a statistical report on the storage limits and usage of disk space allocated to “users” or “groups”. When you run the script, it invokes a system call *quotactl* that returns the following quota storage and usage information, one line for each unit of information, for the specified user ID and group ID.

Each line in the output translates to the following information:

Output Line 1: User quota enabled/disabled : Group quota enabled/disabled.
Uses “1” or “0” to indicate whether the user or group quotas are enabled or disabled respectively.

Output Line 2: Current disk space occupied by quotas (in 1024-byte blocks)
Displays the current disk space occupied by quotas in blocks of 1024-bytes.

Output Line 3: Preferred limit on disk space (in Kilobytes)
The preferred or “soft” limit indicates the maximum amount of disk space a user has on a partition. If you set the absolute limit and the time limit for excessive disk usage then the user can exceed the preferred limit and continue to use additional disk space until:

- The disk space usage exceeds the absolute limit set
- The time limit assigned for excessive disk usage expires

Once the absolute limit or the time limit expires, the user is prevented from using additional disk space until the user moderates disk space usage below the preferred limit. This resets the time limit assigned for excessive disk usage.

 **Important**

If the absolute limit or the time limit for excessive disk usage is not set the user cannot use disk space in excess of the preferred limit.

Output Line 4: Absolute limit on disk space (in Kilobytes)

The absolute or “hard” limit indicates the maximum permissible limit for disk space usage within the set time limit. On exceeding the limit or the time period, the user is prevented from using additional disk space until disk space consumption is moderated below the preferred limit.

Output Line 5: Time limit for excessive disk usage

The time, in number of minutes, available for using or allocating disk space in excess of the “preferred” limit. On expiry of the time limit you will be unable to allocate or use additional disk space. The default time limit is set to one week or seven days.

Output Line 6: Number of inodes used currently

The number of inodes that are used currently.

Output Line 7: Preferred limit for inodes

The preferred or “soft” limit indicates the maximum number of inodes that can be stored on a user’s allocated disk space. If you set the absolute limit and the time limit for additional inodes then the user can exceed the preferred limit for inodes until:

- The number of inodes exceeds the absolute limit set
- The time limit assigned for excessive inodes expires

Once the absolute limit or the time limit expires, additional inodes cannot be created until the user reduces disk space usage below the preferred limit. This resets the time limit assigned for additional inodes.

 **Important**

If the absolute limit or the time limit for additional inodes is not set then inodes in excess of the preferred limit cannot be supported.

Output Line 8: Absolute limit on inodes

The absolute or “hard” limit indicates the maximum permissible limit for the number of inodes that can be stored on the disk space within the set time limit. If the absolute limit or the time period is exceeded, no additional inodes can be created until disk space consumption is moderated below the preferred limit.

Output Line 9: Time limit for excessive inode usage

The time, in number of minutes, available for supporting additional inodes in excess of the “preferred” limit. On expiry of the time limit you will be unable to support additional inodes. The default time limit is set to one week or seven days.

 **Note**

Ensim Pro sets and manages quotas with the following default parameters.

- * The “preferred” and “absolute” quota limits are equal.
 - * inode limits are not set.
-

Syntax

```
/usr/bin/quota_report -d <directory> [-q|-u <uid>|-g <gid>]
```

Example

Sample script and output

```
# quota_report -d / -g 504
1:1
36376
512000
512000
0
4445
0
0
0
```

Exporting appliance, reseller, site, or user's data for backup

To export appliance, reseller, site, or user's data for backup, use the **vhexport** script.

Syntax

```
/usr/local/bin/vhexport
-h|--help
-a|--appliance-info
-r|--reseller reseller1[,info][,site1,site2,...,site<n>]
-s|--sites site1,site2,...,site<n>
-u|--users site1,user1,user2,...,user<n> ...
-u|--users user1@domain.com,user2@domain.net,... ...
[-U|--URL <destination URL>] [-f|--url-info-file=<file>]
[-t|--split-threshold <size>]
[-z|--compressed]
[-c|--crypt] [-A|--algo=<algorithm>] [-k|--key-from-fd=<fd>]
```

 Note

Individual exports will be made for each reseller, site, and user specified. Note that site exports include the necessary information to recreate users when imported. When specifying a <destination URL>, the proper '.tar.gz' or '.tar' ending will automatically be added to the end of the URL, based on whether compression is set or not, respectively.

The <**destination URL**> may also contain format specifiers for the purpose of automatically generating URLs when one or more exports are being made with a single invocation.

The following time-related format specifiers are allowed (these are the format specifiers as understood by the server's C library `strftime()` function; please see the `strftime()` manual reference for more information):

- %a Locale's abbreviated weekday name.
- %A Locale's full weekday name.
- %b Locale's abbreviated month name.
- %B Locale's full month name.
- %c Locale's appropriate date and time representation.
- %C The century number (year/100) as a 2-digit integer.
- %d Day of the month as a decimal number [01,31].
- %D Equivalent to %m/%d/%y.
- %e Like %d, the day of the month as a decimal number, but a leading zero is replaced by a space.
- %F Equivalent to %Y-%m-%d.
- %h Equivalent to %b.
- %H Hour (24-hour clock) as a decimal number [00,23].
- %I Hour (12-hour clock) as a decimal number [01,12].
- %j Day of the year as a decimal number [001,366].
- %m Month as a decimal number [01,12].
- %M Minute as a decimal number [00,59].
- %p Locale's equivalent of either AM or PM.
- %s The number of seconds since the Epoch; that is, since January 1, 1970
- %S Second as a decimal number [00,61].
- %U Week number of the year (Sunday as the first day of the week) as a decimal number [00,53]. All days in a new year preceding the first Sunday are considered to be in week 0.
- %w Weekday as a decimal number [0(Sunday),6].
- %W Week number of the year (Monday as the first day of the week) as a decimal number [00,53]. All days in a new year preceding the first Sunday are considered to be in week 0.
- %x Locale's appropriate date representation.
- %X Locale's appropriate time representation.

- %y Year without century as a decimal number [00,99].
- %Y Year with century as a decimal number.
- %Z Time zone name (or by no characters if no time zone exists).
- %% A literal “%” character.

In addition, the following format specifiers allow you to include information about the type of export being made:

- %(type) The type of export [appliance, reseller, site, or user]
- %(name) The name of the export [appliance, reseller username, domain name, or user@domain]
- %(host) The exporting host server.

For example, the command:

```
vhexport -u joe@mydomain.com,bob@yourdomain.net -U file:///tmp/
%H_%t_%N_%Y_%B_%
```

on the server appliance.ensim.com will result in the following exports being created (assuming the date is December 23, 2002):

```
/tmp/appliance.ensim.com_user_joe@mydomain.com_2002_December_23.tar
/tmp/appliance.ensim.com_user_bob@yourdomain.net_2002_December_23.tar
```

If the -z option was specified, the resulting exports would have been:

```
/tmp/
appliance.ensim.com_user_joe@mydomain.com_2002_December_23.tar.gz
/tmp/
appliance.ensim.com_user_bob@yourdomain.net_2002_December_23.tar.gz
```

-f|--url-info-file specifies a file that contains additional information to be used with any URLs specified. It is generally not safe to include a password on the command line; you can use this option to point to a file that contains the password information. Note that if you choose to do this, you should make sure that the file is readable only by you. The file may contain two or three bits of information: host and user are mandatory; pass is optional.

An example file might contain:

- host ftp.ensim.com
- user ensimuser
- pass ensimpasswd

-t|--split-threshold-size determines how large each output file is allowed to grow before another output file is started, and may only be specified if the -U|--URL argument is specified too. The argument must be a number optionally followed by a unit; the unit may be any one of b (1), kd (1000), k (1024), md (1,000,000), m (1,024,768), gd (1,000,000,000) or g (1,073,741,824), and defaults to “m”. This option is useful when exporting a large site or user, and the target server cannot handle files that are larger than a certain size.

For example, assume the site `example.com` would consume 3 GB of space, but the destination server cannot handle files larger than 1 GB. The command:

```
vhexport --sites example.com -U ftp://mybackupserver.com/%t_%N -t 1g
```

will result in the following files being created:

- `ftp://mybackupserver.com/site_example.com.tar`
- `ftp://mybackupserver.com/site_example.com.1.tar`
- `ftp://mybackupserver.com/site_example.com.2.tar`

When importing, only the first URL in the above list should be specified. The import process will automatically attempt to retrieve the other files.

`-c|--crypt` specifies that the resulting export data should be encrypted before being written to the destination. A symmetric cipher is used. If the `-k|--key-from-fd` option is not specified, you will be prompted to enter a passphrase. `-k|--key-from-fd` may be used to specify a file descriptor from which the passphrase may be read. If set to 0, this will be equivalent to reading from standard in. `-a|--algo` allows you to change the cipher algorithm used (this option is not currently supported; that is, there is only a single type of cipher). Note that you must use the `-U|--URL` argument to specify the export destination if you don't use the `-k|--key-from-fd` option.

Importing appliance, reseller, site, or user's data from a backup

To import appliance, reseller, site, or user's data from a backup, use the `vhimport` script.

Syntax

```
/usr/local/bin/vhimport
-r|--role=appliance
reseller:<reseller name or id>
siteadmin:<domain name or site id>
siteuser:<user@domain or user@site id>
[-t|--target=<reseller name or id>]
[-t|--target=<domain name or site id>]
[-t|--target=<user@domain or user@site id>]
[--restore-user-configs] [--restore-site-configs]
[--restore-reseller-configs] [--overwrite-data]
[-U|--URL=<source URL>] [-R|--recurse]
[-f|--url-info-file=<file>]
[-S|--services service1,...]
[-d|--decrypt] [-A|--algo=<algorithm>] [-k|--key-from-fd=<fd>]
```

If the role argument is not **appliance**, you must specify additional information to identify the reseller, site administrator, or site user on whose behalf the import is being performed.

If only importing a single file, you may specify the intended target of the import. For example, if the role was set to **appliance** or **reseller**, the user would be able to import a backup made from site A into an existing site B, by specifying site B as the target. Targets may only be specified for imports where the imported entity has fewer privileges than the importing role, and the importing role must control the intended target. That is, an appliance may specify any target for reseller, site, or user imports, whereas a reseller may only specify a target for site or user imports, and the target must be a site or user under his or her control.

If a target is not specified, the target will either be assumed from the role argument or from the import data. For example, if the role was set to **reseller** and the import file was a reseller backup, then the target would be the reseller given with the role identifier. If the import file had been a site backup, then the target would be the domain described by the import file, and will be allowed as long as the specified reseller owns that site, or the site does not exist.

The `--overwrite-data` option signifies that the import should overwrite existing data. If not specified, only data present in the import but not in the target will be restored. Note that this flag does not affect reseller, site, or user configurations.

The `--restore-user-configs` option signifies that if any user imports are encountered, and the user currently exists, then the user's configuration will be set to the configuration saved in the archive. Without this option, an existing user's configuration will not be changed.

The `--restore-site-configs` option signifies that if any site imports are encountered, and the site currently exists, then the site's configuration will be set to the configuration saved in the archive. Without this option, an existing site's configuration will not be changed.

The `--restore-reseller-configs` option signifies that if any reseller imports are encountered, and the reseller currently exists, then the reseller's configuration will be set to the configuration saved in the archive. Without this option, an existing reseller's configuration will not be changed.

The `--restore-all-configs` option is equivalent to specifying `--restore-user-configs --restore-site-configs --restore-reseller-configs` together.

The `--recurse` option will cause any imports made at the same time as one of the imports specified on the command line to be imported as well. For example, if a user exported everything on the server (appliance, resellers, sites) in a single invocation of `vhexport`, then all the user would have to do to completely recover the system is import the appliance backup by specifying the `--recurse` option.

`-f | --url-info-file` specifies a file that contains additional information to be used with any URLs specified. It is generally not safe to include a password on the command line; you can use this option to point to a file that contains the password information. Note that if you choose to do this, you should make sure that the file is readable only by you. The file may contain two or three bits of information; host and user are mandatory, and pass is optional. An example file might contain:

- host ftp.ensim.com
- user ensimuser
- pass ensimpasswd

`-c | --crypt` specifies that the import data is encrypted and must be decrypted before being restored. If the `-k | --key-from-fd` option is not specified, you will be prompted to enter a passphrase. `-k | --key-from-fd` may be used to specify a file descriptor from which the passphrase may be read. If set to 0, this will be equivalent to reading from standard in. `-a | --`

also allows you to change the cipher algorithm used (this option is not currently supported; that is, there is only a single type of cipher). Note that you must use the `-U|--URL` argument to specify the import source if you don't use the `-k|--key-from-fd` option, or if you set the `-k|--key-from-fd` option to 0.

Using the Reseller Command Line Interface scripts

This section explains the usage and syntax of scripts you can use to manage reseller accounts.

You can use command line scripts for:

- [Viewing the list of reseller accounts](#)
- [Creating a reseller account](#)
- [Modifying a reseller account](#)
- [Removing a reseller account](#)

Refer to [Table 2-3](#) for the complete list of services, options, and values that you can specify for a reseller account.

Note

You must specify values for services or options that you want to enable; no default values are set other than those explicitly specified in the table. Further, you cannot leave an option blank.

[Table 2-3](#) lists the services, options, and values that you can specify for a reseller account.

Table 2-3. Services and options - II

Service	Option	Value	Description
apache	jail	1 (enabled) or 0 (disabled)	If set to 1, a reseller can only create “jailed” sites (sites that restrict the apache daemon to the chrooted portion of the site’s file system). If set to 0, a reseller can create “jailed” or “non-jailed” sites.
ssh	jail	1 (enabled) or 0 (disabled)	If set to 1, a reseller can only create sites where the SSH remote access service is “jailed” (remote shell access to the site using SSH is restricted to the chrooted portion of the site’s file system). If set to 0, a reseller can create sites with “jailed” or “non-jailed” SSH access.

