GroupServer Documentation

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Getting GroupServer

Authors Michael JasonSmith; Contact Michael JasonSmith <mpj17@onlinegroups.net> Date 2016-01-27 Organization GroupServer.org Copyright This document is licensed under a Creative Commons Attribution-Share Alike 4.0 International License by OnlineGroups.net.

The *requirements* for GroupServer are fairly light for a stand-alone system. It is distributed as a compressed tar-file that you *download*. This file contains an **installation script for Ubuntu** will install all the necessary *dependencies* that your system currently lacks (see GroupServer installation).

1.1 System requirements

GroupServer requires a Linux system, with a network connection, and at least 1024MB of RAM¹. (The default amount of RAM for a virtual machine may be too small.) GroupServer and all its libraries takes around 320MB of disk space, with more required to store the messages, posted files, and other data.

1.2 Download

GroupServer is distributed as a compressed tar-file. To download the latest version of GroupServer

- 1. Visit <http://groupserver.org/downloads> and click Download.
- 2. Extract GroupServer from the tar-file into a directory such as /opt, /home or /usr/local.

When the tar-file is extracted a new directory will be made. This directory contains the configuration files for GroupServer. In addition, the installation process will download and install some dependencies into the directory (see GroupServer installation). GroupServer will be run from the same directory.

Permissions You may need to be the superuser (root) to extract the archive. If you do then you **must** change the ownership of the new GroupServer directory and all of its contents to a normal user. GroupServer can only be run by users with normal privileges.

¹ The RAM requirement is for compiling lxml during installation.

1.3 Dependencies

For your erudition, the packages that contain the programs and libraries that are required by GroupServer are listed for Ubuntu, CentOS, and RedHat Enterprise Linux. The installation script for Ubuntu runs <code>apt-get</code> to install all the requisite packages (see GroupServer installation).

	Packages	
System	Ubuntu	CentOS 6.x or RHEL 6.x
	python2.7	python-devel
Python	python2.7-dev	python-setuptools
	python-virtualenv	See CentOS and RHEL
GNU C++	g++	gcc-c++
Make	build-essential	make
	postgresql	postgresql See CentOS and RHEL
PostgreSQL Database	libpq-dev	postgresql-server
I USIGICSQL Database		postgresql-libs
		postgresql-devel
Postfix	postfix	postfix
Email	postfix-dev	
Redis	redis-server	redis
JPEG Support	libjpeg62-dev	libjpeg-devel
WebP Support	libwebp-dev	
zlib (PNG) Support	zlib1q-dev	zlib
zno (1100) Support	uev	zlib-devel
SMTP Test	swaks	swaks

GroupServer installation

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Date 2016-03-03 (see *History*)

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Installation can be tricky: much has to be configured and set up correctly or installation will fail. We wrote this documentation for people with moderate experience in Linux system administration. If you get stuck, please ask us questions in GroupServer Development. Other more detailed guides would be gratefully accepted.

Note: GroupServer is developed on Ubuntu, and is know to run on CentOS. We will gladly accept any modifications you have that will make GroupServer run on more platforms.

2.1 Quick start

- 1. Download the latest version of GroupServer from <http://groupserver.org/downloads> and extract the archive.
- 2. Create a new hostname for your GroupServer site. Yes, you will need a new one (see Pick a Host Name).
- 3. Edit config.cfg (see Configure GroupServer).
- 4. Enable prepared transaction support in PostgreSQL (see Configure PostgreSQL).
- 5. Run the following (see *Run the installer*):

\$./gs_install_ubuntu.sh

6. Start Zope:

\$./bin/instance fg

- 7. Visit your new site.
- 8. Commence the *next steps*.

2.2 Set up

GroupServer builds on five major infrastructure packages. These packages are installed by the installation script. However, you must configure the relationship between GroupServer and to these packages **before** you *run the installer*.

- Postfix handles both the incoming and outgoing email.
- Zope provides the web framework and basic web server support.
- **PostgreSQL** stores the posts.
- **ZODB** stores some web content and the user-information.
- **Redis** provides an application cache.

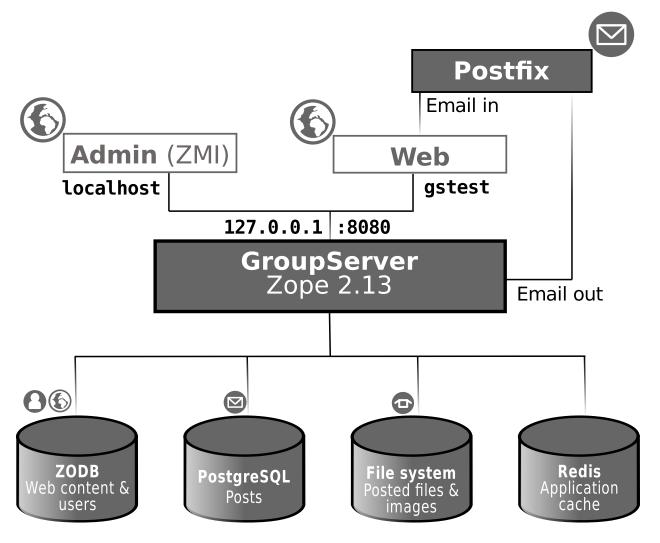


Fig. 2.1: GroupServer listens for connections on a single port (8080, by default) and serves up either the administration interface (ZMI) or the normal web interface depending on the name used to connect to the web server (virtual hosting). Email comes into the server via the web interface, and goes out using SMTP. The data is stored in a variety of locations.

Setting up GroupServer is done in four steps: first *pick a host name*, then *configure GroupServer*, *run the installer* to install the system, and finally *start Zope*.

2.2.1 Pick a host name

Your new site needs its own hostname. This is the name that people will use to access your new GroupServer site with a web browser. For a trial system, the name can be set up in the *hosts(5)* file.

- 1. Edit /etc/hosts as the root user.
- 2. Add the new host name to the localhost entry, which is normally the first one. For example, to add the name gstest change the line to the following:

```
127.0.0.1 localhost gstest
```

3. Save the /etc/hosts file.

2.2.2 Configure GroupServer

The configuration of GroupServer is mostly carried out by modifying the config.cfg file, which is located in the root of the GroupServer folder ¹. First you must configure the *GroupServer Site* itself. Next the Zope system, which will run your GroupServer site, needs to be configured, before the *database storage*.

GroupServer site

You will need to check all the configuration for your initial site.

- **host** The domain name used by people accessing your new GroupServer site. It must be the same as what you picked a host name earlier (see *Pick a host name*).
- admin_email When GroupServer is installed, an example site and group are created. So you can use the administration functions you must sign in as an administrator. This is the email address of that administrator. Posts to the example group will be sent to the administrator at this address. This email address must work.
- admin_password The password of the administrator of the new GroupServer site. The password will be used to sign in, and can be changed after the site has been created.
- support_email The email address where support messages are sent, and were email notifications are send from. For testing this can be set to your own or the admin email address.
- smtp_host The SMTP host that will be used to send email from GroupServer. It defaults to localhost, assuming
 you will be running Postfix on the same machine as GroupServer.

Zope

Zope is used to provide the web-framework for GroupServer, and a basic web-server. The server listens for connections on a single port (the zope_port) and provides the GroupServer UI if connections are made using the host name, or the Zope Management Interface (ZMI) if connections are made with any other host names.

The zope_host and zope_port are probably correct for most systems, weather you are testing or if you are going to proxy GroupServer (see Configuring a web proxy). However, for security we recommend you change the name and password of the Zope administrator.

zope_host The name of the host that will run Zope. It defaults to the local machine (127.0.0.1).

zope_port The IP port that Zope will listen to. It defaults to 8080, and it recommended that you leave this value as-is, unless another service is running on port 8080. (Zope will have to run as root to use port 80, and this is discouraged; to use port 80 you will need to *proxy* GroupServer, see Configuring a web proxy.)

¹ The cfg files are interpreted by the standard Python ConfigParser module, which accepts a syntax very similar to Windows INI files.

- **zope_admin** The name of the user who will administer Zope. This is used to log into the Zope Management Interface (ZMI).
- **zope_password** The password for the Zope administrator. It can (and should) be changed after GroupServer has been set up.

Note: The IP-address of the zope_host and host (see GroupServer site) must be the same.

Database storage

GroupServer stores most of its data in PostgreSQL. Two passwords need to be set by you to protect this data.

- **pgsql_password** The password required to attach to the PostgreSQL database. The install system will create a PostgreSQL database, and protect it with this pgsql_password.
- relstorage_password The RelStorage system will store data in a PostgreSQL database for Zope. This data is protected by the relstorage_password.

2.2.3 Configure PostgreSQL

The RelStorage system that is used by GroupServer requires *prepared transaction* support to be enabled in PostgreSQL. To enable prepared transaction support carry out the following steps.

- 1. Edit the PostgreSQL configuration file. On Ubuntu you must be root to edit this file, which is located in /etc/postgresql/9.x/main/postgresql.conf. (The actual directory name may be different depending on the version of PostgreSQL you have installed; change the 9. {x} to match your version as appropriate.)
- 2. Find the line that reads

max_prepared_transactions = 0

If the line is set to something *other* than 0 then nothing needs to change, and you can *run the installer*.

3. Change the line to read

```
max_prepared_transactions = 1
```

4. Restart PostgreSQL. On Ubuntu this is done using the following command:

```
$ sudo service postgresql restart
```

2.3 Run the installer

The installer for Ubuntu is a Bash script. (For *CentOS and RHEL* you will have to carry out the steps by hand.) To run the GroupServer installer enter the following command:

\$./gs_install_ubuntu.sh

You will be prompted for your password. This is required to check that your Ubuntu system has met all the dependencies. Next the installer ensures that the *set up* is correct.

Permissions GroupServer can only be run by users with normal privileges. If the installation directory is owned by root then you must **change the ownership** of the installation directory to a normal user and switch (su) to that user. Then run the installer.

The rest of the installation process should be completely automatic.

- The system will create a sandbox for your GroupServer site, with its own version of Python, placed in ./bin/.
- It will then configure the PostgreSQL databases that store the data for your site.
- Finally, it will start the buildout ² system that will **download** and install all the requirements for GroupServer (around 47MB of packages) including:
 - eGenix.com mx Base (4.4MB)
 - SQL Alchemy (3.9MB)
 - lxml (3.4MB)
 - Pillow (2.4MB)
 - Zope 2.13 (1.4MB)

You need a functioning network connection to download the GroupServer requirements.

It is a good idea to make a cup of coffee, or go to lunch, while buildout processes. The log file for the install will be written to $parts/log/{year}-{month}-{day}.{n}.log.$

Note: If a file partly downloads and the network connection times out then you may see a CRC-check error after you restart the install. For example:

```
Getting distribution for 'sqlalchemy==0.9.10'.
error: CRC check failed 0xcea84515 != 0x22d9d947L
```

To recover from this error, delete the associated file in downloads/dist and restart the build.

2.3.1 CentOS and RHEL

The process to install GroupServer on CentOS or RedHat Enterprise Linux is manual. The basic idea is as follows, but it lacks testing.

Note: Commands that have to be run as root are shown on lines that begin with a #. Commands that must be run as a normal user are shown on lines that begin with a \$.

- 1. Install the Dependencies.
 - **PostgreSQL** The version of PostgreSQL that is supplied with RHEL 6.x and CentOS 6.x (PostgreSQL 8.4) lacks the features required by GroupServer. You will need to install PostgreSQL 9, including the **development libraries** using the instruction provided by the PostgreSQL project.
 - **Python** The version of Python supplied with RHEL 6.x and CentOS 6.x (Python 2.6) lack the features required by GroupServer. You will need to install Python 2.7 using these instructions from H20.ai.
- 2. Create the two database users specified in config.cfg, using createuser:

createuser -D -S -R -l gsadmin
createuser -D -S -R -l gszodbadmin

3. Change the **PostgreSQL** authentication from ident to md5.

² For more on **buildout** see Buildout and the Buildout site.

- (a) Open the file pg_hba.conf. (It is normally found within /etc/postgresql, but the specific location depends on your version of **PostgreSQL**.)
- (b) Change ident to md5 in the lines that read:

host all all 127.0.0.1/32 ident host all all ::1/128 ident

They should end up like the following:

h	lost	all	all	127.0.0.1/32	md5
h	lost	all	all	::1/128	md5

(c) Restart **PostgreSQL**.

4. Create the two databases specified in config.cfg using createdb:

```
# createdb -Ttemplate0 -O gsadmin -EUTF-8 groupserver
# createdb -Ttemplate0 -O gszodbadmin -EUTF-8 groupserverzodb
```

5. Get the Python virtualenv package:

easy_install virtualenv

6. Set up a Python virtual-environment for GroupServer:

\$ virtualenv --python=python2.7 --no-site-packages .

7. Activate the Python virtual-environment (**note** the dot-space at the start of the command):

\$. bin/activate

8. Install the argparse module:

\$ pip install argparse==1.1

9. Fetch the zc.buildout system that builds GroupServer:

\$ pip install zc.buildout==2.3.1

10. Update setuptools:

\$ pip install setuptools==18.0.1

11. Bootstrap the installation:

\$ buildout bootstrap

12. Install the dependencies, which will take at least seven minutes:

\$ buildout install

13. Create your site:

\$ buildout -c site.cfg install

2.3.2 Start Zope

Your GroupServer site is supported by Zope. To start Zope run the following command:

\$./bin/instance fg

Zope will have started when the message Zope Ready to handle requests is displayed in the terminal.

You should be able to view your GroupServer site at *http://{host}:{zope_port}*. If you kept the defaults, the address will be <http://gstest:8080>.

- The host is the one you picked earlier (see *Pick a Host Name*).
- The port is the one that site listens to (see *Configure GroupServer*).

Use Control-c to stop Zope.

2.3.3 Next steps

- Starting and stopping GroupServer has more information on running GroupServer, including running it as a daemon.
- The steps required to configure a **proxy** is documented in Configuring a web proxy.
- We document the setup required to receive email with GroupServer in Configuring postfix.
- Finally, we outline the steps required to send out the daily digest of topics in Configuring cron.

2.4 History

Version	Date	Change
16.04	2016-04-05	Adding instructions for changing the authentication used by PostgreSQL in <i>CentOS and RHEL</i>
16.04	2016-03-03	Determining that Pastis will be GroupServer 16.04
16.04	2015-12-16	Updating the <i>CentOS and RHEL</i> documentation, following the changes to the configuration files.
15.11	2015-08-17	Updating the Sphinx markup, and mentioning the log files.
15.03	2015-03-27	Updating the CentOS install instructions.
15.03	2015-03-25	Making a note about PostgreSQL 9 on CentOS and RHEL.
15.03	2015-03-06	Moving the Dependencies and Download sections to Getting GroupServer.
14.11	2014-11-17	Renaming the Requirements section Dependencies.
14.11	2014-10-30	Moving the Remove GroupServer section to Remove GroupServer.
14.11	2014-10-30	Integrating updates and suggestions from Scott Fosseen.
14.11	2014-10-21	Adding the setup diagram.
14.11	2014-10-14	Reducing the number of ports to one.
14.06	2014-06-23	Moving the sections for configuring the proxy and Postfix to their own documents.
14.03	2014-03-25	Clarifying the Requirements wording.
14.03	2014-03-20	Updating to Ouzo.
12.11	2012-11-27	Adding the sections CentOS and RHEL and Configure PostgreSQL.
12.11	2012-11-19	Adding a link to the Postfix documentation for Ubuntu.
12.11	2012-10-25	Removing some odd dependencies.
12.05	2012-04-30	Updating the Configure GroupServer and Run the Installer sections.
12.05	2012-04-24	Removing unnecessary dependencies, and using pip in the Run Buildout section.
11.08	2011-12-19	Adding the packages required for XML support and XSLT support on RHEL and CentOS to the list of Req
11.08	2011-12-16	Adding the CentOS packages to the list of Requirements, with much thanks to Patrick Leckey.
11.08	2011-11-15	Altering the requirements to switch the build-essential dependency to make on the advice of David
11.08	2011-10-27	Adding the Download section, and clarifying some more of the documentation.
11.08	2011-10-26	Correcting some mistakes, and clarifying the documentation on the advice of Ross Chesley
		Con

Version	Date	Change
11.08	2011-09-01	Reordering the subsections of Configure Zope.
11.07	2011-07-08	Adding the build-essential dependency and the cut-n-paste apt-get block to the Requirements.
11.06	2011-07-05	Adding the prologue.
11.06	2011-07-04	Updating the notes, because of a change to the name of the initial GroupServer instance.
11.06	2011-06-17	Added postfix configuration and spooling notes.
11.05	2011-05-26	Fixing a typing mistake, and mentioned that the pgsql_dbname and pgsql_user had to be different.
10.09	2010-09-01	Changing how the configuration options are set.
1.0 eta^{2}	2010-07-15	Improving the buildout instructions.
1.0 eta^{2}	2010-07-07	Changing the Zope 2.10 (Python 2.4) instructions to Zope 2.13 (Python 2.6) instructions.
1.0β	2010-06-04	Removed a duplicated instruction from the Quick Start, and bumped the version number.
1.0α	2010-05-31	Fixing a typo and adding minor improvements.
1.0α	2010-05-01	Fixing, because upstream broke our buildout.
1.0α	2010-04-29	Better automatic configuration, so the Configure GroupServer section has been removed.
1.0α	2010-04-28	Improving the documentation for gs_port and added documentation for the gs_admin and gs_user of
1.0α	2010-04-23	Adding a link to the downloads page. Clarified the security changes that are made to PostgreSQL.
1.0α	2010-04-06	Fixing some quoting in the requirements.
1.0α	2010-03-31	Fixing the Requirements, adding Remove GroupServer and History.
1.0α	2010-03-25	Fixing the config options, added Quick Start.
1.0α	2009-10-04	Updating to reflect the new egg-based system.

Table 2.1 – continued from previous page

Starting and stopping GroupServer

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3.1 Introduction

In this document we present a quick introduction to starting GroupServer. First you have to install GroupServer, which is covered in the groupserver-install.txt file in the docs/ directory of your GroupServer folder, or online. Here we will cover *trying out GroupServer*, and *running GroupServer*. Finally, we try and deal with some *issues, and problems*.

3.2 Trying out GroupServer

The first time you fire-up GroupServer it is reassuring to see all the debugging information, in case there is an error.

3.2.1 Starting GroupServer for the first time

Once GroupServer has been installed you should be able to start it with the command in the GroupServer installation directory:

\$./bin/instance fg

This starts the Zope instance, which runs GroupServer, in foreground mode.

3.2.2 Access the ZMI

Generally most configuration can be done from the Web interface of GroupServer. However the *Zope Management Interface* (ZMI) can be used to perform some low-level tasks, and accessing it is a good indication that everything is working correctly. The ZMI is accessed by visiting http://{zope_host}:{zope_port}/manage:

zope_host: The name of the Zope host, that you set in the config.cfg file.

zope_port: The port of the Zope host, that you set in the config.cfg file.

If the defaults are unaltered then the URL for the ZMI will be <http://localhost:8080/manage/>. If all is well you will be prompted for a user-name and password. These will be the <code>zope_admin</code> and <code>zope_password</code> that you set in the config.cfg.

In the ZMI you should see a groupserver folder. Within that a Contents folder, leading to an initial_site, groups and finally initial_group.

3.2.3 Access your site

If you can access the ZMI without any problems then the next thing to test is if you can access your site. If you have configured DNS or your local host file correctly, you should be able to access your site at $http://{host}:$

host: The name of the GroupServer host, that you set in the config.cfg file.

port: The port that GroupServer is listening to, that you set in the config.cfg file.

If you left the defaults unaltered then the URL for your GroupServer site will be http://gstest:8080/>.

Log in

Log in as an administrator by clicking the *Sign in* link and entering the admin_email and admin_password you set in the config.cfg file.

3.2.4 Stop the test

To stop testing type Control-c in the terminal where GroupServer is running.

3.3 Running GroupServer

Running GroupServer on a more permanent basis requires starting the Zope instance as a demon, and keeping a track of *the log file*.

Start the Zope instance as a demon by running the following command from the GroupServer installation directory:

\$./bin/instance start

Stop the demon by running the following command:

\$./bin/instance stop

3.3.1 The log file

The log file is var/log/instance.log, located in the GroupServer directory.

You can change the logging level, and log-file rotation, by setting parameters of the [instance] section of the instance.cfg file in the GroupServer directory. The documentation for zope2instance details the available options. Run buildout once you have made the changes:

\$./bin/buildout -N

Then stop GroupServer and restart it.

3.4 Issues, and problems

Please, ask questions and make comments in the GroupServer Development group, or in the gsdevel IRC channel on Freenode (irc://irc.freenode.net/#gsdevel). *The log file* will usually contain relevant information, including copies of any errors.

3.4.1 Virtual machines

With virtual machines it can be difficult to connect from your desktop — which has a Web browser — to GroupServer running on the hosted machine. The documentation for your chosen virtual environment should cover how to expose the network interface for a hosted Web service, such as GroupServer.

Configuring postfix

Authors Michael JasonSmith; Fabien Hespul Contact Michael JasonSmith <mpj17@onlinegroups.net> Date 2015-06-22 Organization GroupServer.org Copyright This document is licensed under a Creative Commons Attribution-Share Alike 4.0 International License by OnlineGroups.net.

4.1 Introduction

Postfix provides the email interface for GroupServer. GroupServer uses Postfix to queue email that is delivered to groups, and pass the email messages to GroupServer.

Configuration files for Postfix that are specific to GroupServer are created when GroupServer is installed. However, it is necessary to change the main *Postfix configuration* files for the system so Postfix will send email messages on to GroupServer. The Postfix configuration will achieve the following.

- Each group will have a unique email address.
- The Postfix configuration will work, untouched, for any and all groups once it has been set up.
- A single virtual address will respond to all emails coming in to any possible group on your site.
- When an email comes in for *any* group on a it is passed on to GroupServer, which then adds the message to the correct group.

There are two configuration files, created by GroupServer during installation, that will provide what we want once they have been integrated into the existing Postfix configuration. Both are found in the postfix_config directory after GroupServer has been built.