Table 2-3. Services and options - II

Service	Option	Value	Description
telnet	jail	1 (enabled) or 0 (disabled)	If set to 1, a reseller can only create sites where the Telnet remote access service is “jailed” (remote shell access to the site using Telnet is restricted to the chrooted portion of the site’s file system). If set to 0, a reseller can create sites with “jailed” or “non-jailed” Telnet access.
bandwidth	units	B or b (Bytes) KB or kb (Kilobytes) MB or mb (Megabytes) GB or gb (Gigabytes)	The unit for measuring the rate of data transmission. The default is B .
	threshold	number	The total bandwidth (in the selected units) that can be assigned to sites created by a reseller.
diskquota	units	B or b (Bytes) KB or kb (Kilobytes) MB or mb (Megabytes) GB or gb (Gigabytes)	The unit for measuring the disk space allocated to a reseller. The default is B .
	quota	number	The total disk space (in the selected units), that can be assigned to sites created by a reseller.
ipinfo	ipbased	number	The maximum number of IP-based sites that can be created by a reseller.
	namebased	number	The maximum number of name-based sites that can be created by a reseller.

Table 2-3. Services and options - II

Service	Option	Value	Description
reseller	username	plain text	The user name of the reseller
	fullname	plain text	The full name of the reseller
	email	plain text (for example, admin@example.com)	The email address of the reseller
	passwd	plain text	The reseller's password. The reseller will be prompted for the plain text password.
	tpasswd	plain text	The reseller's password. Specify the password by typing the following at the command line prompt: tpasswd=<plain text password>
	cpasswd	encrypted text	The reseller's password. Specify the password by typing the following at the command line prompt: cpasswd=<encrypted text password>
	enabled	1 (enabled) or 0 (disabled)	Indicates whether the reseller account is enabled or disabled.
users	maxusers	number	The total number of user accounts for sites created by a reseller.

Viewing the list of reseller accounts

To view the list of reseller accounts, use the **ListResellers** script. The script returns the list of resellers, one line of text for each reseller, with the specified account information, services, enabled options, and the corresponding values. In addition to the services and options enabled for the reseller, the list will also display the following information for the specified service.

Table 2-4. Additional information displayed in the script output

Service	Attribute	Value	Description
diskquota	alloc_quota	number	The actual amount of disk space allocated to the sites created by the reseller.
bandwidth	alloc_threshold	number	The actual amount of bandwidth allocated to the sites created by the reseller.
ipinfo	alloc_ipbased	number	The actual number of IP-based sites created by the reseller.
	alloc_namebased	number	The actual number of name-based sites created by the reseller.
users	alloc_maxusers		The number of users that can be created for all the sites by the reseller.
reseller	reseller_id	number	The reseller ID of the reseller.

Note

*The password of a reseller will not be listed in the script output. Some values may have backslash-quoted characters (for example, spaces in the reseller full name).

*Bandwidth and quota values are returned in bytes.

Syntax

```
/usr/local/bin/ListResellers
```

Example

A sample output produced by the **ListResellers** script

```
apache,jail=0 users,maxusers=100,alloc_maxusers=0 ssh,jail=0
diskquota,alloc_quota=0,quota=524288000
reseller,username=Myname,fullname=Myname,enabled=1,reseller_id=4,
email=myname@example.com
ipinfo,alloc_ipbased=0,namebased=10,alloc_namebased=0,ipbased=10
```

Note

The sample output used in the example has been word-wrapped for readability. The actual output is displayed in a single line, with the various services separated by a single space.

In this example, the script lists a reseller with the following account information:

- User name: Myname
- Full Name: Myname
- Reseller ID:4
- Email: myname@example.com
- Apache, jail option: disabled
- Disk quota, allocated: 524288000 bytes, used: 0
- Users, allocated: 100, used:0
- IP-based sites, allocated: 10, used=0
- Name-based sites, allocated: 10, used=0

Creating a reseller account

To create a reseller account, use the **AddReseller** script. If you want to create reseller accounts that have a common set of services, you can use an existing reseller account as a template for the new reseller.

See [Table 2-3](#) for the list of services, with corresponding options and values, that you can enable for the reseller account. On successful creation of the account, the message, `Reseller <reseller name> successfully created`, is displayed.

Syntax

```
/usr/local/bin/AddReseller [ -r <source reseller> ] [ -c
<service>,<option>=<value>,... ...]
```

where:

- `<source reseller>` is the name of an existing reseller account whose account information you want to use as a template for the new reseller account. If you do not specify the `<source reseller>`, all the services and corresponding options of all services mentioned in [Table 2-3](#) are required.
- `<service>` is the name of the service for which you want to specify options for the reseller.
- `<option>` is the arguments or parameters that you want to specify for the reseller.
- `<value>` is what the option specifies, such as a name, password, or measurement.

Example

Creating a reseller account without using a template

```
AddReseller -c apache,jail=0 -c bandwidth,threshold=10485760000 -c
users,maxusers=100 -c ssh,jail=0 -c diskquota,quota=524288000 -c
reseller,username=Myname,fullname=Myname,enabled=1,
passwd,email=myname@example.com -c telnet,jail=0 -c
ipinfo,namebased=10,ipbased=10
```

In this example, the script adds a reseller account with the following account information:

- Apache; jail option disabled
- Bandwidth; allocated: 10485760000
- Users; allocated: 100
- SSH; jail option disabled
- Disk quota; disk space allocated: 524288000
- User name: Myname
- Full name: Myname
- Email address: myname@example.com
- Telnet; jail option disabled
- IP-based sites; allocated:10
- Name-based sites; allocated:10

Example

Creating a reseller account using a template

```
AddReseller -r reseller1 -c reseller,username=reseller2
```

In this example, the script creates a new reseller account, with the user name **reseller2**, using another reseller account, **reseller1**, as the template on which to base the account information.

Modifying a reseller account

To modify a reseller account, use the **EditReseller** script. See [Table 2-3](#) for the list of services, with corresponding options and values, that you can specify for the reseller account. On successful modification, the message, Reseller, <reseller_name> successfully updated, is displayed.

Syntax

```
/usr/local/bin/EditReseller [ -r <source reseller> ] [ -c  
<service>,<option>=<value>,... ... ] <reseller username>...
```

where:

- <source reseller> is the name of an existing reseller, whose account information you want to use as a template for the reseller account. If you do not specify <source reseller>, all the options default to the current values specified for the reseller.
- <service> is the name of the service for which you want to specify options for the reseller.
- <option> is arguments or parameters that you want to specify for the reseller.
- <value> is what the option specifies, such as a name, password, or measurement.
- <reseller username> is the existing user name of the reseller account you want to modify

 **Example**

```
EditReseller -c reseller,enabled=1,username=new_reseller, -c  
ipinfo,ipbased=15,namebased=15 old_reseller
```

In this example, the script modifies the user name and site information for an existing reseller account.

Removing a reseller account


To remove a reseller account, use the **DeleteReseller** script.

Syntax

```
/usr/local/bin/DeleteReseller <reseller username>
```

where

<reseller username> is the user name of the reseller you want to remove

 **Example**

```
/usr/local/bin/DeleteReseller reseller1
```

In this example, the script removes the reseller account with the user name, **reseller1**.

Customizing the control panel using skins

Introduction

This chapter provides information and instructions on customizing the control panel using skins.

Topics include:

- “About skins” on page 3-1
- “About Ensim Pro skins” on page 3-2
- “Creating a new skin” on page 3-2
- “Customizing the Dashboard XML” on page 3-6
- “Using Dashboard XMLs to customize the dashboard” on page 3-7
- “Advanced skin dashboard for the Site Administrator control panel” on page 3-17

Important

To customize the Ensim Pro control panel, you must be familiar with scripts, XML, and HTML programming.

About skins

Skins are customizable interfaces that allow you to change the “look and feel” of your Ensim Pro server.

Using skins, you can:

- Change the colors and fonts that display on the control panel
- Customize the control panel dashboard
- Customize the navigation bar by adding new links or removing existing links
- Re-arrange links on various pages of the control panel
- Customize the shortcuts page

About Ensim Pro skins

Ensim Pro offers two visual styles:

Mercury skin

The Mercury skin provides an intuitive visual interface with informative dashboards that provide targeted information for each user type.

Some of its key features are:

- Distinct visual identity for each administrative level, with a different color for each of the four administrator roles
- Informative dashboards that provide key hosting statistics
- Improved usability for faster and more efficient management of the hosting environment

Classic skin

The Classic skin adopts the look and feel of previous Ensim Pro versions and provides a simple interface to manage the hosting environment. The visual look stays consistent throughout the different administrative levels.

Creating a new skin

Creating a new skin consists of two steps.

- [Step 1: Setting up a directory for the new skin](#)
- [Step 2: Creating redirects](#)

Step 1: Setting up a directory for the new skin

The first step is to set up a skin directory to hold the various files and directories required to customize the Ensim Pro skin—such as `httpd.conf`, `images`, `html`, `php`, and `stylesheets`.

The skin directory will also contain the skin's py file, `<skin_name>.py`. This file includes all the necessary implementation details.

The following procedure provides instructions on creating a `<skin_name>.py` file.

Procedure

To create a `<skin_name>.py` file:

- 1 Log onto the Ensim Pro server as the root user.
- 2 Create a new directory, `<skin_name>`, under the `/usr/lib/opcenter/skins` directory. All the skin components will be located in this directory.

```
#mkdir /usr/lib/opcenter/skins/<skin_name>
```

where `<skin_name>` refers to the name of the skin directory.

This directory will store the components that make up the skin, that is the HTML files, the PHP files, the images, and the stylesheets.

The following is a representation of a typical skin directory structure.

- **Root directory** - `/usr/lib/opcenter/skins/mercury`
- **HTML files directory** - `/usr/lib/opcenter/skins/mercury/html`

- ❑ **Image files** - /usr/lib/opcenter/skins/mercury/images
- ❑ **HTTPD configuration code** - /usr/lib/opcenter/skins/mercury/httpdconf

Note

The HTTPD configuration code specifies the rewrite rules for stylesheets and images, and for the shortcut, dashboard, and navigation bar pages.

- ❑ **Stylesheets** - /usr/lib/opcenter/skins/mercury/css
- 3** Create a directory, **httpdconf**, under the **/usr/lib/opcenter/skins/<skin_name>** directory. This directory will contain the “redirect” directives. These directives enable you to override an existing Ensim Pro page with your custom page.


```
#mkdir /usr/lib/opcenter/skins/<skin_name>/httpdconf
```
 - 4** Create an html directory, **html**, under the **/usr/lib/opcenter/skins/<skin_name>** directory. This directory will contain the custom HTML pages of your skin.


```
#mkdir /usr/lib/opcenter/skins/<skin_name>/html
```
 - 5** Create a default skin py file. You can do so by copying an existing skin (for example the classic skin).


```
# cp /usr/lib/opcenter/skins/classic/classic.py/usr/lib/opcenter/skins/myskin/myskin.py
```

Note

If you now log on to the Appliance Administrator control panel and access the “Manage Skins” page, you should see the new skin **<skin_name>**.

Now that you have set up the skin directory, you need to create redirects that will enable you to implement the customization.

Step 2: Creating redirects

Redirects enable you to override a Ensim Pro page with your custom page.

A redirect uses 2 arguments:

- The page URL you want to override (for example, the home page, the navigation bar page, or the shortcut page)
- The custom page URL

[Table 3-1](#) provides a list of redirect rules (RewriteRules) for the home page, the navigation bar page, the shortcut page, and the top panel for all the control panels.

Note

The variable, **<FILEPATH>**, refers to the full directory path of the HTML or PHP page of your custom page. Replace **<FILEPATH>** with your custom page.

Select the page that you want to override and populate the `/usr/lib/opcenter/<skin_name>/httpdconf/custompage` file with one or more of the following RewriteRules.

Table 3-1. RewriteRules for pages to be overwritten

Control panel	Page to be overridden	RewriteRule (as one line)
Appliance Administrator	Home	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/\$ <FILEPATH></code>
	Navigation bar	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/navbar <FILEPATH></code>
	Shortcut	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/view_shortcuts <FILEPATH></code>
	Top panel	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/topbar <FILEPATH></code>
Reseller Administrator	Home	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/reseller/resellercp/\$ <FILEPATH></code>
	Navigation bar	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/reseller/resellercp/navbar <FILEPATH></code>
	Shortcut	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/reseller/resellercp/view_shortcuts <FILEPATH></code>
	Top panel	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/reseller/resellercp/topbar <FILEPATH></code>
Site Administrator	Home	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/virtualhosting/siteadmin/\$ <FILEPATH></code>
	Navigation bar	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/virtualhosting/siteadmin/navbar <FILEPATH></code>
	Shortcut	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/virtualhosting/siteadmin/view_shortcuts <FILEPATH></code>
	Top panel	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/virtualhosting/siteadmin/topbar <FILEPATH></code>
User Administrator	Home	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/virtualhosting/useradmin/\$ <FILEPATH></code>
	Navigation bar	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/virtualhosting/useradmin/navbar <FILEPATH></code>
	Shortcut	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/virtualhosting/useradmin/view_shortcuts <FILEPATH></code>
	Top panel	<code>RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/services/virtualhosting/useradmin/topbar <FILEPATH></code>

Overriding the top panel

The following is a simple example of a custom page. Ensim Pro also offers the ability to manage complex customizations using Dashboard XMLs. For example, you can customize the skin to dynamically load data about sites, resellers, and users onto your control panel dashboard. See “Customizing the Dashboard XML” on page 3-6 for more information on this feature.

Example

To override the top panel:

- 1 Follow the previous procedure and create a new skin, **myskin**.
- 2 Create a file, **custompages**, under the `/usr/lib/opcenter/skins/myskins/httpdconf` directory with the following content:


```
RewriteRule ^/fastcgiwebhost/fastcgiwebhost/webhost/topbar /usr/lib/opcenter/skins/myskin/html/appl_topbar.html
```
- 3 Create a shortcut page for the Appliance Administrator control panel, **appl_topbar.html**, under the `/usr/lib/opcenter/skins/myskins/html` directory, with the following content.


```
<html>
<body>
Welcome to Ensim Pro
</body>
</html>
```
- 4 If your custom pages need to reference image files, create a directory, for example, **images** under `/usr/lib/opcenter/skins/myskins`, and place the images in the directory.
- 5 Add a new rewrite line to the file, `/usr/lib/opcenter/skins/myskins/httpdconf/custompages`

```
RewriteRule /images/(.+).gif /usr/lib/opcenter/skins/myskin/images/$1.gif
```

The Welcome to Ensim Pro page in Step 3 would then be:

```
<html>
<body>
 Welcome to Ensim Pro
</body>
</html>
```

- 6 Restart Ensim Pro.