- groupserver.virtual: This file maps all email messages that are sent to any of your GroupServer groups to the single groupserver-automagic@localhost email-address. See virtual(5) for more information.
- groupserver.aliases: This file maps the groupserver-automagic address to a command: piping the email to the smtp2gs script. See *aliases (5)* for more information.

See also:

The Ubuntu Community Postfix Documentation is useful if you are new to administering Postfix.

4.2 Postfix configuration

Below are the steps for configuring Postfix for either Debian or Ubuntu.

Note: You will need to be the root user to carry out most of these tasks. Commands that need to be run as root will be shown with # prompt, rather than a \$.

1. Copy the configuration files from the GroupServer installation into the Postfix configuration directory.

cp postfix_config/groupserver.* /etc/postfix

2. Change the ownership of the files to root:

```
# chown root.nogroup /etc/postfix/groupserver.*
```

If you are on a system other than Ubuntu you will need to ensure that the files are owned by the Postfix user. Running the following will display the user-name of the Postfix user.

\$ /usr/sbin/postconf | grep default_privs | cut -f3 -d" "

- 3. Open the file /etc/postfix/main.cf in a text editor.
- 4. Update the aliases.
 - (a) Find the line that begins with alias_maps.
 - (b) Add the item hash:/etc/postfix/groupserver.aliases to the end of the alias_maps line. Use a comma to separate the new item from any existing items. For example

alias_maps = hash:/etc/aliases,hash:/etc/postfix/groupserver.aliases

- (c) Find the line that begins with alias_database.
- (d) Add the item hash:/etc/postfix/groupserver.aliases to the end of the alias_database line. Use a comma to separate the new item from any existing items. For example

alias_database = hash:/etc/aliases,hash:/etc/postfix/groupserver.aliases

- 5. Update the virtual alias.
 - (a) Find the line that begins with virtual_alias_maps. If no line exists add one after the alias_database line.
 - (b) Add the item hash:/etc/postfix/groupserver.virtual to the end of the virtual_alias_maps line. For example

virtual_alias_maps = hash:/etc/postfix/groupserver.virtual

6. Add the following to the bottom of the main.cf file, unless it is previously defined

smtpd_authorized_verp_clients = 127.0.0.1,localhost

7. Generate the Postfix hashes by running **postmap** and **postalias**:

postmap /etc/postfix/groupserver.virtual

- # postalias /etc/postfix/groupserver.aliases
- 8. Restart **Postfix** using **service**:

service postfix restart

See also:

More information about the GroupServer **smtp2gs** command — including optional arguments, return values, and examples — is available from the smtp2gs documentation.

Configuring a web proxy

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5.1 Introduction

While GroupServer *can* run as a stand-alone web-server, it is **highly recommended** that a proxy is used when making the site available to the public to provide the following services:

- To mediate between the low level HTTP port (port 80) and the high-port that Zope runs on (normally port 8080).
- To rewrite the URL to include a skin directive.
- To rewrite the URL to support virtual hosting.
- To provide caching.
- To provide a secure connection.

In this document we explain how to *add a virtual host* to either Apache or nginx, *update the DNS*, and *change the reported port* in GroupServer. We then explain how to *change the skin*, before we outline how to set up *secure connections*.

Note: You will need to be the root user to carry out most of these tasks. Commands that need to be run as root will be shown with # prompt, rather than a \$.

5.2 Add a virtual host

If you have a new domain ¹ that you want to use with your GroupServer installation first you must *update the GroupServer configuration* and then *add a virtual host to Apache* or *Add a virtual host to nginx*.

¹ Acquiring and configuring a new domain is out of the scope for this documentation. However, you want the A-record for your new domain to point to the IP of your GroupServer site, and the MX-record to also point at your new site.

5.2.1 Update the GroupServer configuration

If you used a host such as gstest to try out GroupServer then you will need to update the configuration for GroupServer itself.

- 1. Log into the ZMI (see Access the ZMI).
- 2. Visit the folder for your site at groupserver \rightarrow Contents \rightarrow initial_site.
- 3. Open the DivisionConfiguration object.
- 4. Set the *canonicalHost* to the domain for your new site.
- 5. Set the *canonicalPort* to 80.
- 6. Click the Save Changes button.

5.2.2 Add a virtual host to Apache

To add a virtual host to Apache carry out the following steps.

1. Ensure the rewrite, proxy, and proxy_httpd modules are enabled in Apache:

```
# a2enmod rewrite proxy proxy_http
# service apache2 restart
```

- 2. Open /etc/apache2/sites-available/groupserver in a text-editor.
- 3. Add the following to the file

```
# GroupServer site
<VirtualHost *:80>
 ServerAdmin support@example.com
 ServerName groups.example.com
 RewriteEngine on
 RewriteRule ^/(.*) http://localhost:8080/groupserver/Content/initial_site/VirtualHostBase/
 ProxyVia On
 ErrorLog ${APACHE_LOG_DIR}/error.log
  # Possible values include: debug, info, notice, warn, error, crit,
  # alert, emerg.
 LogLevel info
 CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>
# ZMI Support
<VirtualHost *:80>
 ServerAdmin support@example.com
 ServerName zmi.groups.example.com
 RewriteEngine on
 RewriteRule ^/(.*) http://localhost:8080/VirtualHostBase/http/%{HTTP_HOST}:80/VirtualHostB
 ProxyVia On
 ErrorLog ${APACHE_LOG_DIR}/zmi-error.log
```

```
# Possible values include: debug, info, notice, warn, error, crit,
# alert, emerg.
LogLevel info
CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>
```

- Two virtual sites are defined: one that presents GroupServer (which is used most of the time) and one for *the ZMI*.
 - Change the address for the GroupServer site from groups.example.com to that of you new virtual host.
 - Change the address for the ZMI from zmi.groups.example.com to that of your new virtual host, keeping the zmi at the start.
- Change the email address for ServerAdmin from support@example.com to the value of the support_email in the config.cfg file in the GroupServer directory.
- 4. Link the configuration for your host:

```
# cd /etc/apache2/sites-enabled/
# ln -s ../sites-available/groupserver 100-groupserver
```

5. Restart Apache using **service**

service apache2 restart

5.2.3 Add a virtual host to nginx

Open /etc/nginx/sites-available/groupserver in a text-editor.

1. Add the following to the file

```
upstream gs {
 server localhost:8080;
}
server {
 listen 80;
 server_name groups.example.com;
 location / {
    rewrite /(.*) /VirtualHostBase/http/$host:80/groupserver/Content/initial_site/VirtualHostBase/http/
    proxy_pass http://qs/;
    include proxy_params;
  }
}
server {
 listen 80;
 server_name zmi.groups.example.com;
 location / {
    rewrite /(.*) /VirtualHostBase/http/$host:80/VirtualHostRoot/$1 break;
    proxy_pass http://gs/;
    include proxy_params;
  }
```

- Two virtual sites are defined: one that presents GroupServer (which is used most of the time) and one for *the ZMI*.
 - Change the server_name in the first server from groups.example.com to the address of you new virtual host.
 - Change the host name for the ZMI, defined by the second server from zmi.groups.example.com to that of your new virtual host, keeping the zmi at the start.
- 2. Link the configuration for your host:

```
# cd /etc/nginx/sites-enabled/
# ln -s ../sites-available/groupserver 100-groupserver
```

3. Reload the nginx configuration using **service**:

```
# service nginx reload
```

5.3 Update the DNS

The service that supplies your domain-name should provide instructions for updating the domain name to point to your new *virtual host*. You will also need the domain for the ZMI to also point to the **same** server. You can either

- Add a DNS entry for the ZMI, or
- Add an entry to your local /etc/hosts file.

5.4 Change the reported port

Notifications from GroupServer (such as the *Welcome* email to a new group member) normally contain links back to the site. These links will reference the port that was used when GroupServer was built (8080) rather than the new HTTP or HTTPS port provided by the proxy. To change the port that GroupServer *says* it is using carry out the following tasks.

- 1. Login to the ZMI for your site.
- 2. Visit the folder for your site, at groupserver/Content/initial_site.
- 3. Open the DivisionConfiguration object.
- 4. Select the check-box next to the *canonicalPort* line.
- 5. Click the *Delete* button. The *canonicalPort* value will be deleted.

Note: In the unlikely case that a non-standard port is used, change the value of the canonicalPort and click the *Save changes* button, rather than deleting the property.

5.5 Change the skin

One of the advantages of adding a proxy is it allows the skin to be easily changed. GroupServer ships with two skins: green and blue. To change the skin you must alter the rewrite rule. In the case of nginx the rewrite rule will look like the following

rewrite /(.*) /++skin++g_blue/VirtualHostBase/http/\$host:80/groupserver/Content/initial_site/Virtua

In the case of Apache the rewrite rule would look like the following

```
RewriteRule ^/(.*) http://localhost:8080/++skin++gs_green/groupserver/Content/initial_site/VirtualHos
```

5.6 Secure connections: TLS, SSL, and HTTPS

Setting up a secure connection is done in two stages. First you set up your proxy, then you configure GroupServer.

5.6.1 Update the proxy configuration

Establishing a secure connection is done by the proxy rather than GroupServer itself. The proxy should still listen to port 80 (HTTP) and make a permanent redirect to the secure site by returning a 301 response. In nginx the rule would look like the following:

```
server {
   listen 80;
   server_name groups.example.com;
   return 301 https://$server_name$request_uri;
}
```

The proxy will also listen to the secure port and perform a rewrite to your GroupServer site. This is similar to the rewrite when you *add a virtual host*, but

- There is configuration for the SSL certificates,
- The port is 443, rather than 80, and
- The protocol is https rather than http.

```
server {
    listen 443;
    server_name groups.example.com;
    ssl on;
    ssl_certificate /etc/nginx/ssl/groups.example.com.crt;
    ssl_certificate_key /etc/nginx/ssl/groups.example.com.key;
    location / {
        rewrite /(.*) /VirtualHostBase/https/$host:443/groupserver/Content/initial_site/VirtualHostRoot/
        proxy_pass http://gs/;
        include proxy_params;
    }
}
```

You can *change the skin* in the rewrite rule, just like before.

5.6.2 Update GroupServer

GroupServer should use https links in email messages and in the *Share* button 2 , to prevent potential attacks. To do this carry out the following tasks.

² On the web GroupServer normally uses links without a specified protocol.

- 1. Login to the ZMI for your site.
- 2. Visit the folder for your site at groupserver \rightarrow Contents \rightarrow initial_site.
- 3. Select the *DivisionConfiguration* object.
- 4. Set the *canonicalPort* to 443.
- 5. Select the *useHTTPS* check-box (the one to the right, sorry it *is* confusing).
- 6. Click the Save Changes button.

Configuring cron

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6.1 Introduction

The **cron** system needs to be configured to regularly execute two commands that provide some GroupServer functionality. One provides the *daily digest of topics* to those that elect to receive it. The other sends a *monthly profile status* to everyone.

See also:

The Ubuntu Cron HOWTO has more information on how to use **cron**.

6.2 Daily digest of topics

Group members can elect to receive a daily digest of topics. It summarises the activity on the group on that day, which is an excellent way to follow what is happening in a group without being overwhelmed with email.

The **cron** system needs to be configured to execute the **senddigest** command that sends out the digest:

00 02 * * * /opt/groupserver/bin/senddigest http://groups.example.com/

The *crontab(5)* example above will send the digests for all the groups on the groups.example.com site, at 02:00 each day. It is recommended that the digests are sent out in the early-hours of the morning, as this means they will contain the activity for the full day.

Note: The full path to the **senddigest** command in your GroupServer installation will be needed, as PATH is not set for **cron**.

The **senddigest** command itself normally just takes the URL of the site as its only argument. However, the documentation for the senddigest command has more information about the optional arguments, and running the command manually.

6.3 Monthly profile status

Each month GroupServer can send out a personalised email to every person that has a profile on the site and is a member of at least one group. It summarises the activity in the groups, and provides personalised suggestions about how the GroupServer experience can be improved.

The **cron** system needs to be configured to execute the **sendprofile** command that sends out the summary:

```
0 11 1-7 * * /usr/bin/test $( date +\%u ) -eq 3 && \
/opt/groupserver/bin/sendprofile -t1 http://groups.example.com/
```

The *crontab(5)* example above will send the summary to everyone on the groups.example.com site. The command will be run at eleven in the morning of the *first Wednesday* of every month. (I recommend that you send the notification in the middle of the day in the middle of the week because it is more likely to be read.)

The documentation for the sendprofile command details the arguments. The -t1 argument is used above to *throttle* the **sendprofile** command, slowing it down and allowing other requests to be processed. This is important because, unlike the *daily digest of topics*, the monthly profile status is run in the middle of the day when the site is likely to be busy, it is intensive to process, and is unique for every recipient.

Connecting external systems

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7.1 Introduction

GroupServer provides *web hooks* that allow external programs to access some features. All the hooks work the same way:

- 1. Data, including a *token* for authentication, is sent to a form as an HTTP POST,
- 2. The system processes the request, and
- 3. The response is returned as a JSON object.

GroupServer uses some of these hooks itself — for tasks such as for adding email (see Configuring postfix) and sending out regular notifications (see Configuring cron).

Here I first discuss the *authentication token*. I then introduce the hooks that are provided to allow external systems to retrieve *group information* and manage the *profile life-cycle*: creating, retrieving, and removing profiles.

Feel free ask any questions regarding the hooks in GroupServer Development group.

Note: The URLs used for web hooks are often quite long. This is deliberate, as it makes them easy to spot, and easier to understand as they refer to the GroupServer subsystem that provides the functionality.

7.2 Authentication token

All the web-hooks require the token parameter to be sent when an HTTP POST is made to the hook. The value of this token is written down in the etc/gsconfig.ini file, as the token parameter for the webservice section of the configuration.

A unique token is created when you install GroupServer. It is *very important* that you keep this token **secret**. If the token accessed by a nefarious individual then they can do **extensive harm** your site.

However, all is not lost if the token is exposed, as you can generate a new token.

Warning: Because consequence of the token being divulged is so high it is recommended that the hooks are only used from the same machine as GroupServer (so it never travels over a network), or using **secure connections** (TLS).

7.2.1 If the token is exposed

Generate a new token if the token used to authenticate the web hooks is exposed.

- 1. Run the **gs_auth_token_create** program, in the bin directory of your GroupServer install.
 - It takes a data-source name (DSN) as its only argument, identifying the PostgreSQL database to connect to.
 - The DSN for your GroupServer site is listed as the dsn parameter for the database section of the configuration in the etc/gsconfig.ini file.
- 2. The gs_auth_token_create program will
 - Generate a new token,
 - Change the value of the token in the PostgreSQL database, and
 - **Report** the value of the token.

At this point the token in the PostgreSQL database and the etc/gsconfig.ini file will be different, so *all web hooks* will be **broken**. This includes the hook that used by the **smtp2gs** program, which adds email messages to the site.

3. Edit the etc/gsconfig.ini file and change the token parameter in the webservice section. Save the file. All web hooks will be running again. No restart of GroupServer is necessary to change the token.

See also:

The documentation at Read the Docs contains more details about the **gs_auth_token_create** program.

7.3 Group information

The web hook /gs-group-groups.json is the simplest web-hook. It takes the *authentication token* (token) and the action (get) — and it returns a list of group-objects.

See also:

The documentation for the Groups web-hook has more details about how the hook works, including examples.

7.4 Profile life-cycle

There are web-hooks for managing the entire life-cycle of a profile.

- Create a profile when you *add a profile* to a group for the first time,
- Find more about people when you retrieve profile information.

• Finally, you can remove a profile from a group (or site).

Most of the profile-related web hooks return the same profile data.

7.4.1 Profile data

The profile data returned by the hooks involved in the *profile life-cycle* all return the same properties for the profiles, either as a single JSON object, as part of a list, or as a property of another object.

class ProfileData()

The profile-data includes the following five properties.

id

The identifier of the profile.

name

The name of the person.

url

The URL of the profile.

groups

A list of identifiers for the groups that the person is a member of.

email

The email addresses associated with the profile.

all

A list of all the email addresses.

preferred

A list of the preferred address or addresses.

other

A list of verified addresses that are not preferred.

unverified

A list of the unverified addresses.

Example profile data

In the example JSON object below is the profile for someone called A Person. The have set a nickname, so the URL to the profile does not contain their profile-identifier. They have two email addresses — with their home address preferred, and no unverified addresses. Finally, the person belongs to two groups: Example, and Test.

```
],
    "unverified": []
    },
    "groups": [
        "example",
        "test"
    ]
}
```

7.4.2 Add a profile

The web-hook /gs-group-member-add.json is used to add a profile to a group. It will also create a profile, if one does not exist for that person already. The hook takes

- The authentication token (token),
- A name (fn),
- an email address (email),
- A group identifier (groupId), and
- An action (add).

It returns the *profile data* of the person that has been added to the group, as well as some details about whether a profile was created, or already existed.

See also:

The documentation for the Add a profile web-hook has more details about how the hook works, including examples.

7.4.3 Retrieve profile information

There are three ways to retrieve profile information: information about *an individual*, and information about *people that belong to a site*.

Single profile

The web-hook /gs-search-people.json allows you to retrieve information about an individual, using their user-identifier or email address. The hook takes

- An authentication token,
- The identifying information about someone (user) which is either the user-identifier or email address), and
- An action (search).

It returns the *profile data* of the person, or an empty object ({}) if no one could be found.

See also:

The documentation for the Search for people web-hook has more details about how the hook works, including examples.

Site members

The web-hook /gs-site-member.json allows you to retrieve information about the site members in a couple of ways.

- If passed an *authentication token* and an action of users then a simple list of user-identifiers is returned.
- If passed an *authentication token* and an action of user_groups then the full *profile data* is returned for each person.

See also:

The documentation for the Site members web-hook has more details about how the hook works, including examples.

7.4.4 Remove a profile

The web-hook /gs-group-member-leave.json removes a person from a group. The hook takes

- The authentication token (token),
- A group identifier (groupId), and
- A user-identifier (userId).

See also:

The documentation for the Leave group web-hook has more details about how the hook works, including examples.

If you only have an email-address for the person, then you should retrieve a *single profile* first to determine the user identifier (id).

The profile is also useful for removing someone from a **site**. A person is removed from a site when they are removed from all groups on the site: so by iterating through the list of groups (*groups*) you will eventually remove someone from the site.

Contributing to GroupServer

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 Date 2016-08-09

 Organization GroupServer.org

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tional License.

Make GroupServer better: *learn*, *discuss*, *advise*, *translate*, and *document* without touching any code, but you can *code* as well!

8.1 Learn

The first step to contributing to GroupServer is to use GroupServer as a normal group member:

- Join groups
- Read and post using email and the web
- Search topics and posts
- Link to topics and posts
- Update your profile

Become the *local expert* and help others make the most of GroupServer. You can then look for the opportunity to **administer** a group and site:

- Invite and add people
- · Make topics sticky
- Manage the members of a group
- Change the group privacy to public, private, or secret
- Start announcement, discussion, and support groups

8.2 Discuss

Tell others about GroupServer using your social networks. Tweet at @GroupServer to share the love. Join GroupServer Development and discuss how to make GroupServer more awesome.

8.3 Translate

Add to a translation, or **start** a translation team for a new language using Transifex, which is at the core of the internationalisation effort for GroupServer. (Currently there are translations for English, French, and German.)

8.4 Advise

Join GroupServer Development and give advice to others about how to run GroupServer. Running a mailing list manager is a new experience for many, but the issues — like running proxies, running a mail-transfer agent and running a relational database — can be solved by people with general system-administration experience.

8.5 Document

Post changes to the documentation in GroupServer Development, or **change** the docs on GitHub. (The documentation for GroupServer is written in reStructuredText — a plain-text format that is a lot like a wiki.)

8.6 Code

There are many layers of code in GroupServer, and you can contribute to any and all of them:

- HTML is used for the pages, and the notifications,
- JavaScript is used to provide the dynamic elements,
- CSS is provides the styling,
- Python does the hard work, and
- SQL deals with the data.

Read the development guide and discuss your changes in GroupServer Development.

Translation guide

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9.1 Introduction

GroupServer is written in English, and the interface has been partly translated into French and German. In this guide we work through how to *translate GroupServer*, how to *add internationalisation (i18n)*, and finally we discuss how to *update the products*.

9.1.1 Change the language

Your browser determines the language that is chosen when GroupServer displays a page. To change what language is chosen alter the *Preferred languages*, or *Language and input* setting in your browser preferences (options).

9.2 Translate GroupServer

Anyone can help improving the translations of GroupServer! We use the Transifex system to help make the translations: it is a web-based system that allows you to translate GroupServer bit by bit. **All you need is a browser.** If you have any questions please feel free to ask away in the GroupServer development group.

9.3 Add internationalisation (i18n)

Adding internationalisation support to a product that lacks it is a development task. If you come across a component of GroupServer that lacks a translation please **ask for i18n to be added** in the GroupServer development group. The person who responds (probably either Michael JasonSmith or Alice Rose) will then carry out the following tasks.

1. Identify the product. (The element identifiers in the HTML often point to the product that needs to be changed.)

- 2. Add a locales directory to the product, in the same directory that has the configure.zcml file.
- 3. Add i18n to the Python code.
 - (a) To the <u>_____.</u> py for the product instantiate a message factory, passing the name of the product as an argument:

```
from zope.il8nmessageid import MessageFactory
GSMessageFactory = MessageFactory('gs.groups')
```

(b) Identify the Python products that contain strings that need translating. To each add the following import:

```
from . import GSMessageFactory as _
```

- (c) Add i18n to all the strings:
 - All strings, including the simple ones, get a label with the default (English) text following. The label make Transifex much easier to deal with.

When actually adding i18n to a command button in a zope.formlib form remember to set a name, that way the element-identifier will be the same no matter the language.

• Complex strings have a mapping keyword argument, and a \${} template syntax (rather than {} for Python format-strings).

```
_('start-status',
    'The group ${groupName} has been started.',
    mapping={'groupName': r})
```

- 4. Add i18n to the page templates.
 - (a) Add the i18n namespace to the page template, using the product name as the domain.

```
<html xmlns:i18n="http://xml.zope.org/namespaces/i18n"
i18n:domain="gs.group.start">
```

(b) Add i18n:translate attributes to all elements that require translation. Always set the translation ID.

```
    <strong class="label alert-label">Group ID In Use:</strong>
    The Group ID <code>above</code> is already being used.
    Please pick another group ID.
<!--group-id-error-->
```

(c) Add i18n:name attributes to dynamic content.

```
<span class="group" i18n:name="groupName"
    tal:content="view/groupInfo/name">this group</span>
```

(d) Add i18n:attributes attributes to dynamic attributes.

```
<a title="Change this About box"
    i18n:attributes="title admin-change-button-title">Change</a>
```

- 5. Add i18n to the Zope Configuration file.
 - (a) Add the i18n namespace

```
<configure xmlns="http://namespaces.zope.org/zope"
    xmlns:browser="http://namespaces.zope.org/browser"
    xmlns:i18n="http://namespaces.zope.org/i18n">
```

(b) Add the reigsterTranslations element

<i18n:registerTranslations directory="locales" />

- 6. Run the latest version of i18n.sh¹ in the base directory of the product to create and update the translation.
- 7. Fill out the English translation, which is used as the source translation for Transifex.
- 8. Commit the changes.
- 9. Add the product to Transifex 2 .
 - (a) In the GroupServer organisation on Transifex, click on Add project.
 - (b) Fill in the Project Details form:
 - Use the GroupServer product identifier as the name (e.g. gs.site.about).
 - Source language is always English.
 - The License is always "Permissive open-source"
 - Source Code URL is the GitHub URL.
 - (c) Assign to the project to the GroupServer Team.
 - (d) Skip "Add content".
 - (e) Create the project.
 - (f) View the new project.
 - (g) Choose the Manage link.
 - (h) Under *Project URL*, add hyphens where Transifex has removed dots from the project name (e.g. $gssiteabout \rightarrow gs-site-about$).
 - (i) Optionally add a Long Description from the Introduction section of the product README.rst.
 - (j) Save.
 - (k) Update the README.rst to include a Transifex link in the Resources section.

```
- Translations:
https://www.transifex.com/projects/p/gs-group-encouragement/
```

(l) Initialise the product, accepting the defaults:

\$ tx init

¹ Download i18n.sh from http://groupserver.org/downloads/i18n.sh. It wraps the marvellous i18ndude: \$ pip install i18ndude

² Ensure you have transifex-client 0.11.1 beta or later installed: \$ pip install transifex-client==0.11.1.beta

- (m) Run tx-set.sh 3 in the base directory of the product.
- (n) Sync local source and translations to remote:

\$ tx push -s -t

(o) Pull the translations, now modified by Transifex from remote to local:

\$ tx pull -a

- (p) Commit the Transifex configuration (.tx/) and the modified translations to version control.
- 10. Push all the changes to the repositories.

9.4 Update the products

Transifex and the product need to be kept in sync with each other. When the product changes it is necessary to *update Transifex with the new strings*. Likewise, when some translations have been completed it is necessary to *update the product with the new translations*.

9.4.1 Update Transifex with the new strings

To update a Transifex project with the new strings in a product carry out the following tasks.

- 1. Update the pot file and the po files by running the i18n.sh script in the root of the product ¹.
- 2. Update the *English* po file, copying the default text into the msgstr. This is the *source* language that supplies the example text in Transifex. (Without this step the translations can still take place, but the translators see the message identifiers, rather than the default text.)
- 3. Push the changes in the source file to Transifex, using the Transifex client (tx):

\$ tx push -s

4. Commit and push the changes to the source-code repositories.

9.4.2 Update the product with the new translations

To update a product with the new translations in a Transifex project carry out the following tasks.

1. Pull the updated translations (in po files) from the Transifex project using the Transifex client (tx):

\$ tx pull -a

2. Ensure that Zope is set up to automatically compile the po files to mo files:

\$ export zope_i18n_compile_mo_files=true

3. Start your development system. Change the language in your browser to test the different translations.

Note: Browsing the Web with a changed language will result in Goggle, Microsoft, the NSA, and Yahoo! getting some funny ideas about that languages you can comprehend.

³ Download tx-set.sh from <http://groupserver.org/downloads/tx-set.sh>

4. Commit and push the changes to the source-code repositories.

Development guide

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10.1 Introduction

In this guide I hope to introduce you to the tools used in the *development process* for GroupServer. I also hope to provide an overview of the *system structure*.

You can find out more about GroupServer development by reading **the archive**, and asking questions, in the GroupServer development group, joining the #gsdevel channel on Freenode.net, or both.

10.2 Development process

The development process for GroupServer is straight forward, but it may be different to what you are used to simply because of the size and structure of the project. Here we cover using a *virtual environment*, before introducing you to the *version control system* used for GroupServer.

10.2.1 Virtual environment

The development for GroupServer takes place within the Python *virtual environment* of a GroupServer installation (see GroupServer installation). When you start development you need to **activate** the virtual environment:

\$. ./bin/activate

The command-prompt may change to indicate that you are now in a virtual environment.

When you have done with development you can **deactivate** the environment:

\$ deactivate

10.2.2 Version control system

Two version control systems are used to store the source-code for GroupServer:

Git: GitHub hosts the canonical repository at <https://github.com/groupserver>

Mercurial: The Mercurial repository is hosted on a Redmine site that has a self-signed HTTPS certificate https://source.iopen.net/groupserver>

You can use either system, but I recommend that people use GitHub because they are more likely to have an account there. However, you will almost certainly lack the permissions required to *push* any changes. To ensure your changes are not lost you should fork a repo and commit any changes you make there. Once you are done you can make a pull request.

10.2.3 mr.developer

I recommend that you use mr.developer (PyPI) to integrate your development with the *buildout* system that builds GroupServer. In this section we will cover its *installation* with **buildout**, its *usage*, and the *development* configuration file.

Installation

Enter your virtual environment using activate as above, then:

\$ buildout -N -c develop.cfg

This builds your site (the same as a normal GroupServer installation) along with the mr.developer script **develop**. (Two scripts to help with internationalisation, **i18ndude** and **tx** are also installed; see the Translation guide for more information.)

Usage

First you will need code to work on. Use mr.developer to checkout the source-code from the repository:

\$ develop checkout gs.group.home

This will checkout the gs.group.home *product* from its repository into the src/gs.group.home directory within your GroupServer installation. (There is more on *products* below.)

Next you will have to rebuild GroupServer to update all the configuration to point to the new code:

\$ buildout -N -c develop.cfg

Now any changes that you make to the code in src/gs.group.home will change your version of GroupServer.

When you have finished making changes you want you should commit them, and push your changes up to a repository. To resume using the standard version of a product **deactivate** the source code version of the product and rebuild GroupServer:

```
$ develop deactivate gs.group.home
$ buildout -N -c develop.cfg
```

Development configuration file

The configuration for mr.developer is in the develop.cfg file, which is very similar to the configuration files that control the rest of the build.

The main configuration is in the [sources] section. This maps each product that makes up GroupServer to the repository location. Each line is of the form

```
name = kind url
```

name: The name of the product.

kind: The kind of version control system to use. For GroupServer development this will be either hg or git. For your own development you may want to live dangerously and use fs for a product that lacks version control¹.

url: The location of the repository. This is specific to the version control system.

When you make **your own changes** you will need to change the URL to point to the repository provided by the *version control system* that you use. The *default configuration* that ships with GroupServer points to the canonical Git repositories for all products.

Default configuration

The default configuration for mr.developer is generated from the versions.cfg file using the following **awk** script. It specifies that **git** should be used with all the products.

```
BEGIN {
  FS=" = "
  vcs="git"
  dest="ssh://git@github.com:/groupserver/"
  print "[buildout]"
  print "extensions = mr.developer"
  print "sources = sources"
  print "auto-checkout = "
  print "\n[sources]"
  }
  $1 ~ /^((gs)|(Products.G)|(Products.XWF)).*/ {
  printf "%s = %s %s%s\n", $1, vcs, dest, $1
```

To change Mr Developer to use **Mercurial** as the default version-control system, but use **GitHub** as the primary repository, carry out the following tasks.

- 1. Install the Hg-Git plugin for Mercurial.
- 2. Copy the above **awk** script to the file emit-devel.awk.
- 3. Change the vcs variable to hg.
- 4. Add git+ to the start of the value for the dest variable.
- 5. Run the command:

\$ awk -f emit-devel.awk < versions.cfg > new-develop.cfg

6. Check that the new configuration is to your liking and move the new configuration into place:

\$ mv new-develop.cfg develop.cfg

¹ I recommend that you use a local Mercurial repository on your local machine, rather than abandoning version control altogether.

10.2.4 Adding a new product

GroupServer is split into multiple *products*, each controlling one aspect of the system. (There is more on *products* below.) To add your own functionality, or override existing functionality, you will need to add your own product.

To add your own new product to GroupServer carry out the following tasks.

- 1. Create the product in the src directory. Normally I copy an existing product:
 - Rename the product, the directories in the product namespace, and the configuration in the setup.py.
 - Delete the old code keeping a blank __init__.py at the top, and the __init__.py files needed for the *namespace*.
 - Delete the contents of the <configure> element of the configure.zcml file, keeping the element itself.
- 2. Add the name of your product to the custom-zope-eggs section of the custom.cfg file.
- 3. Add the version-control information for the product to the *development configuration file*.
- 4. Activate the product:

\$ develop activate your.product.name

5. Rebuild GroupServer:

```
$ buildout -N -c develop.cfg
```

10.3 System structure

GroupServer belongs to a family of systems that share underlying technology:

- Zope component architecture
- Plone
- Pyramid
- Chameleon
- Python

The source-code for GroupServer is split into many *products*, with the *documentation* provided by reStructuredText. It is all coordinated by *buildout*.

10.3.1 Buildout

Buildout assembles and deploys the different parts that make up GroupServer. The basic idea is that the high-level *components* are specified by buildout. For GroupServer all the components are Python *products*, which are installed as **eggs**. Each Python product specifies its dependencies in the setup.py. However, buildout restricts the *versions* that are installed, ensuring that a *known good set* of products is installed.

Buildout is controlled by the *.cfg files at the top of your GroupServer installation directory. There are three *main files*, and seven *supplementary files*, all of which are in INI format.

Main configuration files

The three main files specify the ways the products can be deployed.

buildout.cfg: Controls the installation of all the components that make up GroupServer, up to the point that the unit tests can be run, but it stops short of creating the site:

```
$ buildout
$ testrunner -k --auto-color --udiff -m gs\\...*
```

site.cfg: Extends buildout.cfg by adding the *recipes* (buildout scripts) that actually initialise the database and create the GroupServer site (if necessary). This is the normal way to build GroupServer:

```
$ buildout -c site.cfg
```

develop.cfg: Extends site.cfg by adding the components that allow for development: mr.developer, i18ndude, and transifex-client:

\$ buildout -c develop.cfg

Supplementary configuration files

The seven supplementary configuration files are used by the three main files in a similar way to modules.

- config.cfg: The main site configuration that is written during GroupServer installation. Used by site.cfg.
- **custom.cfg:** The products that customise the install go in this configuration file. Initially it is mostly blank. Used by buildout.cfg.

dependencies.cfg: The parts that control the recipes that set up the base install. Used by buildout.cfg.

- instance.cfg: The parts that control the recipes that install the initial GroupServer site (the instance). Used by
 site.cfg.
- versions.cfg: The list of what specific versions should be installed. Used by buildout.cfg.
- zope2-2.13.24-versions-gs.cfg: The configuration for the Zope2 web-application server that GroupServer is based on. Used by buildout.cfg.

ztk-versions.cfg: The configuration for the Zope Toolkit. Used by buildout.cfg.

10.3.2 Products

GroupServer is split into many (currently 146) *products*: small Python packages that deal with one aspect of the system. The general rule is that **one product for each user interface** (usually a form). While this may seem limiting, each product usually contains

- The page templates that makes up the interface,
- The JavaScript that is specific to the page,
- The Python code that defines the behaviour of the interface,
- The Python code that handles storing the data and retrieving the data (using SQLAlchemy),
- The SQL code that defines any product-specific tables,
- · The user-help, and
- The code documentation.

This tends to be more than enough for each product.

If more than one product relies on the same code then that code is normally refactored into a **base product** — which is normally given a name ending in .base, such as gs.group.list.base.

Development is carried out on one, or a few, products at a time. If you are unsure what products provide aspect of GroupServer it would be best to **ask** in GroupServer development or in #gsdevel on IRC. However, there are some clues: normally name of the product will make up the part of the identifier or class-name of an element in the HTML source of a page. For example, the link to the ATOM feed of posts on the *Group* page has the identifier gs-group-messages-posts-link — which indicates that it is provided by the gs.group.messages.posts product.

```
<link id="gs-group-messages-posts-link" rel="alternate"
type="application/atom+xml"
title="Posts in GroupServer development"
href="/s/search.atom?g=development&t=0&p=1" />
```

Each product makes use of *namespaces*, and *ZCML*. Each product usually contains some *static resources*, *page templates*, and some *documentation*

Namespaces

The products use namespace packages (PEP 420).

- Each part of the namespace is separated by dots. For example, the code that produces for the plain-text version of an email message is gs.group.list.email.text.
- Each GroupServer product belongs beneath the gs namespace. Beneath that there are many others. The three large ones are for the three main agents in GroupServer:
 - gs.group: Groups, including mailing list functionality (gs.group.list).
 - **gs.profile:** People, as represented by their profiles.
 - **gs.site:** The code relating specifically to a site.

The other major namespace is gs.content, which provides the client side code.

- The root of each product contains the packaging information for that product.
 - The configuration for setuptools, particularly in the files setup.py, setup.cfg, and MANIFEST.in. The first is the one with most of the information, in particular the dependencies for the package.
 - The README.rst, which appears on GitHub.
 - The COPYRIGHT.txt, and LICENSE.txt.
- The *documentation* will be in the docs/ directory.
- The Python code is within nested sub-directories beneath the product directory, such as gs/group/list/email/text. All but the last directory will have __init__.py files that set the directory up as a *namespace directory*. The last directory (text in this example) will have an __init__.py. It is necessary to turn the directory into a Python module.

The Python code is made up of an __init__.py that is often blank, with each class in its own file. (This is my habit, you do not have to follow it.) To determine the relationship between the files, and the rest of GroupServer, it is necessary to look at the *ZCML* file.

ZCML

The Zope Configuration Markup Language (ZCML) defines the *static resources*, the *page templates*, the relationship that the Python files have to each other, and to other products. The configuration for each product is always called configure.zcml, and it is always in the same directory as all the Python files.

To begin with the three most important directives are as follows.

<browser:resource />: A static resource.

<browser:page />: A page on the web, pointing to a page template.

<browser:viewlet />: Part of a page, which also points at a page template.

Static resources

Static resources are simply files with names, which are useful for JavaScript, CSS, and images. When requested Zope sends the static file to the browser.

The resource is defined by the <browser:resource/> directive in the ZCML.

```
<browser:resource
name="gs-group-messages-topic-compose-20160127.js"
file="browser/javascript/compose.js"
permission="zope2.Public" />
```

- The name attribute is the of the resource. The URL is made up of / and the name. Normally the name of the product (gs.group.messages.topic in this case) makes up part of the name to prevent namespace clashes, and so it is easier to work back from the filename to the product. The name *should* end with the date the resource was created so there are fewer caching issues when the resource is updated.
- The file is the static file that is served. It is a path from the directory that holds the *ZCML* file. Resources are always within the browser sub-directory, within a javascript, images or css directory.
- The permission is the permission on the resource. It is always zope2.Public. This will allow the resource to be cached.

In GroupServer the resources are always accessed from the root of the site, with ++resource++ added to the start of the name: http://groupserver.org/++resource++gs-group-messages-topic-compose-20160127.js

Page Templates

Pages themselves are defined by one of two directives in the ZCML:

browser:page/> and
browser:viewlet/>. The former links the Python code (class) with a template, giving it a name.

```
<browser:page
name="index.html"
for="gs.group.base.interfaces.IGSGroupMarker"
class="gs.group.base.page.GroupPage"
template="browser/templates/homepage.pt"
permission="zope2.View" />
```

A viewlet is part of a page. It also links a class up with a name and template.

```
<browser:viewlet
name="gs-group-message-topic-summary-stats"
manager=".interfaces.ITopicSummary"
template="browser/templates/summarystats.pt"
class=".summarystats.SummaryStats"</pre>
```

```
permission="zope2.View"
weight="0"
title="Topic Summary Statistics" />
```

The pages are created using Zope Page Templates (ZPT), which is the same template system that Plone uses, and is very similar to Chameleon.

- The page templates are always stored in a directory called browser/templates, within each product. Each has the extension .pt.
- The template itself is **XHTML 5**: the XML form of HTML 5.
- The *dynamic* parts of the template are defined by **attributes**, using the Template Attribute Language (TAL). This accesses attributes and methods of the Python code. In the following example the group-name is written into the <hl/> element by the tal:content attribute.

```
<h1 id="gs-group-home-h" class="fn"
tal:content="view/groupInfo/name">Group</h1>
```

• Within each attribute is one or more expressions that generates the text that is placed into the page. The Python code (the class in the ZCML above) is always referred to as view, and a / is used as an attribute separator (rather than . in Python code). In the above example the Python class (gs.group.base.page.GroupPage) is accessed to get the group-information attribute (groupInfo), and from that the group-name is retrieved.

10.3.3 Documentation

Every package will always have documentation. The primary documentation is in the README.rst, and there will also be a Changelog in the docs/HISTORY.rst file. Often there will be full API documentation.

The development documentation for GroupServer is entirely in reStructuredText, with the autodoc plugin for Sphinx used to generate the source-code documentation where possible. The documentation is then usually pushed up to the the GroupServer project at Read The Docs; if it is then a link will be in the README.rst.

Remove GroupServer

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Date 2014-10-30

Organization GroupServer.org

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To remove GroupServer, you must remove the database, the associated database user, and the directory that contains the GroupServer install.

1. To remove the database, run the following commands:

```
$ dropdb gstestdb -U postgres
$ dropuser gstest -U postgres
```

gstestdb The name of the test database.

postgres The name of the admin of PostgreSQL.

gstest The name of the PostgreSQL user.

2. Remove the directory that contains the GroupServer install:

\$ rm -r groupserver-14.03

Frequently asked questions

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Date 2016-04-05

Organization GroupServer.org

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If you have a question that is missing from the list below feel free to ask in the GroupServer Development group.

12.1 How do I...

... add another site administrator?

Multiple people can administer a site. A person must *already* have a profile to be an administrator. (The easiest way to create one is to create a support group and add the new site administrator to that.)

- 1. Log into the ZMI.
- 2. Visit the folder for your site in /groupserver/Content.
- 3. Select the Security tab.
- 4. Click *local roles* at the top of the page.
- 5. Enter the user-identifier (it is the last segment of the profile URL, between the / characters) into the *User* entry.
- 6. Select DivisionAdmin from the Roles list.
- 7. Click the Add button.

Note: The site administrator can change any group, but only group administrators will receive notifications about each group. A site administrator can be made a group administrator using the *Manage members* page.

[From OnlineGroups.net Support]

... change the host name?

GroupServer uses two slightly different host names: one for the web-site and one for the mail-host. To change the host name for the site both will have to be changed.

- Change the host name for the web site.
 - 1. Log into the ZMI.
 - Visit the DivisionConfiguration for your site (by default /groupserver/Content/initial_site/).
 - 3. Change the *canonicalHost* property to the new name.
 - 4. Click the Save changes button.
 - 5. Change the proxy forwarding (see Configuring a web proxy).
- Change the various names for the mail-host.
 - 1. Change the configuration for **postfix** (see Configuring postfix).
 - 2. Log into the ZMI.
 - 3. Visit the DivisionConfiguration for your site (by default /groupserver/Content/initial_site/).
 - 4. Change the *emailDomain* to the new name, which may or may not be the same as the *canonical*-*Host* property. The *emailDomain* property of the *DivisionConfiguration* is used by the *Start a group* page to determine the email-address of a new group ({groupId}@{emailDomain}). (If absent the *emailDomain* of the *GlobalConfugration* object is used.)
 - 5. Click the Save changes button.
 - 6. Change the email address for each and every group.
 - (a) Log into the ZMI.
 - (b) Visit the ListManager for your site (by default /groupserver/ListManager).
 - (c) For each group
 - i. Select the group
 - ii. Select the Property tab.
 - iii. Change the *mailto* property so it contains the correct address.
 - iv. Click the Save changes button.

<http://groupserver.org/r/topic/2DdgBqagGaFs6cuCctFUfA>

... create a new site?

GroupServer can handle more than one site. Each site will have its own set of groups, while the profiles will be shared between the sites. Sadly, the process is very manual, and prone to problems.

- 1. Copy the folder for the initial site.
 - (a) Visit the /groupserver/Content folder in the ZMI.
 - (b) Select the folder.
 - (c) Click the *Copy* button.
 - (d) Click the Paste button to paste it into the /groupserver/Content folder.
 - (e) Select the new folder.
 - (f) Click the *Rename* button.