Important

You must restart Ensim Pro whenever you modify a rewrite rule.

Customizing the Dashboard XML

The Dashboard XML provides a source of data for skin developers. It can be used to design skins that display a rich set of appliance, reseller, site, or user properties as well as statistics.

The Dashboard XMLs are provided to skin developers and can contain the following data:

- Site configuration
- Disk usage
- Reseller information
- Bandwidth usage

Dashboard XMLs allows skin developers to update the skin with dynamic information, depending on the administrative level. Ensim Pro provides four XML URLs that correspond to the four administrative levels: Appliance Administrator, Reseller Administrator, Site Administrator, and User Administrator.

The following are examples of data used in the Dashboard XML for each administrative level.

Appliance Administrator

- Disk usage
- Server uptime
- Server name
- Hidden services

Reseller Administrator

- Reseller user name
- Reseller ID
- Reseller email address
- Allocated disk, bandwidth, and other server resources

Site Administrator

- Site configuration for all services
- Disk and bandwidth usage

User Administrator

- Disk usage

Refer to the [“Dashboard XML examples” on page 3-9](#) for the complete data provided by the Dashboard XMLs.

Using Dashboard XMLs to customize the dashboard

Dashboard XMLs provides four XML URLs that provide access to the dashboard.

Important

These XML URLs are protected; they are not public URLs accessible to unauthorized users. To obtain the Dashboard XMLs, you must pass special authentication cookies.

The following section provides a sample implementation of the Dashboard XML (the sample skin used is called **myskin**) that contains the implementation of the dashboard parser and the function **get_dashboard_data**, that contains the commands required to obtain as well as parse the dashboard data.

Note

The sample skin, **myskin**, is provided as an RPM, **webpliance-skin-myskin-3.5.2-3.i386.rpm**.

Table 3-2 lists the functions and constants contained in the dashboard library, **dashboard_lib.php** file.

Table 3-2. Functions and constants used in the dashboard_lib.php file

Functions	<p>string get_dashboard_data(string urlstring)</p> <p>This function returns a PHP hash data structure. <code>get_dashboard_data</code> makes a HTTPS connection to the given <code>urlstring</code>, <code>url-path</code>. It performs authentication by using the globally available cookie variable 'ocw_cookie' to load the XML. The function then takes the XML and parses it into a PHP hash data structure. The parsing-to-php-data-structure is done by the <code>phpxml</code> module (which is included as part of the sample skin, myskin).</p> <p>Documentation on the data structure as well as the parser is available at http://www.devdump.com/phpxml.php</p>
Constants	<p>\$AA_dash Refers to the Appliance Administrator Dashboard URL</p> <p>\$RA_dash Refers to the Reseller Administrator Dashboard URL</p> <p>\$SA_dash Refers to the Site Administrator Dashboard URL</p> <p>\$UA_dash Refers to the User Administrator Dashboard URL</p>

Invoking the Dashboard XML

The following example illustrates how the sample skin (**myskin**) uses a PHP code sample (**appl_topbar.php** located under **/usr/lib/opcenter/skins/myskin/html**) to load the Appliance Administrator XML and display the server uptime and server name on the dashboard panel.

Loading the server uptime and server name information on the dashboard panel

Example

```
<HTML>

  <HEAD>

    <LINK REL="stylesheet" HREF="/webhost/stylesheet/" TYPE="text/
      css">

  </HEAD>

  <BODY leftmargin ="15" topmargin ="2" marginwidth="15"
    marginheight="2" bgcolor="#ffffff">

  <TABLE BORDER="0" WIDTH=750>

    <TR>

      <TD CLASS="help">

        <?php
          // load the dashboard API
          include("dashboard_lib.php");
          // dashbard url for appliance admin
          global $AA_dash;
          // load the URL, and parse the XML into a PHP data structure
          // (for more information on the data structure, visit
          // http://www.devdump.com/phpxml.php)
          $xtree = get_dashboard_data($AA_dash);
          // pull uptime and hostname from the appliance admin XML
          $uptime =
          $xtree["APPLIANCE"][0]["PROPERTIES"][0]["UPTIME"][0]["VA
            LUE"];
          $server =
          $xtree["APPLIANCE"][0]["PROPERTIES"][0]["SERVER_NAME"][0
            ]["VALUE"];
          echo "Server: $server<BR>";
          echo "Uptime (secs): $uptime<BR>";
        ?>
```



```

        </TD>
    </TR>
</TABLE>
</BODY>
</HTML>

```

Dashboard XML examples

The following XML examples (for each administrative level) display output samples generated by the Dashboard URL.

Appliance Administrator

Example

1

```

<?xml version="1.0" ?>
<appliance>
  <properties>
    <uptime>5185839</uptime>
    <server_name>example1.example.com</server_name>
    <server_ip>1.2.3.4</server_ip>
    <services>
      <item>siteinfo</item>
      <item>aliases</item>
      <item>bandwidth</item>
      <item>develenv</item>
      <item>logrotate</item>
      <item>vhbackup</item>
      <item>files</item>
      <item>analog</item>
      <item>ipinfo</item>
      <item>diskquota</item>
      <item>telnet</item>
      <item>ssh</item>
      <item>bind</item>
      <item>users</item>
      <item>proftpd</item>
    
```

```
<item>apache</item>
<item>sendmail</item>
<item>imap</item>
<item>anonftp</item>
<item>openssl</item>
<item>mysql</item>
<item>reseller</item>
<item>cgi</item>
<item>ssi</item>
<item>weblogs</item>
<item>mod_perl</item>
<item>tomcat4</item>
<item>subdomain</item>
<item>vacation</item>
<item>majordomo</item>
<item>sqmail</item>
<item>frontpage</item>
<item>mivamerchant</item>
<item>webalizer</item>
</services>
<domain_count>2</domain_count>
<hidden_services/>
</properties>
<statistics>
  <disk_total>8940.969</disk_total>
  <disk_used>4740.809</disk_used>
</statistics>
</appliance>
```

Reseller Administrator

Example

2

```
<?xml version="1.0" ?>
<reseller>
  <properties>
    <username>joe</username>
    <reseller_email>reseller@example.com</reseller_email>
    <uptime>5186036</uptime>
    <server_ip>10.0.1.13</server_ip>
    <server_name>example1.example.com</server_name>
    <reseller_fullname>reseller</reseller_fullname>
    <hidden_services/>
    <reseller_id>3</reseller_id>
  </properties>
  <statistics>
    <users_used>0</users_used>
    <bandwidth_total>50000.0</bandwidth_total>
    <ipinfo_nb_used>0</ipinfo_nb_used>
    <diskquota_used>0.0</diskquota_used>
    <bandwidth_used>0.0</bandwidth_used>
    <ipinfo_ip_total>5</ipinfo_ip_total>
    <ipinfo_nb_total>30</ipinfo_nb_total>
    <users_total>5000</users_total>
    <diskquota_total>50000.0</diskquota_total>
    <ipinfo_ip_used>0</ipinfo_ip_used>
  </statistics>
</reseller>
```

Site Administrator

Example

3

```
<?xml version="1.0" ?>
<site>
  <properties>
    <files>
      <enabled>1</enabled>
    </files>
    <cgi>
      <scriptalias>cgi-bin</scriptalias>
      <enabled>1</enabled>
    </cgi>
    <users>
      <maxusers>50</maxusers>
      <enabled>1</enabled>
    </users>
    <sendmail>
      <enabled>1</enabled>
      <preference>10</preference>
      <mailserver>mail.example1-name1.example.com</mailserver>
    </sendmail>
    <proftpd>
      <ftpserver>ftp.example1-name1.example.com</ftpserver>
      <enabled>1</enabled>
    </proftpd>
    <bandwidth>
      <threshold>5368709120</threshold>
      <enabled>1</enabled>
      <rollover>1</rollover>
    </bandwidth>
    <siteinfo>
      <domain>example1-name1.example.com</domain>
```

```
<admin_user>myadmin</admin_user>
<admin>admin1</admin>
  <enabled>1</enabled>
  <passwd1>***</passwd1>
  <email>example1@example.com</email>
  <passwd2>***</passwd2>
</siteinfo>
<telnet>
  <enabled>1</enabled>
  <jail>1</jail>
</telnet>
<majordomo>
  <enabled>1</enabled>
</majordomo>
<aliases>
  <enabled>0</enabled>
  <aliases/></aliases>
<logrotate>
  <enabled>1</enabled>
</logrotate>
<tomcat4>
  <enabled>0</enabled>
</tomcat4>
<ssi>
  <enabled>1</enabled>
</ssi>
<ssh>
  <enabled>1</enabled>
  <jail>1</jail>
</ssh>
<mysql>
  <enabled>0</enabled>
  <dbaseadmin>myadmin</dbaseadmin>
```

```
<dbaseprefix>example1-name1_example_com_-_</dbaseprefix>
<dbasenum>1</dbasenum>
</mysql>
<apache>
  <enabled>1</enabled>
  <webserver>www.example1-name1.example.com</webserver>
  <jail>0</jail>
</apache>
<imap>
  <enabled>1</enabled>
</imap>
<analog>
  <enabled>1</enabled>
</analog>
<anonftp>
  <enabled>1</enabled>
</anonftp>
<vhbackup>
  <enabled>1</enabled>
</vhbackup>
<develenv>
  <enabled>0</enabled>
</develenv>
<ipinfo>
  <ipaddrs/>
  <namebased>1</namebased>
  <enabled>1</enabled>
  <nbaddrs>
    <item>1.2.3.4</item>
  </nbaddrs>
</ipinfo>
<reseller>
  <enabled>1</enabled>
```

```
<reseller_id>0</reseller_id>
</reseller>
<diskquota>
  <units>MB</units>
  <enabled>1</enabled>
  <quota>500.0</quota>
</diskquota>
<bind>
  <enabled>1</enabled>
</bind>
<weblogs>
  <enabled>1</enabled>
</weblogs>
<vacation>
  <enabled>1</enabled>
</vacation>
<webalizer>
  <enabled>0</enabled>
</webalizer>
<sqmail>
  <enabled>1</enabled>
</sqmail>
<mod_perl>
  <alias>perl</alias>
  <enabled>0</enabled>
</mod_perl>
<mivamerchant>
  <enabled>0</enabled>
</mivamerchant>
<openssl>
  <enabled>0</enabled>
</openssl>
<subdomain>
```

```

    <wildcards>0</wildcards>
    <max>5</max>
    <enabled>0</enabled>
    <base>/var/www</base>
</subdomain>
<frontpage>
    <enabled>1</enabled>
</frontpage>
</properties>
<statistics>
    <subdomain_used>0</subdomain_used>
    <mysql_total>0</mysql_total>
    <bandwidth_total>5120.0</bandwidth_total>
    <mysql_used>0</mysql_used>
    <diskquota_used>8.9</diskquota_used>
    <subdomain_total>0</subdomain_total>
    <bandwidth_used>0.0</bandwidth_used>
    <users_used>0</users_used>
    <users_total>50</users_total>
    <diskquota_total>500.0</diskquota_total>
</statistics>
</site>

```

User Administrator

Example

4

```

<?xml version="1.0" ?>
<user>
    <properties>
        <username>name</username>
        <siteinfo_domain>example1-name1.example.com</siteinfo_domain>
    </properties>
    <statistics>
        <username>name</username>

```



```

<siteinfo_domain>example1-name1.example.com</siteinfo_domain>

<diskquota_used>0.039</diskquota_used>

<diskquota_total>20.0</diskquota_total>

</statistics>

</user>

```

Advanced skin dashboard for the Site Administrator control panel

The Site Administrator control panel includes an advanced skin dashboard that provides Site Administrators with statistical information on key hosting resources. The skin dashboard is accessible using the **Dashboard** option on the Site Administrator control panel. Refer to [Table 3-3](#) for the list of hosting information that is accessible to the Site Administrator.

Table 3-3. Hosting information introduced in the skin dashboard

Site backup information <ul style="list-style-type: none"> The date and time of the last backup The date and time when the next backup is scheduled 	Bandwidth information <ul style="list-style-type: none"> The network traffic categorized by Web / FTP/ Email The bandwidth used in the current and previous month
Site user information <ul style="list-style-type: none"> The number of site users along with information about the allocated disk quota and amount of disk space used 	MySQL database information <ul style="list-style-type: none"> The list of databases along with the amount of disk space used by each database
Email information (Sendmail) <ul style="list-style-type: none"> The number of responders The number of email messages in the mail queue The total size of the mailbox across all the users The size of the mailbox for each user The number of aliases The number of mailing lists 	Subdomain information <ul style="list-style-type: none"> The total number of subdomains hosted on the site
Webalizer and Analog statistics <ul style="list-style-type: none"> The number of page hits Total history (7 day / 7 month) of page hits 	Service information <ul style="list-style-type: none"> The active or inactive status of the services— Web, FTP, Email, Mail access protocols (POP, IMAP), and MySQL.
Site Administrator information <ul style="list-style-type: none"> The date and time of the last login 	

The skin dashboard uses a new XML file to provide the site information. The XML file can be accessed at https://<host_name>:19638/webhost/services/virtualhosting/siteadmin/info_xml where *<host_name>* is the name of the Ensim Pro server.

Important

If you are using the PHP library file `dashboard_lib.php` that is referenced in the section “Using Dashboard XMLs to customize the dashboard” on page 3-7, you must call the function `get_dashboard_data` with the argument `webhost/services/virtualhosting/siteadmin/info_xml` instead of using the constant `$$SA_dash` (`$$SA_dash` is set to the value `webhost/services/virtualhosting/siteadmin/dashboard`). For details on usage of the `get_dashboard_data` function, please refer to [Table 3-2 on page 3-7](#).

Advanced dashboard XML example

The following XML example displays a sample output generated by the dashboard URL.