- (g) Give the folder a new *unique* name. The new name must be unique among the sites, and all the groups.
- (h) Click the *Ok* button.
- 2. Create a new *user group* for the site.
 - (a) Visit /groupserver/acl_users
 - (b) Select the User Groups tab.
 - (c) Click the *Add*... button.
 - (d) Set the *Name* of the new user group to {site-name}_member, where {site-name} is the name of your site.
 - (e) Click the *Add* button.
- 3. Update the site configuration.
 - (a) Update the site title.
 - i. Visit the folder for your new site.
 - ii. Select the Properties tab.
 - iii. Edit the title.
 - iv. Click the Ok button.
 - (b) Update the URL
 - i. Visit the DivisionConfiguration in the folder for your new site.
 - ii. Set the following at a minimum.
 - Update canonicalHost to be the hostname of your site.
 - Ensure that canonicalPort is correct. If this site is going to be an HTTP site canonicalPort should be 80; for HTTPS it should be 443
 - Add a new property named emailDomain. This is the domain used after the @ in the email addresses for the groups on the site. It may be the same as canonicalHost or different.
 - iii. Click the Save Changes button.
- 4. Delete the groups.
 - (a) Visit the groups folder in your new site.
 - (b) Select all the groups.
 - (c) Click the *Delete* button.
- 5. Set the permissions.
 - (a) Visit the folder for your new site.
 - (b) Select the Security tab.
 - If there is no DivisionAdmin role listed enter DivisionAdmin into the User defined roles entry and click Add Role
 - If there is no DivisionMember role listed enter DivisionMember into the User defined roles entry and click Add Role
 - (c) Click *local roles* at the top of the page.

- (d) Set yourself as a site administrator.
- (e) Set the user-group.
 - i. Select the name of the user-group for the site from the Group list.
 - ii. Select DivisionMember from the Roles list.
 - iii. Click the Add button.
- 6. Add the proxy configuration for your new site.
- 7. Add the Postfix configuration for your new site.

```
<http://groupserver.org/r/topic/44uT6Wt3mkmod7cyqugqp2><http://groupserver.org/r/topic/1S6podvwyVodJydNUfh4DY>
```

... change the email address for a group?

The email address for a group is normally the group-identifier followed by the domain name for the site. However, it can be changed:

- 1. Open the list object in the /groupserver/ListManager folder.
- 2. Edit the mailto property to the new value.
- 3. Click the Save changes button.

<http://groupserver.org/r/post/5mOm2zRgLhDxWFxreDP2EI>

... change the footer?

To change the footer edit a file called footerlinks.xml in the ZMI.

- 1. Log into the ZMI.
- 2. Visit the file /groupserver/Templates/output/footerlinks.xml.
- 3. Change the contents of the page template to the footer you desire. Something like the following:

```
class="inline-list pull-right">
Like
This
```

4. Click the Save Changes button.

<http://groupserver.org/r/post/5D6mSVRGrOy25TArcrb4fQ>

... change the host name?

The host-name is normally set during installation. However, it can be changed afterwards.

- 1. Visit the /groupserver/ folder in the ZMI.
- 2. Open the GlobalConfiguration object.
- 3. Edit the canonicalHost property to the new value.
- 4. Click the Save changes button.
- 5. Visit the /groupserver/ListManager folder.
- 6. Change the email address for every group in the folder

<http://groupserver.org/r/post/78hOqzXeQ0IOO9UYGxIsKZ>

... change the password for another person?

For security reasons, people can only change their own passwords. GroupServer deliberately prevents administrators from changing the passwords of other members.

If someone has forgotten their password then they should use the *Password reset* to set a new password. The page is linked from the *Sign in* page.

<http://groupserver.org/r/post/3Khm0ZtYOXnlzKhl4Vj11w>

... change the Reply-to behaviour for a group?

GroupServer sets the email address in the Reply-to header when sending a message from a group. The address can be that of the group, the author, or both. The default Reply-to is set depending according to the type of group.

Group type	Default Reply-to
Discussion	Group
Announcement	Author
Support	Author

To change the default *Reply-to*

- 1. Visit the Group page.
- 2. Select Change the general properties in the This group section of the Admin area.
- 3. Select the new setting from *Email replies go to...*
- 4. Click the *Change* button.

[From OnlineGroups.net Support]

... change the support email?

The email address for support is first set during the GroupServer installation. To change it

- 1. Visit the /groupserver/ folder in the ZMI,
- 2. Open the GlobalConfiguration object, and
- 3. Edit the supportEmail property.
- 4. Click the Save changes button.

<http://groupserver.org/r/post/2rO2bKiq6X4UjZ9MmYkZ8S>

... create a page?

Some pages in GroupServer (such as /about) are editable.

- 1. Visit the folder that should contain the page in the ZMI.
- 2. Add a new folder.
- 3. Visit the new folder.
- 4. Select the Interfaces tab.
- 5. Select Products.GSContentManager.interfaces.IGSContentManagerFolderMarker in the Available Marker Interfaces list.
- 6. Click the Add button.

<http://groupserver.org/r/post/77U0Vt8tiiaSbxm05JXfay>

... delete a post?

Once a post has been made then the group members will receive an email message containing that post, and there is no way to recall the message. However, a post can be hidden in the archive: click the *Hide* button next to the post. The post will be replaced with a message saying why it was deleted.

To actually delete a post:

- Any associated files must be removed from the file table,
- The first_post_id, last_post_id and num_posts must be updated in the topic table, and
- The post itself must be removed from the post table.

After deleting a post anyone following a link to the post on the archive (from the earlier message) will see a 404 (Not found) error rather than the nicer 410 (Gone) error.

<http://groupserver.org/r/post/11BNEy4jQtmKL5UaE0ERvh>

... disable email address obfuscation?

You cannot disable this feature. If a person posts from a domain controlled by DMARC (**RFC 7489**) then GroupServer rewrites the *From* header so others will receive the message. (If this was skipped then the message will fail the DMARC check and the group members would never see the message.) This conforms to the draft DMARC interoperability specification.

<http://groupserver.org/r/post/3aBYSugEuqZuTFnFMYakL1>

... disable HTML email

HTML formatted email messages from a group can be disabled for an entire site.

- 1. Log into the ZMI.
- 2. Visit the DivisionConfiguration for your site (by default /groupserver/Content/initial_site/).
- 3. Add the htmlEmail property.
 - (a) Add htmlEmail to the Name entry.
 - (b) Select boolean as the Type.
 - (c) Leave the Value as blank (False).
 - (d) Click the *Add* button.

To enable HTML formatted email messages either delete the htmlEmail property, or set it to True.

[From OnlineGroups.net Support]

... import posts from another system?

To import posts from another system first export the posts as an mbox file, then use the **mbox2gs** script to import the posts into GroupServer (documentation).

<http://groupserver.org/r/post/83qZzkEAFBN1tEeXv1Dkf>

... make all the members of a group moderated?

Ideally you would change the moderation of a group to *Moderate specified members, and all new members that join this group* before the new members are added. However, if this was skipped, and a large number of people has been added, then it is possible to set the list of moderated members.

- 1. Visit the /groupserver/ folder in the ZMI.
- 2. Open the acl_users object.
- 3. Select the *User groups* tab.

- 4. Open the user-group.
- 5. Copy the list of user-identifiers from the Users list into a text editor.
- 6. Remove the identifiers for each the administrator and moderator.
- 7. Visit the /groupserver/ListManager folder in the ZMI.
- 8. Open the mailing list object for the group.
- 9. Copy the list of members to be moderated from the text editor into the moderated_members list.
- 10. Click the Save changes button.

<http://groupserver.org/r/post/7r2kAxK3Y4zUPJgvl2A2rz>

... remove a user?

When a person leaves their last group on a site they are no longer a site member, but they will still have a user-object. These objects can be deleted, but it is discouraged.

- 1. Visit the /groupserver/ folder in the ZMI,
- 2. Open the acl_users object,
- 3. Select the user-object to delete, and
- 4. Click the Delete button.

<http://groupserver.org/r/post/tXN8SrD8dcrfyqKdD8QgZ>

... scan for viruses?

Install pyClamd.

<http://groupserver.org/r/post/36Os84MG4oZgi5GPtPhGvr>

... secure GroupServer?

Ensuring the following should enhance your security, and the members of your site should notice very little change.

- The GroupServer site should *only* be accessible via HTTPS (as in HTTP over TLS). See *Secure connections: TLS, SSL, and HTTPS*.
- Postfix should be using SMTPS (as in SMTP over TLS).
- Postfix should be grey-listing all incoming messages.
- Postfix should be running DMARC checks for all incoming messages.
- Postfix should add DKIM signing to messages from the groups.
- Scan for viruses.
- Keep the operating system up to date.
- Keep GroupServer up to date.

<http://groupserver.org/r/post/7mlFZoPhqnzqUJEoG9sbEe>

... set multiple people to receive the support email?

The easiest way for multiple people to receive messages to the Support email address is to create a new *Support group*.

- 1. Start a *secret* group.
- 2. Change the group type to Support.

- 3. Add the people who need to receive the messages to support to the group.
- 4. Change the support email address to the email address of the new group.

<http://groupserver.org/r/post/4Hr99NYlpzmoQqnFVH2ira>

... turn off a feature?

Normally the easiest way to turn off a feature is to hide it in the CSS.

- 1. Get used to changing the skin.
- 2. Make your own skin, based off the Blue or Green skin (see Development guide).
- 3. Hide the interface element in question by setting it to display: none.

For example:

- Hide post: <http://groupserver.org/r/post/3e6qousrx7qyvpsK0HsZUt>
- Password toggle: <http://groupserver.org/r/post/7ezGHt8QtK9zdl82uSxrgo>

12.2 Why do I see...

... an error setting up the database?

Towards the end of the GroupServer installation process the system will try and create some tables. If the permissions for **PostgreSQL** are set to IDENT based authentication you will see the following error:

psql: FATAL: Ident authentication failed for user "gsadmin"

Change the **PostgreSQL** authentication to md5.

- 1. Open the file pg_hba.conf. (It is normally found within /etc/postgresql, but the specific location depends on your version of **PostgreSQL** and distribution.)
- 2. Change ident to md5 in the lines that read:

host	all all 127.0.0.1/32	ident
host	all all ::1/128	ident

They should end up like the following:

```
host all all 127.0.0.1/32 md5
host all all ::1/128 md5
```

3. Restart **PostgreSQL**.

<http://groupserver.org/r/post/5ZlH5Brvf1GXKh573UAFT>

... an error with distribute?

Sometimes there is an issue with installing the distribute package:

Error: There is a version conflict

We already have : distribute 0.6.24

The solution is

- 1. Go to your GroupServer folder,
- 2. Get **pip** to install the correct version of distribute:

\$./bin/pip install "distribute == 0.6.49"

3. Carry on installing GroupServer:

\$./gs_install_ubuntu.sh

<http://groupserver.org/r/post/64795Fwr7CrIF0CtywwrCf>

... "couldn't install: lxml"?

To compile lxml the system needs at least 1024M of RAM.

<http://groupserver.org/r/post/4tKMVOifDkPPKKcaiSUJvY>

... email messages with the wrong CSS?

The web-hook that adds a message may use different URL to the one used for normal web traffic (see *Change the skin*). If this is the case GroupServer may have to be explicitly told the skin to use.

- 1. Visit the /groupserver/ folder in the ZMI,
- 2. Open the GlobalConfiguration object,
- 3. Set the emailSkin property to the same value that is used in the proxy configuration.

<http://groupserver.org/r/post/47QGmyKwX9pkaLj6j8mzZe>

... "Error with the configuration file" when sending the digest?

Specify the full path to the gsconfig.ini on the command line to **senddigest**. (See also *Daily digest of topics*.)

<http://groupserver.org/r/post/5s9tsZFDKPDHJS1JkunBun>

... no email when I make a post?

If you are testing, ensure that your group members are on One email per post.

<http://groupserver.org/r/post/A0TVjgcUWJnFVbk82YsJh>

... Request Entity Too Large?

Email messages are added to GroupServer, by postifx, using a web-hook. Because of this the proxy can block a message if it is too large. Adjust the client_max_body_size parameter in **nginx** or similar variable in your proxy of choice.

<http://groupserver.org/r/post/xXIumIpGyDIKgaifmxuRy>

... so many errors when installing?

GroupServer can only run as a normal user, never as the root superuser. Change the ownership of the GroupServer directory and all of its contents to a normal user.

<http://groupserver.org/r/post/5pZmyC9GUCCxmRlZzOfj7R>

Release notes

GroupServer uses a year-month version number (yy.mm). What would be termed Version 1 with semantic version numbers, the *Frozen treats* series, corresponds to the releases from GroupServer 10.09 — Spaghettieis with a Wafer of Confusion up to and including GroupServer 12.05 — Faloodeh Consumed with an Eye on History ¹.

Currently, GroupServer could be considered in Version 2 since the release of GroupServer 12.11 — Absinthe acquired arbitrarily, which marked the start of the *Awesome aperitifs* series.

13.1 Awesome aperitifs

13.1.1 GroupServer YY.MM — Sherry sipped silently

Unreleased

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Date 2016-12-19

Organization GroupServer.org

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Introduction

Of the visible *changes to GroupServer* in the Sherry release is the new *Request contact* page. You can *get Sherry* immediately.

Changes to GroupServer

In Sherry the *Request contact page* has been vastly improved. Finally, there have been some *minor improvements*.

¹ The project itself dates from 2007, with versions prior to 10.09 being part of the Version 1-alpha series. The first release made in May 2008. Release notes were not made until GroupServer 10.09 — Spaghettieis with a Wafer of Confusion.

Request contact page

The *Request contact* page has been updated so it now has a new HTML-formatted message, it is more robust, and better tested. The *Request contact* page allows group members to contact each other while also being able to **lurk in peace** (just read messages, without posting, and without anyone directly contacting them). If a member wants to contact someone else they can use the *Request contact* page to send a short message along with their contact details. If the person being contacted wishes the interaction to continue then they can reply.

The system has been largely rewritten (closing Issue 627). The new page will now send a HTML-formatted notification, along with a plain-text message (closing Issue 3409). The wording of the notification has been improved, and the page itself now uses the standard GroupServer style.

The *Request contact* page is now more robust with better handling of messages with Unicode characters and people that lack verified email addresses. As part of the rewrite, unit tests have been added to enhance the reliability of the page.

Internationalisation support has also been added to the page.

The *Request contact* notification was the last one to have an HTML message crafted, and be moved to the file-system. Creating the new notification (finally) closes Issue 269.

Acknowledgements Thanks to Robert and Alice Rose for their help with the Request contact page.

Minor improvements

- German language updates.
- An error that prevented the *Profile log* (found as log.html under a profile) from being shown has been fixed.
- An error with password-link creation in the *Welcome* notification that is generated by the *Add member* system has been fixed. (Thanks to Robert for spotting this issue.)
- The **Invite members in bulk** system is now more robust, as it will handle *tab* separated values, as well as *comma* separated values (CSV), with thanks to Piers Goodhew.
- Email addresses and web-page addresses are now omitted from the **topic keywords**, closing Bug 3919 and Bug 4028.
- The image-processing code is now more robust, including the scaling of very wide and very short images, with thanks to Donald Winship for pointing out the issue.
- The **DMARC** sub-domain policy is now checked when necessary, with thanks to Igor Colombi for clarifying the standard and testing.
- Errors in the Development guide documentation have been fixed, with thanks to Nick Bell.
- The creation of a development build of GroupServer is now easier, and better documented.
- The *favicon* images have been optimised.
- **PEP 484** type hints have been added to some low-level libraries.

Get Sherry

Unreleased

To get Sherry go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can *update an existing GroupServer system*.

Update an existing GroupServer system

To update a system running the Pastis (16.04) release of GroupServer to Sherry (YY.MM) carry out the following steps.

1. Copy the new versions of the configuration files to your existing GroupServer installation:

\$ cp ../groupserver-yy.mm/[bivz]*cfg

2. Run buildout in your existing GroupServer installation:

\$./bin/buildout -N

3. Update the SQL function that generates the topic keywords:

```
$ shopt -s globstar # This makes the ** below work
$ psql -U {psql_user} -h {psql_host} {psql_dbname} -f \
eggs/gs.group.messages.topic.base*/**/03-keywords.sql
```

Where {psql_user}, {psql_host}, {psql_dbname} are the name of your PostgreSQL user, host, and database, as configured during your GroupServer installation.

4. Restart your GroupServer instance (see Starting and stopping GroupServer).

Resources

- Code repository: https://github.com/groupserver/
- · Questions and comments to http://groupserver.org/groups/development
- · Report bugs at https://redmine.iopen.net/projects/groupserver

13.1.2 GroupServer 16.04 — Pastis proffered politely

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Date 2016-03-01

Organization GroupServer.org

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Introduction

Of the visible *changes to GroupServer* in the Pastis release the most significant is the new *Change email settings* page. You can *get Pastis* immediately.

Changes to GroupServer

In Pastis the *Email-settings page* is easier to use with mobile phones. The other major update in this release is the *updated base packages*. Finally, there have been some *minor improvements*.

Email-settings page

The Change email settings page allows people to add email addresses, and set the addresses they prefer. The page has been updated so it is **easier to use** with mobile devices, with buttons allowing people to add and remove addresses from each list of addresses. Using drag-and-drop between the lists still works for those on desktop systems.

The underlying code now uses web-hooks and JSON to update the email settings. This results in a far-faster page than before.

Finally, the dependencies that the Change email settings page had on jQuery.UI and Twitter Bootstrap have been removed.

Updated base packages

The most visible dependency to change in Pastis is jQuery, which has been updated to version 1.12.0, from 1.9.1. This should be compatible with any customisation code that exists for GroupServer, as the API for jQuery remains the same. Following the change to jQuery

- The WYMeditor has been updated to 1.1.1 from 1.0.0b5, and
- The jQuery MultiFile plugin has been updated to 2.2.1 from 1.48.

The Zope2 application framework, which supports GroupServer, has been updated to version 2.13.24 from 2.13.22. The buildout system — which controls most of the installation and update process — has been updated to use zc.buildout 2.5.0.

In addition packages such as dnspython, enum34, lxml, premailer, pytz, Pillow, redis, requests, and six have also been updated.

Minor improvements

- The Admin section of the group page has been moved up, so it stays in once place while the dynamic *Members* and *Recent files* sections load.
- The **Manage members** page is easier to use, it looks better, and includes internationalisation support. A coding error that prevented a group administrator from being a posting member of an *announcement* group has been corrected.
- The German translation has been updated, thanks to Alice and Stephan G. Blendinger.
- The code that detects bottom quoting has been improved, and long lines that are quoted look better.
- The GroupServer documentation now has a Frequently asked questions section.
- The *From* address used in the *Confirm subscription* notification has been fixed, so it is now set to the emailaddress of the group rather than the support email address. Thanks to Jp Maxwell for spotting the issue.
- The **installation script gs_install_ubuntu**. **sh** uses bold and muted text to make the information hierarchy more clear.
- The code that provides the image scaling handles some errors in a more robust way.
- Deleting file-metadata using the ZMI handles the missing file-system data gracefully.
- Deleting **user objects** using the *ZMI* handles the edge case of users being listed as part of a group but the group being absent from the user (and vice versa).
- The system that provides the different lists of group-members (gs.group.member.base) has been updated so it is faster, better tested, and documented.

- Joining, leaving, and requesting membership is now more robust, as these systems can better handle administrators that lack verified email addresses.
- More **unit tests** have been added to many products that make up GroupServer, including the code that determines if someone **can post**. *All* the unit-tests can be run by the script generated by zc.recipe.testrunner:

\$./bin/testrunner -v -c -m "gs\..*"

This script is run by the new continuous integration system provided by Travis CI.

- The suffix-list in the DMARC code has been updated thanks to Baran Kaynak.
- More JavaScript has been switched to use *strict mode* including the code that supports Registration. In addition, the JavaScript code that makes up GroupServer has been updated to conform to the Google JavaScript Style Guide thanks to the use of the Google Closure Linter.

Get Pastis

To get Pastis go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can *update an existing GroupServer system*.

Update an Existing GroupServer System

To update a system running the Limoncello (15.11) release of GroupServer to Pastis (16.04) carry out the following steps.

1. Copy the new versions of the configuration files to your existing GroupServer installation:

```
$ cp ../groupserver-16.04/[bivz]*cfg
```

2. Run buildout in your existing GroupServer installation:

\$./bin/buildout -N

3. Restart your GroupServer instance (see Starting and stopping GroupServer).

Resources

- Code repository: https://github.com/groupserver/
- · Questions and comments to http://groupserver.org/groups/development
- · Report bugs at https://redmine.iopen.net/projects/groupserver

13.1.3 GroupServer 15.11 — Limoncello to ward off summer

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Date 2015-11-02

Organization GroupServer.org

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Introduction

The major *changes to GroupServer* in the Limoncello release include HTML formatting of posts, better notifications, and more ways to connect with other systems. You can *get Limoncello* immediately.

Changes to GroupServer

The most visible change to GroupServer in this release is *HTML formatting of posts*. Limoncello also includes an *updated topic digest*, a new *profile status notification*, the introduction of *restricted groups*, *updated member management*, *easier sharing of links*, new *web hooks*, more *code documentation*, and an improved *German translation of GroupServer*. Finally, there have been some *minor improvements*.

HTML formatting of posts

The formatting of posts is the largest change in the Limoncello release of GroupServer. Both *post formatting in email* and *post formatting on the web* has been changed.

Post formatting in email GroupServer now will format email messages from a group using HTML — in addition to sending a plain-text version of the message.

The HTML form of the message includes additional metadata about the post:

- The profile image of the person who made the post
- The name of the topic that the post belongs to
- The name of the person who made the post, and a link to their profile
- The full name of the group, and a link to the group
- Links that make it easy to
 - Reply to the post
 - Start a new topic
 - View the topic on the web
 - Leave the group
 - Switch to a daily digest of topics

The HTML version of the **message body** is generated from the plain text version of the post. The formatting follows what is used on the web, which is discussed further in *the next section*.

Note: We hope to generate the HTML form of an email from the submitted HTML in a future version of GroupServer. This task is tracked in Feature 3676.

Sending a HTML formatted message based on a plain-text email closes Feature 4160.

Post formatting on the web The formatting of the **message body** the web has been changed to follow the updates in *post formatting in email*.

- Text in *asterisks* is made bold (as with prior releases).
- Quoted text (> like this) is now muted.

- URLs and site names are made into links, as before.
 - The host name in links is now made bold, so people can more easily see where the link goes.
 - Long URLs are now shown in a small-font, so they take up less room.
- Email addresses are made clickable.
 - All email addresses are shown in the body of the email messages that are sent from the group.
 - All email addresses are still shown on the web in private, restricted, or secret groups.
 - As before, addresses shown on the web in **public groups** are hidden. However, if the address is either the **group email** address or the **support address** for the site then the address is now shown.
- Posts on the web still embed videos from YouTube and Vimeo. In this release the videos are now embedded using <iframe> elements. Embedding cannot be done in the email messages sent from the group, so the videos are kept as URLs.
- **Bottom quoting** and the signature is still hidden. However, the system has been improved in the Limoncello release.
 - The closing (such as "Yours sincerely..." or "Kind regards...") is now always shown in messages.
 - Extraneous CSS added to the bottom-quoting by Mozilla Thunderbird is now hidden by default.
 - The **Rest of post** section of a message on the *Post* page is now open by default. This makes following the link from the email message to the archive easier.

Attachments are still stripped, and replaced with links to the files on the web. The file-sizes of attached files now look better; empty files are explicitly labelled as empty.

In addition to the user-visible changes, the code for that displays the **posts on the web** has been refactored and documented.

Updated topic digest

Group members can opt to receive a *daily topic digest* from a group — rather than getting an email message every time someone posts. The Limoncello release includes significantly updates to the look of the digest, and the tools for sending the digests.

- The digests look like standard email notification, closing Feature 3985.
- The digest now includes a photo of the most recent person to post to each topic.
- It is now easier to
 - Find the group from the digest,
 - Post to a new topic, and
 - Change your email settings.

The **sendigest** command, which is run once a day by **cron** to send the digests, has also been updated. It is now faster, and now has a --verbose option for producing verbose output, including a percentage-progress indicator.

Because the new *profile status notification* reminds people that they are in groups the **weekly** topic digest, which was sent when there was no activity in a group for a week, is no longer sent.

Profile status notification

GroupServer now has the ability to send out a notification that reminds people about their profile status, what groups they are in, and encourages the group members to enhance their profiles. The new *What is going on in your groups* notification is designed to be sent out once a month (towards the start of every month). The system includes a new **sendprofile** command — which works much like the **senddigest** command that sends out the daily digest of topics (see Configuring cron for more information).

There are also two new email-commands: Status off and Status on. The former records that the person wishes to stop receiving the monthly summary, the latter turns it on. Both work for a *support* group.

The creation of a profile status notification closes Feature 370.

Restricted groups

A new privacy level has been added to GroupServer in the Limoncello release: *restricted groups*. Everyone that is a member of the **site** can see a restricted group, and the posts within it. It joins the three existing privacy levels:

- Public, where the group and posts are shown to everyone,
- Private, where only group-members can see the posts, and
- Secret, where only members can see the group and posts.

The different privacy levels can be set from the Change privacy page, linked from the Admin area of the group page.

Allowing the restricted group-type to be set closes Feature 4169.

Configurable Reply-to

The Reply-to header for posts sent from a group can now be easily configured — using the *Reply to* property on the *General group properties* page, which is linked from the *Admin* section of the group page. In the Rakı release of we added the ability for GroupServer to change the Reply-to header to the email address of author of the post, the group, or both (see *Email processing*). However, there was never an easy way to change what the value should be. Adding this ability closes Feature 4051.

Updated member management

The Manage members page has been updated to make it easier to use.

- 48 people are now shown on every page, rather than just 20.
- The *Manage many members* page is now shown when there is more than 48 members in a group, rather than 127.
- The list of people on the *Manage many members* page is now sorted by name.

Sharing links

GroupServer has a *Share* button on each Topic page, next to every post, and on every Image page. It makes it easy to share links on social media sites such as **Twitter**, **Facebook** and **Google+**. It also provides a URL so you can share a link using email, or a different system.

The popup that opens when you click *Share* now it has a *Copy* button, that makes it even easier to share links. Providing the *Copy* button closes Feature 4176.

Web hooks

For a long time GroupServer has used *web hooks* to expose functionality to outside systems. For example, the scripts **mbox2gs**, **smtp2gs**, **senddigest** and the new **sendprofile** (see *Profile status notification*) all use web hooks.

Thanks to Team Z some *generic* web-hooks have been added:

- Discover all the groups on a site.
- Add someone to a group.
- Search for someone by email address.
- List all the site members.
- Remove someone from a group.

The is also a new overview of the avaliable hooks (see Connecting external systems).

Implementing the web-hooks closes Issue 262.

German translation of GroupServer

Far more of the GroupServer user-interface has been translated into German, thanks to the diligent work of Cousin Clara.

Code documentation

The documentation for the low-level system continues to improve in the Limoncello release. Many system now have documentation available on Read the Docs, including all the scrips that are generated during installation. The document components of GroupServer are listed as sub-projects of GroupServer on Read the Docs.

Minor improvements

- Email notifications should render better in IBM Notes, and Microsoft Outlook on Windows.
- Some memory leaks have been fixed.
- The rewriting of **the Subject** of an email message when the post has been forwarded from another group has been fixed.
- The WAI-AIRA roles have been improved, closing Issue 4156.
- An error with a link in the Unknown email address notification has been fixed.
- An error with a link to the profile from the *Member has left* notification has been fixed.
- The scripts that use web hooks now handle **301 redirects** correctly, closing Bug 4162.
- Links in email messages can now use TLS as the protocol (https://) closing Bug 4171. For more information see the document for *Secure connections: TLS, SSL, and HTTPS*.
- Email notifications now use *Hello* as the **opening salutation**, rather than *Dear*.
- A fix for an incorrect **link to Support** in the *Welcome* message that is sent when someone is added to a group has been added.
- A problem with mailto links that set a *Subject* failing in Google GMail has been fixed.

- When non-member tries to **unsubscribe** from a group they are now sent an email telling them that they are not a member. Different messages are sent to people with and without profiles.
- Required-widget checking now works if Google Chrome or Opera auto-fill (a.k.a auto-complete) the fields

Get Limoncello

To get Limoncello go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can *update an existing GroupServer system*.

Update an Existing GroupServer System

To update a system running the Rakı release of GroupServer (15.03) to Limoncello (15.11) carry out the following steps.

- 1. Add the profile_notification_skip table to the relational database. (The table records those that have chosen to skip the new *Profile status notification*.)
 - (a) Download the SQL definition of the table.
 - (b) Execute the SQL using the following command:

\$ psql -U {psql_user} {psql_dbname} -f {filename}

Where {psql_user} and {psql_dbname} are the names of the PostgreSQL user and relationaldatabase used by GroupServer (as recorded in config.cfg, see GroupServer installation). The final argument is the name of the SQL file you downloaded (probably 01-skip.sql).

Alternatively, if you get a password authentication failed error with the above command, the following command may be more successful depending on your database configuration:

\$ sudo -u postgres psql {psql_dbname} -f {filename}

- 2. Download the Limoncello tar-ball from the GroupServer download page.
- 3. Uncompress the tar-ball:

\$ tar xfz groupserver-15.11.tar.gz

- 4. Change to the directory that contains your existing GroupServer installation.
- 5. Copy the new versions of the configuration files to your existing GroupServer installation:

\$ cp ../groupserver-15.11/[biv]*cfg

6. Run buildout in your existing GroupServer installation:

\$./bin/buildout -N

- 7. Restart your GroupServer instance (see Starting and stopping GroupServer).
- 8. Update cron so it sends the new monthly profile status notification.

Resources

- Code repository: https://github.com/groupserver/
- · Questions and comments to http://groupserver.org/groups/development
- Report bugs at https://redmine.iopen.net/projects/groupserver

13.1.4 GroupServer 15.03 — Rakı with an eye on history

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Date 2015-03-31

Organization GroupServer.org

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Introduction

The major *changes to GroupServer* in the Rakı release include the rebuilt email processing sub-system, the ability to export posts, and internationalisation. You can *get Rakı* immediately.

Changes to GroupServer

The most extensive change in Rak1 is the new *email processing* subsystem. In addition GroupServer can now *export data*, there have been further *improvements to internationalisation*, and the introduction of *message relaying*. Finally, there have been some *minor code improvements*.

Email processing

The components that process email coming into a GroupServer group, and sends email from the group, have been completely changed. This update closes Feature 387.

Receiving email is now handled by code that has been thoroughly unit-tested to ensure that it works with multiple character-sets and encodings. The **checks** to see if a message should be processed have been refactored and are now much more *extensible*, less *coupled*, and more *cohesive*, thanks to Bill Bushey.

The system for **building the email message** before it is sent has been totally rebuilt. Now the message is created using page-templates. This allows the techniques used to customise web pages in GroupServer to be used to customise email messages, including the *prologue* that appears at the top of every message, and at the bottom the *file notifications* and the *footer*.

The **headers** have been refactored to be more extensible. It is now easy to add to the headers, and to change the behaviour of a header. The Reply-to header, in particular, has changed to allow the default behaviour of a group to change between

- Reply to the group,
- Reply to the original author, and
- Reply to both.

Finally, the sending of an email from a group has been tweaked. However, there should be no noticeable change.

Export data

GroupServer has long had the ability to import profile data using the *Add people in bulk* page, and import posts using the mbox2gs script. Now with the Rakı release GroupServer has the ability to *export profiles* and *export posts*.

Export profiles The new *Export members* page allows an administrator to download a CSV file of all the profile information of the group members. The profile data is from the new profile.json view of a profile. The new *Export members* page closes Feature 4137.

Export posts The new *Export posts* page allows an administrator to download an mbox file containing the posts (with attachments) made to a group in one particular month. By breaking the archive up like this the administrator is able to download all the posts in the most recent month and add it to an existing mbox archive of posts. The new *Export posts* page closes Feature 3594.

Improvements to internationalisation

The effort by Alice Rose to improve internationalisation support in GroupServer continues apace. GroupServer is now using Transifex to manage the translations. **You can add translations,** without needing to know any Python or HTML!

All the major components of GroupServer have internationalisation support. This includes the site homepage, the group page, the topic page, and the post page. Adding internationalisation support to the bulk of GroupServer closes Bug 81.

The translation effort is currently focused on French, German, and Spanish (with English being the default language). French is has the most complete localisation, thanks to the amazing efforts of Razique Mahroua.

Finally there is now a Translation guide included in the GroupServer documentation. Adding the new internalisation documentation closes Feature 4031.

Message relaying

Messages sent from a GroupServer group can fall afoul of email-servers that enforce DMARC policies. To overcome this GroupServer rewrites the *From* address: when necessary it replaces the *From* address with one constructed from the unique identifier of the profile of the author. This new address is known as the **obfuscated address** (see GroupServer 14.06 — Slivovica shots at sunset).

However, the rewritten From address has made it difficult to reply the author of the message — and this was particularly problematic when the default Reply-to for the group set to the *author* rather than the *group*.

Now, thanks to the work by Bill Bushey GroupServer will now relay on messages that are sent to an obfuscated address, closing Feature 4106.

Minor code improvements

- The XML for the *Email settings* page has been updated.
- The CSS that is used in the notifications has been fixed.
- The code that makes up the *Topics* list on the group page, the *Topic* and *topic digests* has been refactored, closing Feature 3739.
- The + character (and others) can now be used in email addresses, closing Bug 3915 and Bug 4036.

Get Rakı

To get Rakı go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can *update an existing GroupServer system*.

Update an Existing GroupServer System

To update a system running the Calvados release of GroupServer (14.11) to Rakı (15.03) carry out the following steps.

- 1. Download the Rakı tar-ball from the GroupServer download page.
- 2. Uncompress the tar-ball:

\$ tar cfz groupserver-15.03.tar.gz

- 3. Change to the directory that contains your existing GroupServer installation.
- 4. Copy the new version-configuration files to your existing GroupServer installation:

\$ cp ../groupserver-15.03/[bdiv]*cfg

- 5. In your existing GroupServer installation copy the configuration file to its new location.
 - (a) Make an etc directory:

\$ mkdir etc/

(b) Move the configuration file to the new directory:

\$ cp parts/instance/etc/gsconfig.ini etc/

6. Run buildout in your existing GroupServer installation:

\$./bin/buildout -N

7. Restart your GroupServer instance (see Starting and stopping GroupServer).

Resources

- Code repository: https://github.com/groupserver/
- Questions and comments to http://groupserver.org/groups/development
- Report bugs at https://redmine.iopen.net/projects/groupserver

13.1.5 GroupServer 14.11 — Calvados consumed covertly

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Date 2014-11-25

Organization GroupServer.org

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Introduction

The major *changes to GroupServer* in the Calvados release include improved internationalisation, and updated email commands. You can *get Calvados* immediately.

Changes to GroupServer

The most extensive change in Calvados is the new *internationalisation*. There are also *updated email commands*, *updated email headers* better *reporting of bouncing email addresses*, and the new *change group-type* page. Finally there have been some *minor code improvements*.

Internationalisation

Alice Rose has lead an effort to add internationalisation to GroupServer. So far internationalisation support has been added to the following products.

- The core page template that lays out the page
- The Join page
- The site homepage
 - The Welcome area and Change welcome page
 - The About area and Change about page
 - The Admin area
 - The Groups lists
 - The *Topics* list
- The Change site name page
- The Change site timezone page
- The Start a group page
- The Search for a site member page
- (Some) of the *Site statistics* page
- The Change group properties page

Status of internationalisation topic in the GroupServer Development group is a good place to follow the improvements to internationalisation. We welcome any and all efforts to improve the internationalisation for GroupServer.

Updated email commands

The system for handling email commands has been completely rewritten and improved. Five commands are currently supported.

- **Unsubscribe** This is the most commonly used command. It removes the group-member that sent the command from the group. See the gs.group.member.leave product for more information.
- **Subscribe** This used to join a **public** group. A person who registers this way will be unable to log in, because he or she will have no password. In addition public groups are rare so it has limited use. However, tradition dictates that a Subscribe command is supported. See the gs.group.member.subscribe product for more information.
- **Confirm** This notification, the companion to Subscribe, is used to ensure that a person wants to join a group. See the gs.group.member.subscribe product for more information.
- **Digest on** This is used to switch to the topic-digest. See the gs.group.member.email.settings product for more information.

Digest off This is used to switch to one email per post. See the gs.group.member.email.settings product for more information.

The implementation of the new email commands closes Bug 3403.

Updated email headers

The system for updating email headers has also been completely rewritten. The previous system relied on pagetemplates defined in the ZMI, which was very hard to update, and harder to test. The gs.group.list.sender product now defines the fourteen email headers that are deleted, added, or modified. The implementation of the new headers closes Bug 267.

In addition the various List headers have been added, which closes Issue 3785.

Reporting of bouncing email addresses

When an email message cannot be delivered often a *bounce* message will be set back to the system that sent the message. For many years GroupServer has kept track of these bounce messages using XVERP; if an address of a group-member causes bounces on five separate days in a 60 day window then that email address is set to *unverified*.

The new *Bounces* page now shows the group administrator a record of the bouncing email addresses. In addition a notification is sent to the administrator when the email address of a group member is disabled. If the member has any additional email addresses then notifications is sent to these addresses also.

The updating of the bounce-handling system closes Feature 3614, Feature 3772 and Feature 3773.

Change group-type

There are four types of group supported by GroupServer:

- Discussion groups such as GroupServer development,
- Announcement group such as GroupServer announcements,
- Support groups such as support@onlinegroups.net, and
- Closed groups.

Calvados introduces the *Change group-type* page, which allows the type of group to be quickly and easily changed, closing Feature 702.

Minor code improvements

- The primary code repository for GroupServer is now at GitHub. We hope that this will make GroupServer easier for others to work on.
- The Change image page is now in its own product, gs.profile.image.edit, closing Feature 601
- The notifications that are sent out when someone leaves a group have been updated, closing Feature 4061.
- The subject-line prefix is correctly set when changing the general group properties, closing Bug 640.
- Many products now have Sphinx documentation. This includes the documentation for GroupServer installation.

Get Calvados

To get Calvados go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can *update an existing GroupServer system*.

Update an existing GroupServer system

To update a system running the Slivovica release of GroupServer (14.06) to Calvados (14.11) carry out the following steps.

- 1. Download the Calvados tar-ball from the GroupServer download page.
- 2. Uncompress the tar-ball:

\$ tar cfz groupserver-14.11.tar.gz

- 3. Change to the directory that contains your existing GroupServer installation.
- 4. Copy the new version-configuration files to your existing GroupServer installation:

\$ cp ../groupserver-14.11/[biv]*cfg

5. In your existing GroupServer installation run:

\$./bin/buildout -n

6. Restart your GroupServer instance.

TODO Update the table with the confirmation IDs for the new subscription command

Resources

- Code repository: https://github.com/groupserver/
- Questions and comments to http://groupserver.org/groups/development
- · Report bugs at https://redmine.iopen.net/projects/groupserver

13.1.6 GroupServer 14.06 — Slivovica shots at sunset

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Date 2014-06-03

Organization GroupServer.org

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Introduction

The major *changes to GroupServer* in the Slivovica release include making the system easier to install, better at handling email, and improving the reliability. You can *get Slivovica* immediately.

Changes to GroupServer

For new installations of GroupServer the most important change is the *updated buildout recipes*, that should make the process of installing GroupServer more robust. For existing systems *DMARC support* has been added, as well as improvements to how *incoming SMTP* is handled. Finally there have been many other *minor code improvements*.

Updated buildout recipes

GroupServer itself is installed using four *recipes* that are used by Buildout. All four recipes have been improved. There is now a base recipe *class* that is shared by the recipes, and unit-tests have been added to ensure the recipes work as expected. Specific improvements include the following.

- The recipe that creates the Postfix configuration has been updated, fixing a problem that Bill found.
- The recipe that crates the PostgreSQL tables now uses the setuptools package to extract the SQL files from the different modules. The modules are now passed into the recipe from Buildout, rather than being written in the recipe.
- The creation of the GroupServer site is now simpler, as only the site-administrator is created during installation. This solves many issues with the email-address of the normal group-member conflicting with the email address of the site administrator.

DMARC Support

With the Slivovica release of GroupServer messages are more likely to be received by people whose email is provided by hosts that implement strict DMARC. With strict DMARC messages are checked to ensure that message was actually sent from the host listed in the From address. All mailing-lists (including GNU Mailman, Google Groups, and Yahoo! Groups) modify the message before sending it out, and this would cause the DMARC check to fail.

Like most other mailing lists, GroupServer now rewrites the From address if the group member uses an email provider that implements strict DMARC. The new address includes the name of the sender, and the ID of his or her profile (see Feature 4108). This ensures that the person who sent the message can still be identified, and email message will still get through.

Incoming SMTP

With the Slivovica release of GroupServer email messages are correctly sent to GroupServer when it is running on a non-standard port. Messages are received by Postfix, which then uses the smtp2gs programme to add the message to GroupServer. Previously manual intervention was needed if GroupServer was listening to a non-standard port.

Now all components of GroupServer correctly handle the port that is set in the configuration file when GroupServer is first set-up. This includes the *recipe* that creates the alias file for Postfix, the smtp2gs script that uploads the email message, and the gs.form library that smtp2gs uses to connect to GroupServer.

Minor code improvements

Four components have undergone minor updates for Slivovica.

Add member: Fixed an error with the dependencies of the product that added a member to a group.

Site style: Some errors in the CSS have been fixed.

mbox importing: The code that imports mbox files has been updated, and it now uses the same core code as the smtp2gs script.

Starting public groups: Public groups are now visible on the homepage of the site as soon as they are started, closing Bug 4105.

In addition the following general changes have been made to GroupServer.

- Three fundamental *products* gs.core, gs.dmarc, and gs.form have been **published** to PyPI.
- Sphinx is now used to generate the documentation for gs.config, gs.core, gs.database, gs.dmarc, gs.form, and gs.group.messages.add.smtp2gs.
- Unit tests have been added to many of the products that make up GroupServer. These tests make it more likely that these components that make up GroupServer will work correctly now and in the future.
- Where possible **Python 3 support** has been added to the products that make up GroupServer. The main change has been to switch to Unicode-text by default. While not all products have been updated, many have.
- Strict mode has been turned on in more of the JavaScript modules that support the GroupServer interface. Code written with strict-mode turned on is more likely to be correct, and is executed more quickly in modern browsers.
- Finally, more code now raises errors, rather than relying on assert statements. As these errors should never happen hopefully no-one will notice a difference.

Get Slivovica

To get Slivovica go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can *update an existing GroupServer system*.

Update an Existing GroupServer System

To update a system running the Ouzo release of GroupServer (14.03) to Slivovica (14.06) carry out the following steps.

- 1. Download the Slivovica tar-ball from the GroupServer download page.
- 2. Uncompress the tar-ball:

\$ tar cfz groupserver-14.06.tar.gz

- 3. Change to the directory that contains your existing GroupServer installation.
- 4. Copy the new version-configuration files to your existing GroupServer installation:

\$ cp ../groupserver-14.06/[vz]*cfg

5. In your existing GroupServer installation run:

\$./bin/buildout -n

6. Restart your GroupServer instance.

Resources

- Code repository: https://source.iopen.net/groupserver/
- · Questions and comments to http://groupserver.org/groups/development
- · Report bugs at https://redmine.iopen.net/projects/groupserver

13.1.7 GroupServer 14.03 — Ouzo utilised as an unguent

Authors Michael JasonSmith; Bill Bushey; Dan Randow Contact Michael JasonSmith <mpj17@onlinegroups.net> Date 2014-03-20 Organization GroupServer.org Copyright This document is licensed under a Creative Com

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Introduction

It has been seventeen months since the last release of GroupServer (Absinthe, 12.11). The major delay was caused by the creation of a new user-interface for GroupServer. Almost all the *changes to GroupServer* are user-visible — and include a new notifications, and updated systems for adding people. You can *get Ouzo* immediately.

Changes to GroupServer

The most significant change to GroupServer in the Ouzo release is the *new style pages*. In addition the system for *adding people* in bulk has been completely rewritten, there has been an extensive *notifications update*, and *other updates*.

New style pages

The main update to GroupServer has been the implementation of new pages on the Web interface (Issue 3423). The *navigation* has been extensively reworked: there is an *updated layout* for most pages, and pages have been integrated with *Twitter Bootstrap*¹. The *profile images* are now (mostly) square, with new code to improve their performance. In addition the pages have been made more *responsive*, and the *performance* of the pages has been improved.