Example

```
<?xml version="1.0" ?>
<site>
  <properties>
    <files>
      <enabled> 1 </enabled>
    </files>
    <cgi>
      <scriptalias> cgi-bin </scriptalias>
      <enabled> 1 </enabled>
    </cgi>
    <users>
      <maxusers> 50 </maxusers>
      <enabled> 1 </enabled>
    </users>
    <mailscanner>
      <scan_outgoing> 1 </scan_outgoing>
      <scan_incoming> 1 </scan_incoming>
      <enabled> 0 </enabled>
    </mailscanner>
    <sendmail>
      <enabled> 1 </enabled>
      <preference> 10 </preference>
      <mailserver> mail.mailexample.com </mailserver>
```

```
</sendmail>
<proftpd>
  <ftpserver> ftp.ftpexample.com </ftpserver>
  <enabled> 1 </enabled>
</proftpd>
<bandwidth>
  <threshold> 5368709120 </threshold>
  <enabled> 1 </enabled>
  <rollover> 1 </rollover>
</bandwidth>
<siteinfo>
  <fstgeneration> 21 </fstgeneration>
  <domain> example.com </domain>
  <admin_user> admin </admin_user>
  <admin> admin3 </admin>
  <passwd1> *** </passwd1>
  <enabled> 1 </enabled>
  <email> example@ensim.com </email>
  <passwd2> *** </passwd2>
</siteinfo>
<telnet>
  <enabled> 1 </enabled>
  <jail> 1 </jail>
</telnet>
<majordomo>
  <enabled> 1 </enabled>
</majordomo>
<aliases>
  <enabled> 0 </enabled>
  <aliases/>
</aliases>
<logrotate>
  <enabled> 1 </enabled>
```

```
</logrotate>
<tomcat4>
  <enabled> 0 </enabled>
</tomcat4>
<aspmgr>
  <siteopti_add> 1 </siteopti_add>
  <payment_manage> 1 </payment_manage>
  <sslcerts_manage> 1 </sslcerts_manage>
  <siteopti_manage> 1 </siteopti_manage>
  <payment_add> 1 </payment_add>
  <emailmark_manage> 1 </emailmark_manage>
  <enabled> 1 </enabled>
  <emailmark_add> 0 </emailmark_add>
  <sslcerts_add> 1 </sslcerts_add>
</aspmgr>
<ssh>
  <enabled> 1 </enabled>
  <jail> 1 </jail>
</ssh>
<mysql>
  <enabled> 1 </enabled>
  <dbaseadmin> admin </dbaseadmin>
  <dbaseprefix> example_ </dbaseprefix>
  <dbasenum> 5 </dbasenum>
</mysql>
<apache>
  <enabled> 1 </enabled>
  <webserver> www.example.com </webserver>
  <jail> 0 </jail>
</apache>
<spam_filter>
  <enabled> 1 </enabled>
</spam_filter>
```

```
<imap>
  <enabled> 1 </enabled>
</imap>
<analog>
  <enabled> 1 </enabled>
</analog>
<anonftp>
  <enabled> 1 </enabled>
  </anonftp>
<vhbackup>
  <enabled> 1 </enabled>
  </vhbackup>
<develenv>
  <enabled> 0 </enabled>
</develenv>
<ipinfo>
  <ipaddrs/>
  <namebased> 1 </namebased>
  <enabled> 1 </enabled>
  <nbaddrs>
    <item> 1.2.3.4 </item>
  </nbaddrs>
</ipinfo>
<reseller>
  <enabled> 1 </enabled>
  <reseller_id> 0 </reseller_id>
</reseller>
<diskquota>
  <units> MB </units>
  <enabled> 1 </enabled>
  <quota> 500.0 </quota>
</diskquota>
<bind>
```

```
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</bind>
<weblogs>
  <enabled> 1 </enabled>
</weblogs>
<vacation>
  <enabled> 1 </enabled>
</vacation>
<webalizer>
  <enabled> 1 </enabled>
</webalizer>
<sqmail>
  <enabled> 1 </enabled>
</sqmail>
<mod_perl>
  <alias> perl </alias>
  <enabled> 0 </enabled>
</mod_perl>
<mivamerchant>
  <enabled> 0 </enabled>
</mivamerchant>
<openssl>
  <enabled> 0 </enabled>
</openssl>
<ssi>
  <enabled> 1 </enabled>
</ssi>
<subdomain>
  <wildcards> 0 </wildcards>
  <max> 5 </max>
  <enabled> 1 </enabled>
  <base> /var/www </base>
</subdomain>
```

```
<frontpage>
  <enabled> 1 </enabled>
</frontpage>
<scriptsmgr>
  <enabled> 0 </enabled>
</scriptsmgr>
</properties>
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  <vhbackup>
    <next_scheduled> 2004-03-30 05:06 </next_scheduled>
  </vhbackup>
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    <user_count> 4 </user_count>
    <user_list>
      <item>
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        <disk_quota> 20971520 </disk_quota>
        <virtuser> 1 </virtuser>
        <uid> 22001 </uid>
        <fullname> First Name </fullname>
        <disk_used> 11464704 </disk_used>
        <privileged> 0 </privileged>
      </item>
      <item>
        <username> admin </username>
        <disk_quota> 524288000 </disk_quota>
        <virtuser> 1 </virtuser>
        <uid> 507 </uid>
        <fullname> example.com </fullname>
        <disk_used> 32223232 </disk_used>
        <privileged> 1 </privileged>
      </item>
      <item>
```

```
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<virtuser> 1 </virtuser>
<uid> 22000 </uid>
<fullname> xxx </fullname>
<disk_used> 32768 </disk_used>
<privileged> 0 </privileged>
</item>
<item>
  <username> yyy </username>
  <disk_quota> 20971520 </disk_quota>
  <virtuser> 1 </virtuser>
  <uid> 22002 </uid>
  <fullname> yyy </fullname>
  <disk_used> 36864 </disk_used>
  <privileged> 0 </privileged>
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</users>
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  <queue_size> 0 </queue_size>
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  <user_mailboxes>
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      <user> aaa </user>
      <mailbox> 9968320 </mailbox>
    </item>
    <item>
      <user> admin </user>
      <mailbox> 19852168 </mailbox>
    </item>
  </user_mailboxes>
</sendmail>
```



```

</item>
<item>
  <user> xxx </user>
  <mailbox> 0 </mailbox>
</item>
<item>
  <user> yyy </user>
  <mailbox> 0 </mailbox>
</item>
</user_mailboxes>
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<queue_total_mails> 0 </queue_total_mails>
<user_max> 50 </user_max>
</sendmail>
<proftpd>
  <proftpd_status> 1 </proftpd_status>
</proftpd>
<siteinfo>
  <site_last_login> 2004-03-29 17:01 </site_last_login>
</siteinfo>
<webalizer>
  <monthly_avg_hits> 16 </monthly_avg_hits>
  <last_7_days_hits>
    <item>
      <hits> 0 </hits>
      <epoch> 1080580448.76 </epoch>
      <day> 3/29 </day>
    </item>
    <item>
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      <epoch> 1080494048.76 </epoch>

```

```
<day> 3/28 </day>
</item>
<item>
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  <epoch> 1080407648.76 </epoch>
  <day> 3/27 </day>
</item>
<item>
  <hits> 0 </hits>
  <epoch> 1080321248.76 </epoch>
  <day> 3/26 </day>
</item>
<item>
  <hits> 0 </hits>
  <epoch> 1080234848.76 </epoch>
  <day> 3/25 </day>
</item>
<item>
  <hits> 1 </hits>
  <epoch> 1080148448.76 </epoch>
  <day> 3/24 </day>
</item>
<item>
  <hits> 0 </hits>
  <epoch> 1080062048.76 </epoch>
  <day> 3/23 </day>
</item>
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<current_yyyymm> 200403 </current_yyyymm>
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<last_7_months_hits>
  <item>
```

```
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<month> 3/2004 </month>
</item>
<item>
  <hits> 0 </hits>
  <epoch> 1078074848.76 </epoch>
  <month> 2/2004 </month>
</item>
<item>
  <hits> 0 </hits>
  <epoch> 1075396448.76 </epoch>
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</item>
<item>
  <hits> 0 </hits>
  <epoch> 1072718048.76 </epoch>
  <month> 12/2003 </month>
</item>
<item>
  <hits> 0 </hits>
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  <month> 11/2003 </month>
</item>
<item>
  <hits> 0 </hits>
  <epoch> 1067447648.76 </epoch>
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</item>
<item>
  <hits> 0 </hits>
  <epoch> 1064855648.76 </epoch>
  <month> 9/2003 </month>
```

```
        </item>
    </last_7_months_hits>
</webalizer>
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    <membership_counts/>
</majordomo>
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    <max_diskspace> 524288000 </max_diskspace>
    <current_diskspace> 43823104 </current_diskspace>
</diskquota>
<bandwidth>
    <usage_by_category>
        <web> 64724 </web>
        <ftp> 50300 </ftp>
        <console> 0 </console>
        <unknown> 0 </unknown>
        <mail> 50300 </mail>
    </usage_by_category>
    <limit> 5368709120 </limit>
    <last_month_usage> 0 </last_month_usage>
    <this_month_usage> 165324 </this_month_usage>
</bandwidth>
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<sshd_status> 1 </sshd_status>
</ssh>
<mysql>
    <db_count> 1 </db_count>
    <db_max> 5 </db_max>
    <mysqld_status> 1 </mysqld_status>
    <db_list>
        <item>
            <disk_used> 9578 </disk_used>
```

```

        <dbname> example_hello </dbname>
    </item>
</db_list>
</mysql>
<apache>
    <httpd_status> 1 </httpd_status>
</apache>
<apache13>
    <httpd13_status> 1 </httpd13_status>
</apache13>
<subdomain>
    <subdomain_count>
        <usage> 1 </usage>
    </subdomain_count>
    <subdomain_max> 5 </subdomain_max>
</subdomain>
<imap>
    <imap_status> 1 </imap_status>
</imap>
<analog>
    <this_month_total_hits> 0 </this_month_total_hits>
    <monthly_avg_hits> 15 </monthly_avg_hits>
    <last_month_total_hits> 0 </last_month_total_hits>
    <last_7_months_hits>
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            <hits> 15 </hits>
            <month> 3/2004 </month>
        </item>
        <item>
            <epoch> 1078012800.0 </epoch>
            <hits> 0 </hits>
            <month> 2/2004 </month>

```

```
</item>
<item>
  <epoch> 1075334400.0 </epoch>
  <hits> 0 </hits>
  <month> 1/2004 </month>
</item>
<item>
  <epoch> 1072656000.0 </epoch>
  <hits> 0 </hits>
  <month> 12/2003 </month>
</item>
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  <epoch> 1070064000.0 </epoch>
  <hits> 0 </hits>
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</item>
<item>
  <epoch> 1067385600.0 </epoch>
  <hits> 0 </hits>
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</item>
<item>
  <epoch> 1064793600.0 </epoch>
  <hits> 0 </hits>
  <month> 9/2003 </month>
</item>
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</statistics>
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  <aspmgr>
    <site_asps>
      <item>
```

```
<category> web </category>
<caption> Email Marketing </caption>
<manage> https://test.ignite.example.com/
manage.asp?epid=3234523513&sid=emailmark </manage>
<sa_desc> Increase traffic with email campaigns. </sa_desc>
<sa_title> Market My Web Site </sa_title>
<asp_id> emailmark </asp_id>
</item>
<item>
  <category> web </category>
  <caption> Site Optimization </caption>
  <add> https://test.ignite.example.com/
add.asp?epid=3234523513&sid=siteopti </add>
  <manage> https://test.ignite.example.com/
manage.asp?epid=3234523513&sid=siteopti </manage>
  <sa_desc> Submit your site to top search engines. </sa_desc>
  <sa_title> Promote My Web Site </sa_title>
  <asp_id> siteopti </asp_id>
</item>
<item>
  <category> web </category>
  <caption> SSL Certs </caption>
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add.asp?epid=3234523513&sid=sslcerts </add>
  <manage> https://test.ignite.example.com/
manage.asp?epid=3234523513&sid=sslcerts </manage>
  <sa_desc> Use SSL for site authentication. </sa_desc>
  <sa_title> Secure My Web Site </sa_title>
  <asp_id> sslcerts </asp_id>
</item>
<item>
  <category> web </category>
  <caption> Payment Processing </caption>
  <add> https://test.ignite.example.com/
add.asp?epid=3234523513&sid=payment </add>
```

```
<manage> https://test.ignite.example.com/
manage.asp?epid=3234523513&sid=payment </manage>
  <sa_desc> Offer a secure payment gateway. </sa_desc>
  <sa_title> Power Your e-Business </sa_title>
  <asp_id> payment </asp_id>
</item>
</site_asps>
</aspmgr>
</services>
</site>
```


Customizing Ensim Pro

Introduction

This chapter provides information and instructions on customizing Ensim Pro.

Topics include:

- “Customizing the Ensim Virtual Private File System” on page 4-2
- “Use of standard packages” on page 4-2
- “Customizing domains” on page 4-4
- “Customizing the administrator navigation bars” on page 4-11
- “Customizing the Web site welcome pages” on page 4-13
- “Replacing the Ensim logo with a custom logo” on page 4-14
- “Changing the message of the day (motd)” on page 4-15
- “Customizing the online Help files” on page 4-16
- “Customizing services” on page 4-19
- “Changing the Appliance host name and IP address” on page 4-21
- “Adding and removing virtual DNS servers for Reseller Administrators” on page 4-21
- “Passing additional environment variables to CGI programs” on page 4-23

Important

Ensim Pro relies on certain RPMs for the operation of its control panel and for virtualization. We recommend that you consult Ensim Support before you upgrade these RPMs. Refer to [Table 4-1](#) for the list of non-customizable RPMs.

Some of the examples given below include the shell primitive `\` which is used to enter a new line without the shell executing the command. This is included for reasons of clarity and can be omitted if your command fits in one line.

Customizing the Ensim Virtual Private File System

Ensim Pro creates a Virtual Private File System (VPFS) for each site created. When a site is created, the file system for that site is populated with a default set of services from a template. This is done using hard links.

Earlier versions of Ensim Pro contained a pre-built VPFS template that contained a copy of every service possible. This template could only be changed through an upgrade to the Ensim Pro version released by Ensim. In Ensim Pro, the template mechanism has been enhanced. It no longer contains a copy (that is, binaries) of the service. Instead the template contains a filter to select services from the root file system. This template is used during site creation and modification to dynamically generate the VPFS for any site. You can now modify the template without requiring a software upgrade from Ensim.

The following are the benefits of this change:

- The size of the template (`virtualhosting-fst-<service>.rpm`) is much smaller.
- Using this mechanism, service updates (such as security fixes) can be quickly installed at the root level and then applied to all existing sites.
- You can modify the template to deploy additional services to each site.