Navigation The navigation scheme for GroupServer has changed dramatically in this release, moving away from the context-menu (along the left), and dropping the site-menu (along the top) entirely. In their place is a system based on breadcrumbs (Issue 3510).

The *Profile* page is the only page left that makes use of the context-menu.

Updated layout The *Group* page ² and *Site* homepage ³ have been updated so they have asymmetric columns — with less important information placed in the smaller column on the right. Both make use of *Twitter Bootstrap*, the updated *profile images*, and the *updated lists*.

The *Group* page gets an updated *About* area, and *Change about* page (Issue 3871). The *Site* homepage gets a new *Welcome* area (Issue 3869) in addition to an updated *Introduction* (Issue 3870).

The layout of the *Topic* page and *Post* page have been updated to move the metadata (such as who posted the message, and when) to the left of the post (Issue 3455).

Acknowledgements The pages were redesigned by Mike Harding from Cactuslab, to whom all praise should be given.

¹ The product for supplying the CSS is located at <https://source.iopen.net/groupserver/gs.content.js.bootstrap>

² The code responsible for laying out the Group page is provided by https://source.iopen.net/groupserver/gs.group.home

³ The code responsible for laying out the Site homepage is provided by <https://source.iopen.net/groupserver/gs.site.home>

The *Image* page, which displays an image that has been posted to a group, has been updated to reflect the layout of the *Topic* page. Problems with SVG images have also been resolved (Issue 3663).

Most of the other pages have been updated to take Twitter Bootstrap and the new navigation into account.

Twitter Bootstrap The GroupServer user-interface is now based on Twitter Bootstrap 2.3. The look of every single page has changed significantly as a consequence.

The tabs, on the Group page and Site page, have dropped the use of jQuery.UI tabs in favour of the Bootstrap Tabs. The Popover class is used to show information including the privacy of a group and posts, encouragement for the new administrator, and the Share widget.

Profile images Another major change has been with the profile images. They are now shown in more places and at *multiple resolutions*. In addition most of the images are *square*. If a group member has not set an image a *missing profile image* image is shown.

Multiple resolutions The profile-images in releases of GroupServer prior to Ouzo were restricted to 81×108 pixels. Now the content provider ⁴ is able to supply profile images at a range of resolutions (Issue 588). In addition the *image compression* enhancements have also been rolled out to the profile image, so small images are now directly embedded into the page.

Square The profile images are now square by default ⁵. These square images are shown in more places, such as in the new *Recently active* list on the *Group* page (Issue 3873), the *Profile* link at the top of every page, and the *Post message* area of the *Topic* and *Start topic* pages.

Updated lists At its core GroupServer provides lists of things: groups, topics, posts, files, and people. All these lists have been updated to improve the hierarchy of information.

- The Groups list on the Site page now lists all the visible groups, making the Groups page redundant (Issue 3449).
- The *Files* icons for a topic are no-longer shown by default. Instead a single attachment-icon is shown, and icons for the files are displayed in a tooltip.
- Who made the most recent post, and when, is more prominently displayed.
- The topic-keywords are labelled Keywords.
- There is a new list of *Recently active* members on the *Group page*, which is loaded through AJAX (Issue 3873).
- The list of Files has been moved to the secondary column of the Group page, from the main area.

Responsive The GroupServer web pages are now more responsive to the size of device (Issue 3909). This allows the pages to look good from screens found on desktops, down to small feature phones. This allows people to keep up with conversations anywhere and any time. Some pages, such as the Image page (Issue 3508) have had particular attention to ensure the page works well at multiple sizes.

Performance The performance Web interface has been massively improved. The primary way of doing this has been with *refactored JavaScript*. In addition *image compression* has been increased and *font icons* introduced. Finally, many small changes have been made to the layout of the pages to reduce the *time to glass*.

⁴ The product for supplying the profile-image content provider is located at <https://source.iopen.net/groupserver/gs.profile.image.base>

⁵ The product for supplying the square profile-image is located at <https://source.iopen.net/groupserver/gs.profile.image.square>

Refactored JavaScript All the JavaScript used by GroupServer has been refactored into separate modules (Issue 344). This makes documentation and maintenance far easier, at the expense of speed. To compensate, all JavaScript (including that supplied by jQuery ⁶ and Twitter Bootstrap ⁷) is deferred until after the paged has been shown ⁸. In addition, all the JavaScript has been *minified* to reduce the amount of data that is transported, and to speed the parsing by the Web browser. Finally, almost all the JavaScript is *asynchronously* loaded ⁹.

The JavaScript code loads and assists with navigating the lists of recent topics, posts and files. This code has been refactored so the all the lists share the same code (Issue 3507). In addition the lists are only loaded when the corresponding tab is visible. Combined this greatly reduces the number of requests required to load the page.

Strict mode has been enabled for all the core JavaScript modules, and some of the other modules. This has the combined effect of reducing the number of errors, and improving performance by allowing the browser to optimise the code.

Image compression Many JPEG images that are posted by group members have very low compression (or very high quality, depending how you like to look at it). GroupServer now produces thumbnails with aggressive compression by default (Issue 663). As the dimensions of the image are reduced the quality of the image is also dropped — making the images far smaller ¹⁰. When images are *particularly* small a data-URI is used to directly embed the image into the page, reducing the need to make an HTTP request to fetch the image.

Font icons The new user-interface uses a font to provide the different icons in the interface (Issue 3788). These are quick to load and render. In addition they are independent of the resolution of the device, so work well in the new *responsive* user interface.

Adding people

The system for adding people to a group has undergone many improvements, primarily to the pages that allow the new member details to be uploaded by CSV, but also to the system that allows existing site members to be invited to join a group.

The systems for inviting people in bulk ¹¹ — and adding people in bulk ¹² — using a CSV file have been completely rewritten (Issue 3494). Both systems now use AJAX and JSON to parse the CSV file, and invite ¹³ or add ¹⁴ individual people. This, combined with widgets provided by *Twitter Bootstrap*, allows for continual progress updates, avoids server timeouts, and is **massively** more usable.

On a more minor note, the page for inviting site members to join a group has been enhanced with the addition of email-addresses, which helps distinguish between people with similar names (Issue 452).

Notifications update

Most of the notifications in GroupServer have been updated in Ouzo (Issue 3892). Premailer is now used to embed CSS into the HTML-formatted messages. The CSS itself is specified using a system of "skins" that is very similar to what is used for the Web pages ¹⁵, and the default look is very similar to the Web user interface ¹⁶.

⁶ The product for supplying the jQuery JavaScript is located at https://source.iopen.net/groupserver/gs.content.js.jquery.base

⁷ The product for supplying the Twitter Bootstrap code is located at <https://source.iopen.net/groupserver/gs.content.js.bootstrap>

⁸ The product for determining what JavaScript is loaded, and how, is provided by <https://source.iopen.net/groupserver/gs.content.layout>

⁹ The code for asynchronously loading the JavaScript is provided by https://source.iopen.net/groupserver/gs.content.js.loader/>

¹⁰ The code for determining how images should be displayed is provided by <https://source.iopen.net/groupserver/gs.image>

¹¹ The code for inviting people by uploading a CSV file is provided by <https://source.iopen.net/groupserver/gs.group.member.invite.csv>

¹² The code for adding people by uploading a CSV file is provided by <https://source.iopen.net/groupserver/gs.group.member.add.csv>

¹³ The code for inviting someone by JSON is provided by https://source.iopen.net/groupserver/gs.group.member.invite.json

¹⁴ The code for adding someone by JSON is provided by <https://source.iopen.net/groupserver/gs.group.member.add.json>

¹⁵ The code for specifying the CSS for the HTML-formatted notifications is provided by <https://source.iopen.net/groupserver/gs.content.email.css>

¹⁶ The code for specifying the layout of the messages is provided by <https://source.iopen.net/groupserver/gs.content.email.layout>

Almost all the notifications have been moved to the file-system — rather than requiring templates in the ZMI (Issue 269) — and the use of the new notifications is now far more consistent than before.

Topic digests The system for producing the topic digests ¹⁷ has been completely rewritten (Issue 408). The digest email is provided in both HTML and plain-text formats. In addition the code for sending the digests ¹⁸ has been rewritten, so it uses less memory, and is more secure (Issue 3415 and Issue 3417).

Other updates

As well as the major rewrite of the user-interface a number of smaller changes have been made with the Ouzo release that makes GroupServer more useful, more usable, and easier to maintain.

- **Autocomplete with** *Start a topic*: The *Start a topic* page ¹⁹ now has type-ahead (provided by *Twitter Bootstrap*) that suggests the names of existing topics in the group (Issue 282).
- **Show password:** All password entries (for login and setting a password) now have a toggle to allow a group member to hide his or her password in public places (Issue 519)²⁰.
- Attachment detection: The code for determining the attachments to show, and the attachments to hide, has been rewritten to allow more attachments through (Issue 4073).
- Join and leave log: The Join and leave log has been moved to the Members page (Issue 3683).
- *WMYeditor* updated: The *WYMeditor* is used to provide editing of HTML content such as the *About* area in a group. It has been updated to work with jQuery 1.9 (Issue 3868).
- Keywords on the *Topic* page: Keywords, summarising what has been discussed, are now shown at the top of the *Topic* page (Issue 877)
- **Privacy on the** *Group* **page:** The privacy setting for a group is shown on the *Group* page, near the email address for the group (Issue 3914).
- Accessibility: WAI-ARIA attributes have been added throughout GroupServer to improve the accessibility.
- **Python 3 updates:** The slow journey to convert GroupServer from Python 2 to Python 3 has been started. At this stage three sets of changes have been made, or are being made:
 - Ensuring the code is consistent with PEP-8,
 - Switching to Unicode literals where possible (PEP-3112), and
 - Switching to absolute import (PEP-328).

Get Ouzo

To get Ouzo go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can update an existing GroupServer system.

Update an Existing GroupServer System

To update a system running the Absinthe release of GroupServer (12.11) to Ouzo (14.03) carry out the following steps.

- 1. Download the Ouzo tar-ball from the GroupServer download page.
- ¹⁷ The system for generating the topic digests is provided by <https://source.iopen.net/groupserver/gs.group.messages.topicsdigest>

¹⁸ The system for sending the topic digests is provided by <https://source.iopen.net/groupserver/gs.group.messages.senddigest>

¹⁹ The Start a topic page is provided by <https://source.iopen.net/groupserver/gs.group.messages.starttopic>

²⁰ The toggle to show or hide a password is provided by <https://source.iopen.net/groupserver/gs.profile.password>

2. Uncompress the tar-ball:

\$ tar cfz groupserver-14.03.tar.gz

- 3. Change to the directory that contains your existing GroupServer installation.
- 4. Make a backup of your custom configuration:

```
$ cp custom.cfg custom-bk.cfg
$ cp config.cfg config-bk.cfg
```

5. Copy the new configuration files to your existing GroupServer installation:

\$ cp ../groupserver-14.03/*.cfg .

6. Restore your custom configuration:

\$ mv custom-bk.cfg custom.cfg
\$ mv config-bk.cfg config.cfg

7. In your existing GroupServer installation run:

\$./bin/buildout -n

8. Restart your GroupServer instance.

Resources

- · Code repository: https://source.iopen.net/groupserver/
- · Questions and comments to http://groupserver.org/groups/development
- Report bugs at https://redmine.iopen.net/projects/groupserver

13.1.8 GroupServer 12.11 — Absinthe acquired arbitrarily

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Organization GroupServer.org

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Introduction

There are fourteen major changes to GroupServer in the Absinthe release — making the system more useful, usable and extensible for both group members, administrators, and developers.

The *changes visible to participants* are mostly subtle improvements to existing features, rather than new features. In contrast, the *changes to the underlying system* are complex and extensive.

You can get Absinthe immediately.

Acknowledgements

Thanks to Bill Bushey, with the support of E-Democracy.org, for the improvements to the *SVG thumbnails*. Thanks to Bill and Marek Kuziel for testing some early versions of Absinthe.

Changes visible to participants

The most visible change for the participants is a *new search system*. Some *better error pages* have also been created. To help participants and administrators there is a *new help system*, while an *in-context administration guide* will help administrators get their new group going more easily. Administrators now have the ability to create *closed groups*, and the new *profile search* will help administrators find the profiles of participants. Finally, *SVG thumbnails* are now shown.

New search system

The new search system is the most visible change in Absinthe.

- The *Topics* tab on both the site homepage and the group page have a *Search* entry ¹.
- The *Posts* tab in a group has as *Search* entry also, allowing posts to be searched ².
- Clicking a topic keyword will search for other topics with that keyword ³.
- Searching now uses *stems*; searching for search will match topics that contain the words searches, searching or searched, for example.
- Searching is faster, as the full-text retrieval features of PostgreSQL are used ⁴.
- The display of topics in a site or group is much faster, as the keywords are now generated when someone posts, rather than when the topic is loaded.
- Searching using non-ASCII characters now works ⁵.

Better error pages

The *Permission Denied* page has been improved to add some suggestions about what the participant should do 6 . In addition the mailto that is embedded in the page now includes the URL of the problem page in the body of the email message to the Support address.

The Unexpected Error (500) page and the Not Found (404) page now work with infrae.wsgi, for systems that run GroupServer behind a WSGI front-end. Neither of these error-pages redirect to display the error.

New help system

The old monolithic manuals have been replaced. The new more dynamic system will automatically show help for the features that are installed in GroupServer, including the custom features. Some of the old pages have been retained and updated.

In-context administration guide

To help get groups started there is a new system to encourage the group administrator ⁷. The current advice includes:

- Start a topic
- Invite people,
- Write some text in the About tab, and
- Make a group Private (rather than Secret).

Closed groups

Administrators can now close groups⁸. There are two reasons for needing to do this.

¹ The *Search* box that used to appear on every page has now been removed, as it is easier to use the *Search* entry in the *Topics* tab. This closes Bug 3434.

² Searching in posts closes Feature 3497.

³ Creating topic keywords that can be clicked closes Feature 878.

⁴ Using the full-text retrieval feature of PostgreSQL closes Feature 224.

⁵ Being able to search for non-ASCII characters closes Bug 603.

⁶ Updating the *Permission Denied* page closes Bug 646.

⁷ Creating the encouragement closes Feature 3501 and Feature 177.

⁸ Creating the closed-group closes Feature 449.

- 1. The group may be *starting*, and the administrator does not want the members to post until everyone is in the group.
- 2. The group may be *finished*, and the administrator does not want any more posts to be made, but he or she still wants the archive available.

While there is no front-end user interface that allows the group-type to be changed ⁹, an administrator can change the type of the group by making a change in the ZMI.

Profile search

A simple profile search has been added ¹⁰. A more complex search system has not been added because the privacy issues are still being resolved.

SVG thumbnails

GroupServer now correctly displays a thumbnail of an SVG image at the bottom of each post ¹¹. This item was picked from the list of low hanging fruit, where there are other (relatively) strait forward tasks listed.

Changes to the underlying system

We have made significant changes to the underlying GroupServer system in the Absinthe release. The system will be easier to maintain because of a new *configuration system*, *improved email handling*, and a *new authentication system*. Installation is simpler because *relstorage* is used by default. There have also been some significant *performance improvements*. Developers will notice the *SQLAlchemy update*, and a *more flexible group page*.

The changes to the underlying system have been so extensive that we have decided to change the naming scheme for the GroupServer releases. The new releases belong to the **Awesome Aperitifs** series. Hence this *Absinthe Acquired Arbitrarily* release. Internally, the eggs in this series are given the version 2.0 (which you can see by looking at the versions.cfg file in the build directory). The version-number of the *release* will continue to use the month.day format. The old series was known as **Frozen Treats**; *Faloodeh Consumed with an Eye on History* was the aptly-named last release in that series. (Eggs in the Frozen Treats series were given the 1.0 version.)

Configuration system

Administration is now simpler, especially for production systems, as the configuration for important parts of GroupServer are now in a file that is external to the ZODB. The new configuration system handles the database, the *improved email handling*, and the *new authentication system*. It is based on a INI file, located in parts/instance/gsconfig.ini.

Improved email handling

The email-handling subsystem of GroupServer has been completely rewritten. Changes have been made to both the handling of outgoing mail and incoming mail.

⁹ The issue for creating a selectable group type is Feature 702.

¹⁰ The creation of a basic profile search closes Feature 3486.

¹¹ Handling SVG Thumbnails closes Bug 635.

The setup for the **outgoing** SMTP system has moved from the ZODB (accessed through the ZMI) to an INI file ¹², thanks to the new *configuration system*. Documentation for the new outgoing SMTP system can be found in the README for the gs.email product.

The script that is used to add email messages to a group, the **incoming** SMTP system, has been rewritten ¹³. It is now easier to use, better documented, and works. Documentation for the new script can be found by running ./bin/smtp2gs -h or reading the README for the gs.group.messages.add.smtp2gs product.

New authentication system

A new authentication system has been created, for the server-side scripts ¹⁴. These scripts, such as the those involved in the *improved email handling*, now pass a *token* to the server when they carry out tasks. This eliminates the need to store the password of the administrator in various plain-text files.

Relstorage

By default the Relstorage product is now used to store the ZODB. This system stores the pickled objects in a relational database, rather than in the file-system. (The PostgreSQL database is used by GroupServer.) This allows greater scalability, without the need to separately install Zope Enterprise Objects (ZEO).

Performance improvements

There have been some major performance improvements made to GroupServer in the Absinthe release. This includes the removal of some old poorly performing code ¹⁵, and altering some of the member management code ¹⁶.

SQLA1chemy update

The entire interface between GroupServer and the PostgreSQL relational database has been rewritten ¹⁷. This has allowed GroupServer to update its SQLAlchemy dependency from the ancient 0.3 release to the current 0.7 release.

More flexible group page

The group page was refactored to make it more flexible ¹⁸. This allows the addition of the *in-context administration guide*, and for other features to be added by skins.

Get Absinthe

To get Absinthe go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can *update an existing GroupServer system*.

¹² Moving the SMTP configuration to an INI file means that the two MailHost instances from the ZODB can be removed, which closes Bug 365.

¹³ Rewriting the script that is used to add email messages to a group closes Feature 687 and Feature 3536.

¹⁴ The creation of a new authentication system closes Bug 3416.

¹⁵ The removal of the old division_object getter closes Bug 279.

¹⁶ The optimisation of the member-handling code closes Bug 3659.

¹⁷ An unintentional site-effect of rewriting the database interface was a fix for Bug 203.

¹⁸ As part of the update to the group, Feature 419 was closed.

Update an existing GroupServer system

Updating a system running the Faloodeh release of GroupServer (12.06) to Absinthe is a three-step process, which includes updating the relational database, the products, and the scripts.

Relational Database

The biggest change that is needed to update GroupServer to the Absinthe release is to update the rational database, to support the *new search system* and some of the *performance improvements*. The tables that are used to store the posts, topics and topic keywords all need to be updated.

First, create a backup. While every effort has been made to crate a upgrade path that is smooth and with low risk, there is still a chance that something can go wrong. As such it is prudent to **create a backup**. First, **create a backup** of the relational database:

\$ pg_dump -U gsadmin groupserver > gs-backup.sql

Where gsadmin is the PostgreSQL user that you set up when installing GroupServer, and groupserver is the name of the database.

If you use *relstorage*, create a backup of the ZODB:

\$ pg_dump -U gszodbadmin groupserverzodb > gs-zodb-backup.sql

Where gszodbadmin is the PostgreSQL user for relstorage that you set up when installing GroupServer, and groupserverzodb is the name of the database.

Posts

Note Update the posts table after you create a backup.

Begin by updating the table that stores the posts.

1. Log in to the PostgreSQL command line:

\$ psql -hlocahlost -Ugsadmin groupserver

Where gsadmin is the PostgreSQL user that you set up when installing GroupServer, and groupserver is the name of the database.

2. Alter the post table to add the full-text retrieval (FTR, or full-text search, FTS) column, by executing the following SQL:

ALTER TABLE post ADD COLUMN fts_vectors tsvector;

3. Update the rows of the post table to add the FTR data. This may take some time:

4. Create an index for the FTR data. This may take some time:

CREATE INDEX post_fts_vectors ON post USING gin(fts_vectors);

5. Create an index for the posts, sorted by the last post date:

CREATE INDEX post_last_post_date_idx ON post (date DESC);

6. Create a trigger to update the FTR data whenever a new post is made:

```
CREATE TRIGGER fts_vectors_update

BEFORE INSERT or UPDATE ON post

FOR EACH ROW EXECUTE PROCEDURE

tsvector_update_trigger(fts_vectors, 'pg_catalog.english', subject,

body);
```

Topics

Because people search topics as well as posts the FTR information needs to be present in both tables.

1. Add the FTR column to the topic table:

ALTER TABLE topic ADD COLUMN fts_vectors tsvector;

2. Drop the old trigger:

DROP TRIGGER count_word_count_rows ON word_count;

3. Drop the old tables that were used for searching:

```
DROP TABLE topic_word_count;
DROP TABLE word_count;
```

Even with the FTR data duplicated in the post and topic table, there is a nett saving of space once these two tables are dropped.

4. Add the function that is used to create the *body* of the topic:

```
CREATE OR REPLACE FUNCTION topic_body (topic_id TEXT)
 RETURNS TEXT AS $$
  DECLARE
      topic_text TEXT;
      subject TEXT;
      retval TEXT;
  BEGIN
    SELECT string_agg(post.body, ' ') INTO topic_text
      FROM post
      WHERE post.topic_id = topic_body.topic_id
       AND post.hidden IS NULL;
    SELECT COALESCE (post.subject, '') INTO subject
      FROM post WHERE post.topic_id = topic_body.topic_id LIMIT 1;
    retval := left(subject || ' ' || topic_text, 1048575);
    RETURN retval;
  END;
$$ LANGUAGE 'plpgsql';
```

5. Create the function that will topic table with FTR data:

```
CREATE OR REPLACE FUNCTION topic_ftr_populate ()
RETURNS void AS $$
DECLARE
    total_topics REAL;
    trecord RECORD;
    topic_vector tsvector;
    topic_text TEXT;
    i REAL DEFAULT 0;
    p REAL;
BEGIN
    SELECT CAST(total_rows AS REAL) INTO total_topics
        FROM rowcount WHERE table_name = 'topic';
    FOR trecord IN SELECT * FROM topic WHERE fts_vectors IS NULL LOOP
```

```
RAISE NOTICE 'Topic %', trecord.topic_id;
topic_vector := to_tsvector('english', topic_body(trecord.topic_id));
UPDATE topic SET fts_vectors = topic_vector
WHERE topic.topic_id = trecord.topic_id;
i := i + 1;
p := (i / total_topics) * 100;
RAISE NOTICE ' Progress % %%', p;
END LOOP;
END;
$$ LANGUAGE 'plpgsql';
```

6. Populate the topic table with FTR data. This may take some time:

```
SELECT topic_ftr_populate();
```

7. Create an index for the FTR data. This may take some time:

```
CREATE INDEX topic_fts_vectors ON topic USING gin(fts_vectors);
```

8. Create an index for the topics, sorted by the last post date:

```
CREATE INDEX topic_last_post_date_idx ON topic (last_post_date DESC);
```

9. Create a trigger to update the FTR data:

```
CREATE OR REPLACE FUNCTION topic_fts_update ()
RETURNS TRIGGER AS $$
DECLARE
    topic_text TEXT;
BEGIN
    topic_text := topic_body(NEW.topic_id);
    NEW.fts_vectors := to_tsvector('english', topic_text);
    RETURN NEW;
    END;
$$ LANGUAGE 'plpgsql';
CREATE TRIGGER topic_update_trigger_01
BEFORE INSERT OR UPDATE ON topic
FOR EACH ROW EXECUTE PROCEDURE topic_fts_update ();
```

Topic Keywords

Finally, the system that displays the topic keywords has been changed. The keywords are now calculated when someone posts, and are stored in the topic_keywords table. Previously they were calculated when the list of topics was displayed.

1. Download the file 03-keywords.sql:

```
wget --no-check-certificate https://source.iopen.net/groupserver/gs.group.messages.topic/rawfile
```

This contains the SQL that is normally executed when Absinthe is installed.

2. Interpret (execute) the file in PostgreSQL:

\i /path/to/the/download/03-keywords.sql

Where /path/to/the/download is the full path to where the file 03-keywords.sql is stored.

3. Create the function to populate the new topic_keywords table:

```
CREATE OR REPLACE FUNCTION topic_keywords_populate ()
RETURNS void AS $$
DECLARE
```

```
total_topics REAL;
      trecord RECORD;
      topic_text TEXT;
      new_keywords TEXT[];
      i REAL DEFAULT 0;
      p REAL;
    BEGIN
      SELECT CAST(total_rows AS REAL) INTO total_topics
       FROM rowcount WHERE table_name = 'topic';
      FOR trecord IN SELECT * FROM topic LOOP
       RAISE NOTICE 'Topic %', trecord.topic_id;
        topic_text = topic_body(trecord.topic_id);
        SELECT ARRAY (SELECT word
                       FROM topic_keywords(trecord.topic_id, topic_text))
          INTO new_keywords;
        INSERT INTO topic_keywords VALUES(trecord.topic_id, new_keywords);
        i := i + 1;
        p := (i / total_topics) * 100;
        RAISE NOTICE ' Progress % %%', p;
      END LOOP;
    END;
$$ LANGUAGE 'plpgsql';
```

4. Populate the topic_keywords table. This may take some time:

SELECT topic_keywords_populate();

Products

To update an existing GroupServer installation to Absinthe carry out the following steps.

- 1. Download the Absinthe tar-ball from the GroupServer download page.
- 2. Uncompress the tar-ball:

```
$ tar cfz groupserver-12.11.tar.gz
```

- 3. Change to the directory that contains your existing GroupServer installation.
- 4. Make a backup of your custom configuration:

```
$ cp custom.cfg custom-bk.cfg
$ cp config.cfg config-bk.cfg
```

5. Copy the new configuration files to your existing GroupServer installation:

\$ cp ../groupserver-12.11/*.cfg .

6. Restore your custom configuration:

```
$ mv custom-bk.cfg custom.cfg
$ mv config-bk.cfg config.cfg
```

7. Disable the creation of the database tables:

```
$ echo 1 > var/create-tables.cfg
```

8. Disable the creation of a new GroupServer site:

\$ echo 1 > var/setup-gs.cfg

9. In your existing GroupServer installation run:

```
$ ./bin/buildout -n
```

10. Restart your GroupServer instance.

Scripts

Some external scripts have changed in the Absinthe release of GroupServer, and need to be changed. In addition some ZMI scripts should also be updated.

The script smtp2zope used to be used to marshal an email message from Postfix into GroupServer. With the *improved email handling* this script should be deleted. The replacement script is called smtp2gs. It will be created when you update the products. The command is simpler to use than the old script; the options for the script are shown by running:

```
$ ./bin/smtp2gs --help
```

Alternatively, the README for the gs.group.messages.add.smtp2gs product documents the options.

The directory potfix_config in your GroupServer installation will contain an example aliases file for Postfix that uses smtp2gs. This can be used to replace the old calls to GroupServer from Postfix.

ZMI Scripts

Two scripts in the ZMI have to be replaced to gain some of the significant performance improvements.

- 1. Visit the ZMI for your site. By default it is at http://localhost:8080/manage>.
- 2. Go to the folder /example/ListManager.
- 3. Select the xwf_email_header script.
- 4. Replace the contents of the script with the following:

```
groupId = list_object.listId()
siteId = list_object.siteId
site = getattr(context.Content, siteId)
group_object = getattr(site.groups, groupId)
# we copy the propertysheet, because we won't be able to access it
# in the lower layer
group_properties = {}
for p in group_object.propertyItems():
   group_properties[p[0]] = p[1]
group_properties['id'] = group_object.getId()
xmailer = getValueFor('xmailer')
mailto = getValueFor('mailto')
replyToProp = list_object.getProperty('replyto','')
if replyToProp == 'sender':
   replyto = None
else:
    replyto = getValueFor('mailto')
try:
   group_properties['division_id'] = site.aq_explicit.getId()
   group_properties['division_title'] = site.aq_explicit.title
except:
   group_properties['division_id'] = ''
   group_properties['division_title'] = ''
files = []
try:
```

```
storage = context.FileLibrary2.get_fileStorage()
for file_id in file_ids:
    file = storage.get_file(file_id)
    if file:
    files.append(file)
except:
    pass
return context.email_header(REQUEST, list_object=list_object,
        group_properties=group_properties,
        getValueFor=getValueFor, title=title, mail=mail,
        body=body, files=files, post_id=post_id,
        mailto=mailto, replyto=replyto,
        xmailer=xmailer).strip()
```

- 5. Click the Save Changes button.
- 6. Click ListManager (at the top of the page) to return to the List Manager folder.
- 7. Select the xwf_email_footer script.
- 8. Replace the contents of the script with the following:

```
groupId = list_object.listId()
siteId = list_object.siteId
site = getattr(context.Content, siteId)
group_object = getattr(site.groups, groupId)
# we copy the propertysheet, because we won't be able to access it
# in the lower layer
group_properties = { }
for p in group_object.propertyItems():
   group_properties[p[0]] = p[1]
group_properties['id'] = group_object.getId()
try:
   group_properties['division_id'] = site.aq_explicit.getId()
   group_properties['division_title'] = site.aq_explicit.title
except:
   group_properties['division_id'] = ''
   group_properties['division_title'] = ''
# group_properties['canonical_host'] = \
# group_object.Scripts.get.option('canonicalHost')
divConfig = site.DivisionConfiguration
group_properties['canonical_host'] = divConfig.getProperty('canonicalHost', '')
trv:
   from_addr = context.parseaddr(mail.get('from',''))[1]
except:
   from_addr = ''
if from_addr:
   user = context.acl_users.get_userByEmail(from_addr)
else:
   user = None
files = []
try:
    storage = context.FileLibrary2.get_fileStorage()
```

```
for file_id in file_ids:
        file = storage.get_file(file_id)
        if file:
            files.append(file)
except:
   pass
# Get the virtual file folder "files" from the group.
# Get the public_access_period from "files"
pap = int(getattr(group_object.files, 'public_access_period', 0))
# Turn the public_access_period to a Boolean
pap_set = bool(pap)
# Pass the Boolean to the "email_footer" template
mailto = getValueFor('mailto')
return context.email_footer(REQUEST, list_object=list_object,
                      group_properties=group_properties,
                      getValueFor=getValueFor, title=title,
                      mailto=mailto, mail=mail, body=body,
                      user_object=user, from_addr=from_addr,
                      files=files, post_id=post_id, pap_set=pap_set)
```

9. Click the Save Changes button.

Resources

- Code repository: https://source.iopen.net/groupserver/
- · Questions and comments to http://groupserver.org/groups/development
- · Report bugs at https://redmine.iopen.net/projects/groupserver

13.2 Frozen treats

13.2.1 GroupServer 12.05 — Faloodeh Consumed with an Eye on History

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Organization GroupServer.org

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Introduction

The *changes to GroupServer* in the Faloodeh release cover sites, groups and profiles — making them all more usable and extensible. You can *get Faloodeh* immediately.

Changes to GroupServer

The changes in Faloodeh are mostly group improvements, profile improvements and a new site homepage. In addition we have made steps towards *easier installation*, and there have been some *minor changes*.

Group improvements

The most visible change to groups in this release of GroupServer is to the *notifications*. However, the primary improvement is new code to determine if someone *can post* to a group. Underlying this is a system for *more extensible groups*.

Minor changes to groups include the following.

- Better Links in Posts: Now http://youtu.be links are turned into embedded YouTube videos, and www. "links" are turned into hypertext links. Thanks to Steven Clift at E-Democracy.Org for sponsoring this improvement.
- **Rest of Post Button:** The button to show the *remainder* of a post (normally just bottom-quoted text) is now labelled "Rest of post".
- **Public Access Period:** The default public access period for files is now set to 72 hours. This is the period that no password is required to access a file, making it easier for group members who follow conversations using email to access the files that are posted to the group.

Notifications Four notifications have been rewritten. There are HTML versions of both

- The Welcome message ¹, which is sent to new group members, and
- The *New Member* notification, which is sent to the administrator when someone joins a group ².

The *Invitation* to join a group has undergone a rewrite too, along with a new default invitation-message from the group-administrator.

Finally, the *Cannot Post* notification has undergone an extensive change, along with the rest of the *can post* system ³. It now has a HTML variant, as well as a wording change to (hopefully) make it easer to understand.

Can post The biggest change to groups was a complete rewrite of the system that determines if a user can post. This system is used to

- Send an email to someone who tries to post but is disallowed, and
- To tell someone using the web why he or she cannot post *before* they try to post.

The Can Post system is now self-documenting⁴, and it allows for *more extensible groups*.

More extensible groups Along with the new *can post* code, the definition of what *constitutes* a group has been redefined. GroupServer has always supported three different types of group:

Discussion Group: A group where only group members can post.

Announcement Group: A group where only certain group-members can post.

Support Group: A group where anyone can post, but only group-members can view the posts.

¹ A sample *Welcome* message can be viewed at <http://groupserver.org/groups/development/new-member-msg.html>

² A sample New Member message can be viewed at <http://groupserver.org/groups/development/new-member-admin-msg.html>

³ A sample *Cannot Post* message can be viewed at <http://groupserver.org/groups/development/cannot-post.html>

⁴ The Can Post system now produces a *Rules List* that shows the rules that are checked whenever someone posts to the group. Example lists can be seen for the GroupSever Development group and the GroupSever Announcement Group

These group-types previously existed as a set of configuration options. Now there are specific marker-interfaces for each of these group-types. Currently only the *can post* system uses them extensively, but other systems will follow in the future.

Profile improvements

The primary improvements to profiles is a new *Verify Email Address* notification. Like the new *notifications* in the group, the new Verify email message has a HTML version, which is shown by default by most email clients. The wording of the Verify email has also been changed, so it is hopefully easier to understand.

All the notifications with an HTML component are possible because of a new system for sending notifications. This system is documented as part of the gs.profile.notify component ⁵.

Site homepage

The site homepage has been completely rewritten, but it looks largely unchanged. Now the page — provided by the new gs.site.home product 6 — can be skinned easily. Extra components can be easily added to it in the future.

Easier installation

Installation should be more reliable for three reasons. The first is a change of dependencies. The second reason is a more tightly constrained set of software-sources. Finally, there is a new installation script.

Three dependencies have changed.

- 1. The least dramatic is to use Pillow rather than PIL. The former is a *friendly fork* of the latter, which works with the easy_install system that GroupServer uses. This change removes the requirement to download and install both zlib and libjpeg. The zlib dependency in particular was a problem with its frequent changes.
- 2. The eGenex mx Extension Series is now available as an egg, which we now use.
- 3. Finally, the PyXML library is also provided by an egg 7 .

By default the eggs used by the GroupServer installation process now come from only two sources. The eggs that make up GroupServer itself come from http://eggs.iopen.net/groupserver/base/. The third-party eggs come from http://eggs.iopen.net/groupserver/base/. The third-party eggs come from http://eggs.iopen.net/groupserver/base/. The third-party eggs come from http://eggs.iopen.net/groupserver/base/. This should prove to be more reliable than using the canonical *upstream* servers.

Finally, there is a new installer, the gs_install_ubuntu.sh script. For an Ubuntu system, the new script installs the dependencies, creates the databases in a secure maner, sets up a Python environment, and installs all the GroupServer components.

Minor changes

There have been three sets of minor changes to GroupServer in the Faloodeh release: Zope events are better supported, wsgi is supported, and there have been numerous coding improvements.

An **event** in Zope is a signal that is raised when an action is carried out ⁸. You can write code that subscribes to these events, and takes additional action. (This extra code does not need to alter the original code in any way.) Events are

⁵ The documentation for how to write a notification is in the product.

⁶ The documentation for how to add components to the new site homepage is in the site-homepage product.

⁷ Two other libraries, libxml2 and libxslt, are brought into the system by a small script, which is part of the buildout process. The global libraries *are* used, but they must be symbolically-linked (*symlinked*) because the virtualenv system does not link to them.

⁸ The Zope events are provided by the ZTK documentation.

now raised when someone joins a group, joins a site, leaves a group, and leaves a site. This should make these actions more extensible, and allow others to add extra functionality to GroupServer⁹.

WSGI is the method that most Python-based web applications use to communicate to servers. GroupServer can now be served using WSGI, as the last problems with WSGI compatibility have been resolved.

Finally, There have been numerous **coding improvements.** Most have centred around the use of caching. In addition there are new base classes for pages and viewlets with GroupServer sites, profiles, and groups.

Get Faloodeh

To get Faloodeh go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can *update an existing GroupServer system*.

Update an Existing GroupServer System

The update an existing GroupServer system to Faloodeh requires you to first *update the packages*. Then there are two tasks to be carried out in the ZMI: first *update the site marker-interface*, and then the complex task to *update the group marker-interface*

Update the Packages To update the packages carry out the following steps.

- 1. Download the Faloodeh tar-ball from the GroupServer download page.
- 2. Uncompress the tar-ball.
- 3. Copy the file groupserver-12.05/update-versions.cfg to your existing GroupServer installation, under the name versions.cfg.
- 4. Copy the file groupserver-12.05/update-buildout.cfg to your existing GroupServer installation, under the name buildout.cfg.
- 5. Copy the file groupserver-12.05/zope2-2.13.13.cfg to your existing GroupServer installation.
- 6. Copy the file groupserver-12.05/ztk-versions-1.0.6.cfg to your existing GroupServer installation.
- 7. In your existing GroupServer installation run:

\$./bin/buildout

8. Restart your GroupServer instance.

Update the Site Marker-Interface The *site homepage* improvements require a modification to the sites in the ZMI before they can be seen. To update the sites, carry out the following steps.

- 1. Log into the ZMI for your GroupServer Installation
- 2. Navigate to your GroupServer instance in the ZMI (called groupserver by default).
- 3. Add a script by selecting Script (Python) from the Add menu near the top-right of the ZMI page.
 - Give the new script the Id add_new_site_homepage
 - Click the Add and edit button.
- 4. Change the contents of the script to the following:

⁹ The site-member product provides an example of code that both *subscribes* to an event and *raises* an event.

```
# ---mpj17--- The new site home page in gs.site.home works of the single
# IGSSiteFolder marker. As such the old IGSFullPageContentFolder marker
# from the "paragmatic tempalates" code is not needed. Indeed, it gets
# in the way. This code removes the IGSFullPageContentFolder marker
# interface.
from Products.XWFCore.XWFUtils import remove_marker_interfaces
site_root = context.site_root()
folders = ['Folder', 'Folder (Ordered)']
isSite = lambda d: d.getProperty('is_division', False) and hasattr(d, 'groups')
interfaces = ('Products.GSContent.interfaces.IGSFullPageContentFolder',)
ignore = []
contentFolders = site_root.Content.objectValues(folders)
sites = [ s for s in contentFolders
          if ((s.getId() not in ignore) and
              (s.getProperty('is_division', False)) and
              (hasattr(s, 'groups'))) ]
print '<html><head><title>Site update</title></head><body>'
for site in sites:
   print '<hr/>'
   print '%s (<code>%s</code>)' % (site.title_or_id(), site.getId())
   remove_marker_interfaces(site, interfaces)
   print 'Removed the content marker'
print '</body></html>'
return printed
```

- 5. Click the Save Changes button.
- 6. Click the Test tab. The marker interfaces for all the sites should be updated.

Update the Group Marker-Interface Updating the marker-interfaces in a group is similar to how you *update the site marker-interface*.

- 1. Log into the ZMI for your GroupServer Installation
- 2. Navigate to your GroupServer instance in the ZMI (called groupserver by default).
- 3. Add a script by selecting Script (Python) from the Add menu near the top-right of the ZMI page.
 - Give the new script the Id remove_xwf_chat_group_marker
 - Click the Add and edit button.
- 4. Change the contents of the script to the following:

```
isGroup = lambda g: g.getProperty('is_group', False)
for site in sites:
    groupsFolder = getattr(site, 'groups')
    groups += filter(isGroup, groupsFolder.objectValues(folders))

oldInterfaces = ['Products.XWFChat.interfaces.IGSGroupFolder']
newInterfaces = ['gs.group.type.discussion.interfaces.IGSDiscussionGroup']
for group in groups:
    print 'Remove the XWFChat marker from %s (%s)' % (group.title_or_id(), group.getId())
    remove_marker_interfaces(group, newInterfaces)
    add_marker_interfaces(group, newInterfaces)
    return printed
```

- 5. Click the Save Changes button.
- 6. Click the Test tab. The marker interfaces for all the groups should be updated to discussion groups.
- 7. Change the support groups to the correct marker-interface by carrying out the following for each group.
 - (a) Navigate to the group.
 - (b) Click on the Interfaces tab.
 - (c) Select gs.group.type.discussion.interfaces.IGSDiscussionGroup in the *Provided Interfaces* list.
 - (d) Click the Remove button. The discussion-group marker interface will be removed.
 - (e) Select gs.group.type.support.interfaces.IGSSupportGroup in the Available Marker Interfaces list.
 - (f) Click the Add button. The support-group marker interface will be added.
- 8. Change the *announcement* groups to the correct marker-interface by carrying out the following for each group.
 - (a) Navigate to the group.
 - (b) Click on the Interfaces tab.
 - (c) Select gs.group.type.discussion.interfaces.IGSDiscussionGroup in the Provided Interfaces list.
 - (d) Click the Remove button. The discussion-group marker interface will be removed.
 - (e) Select gs.group.type.announcement.interfaces.IGSAnnouncementGroup in the *Available Marker Interfaces* list.
 - (f) Click the Add button. The announcement-group marker interface will be added.
- 9. Finally, remove the legacy group-support from your site:
 - (a) Copy the file groupserver-12.05/versions.cfg to your existing GroupServer installation, under the name versions.cfg.
 - (b) Copy the file groupserver-12.05/buildout.cfg to your existing GroupServer installation, under the name buildout.cfg.
 - (c) In your existing GroupServer installation run:

\$./bin/buildout -N

(d) Restart your GroupServer instance.

13.2.2 GroupServer 11.08 — Banana Split Eaten in a Comfortable Silence

Authors Michael JasonSmith; Richard Waid; Dan Randow Contact Michael JasonSmith <mpj17@onlinegroups.net> Date 2011-08-31 Organization GroupServer.org

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Introduction

The main update that is present in the Banana release of GroupServer is a *Facebook signup* system. You can *get Banana Split* immediately.

Acknowledgements

Thanks to Steven Clift for his support for the Facebook signup system.

Facebook Signup

Previously, new members had to provide all their profile information during signup. Now new members have the option of logging into Facebook to retrieve the profile information. Signing up using Facebook is beneficial in two ways.

- 1. The email address of the new member does not have to be verified, as Facebook has already verified the address. This reduces the number of steps required for sign-up from three to two.
- 2. Much of the profile information does not have to be added, as it is copied in from Facebook.

The new member has a choice to use the older signup system that just uses email, or the new Facebook signup. The latter option is automatically available after the administrator has *setup* Facebook signup.

Setup

You must acquire two values from Facebook to enable Facebook Signup.

Application ID Value This is the identifier for your Facebook application.

Application Secret Value This is the secret key that is passed from your site to Facebook.

To get these values you will need to register your site as an *application* with Facebook. Do this by visiting https://developers.facebook.com/ and following the instructions. Facebook will then supply you with an App ID and App Secret. Once you have these you can carry out the following tasks.

1. Log into the PostgreSQL database used GroupServer by using the following command:

```
$ psql -Upgsql_user pgsql_dbname
```

Note that pgsql_user and pgsql_dbname are the database user and database name that were set during installation. Both can be found in the instance.cfg file in the installation directory of GroupServer.