Procedure to update RPMs

In order to synchronize updated services (RPMs) into all site file systems, you need to take Ensim Pro through its “maintenance mode” state which causes it to update the sites. Run the following steps:

- 1 Upgrade, or reinstall, any RPM.
- 2 Run the following commands as root:
 - ❑ **set_pre_maintenance**
 - ❑ **set_maintenance**
 - ❑ **set_post_maintenance**
 - ❑ **service webpliance restart**

Advanced usage: If you want to add a new RPM to any service, edit the appropriate `.sh` file for that service in `/etc/virtualhosting/filelists/<servicename>.sh`. Follow the instructions included in that file. Ensure that you know exactly what you are doing when manipulating these files. After editing the file, make Ensim Pro go through maintenance mode (See Step 2 above).

Use of standard packages

Earlier versions of Ensim Pro customized a number of key services to resolve issues, enhance security, and improve the performance of hosting domains. While these customizations provided a superior hosting environment, they also impacted flexibility in managing these services and increased the latency period for releasing critical service security patches.

Ensim Pro removes customizations made by Ensim to critical services enabling self-managed deployment of services. However, Ensim Pro retains customizations to certain services. Since these are no longer available or supported, Ensim is providing these as a value added enhancement.

The services that are customized are those that are originally available in the tarball format. Ensim Pro uses the RPM format for managing services. However, certain services are released by vendors only in the tarball format requiring Ensim Pro to convert these services to the RPM format and thus customize them.

However, the source RPMs of these services (containing Ensim customizations) will be made available for download and use to customers whenever a security patch is released by the service vendor, prior to the official release from Ensim. This enables you to use the source RPMs and self-create the RPM packages for installation on to an Ensim Pro server as soon as a security patch for the service is released. Note that when you self-upgrade RPMs with a release from the service vendor, you must restart the service after the upgrade to ensure effective functioning of the service.

Table 4-1 provides the list of customized and non-customized RPMs.

Table 4-1. List of customized and non-customized RPMs

Name of the customized RPM	Why you should not customize the RPM
cronolog	<ul style="list-style-type: none"> Converted the tarball into an RPM Resolved issues concerning the date and time format of log file names
frontpage	Converted the tarball into an RPM
majordomo	<ul style="list-style-type: none"> Modified the configuration file Included security fixes Modified the build process so as to enable it to be built by non-root users
mod_jk	Modified for improved integration with Apache
perl-Quota	Changed to support quotas on multiple Linux kernel versions
apache-mod_fastcgi	Resolved session timeout issues
poprelay	Created an RPM for the script
phpMyAdmin	Converted the tarball into an RPM
squirrelmail	Converted the tarball into an RPM
vacation	Converted the tarball into an RPM
mivaempresa	Converted the tarball into an RPM
mivamerchant_unl	Converted the tarball into an RPM
tomcat	Converted the tarball into an RPM
halcyon	Converted the tarball into an RPM
List of standard packages used (non-customized RPMs)	
analog	xinetd
apache 2.0	net-snmp
gettext	quota
imap	sendmail
mod_perl (Apache 2.0)	mysql
mod_ssl (Apache 2.0)	gcc
mx	make
openssh	perl

Table 4-1. List of customized and non-customized RPMs (continued)

Name of the customized RPM	Why you should not customize the RPM
openssl	php
postgresql	proftpd
python2	telnet
webalizer	

Customizing domains

Ensim Pro creates a chroot (change root) environment for each domain you create. A chroot environment is a file system below the domain name directory of the directory tree (**/home/virtual/<domain_name>**). Effectively, the chroot file system limits the part of a file system a process can access, since the directory you specify becomes the root directory for all subsequent file system references. The chroot file system contains the Web pages, CGI scripts, users' mailboxes and home directories, FTP, and other files.

There may be instances where you might want to add enhanced capabilities to this chrooted environment. For example, you might want to install additional HTML or SHTML (SSI) pages, and other executable programs on the domain for users with Telnet or SSH access to the site. You can make these functions available through shell scripts and custom .tar files.

The scale of customizations possible depend on the security level set for the domain. Please read [Overview of domain security](#) before customizing domains.

Overview of domain security

When multiple domains are hosted on a single server, sharing system resources, there is a high possibility of sabotage or inadvertent activity that may compromise the integrity of data. Setting appropriate security levels for a domain can check misuse or malevolent activity.

Depending on the security level chosen, certain services for the domain run in protected mode within the restricted environment of the domain's file system, technically referred to as a chrooted environment. This prohibits the resources of the secured domain from unauthorized access; also, the administrator and users of the secured domain cannot access data or resources pertaining to other domains on the Ensim Pro server.

Ensim Pro offers three security levels:

- High security
- 3.1 compatibility
- Low security

For details on each security level, please refer to the Appliance Administrator online Help (accessible through the **Help** option on the *System Menu* of the control panel.)

Customizing domains with `virtDomain.sh`

Ensim Pro allows you to customize any new domain that you create by using the customization script, `virtDomain.sh`. Once the customization is complete, all new domains you create reflect the changes made by your script. However, existing domains remain unchanged unless you manually execute the `virtDomain.sh` script (passing the correct arguments and password) for those domains.

To use this option, follow these steps before you create a domain.

- If you have created custom HTML pages and executables, collect them into a tar file called `virtDomain.tar` in the directory `/etc/appliance/customization`.
- If you created a script to execute additional customizations, name the script `virtDomain.sh`. The `virtDomain.sh` script should also reside in the directory `/etc/appliance/customization`.

Caution

The Apache Web server is compiled with `suexec` support, which is sensitive to security issues and does not run CGI scripts that do not conform to its standards.

If your `virtDomain.tar` file installs scripts into the domain's `cgi-bin` directory, you must set the `cgi-bin` permissions to ownership by the Site Administrator and turn off group and other write privileges by using the `chmod 0755` command.

You must exercise caution while customizing domains using the `virtDomain.sh` script. Improper usage can adversely affect the functioning of all new domains that you create.

The customization process works as follows:

Once you have created a new domain and assigned services to it (using the **Site Manager** option on the Appliance Administrator page), Ensim Pro looks in the directory `/etc/appliance/customization` for the file `virtDomain.tar`. If it finds this file, it untars the file into the root directory of the chroot file system.

After the file is unpacked, Ensim Pro runs the executable script `virtDomain.sh` as root. On the command line, the script receives the following three arguments.

- The name of the domain.
- The name of the Site Administrator.
- The IP address of the domain. For name-based domains, the script accesses the IP address of the server.

The script receives the password of the newly created domain from the standard input. If it encounters any errors, it displays them in the Details window of the Appliance Administrator control panel.

Important

CLI scripts reside in the directory `/usr/local/bin`. You must include the full path name for the CLI script that you are calling - that is, `/usr/local/bin/<CLI script>`. Using the script to automatically customize a domain will fail if the script calls the required CLI script without including the full path name.

Changing file permissions over to the new domain owner

Example

```
#!/bin/sh

DOMAIN=$1

WP_USER=`/usr/local/bin/sitelookup -d $DOMAIN wp_user`

#Assumes script alias is set to cgi-bin

chown -R $WP_USER:$WP_USER \
/home/virtual/$WP_USER/var/www/cgi-bin/

chmod -R 0755 /home/virtual/$WP_USER/var/www/cgi-bin/
```

Using script hooks

In addition to **virtDomain.sh**, you can take advantage of script hooks to customize Ensim Pro domains. Script hooks allow you to **add** custom scripts to augment the functionality of a script as desired. For example, when you modify a site, you can add a custom script that enables you to notify the Site Administrator of the change. If you deploy a centralized DNS server for various appliances, you can use script hooks to notify the central DNS server of any updates. The scripts must be located at **/etc/appliance/customization**.

On the command line the scripts receive **site<n>**, where **<n>** uniquely identifies the site, as the argument. For example, you can write a script that logs a detailed summary of an event whenever the corresponding action (edit domain/enable domain) is initiated, or you can send custom notifications.

editVirtDomain.sh

The editVirtDomain.sh script hook runs custom commands placed in the script file. The script will be run whenever the specified domain is modified.

Syntax: editVirtDomain.sh site<n>

where **<n>** is the site identifier of the site being modified. Information about the domain can be obtained by using the ``sitelookup`` API.

Notifying Site Administrators when sites are modified

Example

```
#!/bin/sh

#the site id is the first argument
siteid="$1"

# look up the site administrator name from the site id
siteadmin_email=`cat /home/virtual/$siteid/info/current/siteinfo
|grep ^email |cut -d' ' -f3`

# send mail to the site admin
echo '<some email content>' |
mail -s 'your domain is being edited' $siteadmin_email
```

enableVirtDomain.sh

The enableVirtDomain.sh script hook runs custom commands placed in the script file. The script will be run whenever the specified domain is enabled.

Syntax: enableVirtDomain.sh site<n>

where <n> is the site identifier of the site being enabled. Information about the domain can be obtained by using the `sitelookup` API.

For example, you could use the script provided to notify Site Administrators whenever their sites are enabled. See [“Notifying Site Administrators when sites are modified” on page 4-6](#) for more information.

disableVirtDomain.sh

The disableVirtDomain.sh script runs custom commands placed in the script file. The script will be run whenever the specified domain is suspended.

Syntax: disableVirtDomain.sh site<n>

where <n> is the site identifier of the site being disabled. Information about the domain can be obtained by using the `sitelookup` API.

For example, you could use the script provided to notify Site Administrators whenever their sites are disabled. See [“Notifying Site Administrators when sites are modified” on page 4-6](#) for more information.

deleteVirtDomain.sh

The deleteVirtDomain.sh script hook runs custom commands placed in the script file. The script will be run whenever the specified domain is deleted.

Syntax: deleteVirtDomain.sh site<n>

where <n> is the site identifier of the site being deleted. Information about the domain can be obtained by using the `sitelookup` API.

For example, you could use the script provided to notify Site Administrators whenever their sites are deleted. See [“Notifying Site Administrators when sites are modified” on page 4-6](#) for more information.

Customizing subdomains

You can customize subdomains by using subdomain hooks. Subdomain hooks enable you to perform additional actions when a subdomain is added or deleted. For example, you can use subdomain hooks to notify the Site Administrator whenever a subdomain is added for any site. The subdomain scripts are not domain specific and apply to all subdomains of all corresponding root domains on Ensim Pro.

In order to do this, you must write the script hook and place it in the **/etc/appliance/customization/** directory, set executable permissions for the script, and place the commands to be executed in the script file.

createSubDomain.sh

The createSubDomain.sh script hook can be used to run custom scripts whenever a subdomain is created.

Syntax: createSubdomain.sh

See [Table 4-1](#) for the list of parameters that can be used with the script. These parameters are not specified on the command line. The script can be called with these parameters on standard input.

Notifying the Site Administrator when a subdomain is added

```
#!/bin/sh
# get all the parameters passed on standard input
export `cat /dev/stdin`
# get the root domain name for which this subdomain is being added.
parent_domain=$psi_domain
subdomain=$lsd_domain
subdomain_name=$lsd_name
# now email the appliance administrator about this
appliance_admin_email=`cat /etc/appliance/appliance.ini |grep
adminemail |cut -d' ' -f3`
echo 'A subdomain $subdomain is being created for $parent_domain'
|mail -s 'subdomain creation'
$appliance_admin_email
```

The following parameters can be passed to the script on the standard input.

Table 4-1. List of parameters for subdomain hooks

Parameter	What it indicates
Parent Site Info	
psi_domain	The name of the root domain. For example, myco.com
psi_version	The Ensim Pro version on which the root domain is hosted For example, 3.7.0-13
psi_admin_user	The name of the Site Administrator For example, myadmin
psi_admin	The Unix account information of the Site Administrator For example, admin1
psi_passwd1	The encrypted password of the Site Administrator For example, ***
psi_email	The email address of the Site Administrator For example, example@example.com
psi_passwd2	The encrypted password of the Site Administrator For example, ***

Table 4-1. List of parameters for subdomain hooks

Parameter	What it indicates
Parent IP Address Info	
pip_ipaddr	The IP address of the root domain For example, 1.2.3.4
pip_namebased	The type of domain; indicates whether the root domain is name based. Note: The value "1" indicates a name-based domain.
pip_version	The version of Ensim Pro on which the root domain is hosted. For example, 3.7.0-13
pip_nbaddr	The IP address of the root domain For example, 1.2.3.4
Global Subdomain Info	
gsd_wildcards	A boolean value indicating whether wildcard subdomains are enabled for the root domain. Note: The default value is 0.
gsd_max	The maximum number of subdomains that can be created.
gsd_version	The Ensim Pro version on which the subdomain is hosted
gsd_enabled	A Boolean value indicating whether subdomains are enabled for the root domain. Important: The value for this argument must be 1.
gsd_base	The base directory for subdomains created on the root domain. For example, /var/www
Local Subdomain Info	
lsd_cgi	A Boolean value indicating whether CGI service is enabled for the subdomain.
lsd_cgi_root	The CGI directory where CGI scripts for the subdomain are placed. For example, /var/www/test2/cgi-bin
lsd_cgi_extensions	The script extensions permissible for CGI scripts For example, cgi.pl
lsd_user_subdomain	A Boolean value indicating whether the subdomain is a user subdomain
lsd_owner	The owner of the subdomain For example, myadmin
lsd_aliases	A Boolean value indicating whether aliases are enabled for the subdomain.
lsd_bind	A Boolean value indicating whether the subdomain has a DNS entry.

Table 4-1. List of parameters for subdomain hooks

Parameter	What it indicates
lzd_document_root	The document root of the subdomain. For example, /var/test2
lzd_domain	The host name of the subdomain. For example, example.example1.com
lzd_name	The lower-level subdomain name. For example, the subdomain name example in the host name example.example1.com

deleteSubDomain.sh

The deleteSubDomain.sh script can be used to run custom scripts whenever a subdomain is deleted.

Syntax: deleteSubDomain.sh

See [Table 4-1](#) for the list of parameters that can be used with the script. These parameters are not specified on the command line. The script can be called with these parameters on standard input.

Additional executable files

When Ensim Pro creates the chroot environment, it makes the following executable Linux commands available to users who can then access the newly created domain using Telnet or SSH.

Table 4-2. Executable Linux commands

/bin/awk	/bin/more	/usr/bin/find	/usr/bin/troff
/bin/bash	/bin/mv	/usr/bin/groff	/usr/bin/uncompress
/bin/cat	/bin/ping	/usr/bin/grotty	/usr/bin/whois
/bin/chmod	/bin/rm	/usr/bin/gtbl	/usr/bin/fwhois
/bin/chown	/bin/sed	/usr/bin/gzip	/usr/bin/makemap
/bin/cp	/bin/sh	/usr/bin/head	/usr/bin/newaliases
/bin/date	/bin/su	/usr/bin/id	/usr/bin/procmail
/bin/egrep	/bin/tar	/usr/bin/less	/usr/bin/vacation
/bin/false	/bin/touch	/usr/bin/man	/usr/bin/ftp
/bin/gawk	/bin/true	/usr/bin/passwd	/usr/bin/ncftp
/bin/grep	/bin/vi	/usr/bin/perl	/usr/bin/ncftpget
/bin/gzip	/bin/zcat	/usr/bin/python	/usr/bin/ncftpput
/bin/gunzip	/bin/dnsdomainname	/usr/bin/run-parts	/usr/bin/analog
/bin/ln	/bin/hostname	/usr/bin/tail	/usr/bin/nslookup
/bin/lis	/usr/bin	/usr/bin/tbl	
/bin/mkdir	/usr/bin/compress		

Customizing the administrator navigation bars

The Ensim Pro control panel has a navigation bar on the left side of each administrator's page. You can customize this navigation bar to add links to other HTML pages or CGI scripts you have created. For example, you can add a navigation bar item that displays a page containing an administrator's contact information, or an item that invokes a script you have created to write to a database.

Important

You can only customize the administrator navigation bar if the skin has been set to Classic. See ["Classic skin" on page 3-2](#) for more information on this skin.

Procedure

To customize an administrator navigation bar

- 1 Move the HTML files or CGI scripts you have created into the following directories.
 - Store HTML files in `/var/www/html/`
 - Store CGI scripts in `/var/www/cgi-bin/`

- 2 Use HTML to create a file for the administrator page you want to customize.

This link file will point to the HTML file(s) or CGI script(s) you stored in the directories noted above. Name this link file as listed below, and place it in the directory `/etc/appliance/customization`.

- For the Appliance Administrator navigation bar: `/etc/appliance/customization/appliancemenue.html`
- For the Site Administrator navigation bar: `/etc/appliance/customization/sitemenu.html`
- User Administrator navigation bar: `/etc/appliance/customization/usermenu.html`

To refer to your document in `/var/www/html`, use the placeholder `https://<dtml-var hostname>/menu/<YOUR_DOCUMENT>` in your dtml file where `<YOUR_DOCUMENT>` is the document path.

To refer to a CGI script in `/var/www/cgi-bin`, use the placeholder `https://<dtml-var hostname>/menu/cgi-bin/<YOUR_SCRIPT>` where `<YOUR_SCRIPT>` is the path of your CGI script.

See [Example 1 on page 4-12](#) for a sample code using these placeholders.

The string `"<dtml-var hostname>"` will be replaced by the Ensim Pro server name and port number (19638) when the page is displayed on the browser.

- 3 Restart Ensim Pro by logging on as the root user and typing the command, `/etc/rc.d/init.d/webpliance restart`.

Examples

The following section includes two examples of link pages.

Example

1

In this example, the customized navigation bar on a Site Administrator page has a link which displays support contact information. The link file is named **sitemenu.dtml** and stored in the directory **/etc/appliance/customization**.

Its contents are as follows:

```
<tr><td>
<a href="https://<dtml-var hostname>/menu/contact.html"
  target="main"
  class="menu">Support</a>
</td></tr>
```

Note

The **contact.html** page with the support contact information was created beforehand and stored in the **/var/www/html/** directory.

The **<dtml-var hostname>** is a placeholder for the Ensim Pro server name. When the browser displays the customized file, this variable is replaced with the host name of the server on which Ensim Pro resides.

The **target** tag instructs the browser to display the contact information in the right frame of the Administrator page (that is, the content area) as opposed to the navigation bar area at the left.

The **class** tag instructs the browser to display the word **Support** in the navigation bar, using the same font as used for the other items. The browser inserts the new item into the navigation bar just above the **Help** option.

When the user clicks **Support** in the navigation bar, the content area on the right displays the contact information (that is, the file **/var/www/html/contact.html**).

Example

2

In this example, the link file invokes a Perl script for the Site Administrator page.

```
#!/usr/bin/perl
use strict;
use CGI::Cookie;
print "content-type: text/html\n\n\n";
my(%cookies);
my($id);
%cookies = fetch CGI::Cookie;
# fetch cookie
```

```

$id = $cookies{'ocw_username'}->value;
# remove quotes from beginning and end
$id =~ s/^\\"//g;
$id =~ s/\\"$/g;
print "<html><body bgcolor=\"#ffffff\">\n";
print "<form method=post action=\"submit_ticket.pl\">";
# print welcome message with username of site admin
print "Welcome to Acme Trouble Ticketing System, $id:\n";
print "<form method=post action=\"submit_ticket.pl\">";
print "<textarea name=\"description\" cols=50 rows=5>";
print "</textarea>\n";
# pass username to submit_ticket cgi as hidden value
print "<input type=\"hidden\" name=\"customer\" value=\"$id\">\n";
print "<p><input type=\"submit\">\n";
print "</form>\n";
print "</html></body>\n";
exit 0;

```

Customizing the Web site welcome pages

You can customize your Web site welcome pages in the following ways.

- [Inserting custom welcome pages](#)
- [Assigning custom home pages to users](#)
- [Inserting links to login screens](#)

Inserting custom welcome pages

When you create a new Web site, Ensim Pro assigns a default welcome page (index.html) to it. To replace the default page with your own custom welcome page, replace the file **index.html** in the directory `/etc/virtualhosting/templates/apache/var/www/html/` with your own **index.html** file.

Assigning custom home pages to users

When you create a new Web site, Ensim Pro assigns a default home page (index.html) for users on the site. This home page is located in the directory `/home/virtual/<domain name>/etc/skel/public_html/`, where `<domain name>` is the domain name of the new Web site.

You can replace the default page with your own home page, replace the file **index.html** in this directory with your own **index.html** file.

**Tip**

The most efficient way to assign a custom home page to each user is to create a script that replaces the default file **index.html** in the directory **/home/virtual/<domain_name>/etc/skel/public_html** with your custom **index.html** file.

Inserting links to login screens

To make logging on quick and convenient for administrators, you can add a link from your custom welcome page to the login screens for both Site Administrators and User Administrators.

To insert a link to the Site Administrator login screen, add the following code to the custom welcome page in **/etc/virtualhosting/templates/apache/var/www/html/index.html**.

```
Access to your Site Administrator: <a href="http://ENSIM_DOMAINNAME/admin/" >http://ENSIM_DOMAINNAME/admin/</a>
```

When you create a domain and install the custom welcome page, Ensim Pro replaces **ENSIM_DOMAINNAME** with the name of the domain.

To insert a link to the User Administrator login screen, add the following code to the custom welcome page in **/etc/virtualhosting/templates/apache/var/www/html/index.html**.

```
Access to your User Administrator: <a href="http://ENSIM_DOMAINNAME/user/" >http://ENSIM_DOMAINNAME/user/</a>
```

When you create a domain and install the custom welcome page, Ensim Pro replaces **ENSIM_DOMAINNAME** with the name of the domain.

Replacing the Ensim logo with a custom logo

To brand Ensim Pro with your own logo, create a file named **logo.gif** and move it to the directory **/etc/appliance/customization**.

Procedure

To replace the Ensim logo with a custom logo:

- 1 Size your custom logo to 73 x 46 pixels and save it as a .gif file called **logo.gif**.
- 2 Using FTP, transfer the file **logo.gif** to the server.
- 3 Use any Telnet or SSH client to access your server and log on as any user.
- 4 Type **su -** to assume root user privileges.
- 5 Use the move (**mv**) command to move the file **logo.gif** to the directory **/etc/appliance/customization**.

Example:

```
mv /home/<admin user>/logo.gif \  
/etc/appliance/customization/logo.gif
```

- 6 Restart Ensim Pro by logging on as the root user and typing the command, **/etc/rc.d/init.d/webppliance restart**

- 7 If you are viewing the Ensim Pro control panel in a browser window, force reload (refresh) the page contents to see the new logo.
 - In Internet Explorer press Ctrl-F5.
 - In Netscape Navigator press **Shift** and **Reload** at once.

Changing the message of the day (motd)

When users use Telnet to access the server, you can display a message on the terminal screen above the prompt. This message allows you to inform users of temporary system outages, changes that might occur in their Service Plans, or any other information of your choice.

You can customize the message of the day in one of two ways. You can create a separate message for each domain, or you can create a common message across all domains.

Creating a separate message for each domain

Procedure

To create a separate message for each domain

- 1 Use any Telnet or SSH client to access your server and log on as any user.
- 2 Type `su -` to assume root user privileges.
- 3 Create the file `/home/virtual/<domain_name>/etc/motd` with the message of the day, where `<domain_name>` is the name of the domain for which you want the message of the day to be displayed.
- 4 Change the ownership of the file, `motd`, to the Site Administrator and group using `chown` and then set the permissions to `0644`. The Site Administrator cannot create or delete this file but can edit it. If you do not want the Site Administrator to change this file, set the ownership to `root`.

Creating a common message across all domains

Procedure

To create a common message across all domains:

- 1 Use any Telnet or SSH client to access your server and log on as any user.
- 2 Type `su -` to assume root user privileges.
- 3 Use `vi` or any other editing utility to edit the message of the day in the file `/etc/motd` at the root level of the server on which Ensim Pro is installed.
- 4 Save the changes to the file.
- 5 Use the `ln` command to hard link the file `/etc/motd` individually to each domain.

For example, to create a hard link from the Ensim Pro server to the domain `mycompany.com` enter the command,

```
ln /etc/motd /home/virtual/mycompany.com/etc/motd
```

Customizing the online Help files

Important

This section applies to you only if you are an Ensim® ServerXchange® customer (that is, you have installed Ensim Pro on an Ensim ServerXchange-managed Linux server). If you are a storefront customer (that is, you have installed Ensim Pro on a regular Linux server), you can ignore this section.

You can customize the Ensim Pro online Help by substituting your own online Help files; however, you must know how to create an RPM package to complete the customization.

For information on creating RPM packages, access the Ensim ServerXchange 3.1 Server & Application Manager Online Help and refer to the topic “Creating applications”. You will find this topic in the Application Management book.

This section explains how to prepare an application so that it can be uploaded to ServerXchange 3.1; however, it does not provide information on creating RPMs. For information on creating RPMs, see <http://www.rpm.org/RPM-HOWTO>.

Customizing the online Help files consists of the following steps.

Step 1: Creating an RPM package with the customized online Help files

Step 2: Uploading the RPM package to ServerXchange

Step 3: Revising the Ensim Pro service suite to include the new RPM package

Step 1: Creating an RPM package with the customized online Help files

The online Help files are referenced by Ensim Pro using specific file names. The most convenient way to retain the correct file names is to directly edit the Help files.

Procedure

To directly edit the Help files

- 1 Under the directory `/etc/appliance/customization`, create a directory called `OnlineHelp`; and under it, create four sub-directories: one for each level of administration - `Appliance`, `Reseller`, `Site`, and `User`.
- 2 Copy the Help files from `/usr/share/doc/webpliance-docs-3.5.0` to the directory that you just created.
- 3 Edit the Help files.
- 4 Edit the file `/usr/lib/opcenter/fastcgi/extras/webpliance-docs` to look in the following directories for the Help sets. Replace `<lang>` with the corresponding language ID, for example, `en_US` for English or `de_DE` for German.

- Alias `/docs/<lang>/appliance /etc/appliance/customization/OnlineHelp/<your help file directories>/<lang>/appliance`

```
<Directory "/etc/appliance/customization/OnlineHelp/<your help
file directories>/<lang>/appliance" >
DirectoryIndex appliance_help.htm
</Directory>
```


- ❑ Alias /docs/<lang>/reseller /etc/appliance/customization/OnlineHelp/<your help file directories>/<lang>/reseller

```
<Directory "/etc/appliance/customization/OnlineHelp/<your help file directories>/<lang>/reseller">
DirectoryIndex reseller_help.htm
</Directory>
```
 - ❑ Alias /docs/<lang>/site /etc/appliance/customization/OnlineHelp/<your help file directories>/<lang>/site


```
<Directory "/etc/appliance/customization/OnlineHelp/<your help file directories>/<lang>/site">
DirectoryIndex site_help.htm
</Directory>
```
 - ❑ Alias /docs/<lang>/user /etc/appliance/customization/OnlineHelp/<your help file directories>/<lang>/user

```
<Directory "/etc/appliance/customization/OnlineHelp/<your help file directories>/<lang>/user">
DirectoryIndex user_help.htm
</Directory>
```
- 5 Test your Help files by restarting Ensim Pro, then clicking the Help icon in the control panel.
- Ensim Pro should load the files from the locations you specified in step 1. When you are satisfied with the Help files, create an RPM package containing the following:
- ❑ Your Help files in `/etc/appliance/customization/OnlineHelp/`
 - ❑ The edited file `/usr/lib/opcenter/fastcgi/extras/webppliance-docs`
- You can now upload the RPM package to ServerXchange.

Step 2: Uploading the RPM package to ServerXchange

Procedure

To upload the RPM package to ServerXchange:

- 1 Log on to ServerXchange.
- 2 On the left navigation bar, click  **Administration** .
- 3 Click the Applications tab.
- 4 Under the Applications tab, click **Register**.
- 5 On the Register page, click **Upload Binary**.

To upload the application from your local workstation:

- a Enter the name of the file or click **Browse** to locate the file.
- b Click **Upload**.
- c When the upload is complete, click **Close**.

The application appears in the Archive list on the Register page, although you might need to refresh your browser, or reload the page in your browser, to see it.



- 6 Click the **Applications** tab to reload the page.

You can now revise the Ensim Pro service suite to include the new RPM package.

Step 3: Revising the Ensim Pro service suite to include the new RPM package

Procedure

To revise the Ensim Pro service suite to include the new RPM package:

- 1 Log on to ServerXchange.
- 2 On the left navigation bar, click  **Administration**.
- 3 Click the Applications tab.
- 4 Under the Applications tab, click **Suites**.
- 5 In the Suites list, locate Ensim Control Panel and click  (in the Action column).
- 6 Under the application overview area, click **Revise Suite**.
- 7 The Revise Application wizard opens.

Note

When using a wizard, avoid clicking the browser's Back button, because this might cause you to lose information you have entered on a form. To go back to a previous page, click Previous.

- 8 Select the Package you want to revise by clicking the button in the **Select** column, then clicking **Next**.
- 9 Select the version of the Package that will replace the existing Package by clicking **Select** column buttons for those Packages, then clicking **Next**.

Note

If this list is empty, there are no other versions of the Package available, and you cannot revise the application. Click **Cancel** to return to application information page.

- 10 Review the summary page. Click **Previous** to make any changes, then click **Next** to return to the summary page.
- 11 To complete the revision, click **Finish**.

The application is revised, and the Info and Revision History forms are displayed. To upgrade existing installations to the revision, reinstall the application. The old version is replaced by the revision. All new installations use the revised application.

Important

If you upgrade Ensim Pro in the future, the upgrade will overwrite your custom Help files. Before you upgrade, save your Help files in a different directory; then revise the Ensim Pro service suite after the upgrade.

Customizing services

In order to customize the services you will find the `custom.py` file specific to each service, located under the folder, `/usr/share/doc/webppliance-SERVICENAME-SERVICEVERSION/`

Important

Do not modify the original copy of the `custom.py` file.

The customization can either be global or site-specific. The list of the services that can be customized is as follows:

- anonftp
- openssl
- apache
- proftpd
- cgi
- ssi
- subdomain (global only)
- sqmail
- mod_perl
- tomcat4

Global customizations

Global customizations affect the way certain services (such as Apache) are configured for all sites on the Ensim Pro server. For example, in the case of Apache, you can customize the way the VirtualHost container is written.

Each service that can be globally customized has a file explaining its variables in the file, `/usr/share/doc/webppliance-<servicename>/custom.py`.

To globally customize any service, you must copy the file `/usr/share/doc/webppliance-<servicename>/custom.py` into `/usr/lib/ensim-python/site-packages/vh3/custom/<servicename>.py`

For example, to globally modify the behavior of the Apache service on Ensim Pro, you must run the following command:

```
cp /usr/share/doc/webppliance-apache-3.5.0/custom.py /usr/lib/ensim-python/site-packages/vh3/custom/apache.py
```

Then, modify the file, `/usr/lib/ensim-python/site-packages/vh3/custom/apache.py` as required. The significance of each of the customizable variables is given in the `custom.py` file.

Global customizations are retained when you back up and subsequently restore the Ensim Pro server.

 Procedure

To apply global customizations

- 1 Copy `/usr/share/doc/webpliance-<SERVICENAME>/custom.py` as `/usr/lib/ensim-python/site-packages/vh3/custom/<SERVICENAME>.py`.
In the `<SERVICENAME>` field enter the name of the service you want to customize.
For example, to customize the anonftp service, copy `/usr/share/doc/webpliance-anonftp/custom.py` as `/usr/lib/python2.1/site-packages/vh3/custom/anonftp.py`.
- 2 Modify the file `<SERVICENAME>.py` as per your requirements.
- 3 Save the file.
- 4 To restart Ensim Pro, type the command `/etc/rc.d/init.d/webpliance restart`.

Site-specific customizations

Site-specific customizations affect the way services (such as Apache) are configured for a particular site on the Ensim Pro server.

Each service that can be customized for a site has a file explaining its variables in the file, `/usr/share/doc/webpliance-<servicename>/custom.py`.

To customize any service for a site, you must copy the file `/usr/share/doc/webpliance-<servicename>/custom.py` into `/home/virtual/site<n>/info/custom/<servicename>.py`, where `<n>` represents the unique site number.

For example, to modify the behavior of the Apache service for a site, you must run the following command:

```
cp /usr/share/doc/webpliance-apache-3.5.0/custom.py /home/virtual/site12/info/custom/apache.py
```

Then, modify the file, `/home/virtual/site12/info/custom/apache.py`, as required. The significance of each of the customizable variables is given in the `custom.py` file.

 Procedure

To apply site-specific customizations

- 1 Copy `/usr/share/doc/webpliance-<SERVICENAME>/custom.py` as `/home/virtual/site<n>/info/custom/<SERVICENAME>.py`
where:
`n` in `site<n>` stands for the site-specific number and `<SERVICENAME>` refers to the name of the service you want to customize.
For example, to customize the anonftp service, copy `/usr/share/doc/webpliance-anonftp/custom.py` as `/home/virtual/site1/info/custom/anonftp.py`.
- 2 Modify the file `<SERVICENAME>.py` as per your requirements.
- 3 Save the file.
- 4 To restart Ensim Pro, type the command `/etc/rc.d/init.d/webpliance restart`.

Changing the Appliance host name and IP address

Use `netconf` to change the host name and IP address, (which is included in the `linuxconf` rpm in the Fedora 1 distribution). Note that another utility `netconfig` is usually present on Fedora 1 servers. The `netconfig` utility allows you to set the IP address, but not the hostname.

After setting the new hostname and IP address, verify that the `/etc/hosts` file contains the new entry. Restart your server to complete the change.

Adding and removing virtual DNS servers for Reseller Administrators

Ensim Pro supports the addition and removal of virtual DNS for Reseller Administrators. In order to allow Reseller Administrators to satisfy the dual DNS server requirements of their customers, you must add the virtual DNS server.

Adding a virtual DNS server

Procedure

To add a virtual DNS server

- 1 Note down the name and IP address of the new virtual DNS server. For example, `ns1.reseller.com 1.2.3.4`
- 2 Access the server and log on as root user.
- 3 To add an IP alias to the Appliance server, enter the command, **`#!/sbin/applifconfig alias 1.2.3.4`**
- 4 To get the IP address aliased each time you start Ensim Pro, add the appropriate lines to the end file `rc.local`, located at `/etc/rc.d/`.

```
/sbin/applifconfig alias 1.2.3.4
```

...

where 1.2.3.4 is your reseller's DNS IP address.

- 5 Modify the file `options.conf.wp`, located at `/etc/bind/`, and add the IP address to the `listen-on` option.

Example:

```
//This file stores the options statement maintained by Ensim
```

```
options {
  directory "/var/named" ;
  listen-on {127.0.0.1; 1.2.3.4;};
```

- To test the new virtual DNS server, run a query (`dig/nslookup`) on it.

Note

The newly added virtual DNS server will not be displayed in the virtual DNS page of the Appliance Administrator control panel.

Removing a virtual DNS server

Procedure

To remove a virtual DNS server

- Note down the host name and IP address of the virtual DNS server to be removed. For example: `ns1.reseller.com 1.2.3.4`
- Access the server and log on as root user.
- To remove an IP address bound to the server or network card, enter the following command.

```
#!/sbin/applifconfig delete 1.2.3.4
```

- Remove the following lines from the file `rc.local`, which is located at `/etc/rc.d/`.

```
/sbin/applifconfig alias 1.2.3.4
```

```
...
```

 where `1.2.3.4` is your reseller's DNS IP address.

- Remove the IP addresses from the file `options.conf.wp`.

Example:

```
//This file stores the options statement maintained by Ensim
options {
  directory "/var/named";
  listen-on {127.0.0.1; 1.2.3.4;}; //<--remove this IP address.
};
```

- Remove the following line from the file `virtualDNS` located at `/var/named/`.

```
ns1.reseller.com 1.2.3.4
```
- Through the Appliance Administrator control panel, modify the zone record for `reseller.com`.

Note

While modifying `reseller.com` make sure that `ns1.reseller.com` does not point to `1.2.3.4` and new NS records are set.

- To restart `named`, enter the following command.

```
#!/etc/rc.d/init.d/named restart
```
- To restart virtual hosting, enter the following commands.

```
#!/etc/rc.d/init.d/virtualhosting stop
```

```
#!/etc/rc.d/init.d/virtualhosting start
```

Passing additional environment variables to CGI programs

Apache's suexec cgi-wrapper has been modified so that it can be configured to pass additional environment variables apart from those considered "safe" at the time it is compiled.

In order to add additional variables to this list of "safe" variables, place the names of the additional environment variables in the file, `/etc/suexec.env.ensim`, one variable per line.

Important

To ensure security, this file must be owned by root, with only user read and write permissions enabled (indicated by 0600 UNIX permission).

Example

If you want to allow Apache to pass an environment variable named

`MY_TRUSTED_ENV` to a cgi program, place the following line in the file, `/etc/suexec.env.ensim`

```
MY_TRUSTED_ENV
```


Customizing Tomcat

Introduction

This chapter provides information and instructions on customizing domains using Tomcat.

Topics include:

- “About Tomcat” on page 5-1
- “About JSPs and servlets” on page 5-2
- “Customizing Tomcat” on page 5-3
- “Enabling the Tomcat development environment” on page 5-6
- “Starting Tomcat” on page 5-7
- “Disabling Tomcat” on page 5-8
- “Additional resources” on page 5-8

About Tomcat

Ensim Pro supports the latest version of Tomcat (v-4.0.6), developed by the Jakarta-Apache Project. Tomcat 4.0 implements the final released versions of the Java Servlet 2.3 and JavaServer Pages™ (JSP) 1.2 specifications. As required by the specifications, Tomcat 4.0 also supports Web applications built for Java Servlet 2.2 and JSP 1.1 specifications, with no changes. Additionally, the Tomcat 4.0 Servlet Container (Catalina) provides greater flexibility and performance.

The Tomcat 4 package includes a set of tools designed to host Java™ Web applications. The package is shipped with the following:

- Sun® Java 2 Standard Edition (J2SE) development environment version 1.4.2, which includes J2SDK™ 1.4.2 and JRE (installed in `/usr/java/j2sdk1.4.2/` and `/usr/java/j2sdk1.4.2/jre/` respectively)
- `mod_jk-2.0` (Apache 2.0)
- Tomcat 4.0.6, installed in `/var/tomcat4`
- Database driver for MySQL and postgres, installed in `/var/tomcat4/common/lib`:
 - `mysql-connector-java-3.0.8-stable-bin.jar` for MySQL
 - `pg73jdbc3.jar` for postgres
- Tyrex, installed in `/var/tomcat4/common/lib/tyrex-0.9.7.0.jar`
- JNDI™, installed in `/var/tomcat4/common/lib/jndi.jar`

- Mail, installed in `/var/tomcat4/common/lib/mail.jar`

Important

Ensure that you meet the following minimum requirements for Tomcat:

* **RAM:** The server must have at least 512 MB of RAM.

* **Disk usage:** The server must have at least 21 MB free disk space available.

About JSPs and servlets

Ensim Pro (with the `mod_jk` module) has JSP and servlet functionality enabled on the Apache Web server. The Tomcat engine executes JSP and servlets. Once you enable Tomcat for a site, Ensim Pro instructs the Web server to send certain requests to Tomcat for processing. Tomcat requires an execution environment known as context, to be set up before it can execute JSPs and servlets properly.

A context is basically a directory structure on the server from which Tomcat can execute servlets and JSPs. Ensim Pro automatically sets contexts for you. You can also add a new context by uploading Java Web archive files (with the extension `.war`) into Web content directories.

Note

Java Web archive files can be uploaded only after they are uncompressed. To uncompress the Java Web archive files, you must use the Site Administrator user account. Since the Tomcat daemon runs as a Tomcat user, it does not have the requisite privileges to uncompress files owned by the Site Administrator.

Deploying JSPs and servlets on Ensim Pro

Deploying JSPs and servlets on Ensim Pro is as easy as uploading a Web site using any FTP client. When you enable Tomcat for a site, Ensim Pro creates a default Tomcat context, for the virtual site in the Web directory. The context path of each virtual site is `/home/virtual/domainname/var/www/html/`.

A new directory called `WEB-INF` is created in this directory. The `WEB-INF` directory contains some configuration information for Tomcat and a directory in which servlet class files are placed for deployment.

As long as the file extension of the JSP file is `.jsp`, the Site Administrator can simply load a JSP page in the directory `/var/www/html/`, and the Web server automatically passes it on to Tomcat for processing.

For example, if you have a file named `test.jsp`, the Site Administrator can use an FTP client to upload the file in the directory `/var/www/html/`. You can then access the dynamic JSP page through `http://<site name>/test.jsp`. The first time you access this page, Tomcat takes a few seconds to compile the page but subsequent accesses are much quicker. Compiling a servlet source Java file creates a servlet class file. Deploying a servlet on Ensim Pro includes uploading the servlet class file in `/var/www/html/WEB-INF/classes/`.

For example, if you have a file named `test.class`, you would use an FTP client to upload the file in `/var/www/html/WEB-INF/classes/`. The servlet is executed through `http://<site name>/servlet/test`.

Compiling a Java servlet source file

You can develop servlets manually through the command line and a text editor. Ensim Pro provides a Java software development kit and a Java run time environment for the Site Administrator when you enable the service **Development Tools** for the site. The service installs a script **java.sh** in **/etc/profile.d/**. When you log onto the server, your shell runs this script and some relevant Java-environment variables are set up for you. You can add additional **\$CLASSPATH**, for any site, by editing the script **/etc/profile.d/java.sh**.

Procedure

To compile a Java servlet source file into a Java class file for Tomcat

- 1 Log on to Ensim Pro as the Site Administrator.
- 2 Change to the directory in which the source servlet code file is located.
- 3 Enter the following command.


```
javac <myServlet.java> (substitute your file name for the file myServlet.java).
```
- 4 If the compilation is successful and no errors are reported, the file **myServlet.class** can be located in the same directory.
- 5 To use this servlet, copy the file **myServlet.class** in the directory **WEB-INF/classes**.

Customizing Tomcat

The standard, out-of-the-box configuration of Apache Tomcat may not fit your development needs. This is particularly true if your application requires elevated permissions, a custom JDBC™ driver or access to other Java classes stored on the server.

Reviewing site permissions

The default site permissions are set by the file **/var/tomcat4/conf/sites.policies.d/site<n>.policy** and the site context is set by the file **/var/tomcat4/conf/sites.xml.d/site<n>.xml** where **site<n>** is the site index.

You can review the site permissions anytime.

Procedure

To review site permissions

- 1 Log on to the server as root user.
- 2 At the command prompt, type the following:

```
sitelookup -d <domain name>
```

The following output displays.

```
<domain name>, admin<n>, site<n>, /home/virtual/<domain name>, <admin name>.
```

The output indicates that the site index of **<domain name>** is **site<n>**. Use the site index to determine site permissions.

For example, if a site named **www.myco.com** has the site index **site<n>**, then the file **/var/tomcat4/conf/sites.policies.d/site<n>.policy** will consist of default site permissions for **site<n>**. This file appends to the file **catalina.policy**.

Reviewing site context

The default site context is set by the file `/var/tomcat4/conf/sites.xml.d/site<n>.xml`.

The contents of the file `site<n>.xml` are:

```
<Host name="myco.com" appbase="/home/virtual/site<n>/fst/var/www/html">
<Alias>www.myco.com</Alias>
<!-- Global logger unless overridden at lower levels -->
<Logger className="org.apache.catalina.logger.FileLogger"
directory="/home/virtual/site<n>/fst/var/log"
prefix="tomcat4_log."
timestamp="true" />
<Realm className="org.apache.catalina.realm.MemoryRealm" />
    <Context path=""
docBase="/home/virtual/site<n>/fst/var/www/html"
crossContext="false"
reloadable="true" />
<include(`/var/tomcat4/conf/sites.xml.d/site<n>.xml.custom')
</Host>
```

The default context for `myco.com` is `/var/www/html` in the domain file system of `myco.com`. This file appends to the file `server.xml`.

Adding security permissions

All Tomcat contexts, added by the Ensim Pro, receive a default set of security permissions. The default security permissions are as follows:

```
grant codeBase "file:/home/virtual/site<N>/fst/var/www/html/
-" {permission java.net.SocketPermission "*", "connect";};
```

Procedure

To add security permissions for a site:

- 1 Log on to Ensim Pro as root user.
- 2 Change directory to `/var/tomcat4/conf/sites.policies.d/`.
- 3 In this directory, create the file `site<n>.policy.custom`.
- 4 Add the required security permissions to the file `site<n>.policy.custom`.
- 5 Regenerate the file `/var/tomcat4/conf/catalina.policy` using the following command.

```
#m4 /var/tomcat4/conf/catalina.policy.template > /var/tomcat4/conf/catalina.policy
```

- 6 To clear the cache and to enable new changes in `/var/tomcat4/work/domainname`, type the following commands.

```
cd /var/tomcat4/work/
rm -rf *
```

- 7 To restart Tomcat, type the following command.

```
/etc/rc.d/init.d/tomcat4 restart
```

When adding security permissions for a site:

- ❑ Do **not** make any direct changes to the files `/var/tomcat4/conf/catalina.policy` or `site<n>.policy`, as these changes will be overwritten by the configuration scripts in Ensim Pro.
- ❑ Edit the file `site<N>.policy.custom`. This will be appended to the file `catalina.policy`.
- ❑ Be aware that allowing all security permissions may open up the site to hackers.
- ❑ Be aware that syntax errors may result in Tomcat failing to start.
- ❑ Edit `/var/tomcat4/conf/catalina.policy.template` to set global settings - applicable to all sites.
- ❑ Back up conf files before editing them.

Adding an additional context path

All Tomcat enabled sites receive default context path as `/var/www/html/`. As the Appliance Administrator, you can add an additional context path.

Procedure

To add an additional context path:

- 1 Log on to Ensim Pro as root user.
- 2 Change directory to `/var/tomcat4/conf/sites.xml.d/`.
- 3 In this directory, create a file `site<n>.xml.custom`.
- 4 Add the additional context to this file.
- 5 Regenerate the file `/var/tomcat4/conf/server.xml` using the following command.

```
#m4 /var/tomcat4/conf/server.xml.template > /var/tomcat4/conf/server.xml
```

- 6 To clear the cache in order to enable new changes in `/var/tomcat4/work/domain name`, type the following commands.

```
cd /var/tomcat4/work/
rm -rf *
```

- 7 To restart Tomcat, type the following command.

```
/etc/rc.d/init.d/tomcat4 restart
```

When adding an additional context path:

- ❑ Do **not** make any direct changes to the files `/var/tomcat4/conf/server.xml` or `site<n>.xml`, as these changes will be overwritten by the configuration scripts in Ensim Pro.
- ❑ Edit the file `site<n>.xml.custom`. This will be appended to the file `server.xml`.
- ❑ Be aware that syntax errors may result in Tomcat failing to start.

- ❑ Edit `/var/tomcat4/conf/server.xml.template` to set global settings - applicable to all sites.
- ❑ Back up conf files before editing them.

Adding additional class paths

Ensim Pro provides database drivers for MySQL and postgres. You may come across a situation where the default class path for Tomcat does not suffice and you need to indicate the path for your own classes that exist elsewhere on the file system.

If you want to add additional classes (for example, a new JDBC driver) to Tomcat's default CLASSPATH, you must add `CLASSPATH=$CLASSPATH:/path/to/my/new/class` in the file `/etc/tomcat4/conf/tomcat4.conf`.

For the changes to take effect, restart the Tomcat engine. Only root users can set new CLASSPATH for any Web site. If you want to add new database driver or component, which should be available to all sites, add it to:

- `/var/tomcat4/common/classes` – if it is a class file
- `/var/tomcat4/common/lib` – if it is a jar file

Enabling the Tomcat development environment

You can create a Web site with the domain name `myco.com` with Tomcat development environment enabled and set the Site Administrator name as `adminmyco`.

Assumptions:

- The Web site is developed on Sun J2SE 1.4
- The site number is 1

Procedure

To enable the Tomcat development environment:

- 1 Log on to `myco.com` as `adminmyco`, using any FTP client.
- 2 Upload all class files to `/var/www/html/WEB-INF/classes`.
- 3 Upload all lib files to `/var/www/html/WEB-INF/lib`.
- 4 Upload the file `web.xml` to `/var/www/html/WEB-INF/`.
- 5 Upload the remaining Web site to `/var/www/html/`.

Note

To compile .java files, use `javac *.java`.

Adding permissions

Procedure

To add permissions to connect to the SMTP server:

- 1 Log on to Ensim Pro as `root` user.
- 2 Change directory to `/var/tomcat4/conf/sites.policy.d`.
- 3 Create a new file `site1.policy.custom`.

- 4 In the file **site1.policy.custom**, include the following lines to add permissions to connect to the SMTP server.


```
Permission java.net.SocketPermission "127.0.0.1:25", connect,
resolve";
Permission java.net.SocketPermission "localhost:25", connect,
resolve";
```
- 5 Save the file **site1.policy.custom**.
- 6 Regenerate the file **/var/tomcat4/conf/catalina.policy** using the following command.


```
#m4 /var/tomcat4/conf/catalina.policy.template > /var/tomcat4/conf/catalina.policy
```
- 7 To restart Tomcat, type the following command.


```
/etc/rc.d/init.d/tomcat4 restart
```

Adding additional context

Procedure

To add additional context:

- 1 Log on to Ensim Pro as root user.
- 2 Change directory to **/var/tomcat4/conf/sites.xml.d**.
- 3 Create a new file **site1.xml.custom**.
- 4 Add new context to this file.
- 5 Save the file.
- 6 Regenerate the file **/var/tomcat4/conf/server.xml** using the following command.


```
#m4 /var/tomcat4/conf/server.xml.template > /var/tomcat4/conf/server.xml
```
- 7 To restart Tomcat, type the following command.


```
/etc/rc.d/init.d/tomcat4 restart
```

Starting Tomcat

By default, Ensim Pro always displays the Tomcat status as **ON** (enabled). You can start Tomcat either manually or automatically.

Manually

Procedure

To manually start Tomcat:

- 1 Log on to Ensim Pro as Appliance Administrator.
- 2 In the Appliance Administrator control panel, click **Services** in the left navigation bar.
- 3 In the Services window, locate the Tomcat service.
- 4 In the **Actions** column, click the **Start** icon.

Automatically

Procedure

To automatically start Tomcat:

- 1 Log on to Ensim Pro as root user.
- 2 Type the following commands in the order specified.

```
/etc/rc.d/init.d/tomcat4 stop
/sbin/chkconfig --add tomcat4
/etc/rc.d/init.d/tomcat4 start
```

Disabling Tomcat

You can disable Tomcat permanently if you no longer want to use Tomcat. You can turn off the Java virtual machines that handles the requests and prevent Tomcat from launching in the future.

Procedure

To disable Tomcat:

- 1 Log on to Ensim Pro as Appliance Administrator.
- 2 Type **su -**. The system prompts you for a password.
- 3 Enter the root password.
You now have root privileges, which means that you can change anything on the server appliance operating system.
- 4 Type the following commands in the order specified.

```
/sbin/chkconfig --del tomcat4
/etc/rc.d/init.d/tomcat4 stop
```

Additional resources

For more information on Tomcat, refer to the following links.

- <http://jakarta.apache.org/tomcat/tomcat-4.0-doc/index.html>
- <http://www.jguru.com/faq/Tomcat>
- <http://java.sun.com/j2se/1.4/index.html>
- <http://jakarta.apache.org/site/mail.html>
- <http://mmmmysql.sourceforge.net>
- <http://jdbc.postgresql.org>
- <http://jdbc.postgresql.org/doc.html>
- <http://www.exolab.org>
- <http://jakarta.apache.org/ant/index.html>

Customizing disk partitions

Introduction

This section explains how to customize disk partitions to manage the available disk resources on your target server.

Customizing disk partitions

If the target server where you install Ensim Pro has single and medium capacity hard disks (typically 40 GB and less) the default partitioning scheme of `/boot = 50 MB`, `swap = twice the amount the RAM`, and `/ = rest of the hard disk space` will suffice.

However, for disks with a capacity of 40 GB and above or for systems with more than one hard disk, the above scheme is not feasible. In such cases, a custom partitioning scheme must be specified.

If the target server has high capacity hard disks or multiple hard disks, it is recommended that you customize disk partitions so as to have multiple partitions on your hard disks.

Disk partitioning schemes for Ensim Pro

If the capacity of the hard disk is greater than 40 GB, or if the number of hard disks exceed one, the following partitions can be used:

- `/ = 5 GB`
- `/boot = 101 MB`
- `swap = 1 GB and above or multiple swap partitions`
- `/var = at least 5 GB`
- `/home = largest`

If the target server has only one hard disk, you can opt for the above partitioning scheme on the same disk. However, if the target server has more than one hard disk (for example, two), the above scheme can be spread across the two disks as follows:

First disk (40 GB):

- `/ = <remaining disk space>`
- `/boot = 101 MB`
- `swap = 1024 MB`
- `/var = 20 GB`
- `/tmp = 2 GB`

Second disk (40 GB):

- `swap` = 1024 MB
- `/home` = *<remaining disk space>*

Setting up Ensim Pro to use multiple partitions

To allow the server's root user to configure where Ensim Pro temporary files are created, change the path name to the temporary files by editing the file `/etc/virtualhosting/tmpdirs`. Ensim Pro essentially makes changes to files located under `/etc` and `/home/virtual`.

Important

You must not edit the file `tmpdirs` until you finish installing Ensim Pro. If you attempt to create the directories as detailed below prior to installing Ensim Pro, the installation will fail. This is because the installation checks for the existence of `/etc/virtualhosting` and `/home/virtual`.

Additionally, any changes made in the file `tmpdirs` are overwritten during the installation process.

When you change the path name to the temporary files, each line in the `tmpdirs` file should use the following format.

`<path-prefix>:<directory>`

where `<path-prefix>` matches the beginning of file path names whose associated temporary file locations you want to modify, and `<directory>` is a path to an existing directory that lies on the same partition as `<path-prefix>`.

For security purposes, `<directory>` should be root-owned, with no permissions for either group or other (for example, 0700), and all path components leading to this directory should not be editable by anyone other than root. If this file is empty, then by default all temporary files will be created in `/var/cache`.

Important

You have to restart Ensim Pro to complete this configuration process. To restart Ensim Pro, type the following command at the command prompt.

`/etc/rc.d/init.d/webpliance restart`

Assume the disk partitioning of the server is as follows:

- `/` is on `/dev/hda1`
- `/var` is on `/dev/hda2`
- `/home` is on `/dev/hda3`
- `/usr` is on `/dev/hda5`

Since `/etc`, `/var`, `/usr` and `/home` are on different partitions, a temporary directory must be specified for each partition. By default, Ensim Pro creates temporary directories on the `/etc` and `/home` partitions.

- `/etc:/etc/virtualhosting/tmp`
- `/home:/home/virtual/FILESYSTEMTEMPLATE/.tmp`

You can add an entry for the `/usr` partition in `/etc/virtualhosting/tmpdirs` as follows.

- `/usr:/usr/.tmp`

To create the directory `/usr/.tmp`, type the following command.

```
#mkdir /usr/.tmp; chown 700 /usr/.tmp
```

You must edit the file `/etc/virtualhosting/tmpdirs` to include an entry for the temporary directory on the `/var` partition.

- `/var:/var/tmp`

By default, Ensim Pro uses `/var/tmp` as the temporary directory. If `/var` is mounted on a separate partition, you must make an entry for the temporary directory in the `/etc/virtualhosting/tmpdirs` file for the `/` partition. This is because Ensim Pro uses hard links when files are transferred and hard links do not work across partitions. So, you must ensure that the corresponding temporary directory for a partition resides on the same partition.

For example, if the dir `/tmp` is on the `/` partition, you must edit the configuration file `/etc/virtualhosting/tmpdirs` to include the following entry.

- `:/tmp`

Summating the above assumptions, the file `/etc/virtualhosting/tmpdirs` would include the following sequence of entries.

- `/etc:/etc/virtualhosting/tmp`
- `/home:/home/virtual/FILESYSTEMTEMPLATE/.tmp`
- `/usr:/usr/.tmp`
- `/var:/var/tmp`
- `:/tmp`

The sequence of entries in the file is important. During file operations, Ensim Pro uses the first partition that is reported by the system to contain the requisite directory or file. For example, placing the `:/tmp` entry before the entry `/var:/var/tmp`, will cause any search for files in the `/var` directory to default to the `/` directory.



Note

For more details on Linux partitions, please contact Ensim Support at <https://onlinesupport.ensim.com>.

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