2. Run the following SQL to add the App ID and App Secret to the options table:

```
INSERT INTO option
VALUES (
  'gs.profile.signup.facebook',
  'app_id',
  NULL,
  NULL,
  App ID
);
INSERT INTO option
VALUES (
  'gs.profile.signup.facebook',
  'app_secret',
  NULL,
  NULL,
  App Secret
);
```

Note the App ID and App Secret in the above SQL are the values provided by Facebook. Both values will need to be in quotes.

Once the data is in the options table the Sign Up page will automatically show the option to sign up using Facebook.

Get Banana Split

To get Banana Split go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can *update an existing GroupServer system*.

Update an Existing GroupServer System

To update an existing GroupServer system to Banana Split carry out the following steps.

- 1. Download the Banana Split tar-ball from the GroupServer download page.
- 2. Uncompress the tar-ball.
- 3. Copy the file groupserver-11.08/versions.cfg to your existing GroupServer installation.
- 4. Copy the file groupserver-11.08/buildout.cfg to your existing GroupServer installation.
- 5. In your existing GroupServer installation run:

```
$ ./bin/buildout
```

13.2.3 GroupServer 11.07 — Frozen Yoghurt Accompanied by Carols

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Date 2011-07-28

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Introduction

The main update that is present in the Frozen Yoghurt release of GroupServer is a *new stylesheet* for devices with narrow displays. There is also a new converter for *HTML-formatted messages*. In addition a number of *minor fixes* are part of this release. You can *get Frozen Yoghurt* immediately. Work is now starting on GroupServer 11.08 — Banana Split Eaten in a Comfortable Silence.

Acknowledgements

Thanks to Steven Clift for his support with the *new stylesheet*. Thanks also to Le Coyote and Alice Rose for testing an early release of Frozen Yoghurt.

New Stylesheet

Devices with narrow displays, such as mobile phones and tablets, now have a dedicated stylesheet ¹. The system uses CSS3 Media Queries to reformat the page when the browser window is narrow. Pages that have been specifically optimised for small-screen devices include

- The site homepage,
- The group page,
- The topic page and
- The image page.

Many other pages work on small screens, including the post page and the topics page.

HTML-Formatted Messages

Email messages can be in multiple formats, including plain text and HTML. Sometimes email messages are formatted using just HTML. When this occurs GroupServer converts the HTML version of the message into a plain-text version. It is this plain-text version of the post that is displayed on the Web pages. The code that converts the HTML-message into plain-text has been updated ². The updated code uses the standard Python HTML Parser library to parse the message, and also handles URLs better.

Minor Fixes

Minor fixes in Frozen Yoghurt include the following.

- The position of the Sticky form in a topic has been moved, so it is visible when there is only one post³.
- Files that are part of hidden posts are hidden from the index of files at the top of the topic ⁴. (Files that were part of hidden posts were never able to be viewed.)
- A new configuration system for GroupServer is present, but not used. The gs.option product is part of an ongoing effort to move more data out of the ZODB and into the PostgreSQL relational database. The README in the base of the gs.option product has more details.
- An error with the Can Post code was fixed.

¹ The new mobile CSS closes Ticket 444. More information on the mobile stylesheet can be found in the topic in GroupServer Development.

² Updating the converter closes Ticket 596.

³ Fixing the position of the Sticky form in a topic closes Ticket 705.

⁴ Hiding posts that are part of hidden files closes Ticket 692.

• The word *Home* has been dropped from the group page, as it added nothing and took up valuable space (which was especially noticeable with the *new stylesheet*).

Get Frozen Yoghurt

To get Frozen Yoghurt go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can *update an existing GroupServer system*.

Update an Existing GroupServer System

To update an existing GroupServer system to Frozen Yoghurt you must *update the database* and then *update the packages*.

Update the Database The new options code requires the creation of a new table to record information about the properties of the various parts of GroupServer (see *Minor Fixes*). To update the database carry out the following steps.

1. Log into the PostgreSQL database used GroupServer by using the following command:

\$ psql -Upgsql_user pgsql_dbname

Note that pgsql_user and pgsql_dbname are the database user and database name that were set during installation. Both can be found in the instance.cfg file in the installation directory of GroupServer.

2. Run the following SQL to create the options table:

CREATE TABLE option (
CO	mponent_id	TEXT	NOT	NULL,	
op	tion_id	TEXT	NOT	NULL,	
si	te_id	TEXT	NOT	NULL,	
gr	oup_id	TEXT	NOT	NULL,	
va	lue	TEXT			
);					
CREATE UNIQUE INDEX option_idx					
ON option (component_id, option_id, site_id, group_id);					

Update the Packages To upgrade the pages in an existing GroupServer system to Frozen Yoghurt carry out the following steps.

- 1. Download the Frozen Yoghurt tar-ball from the GroupServer download page.
- 2. Uncompress the tar-ball.
- 3. Copy the file groupserver-11.07/versions.cfg to your existing GroupServer installation.
- 4. Copy the file groupserver-11.07/buildout.cfg to your existing GroupServer installation.
- 5. In your existing GroupServer installation run:

```
$ ./bin/easy_install -U setuptools && ./bin/python bootstrap.py
$ ./bin/buildout
```

The setuptools have to be updated, and bootstrap.py rerun, because the version of Zope used by GroupServer has undergone an update.

13.2.4 GroupServer 11.06 — Soft Serve from Mr Whippy

Authors Michael JasonSmith; Richard Waid; Dan Randow Contact Michael JasonSmith <mpj17@onlinegroups.net> Date 2011-07-04 Organization GroupServer.org Copyright This document is licensed under a Creative Con

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Introduction

The two main updates to GroupServer that are present in the Soft Serve release are an update to the code that determines if someone *can post*, and a rebuild of the *site administration pages*. In addition there are other *minor fixes* that have been made. You can *get Soft Serve* immediately. Work is now starting on GroupServer 11.07 — Frozen Yoghurt Accompanied by Carols.

Acknowledgements

Thanks to Le Coyote and DJS for their very helpful suggestions, and testing early releases of Soft Serve.

Can Post

When someone posts to a group the system checks to see if the user has the correct permissions. The code that does this is known as the *can post* code. In Soft Serve this code has undergone two main changes.

- 1. Email addresses can be blocked from posting ¹. This mechanism, known as blacklisting, extends the existing system that prevented addresses on the black-list from receiving posts. There is no user-interface for this system.
- 2. The code has been moved to its own product 2 .

Site Administration Pages

The site-administration pages did not work well. All the site administration pages have been updated ³. In particular, the pages that allow an administrator to set the site timezone ⁴ and change the site name ⁵ have been fixed so they work correctly.

Minor Fixes

Minor fixes in Soft Serve include the following.

• If a member with a single unverified address resets a password then that address will become verified ⁶.

¹ Adding the code for blocking a post closed Ticket 459. This enhancement mostly helps Support groups, which otherwise lack a way to prevent people from posting.

² There is a long-running project to move code from the large Products eggs to many more smaller gs eggs. The move of the Can Post code to gs.group.member.canpost from the old Products.GSGroupMember is part of this. Moving the code closes Ticket 423.

³ Updating the site administration pages closes Ticket 620.

⁴ Updating the site-timezone page closes Ticket 662.

⁵ Updating the page that allows a site-name to be changed closes Ticket 607.

⁶ Only the simple case of a single-address being verified is currently handled. Verifying an email address when the password is reset closes Ticket 480.

- The Reply-to address of an invitation is now set to the address of the administrator who issued the invitation ⁷.
- Only posting members of an *announcement* group are shown a link to start a topic ⁸.
- The name of the initial GroupServer instance and GroupServer site have been changed ⁹.
- A coding error with the *Members* page has been fixed ¹⁰.

Get Soft Serve

To get Soft Serve go to the Downloads page for GroupServer and follow the GroupServer Installation documentation. Those who already have a functioning installation can *update an existing GroupServer system*.

Update an Existing GroupServer System

To upgrade an existing GroupServer system to Soft Serve you must first update the packages and then update the ZMI.

Update the Packages Carry out the following steps to update the package versions.

- 1. Download the Soft Serve tar-ball from the GroupServer download page.
- 2. Uncompress the tar-ball.
- 3. Copy the file groupserver-11.06/versions.cfg to your existing GroupServer installation.
- 4. Copy the file groupserver-11.06/buildout.cfg to your existing GroupServer installation.
- 5. In your existing GroupServer installation run:
 - \$./bin/buildout

Update the ZMI The update to the *site administration pages* requires an instance to be deleted from the Zope Management Interface (*ZMI*) before it will work. To delete the instance carry out to the following tasks.

1. Start GroupServer:

\$./bin/instance fg

- 2. View the ZMI. If you did not change the defaults the ZMI can be accessed from http://localhost:8080/manage/>.
- 3. Enter the user-name and password of the ZMI administrator.
- 4. Visit the ZMI page for the Example Site. This should be under example, Content, example_site.
- 5. Select the check-box next to admindivision (Administer Site).
- 6. Click the Delete button. The adminidivision instance should be deleted.

⁷ Prior to Soft Serve, the Reply-to address was set to the email address of the site support. Setting the Reply-to to the address of the administrator that issued the invitation closes Ticket 681.

⁸ In an announcement group there is a distinction between group members that post (*posting members*) and members that just view posts (*normal members*). Prior to Soft Serve all group members saw the link on the homepage to the *Start a Topic* page. A normal member would see an error if he or she followed that link. Just showing the link on the homepage to the posting members closes Ticket 530.

⁹ Prior to Soft Serve the initial GroupServer instance, site and group had names that contained example. Now the instance is called groupserver, the initial site is called initial_site, and the initial group is called example_group. Renaming the instance and site Ticket 690.

¹⁰ Fixing the coding error on the Members page closes Ticket 680.

After deleting the admindivision instance you should be able to view the new site administration pages. To view these pages you must view the homepage for your site and click on the link to administer the site.

Footnotes

13.2.5 GroupServer 11.05 — Eskimo Pie with Middle Class Guilt

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Date 2011-05-27

Organization GroupServer.org

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The main update to GroupServer that is present in the Eskimo Pie release is the new *request membership* system. However there are other *minor fixes* that have been made. You can *get Eskimo Pie* immediately. Work is now starting on GroupServer 11.06 — Soft Serve from Mr Whippy.

Request Membership

The Request Membership system ¹ allows someone to request membership of a private group. The group administrator is informed of the request by email. The administrator can then accept or decline the request using a Web interface. Effectively the Request Membership system works like the system that is used to invite people to join groups, but in reverse.

Minor Fixes

Minor fixes in Eskimo Pie include the following.

- An update to the Start a Group system so the system administrator is made the group administrator².
- When an email address is verified it is made the preferred delivery address if the user has no other preferred delivery addresses ³.
- The list of files that are associated with a post are more clearly demarcated from the body of the message ⁴.
- Long URLs no longer word-wrap in the body of posts ⁵.
- Zope has been updated to 2.3.6⁶. This *may* cause problems with some configurations, as IPv6 support is now present.

Get Eskimo Pie

To get Eskimo Pie go to the Downloads page for GroupServer and follow the GroupServer Installation documentation.

Those who already have a functioning installation can update an existing GroupServer system.

¹ Adding the Request Membership system (finally) closes Ticket 49. More information in the Request Membership system can be found in the Request Membership topic.

² Setting the group administrator when the group is started closes Ticket 611.

³ Setting the verified address as the preferred delivery address closes Ticket 661.

⁴ Enhancing the file notification area closes Ticket 664

⁵ Fixing the URLs so the do not break over multiple lines closes Ticket 671.

⁶ Updating to Zope 2.3.6 is something I am sure to regret, because it has the potential to make GroupServer installation even more tricky than before. However, it is done, and I have closed Ticket 672.

Update an Existing GroupServer System

To upgrade an existing GroupServer system to Eskimo Pie you must first *update the database* and then *update the packages*.

Update the Database The *Request Membership* update requires the creation of a new table to record information about membership requests. To update the database carry out the following steps.

1. Log into the PostgreSQL database used GroupServer by using the following command:

\$ psql -Upgsql_user pgsql_dbname

Note that pgsql_user and pgsql_dbname are the database user and database name that was setup during installation. Both can be found in the instance.cfg file in the installation directory of GroupServer.

2. Run the following SQL to create the request membership table:

```
CREATE TABLE user_group_member_request (
 request_id
                                            PRIMARY KEY,
                   TEXT
                   TEXT
                                            NOT NULL,
 user_id
 site_id
                   TEXT
                                            NOT NULL,
 group_id
                  TEXT
                                           NOT NULL,
 request_date TIMESTAMP WITH TIME ZONE NOT NULL,
                  TEXT,
 message
 responding_user_id TEXT,
 response_date TIMESTAMP WITH TIME ZONE,
 accepted
                    BOOLEAN
);
```

Update the Packages Carry out the following steps to update the package versions.

- 1. Download the Eskimo Pie tar-ball from the GroupServer download page
- 2. Uncompress the tar-ball.
- 3. Copy the file groupserver-11.05/versions.cfg to your existing GroupServer installation.
- 4. Copy the file groupserver-11.05/buildout.cfg to your existing GroupServer installation.
- 5. In your existing GroupServer installation run:

```
$ ./bin/buildout
```

13.2.6 GroupServer 11.04 — Slushy Followed by a Pounding Headache

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Date 2011-04-29

Organization GroupServer.org

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The Slushy release of GroupServer contains two main *enhancements*. You can *get Slushy* immediately. Work is now starting on GroupServer 11.05 — Eskimo Pie with Middle-Class Guilt.

Enhancements

The two main enhancements to GroupServer are

- Posts can now be hidden (see *Hide a Post* below) and
- Full email addresses can now be used to issue invitations.

There are also some *minor fixes*.

Hide a Post

The most significant change to GroupServer is the introduction of an interface to allow posts to be hidden ¹. Both administrators and the author of the post can hide it. People trying to view the post, by itself or in a topic, will see the reason the post was hidden instead of the message. Anyone trying to view a file or image that was added as part of the post will see an error-page that states why the post was hidden.

Full Email Addresses

Prior to Slushy GroupServer would only accept the portion of an email address with an @ in it — such as support@onlinegroups.net. Now the *Invite a New Member* page can handle the full address. This address can include a name, such as "OnlineGroups.Net Support" <support@onlinegroups.net>². Other pages will be converted to support full addresses over time.

Minor Fixes

Minor fixes in Slushy include

- A fix to the *Join and Leave Log* so it now uses jQuery UI tabs ³,
- A fix to the *view* link in the content editor so it works ⁴, and
- Resolving an error with the *Change Email Settings* page that occurred when someone had no preferred email address set ⁵.

Get Slushy

To get Slushy go to the Downloads page for GroupServer and follow the GroupServer Installation documentation.

Those who already have a functioning installation can update an existing GroupServer system.

Update an Existing GroupServer System

To upgrade an existing GroupServer system to Slushy you must first update the database and then update the packages.

¹ The new Hide a Post interface closes Ticket 316 and many minor tickets that were related to hiding a post.

² Support a full email address closes Ticket 445.

³ Switching the Join and Leave Log to use tabs from jQuery.UI closes Ticket 641.

⁴ Fixing the issue with the *view* link closes Ticket 642.

⁵ Fixing the coding error on with the *Change Email Settings* page closes Ticket 660

Update the Database The *hide a post* update requires a change to the database tables that are uses to record information about topics and posts. It also requires the creation of a new table to record information about why posts have been hidden.

Too update the database carry out the following steps.

1. Log into the PostgreSQL database used GroupServer by using the following command:

\$ psql -Upgsql_user pgsql_dbname

Note that pgsql_user and pgsql_dbname are the database user and database name that was setup during installation. Both can be found in the instance.cfg file in the installation directory of GroupServer.

2. Run the following SQL to update the post and topic tables:

ALTER TABLE topic ADD COLUMN hidden TIMESTAMP WITH TIME ZONE; ALTER TABLE post ADD COLUMN hidden TIMESTAMP WITH TIME ZONE;

3. Finally, create the hidden post table by running the following SQL commands:

```
CREATE TABLE hidden_post (
   post_id    TEXT REFERENCES post ON UPDATE CASCADE,
   date_hidden    TIMESTAMP WITH TIME ZONE NOT NULL,
   hiding_user    TEXT NOT NULL,
   reason        TEXT
);
CREATE UNIQUE INDEX hidden_post_pkey
   ON hidden_post
   USING BTREE(post_id, date_hidden);
```

Update the Packages Carry out the following steps to update the package versions.

- 1. Download the Pineapple Snow tar-ball from the GroupServer download page
- 2. Uncompress the tar-ball.
- 3. Copy the file groupserver-11.04/versions.cfg to your existing GroupServer installation.
- 4. In your existing GroupServer installation run:

\$./bin/buildout -N

13.2.7 GroupServer 11.03 — Pineapple Snow at a Child's Party

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Date 2011-03-29

Organization GroupServer.org

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The Pineapple Snow release of GroupServer contains four main enhancements and corrections.

- There is an Updated Change Email Settings Page.
- Searching will now search the topic and post titles ¹.

¹ Updating search closes Ticket 227

- An *Edit this page* link is sometimes shown to logged out users on editable pages².
- The Accept Invitation page looks a lot better ³.

You can *get Pineapple Snow* immediately. Work is now starting on GroupServer 11.04 — Slushy followed by a Pounding Headache.

Updated Change Email Settings Page

The Change Email Settings page has had an extensive redesign ⁴. Email addresses can be dragged from one list to another in order to characterise them. The old interface relied on menus and multiple buttons, and was far harder to use. In addition the new interface automatically updates when an email address is verified ⁵.

The new interface uses the jQuery.UI JavaScript library, just like the group homepage. jQuery.UI is an excellent library builds on the already great jQuery library ⁶.

Get Pineapple Snow

To get Pineapple Snow go to the Downloads page for GroupServer and follow the GroupServer Installation documentation.

Those who already have a functioning installation can update an existing GroupServer system.

Update an Existing GroupServer System

Carry out the following steps to update the package versions.

- 1. Download the Pineapple Snow tar-ball from the GroupServer download page
- 2. Uncompress the tar-ball.
- 3. Copy the file groupserver-11.03/versions.cfg to your existing GroupServer installation.
- 4. In your existing GroupServer installation run:

\$./bin/buildout -N

13.2.8 GroupServer 11.02 — Tartufo Nibbled in Polite Company

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Contact Michael JasonSmith <mpj17@onlinegroups.net>

Date 2011-02-28

Organization GroupServer.org

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The Tartufo release of GroupServer mostly consists of enhancements so errors are handled better.

² The *Edit this page* link is only shown to the Anonymous user if logged in members can edit the page. Showing this link closes Ticket 384 ³ The *Accept Invitiation* was hit by a CSS error. Fixing the error closes Ticket 618 and fixes a related error on other pages with radio buttons and check buttons.

⁴ The redesign of the *Change Email Settings* page closes Ticket 478 and Ticket 472. The topic in GroupServer Development details the new design.

⁵ Automatically updating the *Change Email Settings* page when an address is verified closes Ticket 276.

⁶ The new *Change Email Settings* page uses the sortable widgets and the dialog widget from jQuery UI.

- A new *Unexpected Error* page provides more detail to the user. In addition, the pre-written message to support contains a full stack-trace. This information can be used to find and eliminate the error ¹.
- Many errors were generated when non-existent pages were accessed. These errors have been fixed, primarily in the mailing-list code. This should make problems recorded in the error-log maintained by Zope easier to find, as there should be fewer items in the log ².
- Changes to email addresses are now better recorded ³. This should help diagnose problems better if there is an error subsequent to an address changing.
- The jQuery code shipped with GroupServer has been updated to the latest stable version (1.4.4).
- The code that generates the image, post, and topic pages has been refactored. This should make those pages easier to maintain.

Work is now starting on GroupServer 11.03 — Pineapple Snow at a Child's Party.

Update an Existing GroupServer System

Carry out the following steps to update the package versions.

- 1. Download the Tartufo tar-ball from the GroupServer download page
- 2. Uncompress the tar-ball.
- 3. Copy the file groupserver-11.02/versions.cfg to your existing GroupServer installation.
- 4. In your existing GroupServer installation run:

\$./bin/buildout -N

13.2.9 GroupServer 11.01 — Baked Alaska with and Eye on the Soviets

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Date 2011-01-31

Organization GroupServer.org

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The Baked Alaska release of GroupServer mostly consists of changes to the email verification system.

- Error handling is improved. Following an old verification link will show a suggestion to view your profile, rather than an Unexpected Error page. In addition the corner cases of a missing verification ID and broken ID are handled.
- The Verification page now more closely conforms to Web standards.
- The verification code (gs.profile.email.verify) is now easier to understand and extend.

In addition the site homepage has been modified. Now the groups and profile image of a logged in user are shown. This should make groups easier to find.

Work is now starting on GroupServer 11.02 — Tartufo Nibbled in Polite Company.

¹ The new Unexpected Error page is detailed in a post to GroupServer Development.

² The *traversal* errors were those caused by not handling errors that were thrown by pages in the messages, profile, and files area.

³ Recording more information about email addresses changing closes Ticket 432.

Update an Existing GroupServer System

Carry out the following steps to update the package versions.

- 1. Download the Baked Alaska tar-ball from the GroupServer download page
- 2. Uncompress the tar-ball.
- 3. Copy the file groupserver-11.01/versions.cfg to your existing GroupServer installation.
- 4. In your existing GroupServer installation run:

\$./bin/buildout -N

13.2.10 GroupServer 10.12 — Lemon Ice in the Cool of the Evening

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Date 2010-12-17

Organization GroupServer.org

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The Lemon Ice release of GroupServer mostly consists of changes to the CSS.

- New layout, based on the layout of OnlineGroups.net.
- Two new color schemes (skins):
 - 1. Blue, based on the E-Democracy.org Forums
 - 2. Green, based on OnlineGroups.Net
- Fit and finish work to improve the look of GroupServer.
- Integration of the jQuery.UI code into the default CSS.

Work is now starting on GroupServer 11.01 — Baked Alaska with an Eye on the Soviets.

Update an Existing GroupServer System

To update an existing GroupServer system to Lemon Ice you will have to *update the package versions*. To use the new skins you will have to *update the virtual hosting*.

Update the Package Versions

Carry out the following steps to update the package versions.

- 1. Download the Lemon Ice tar-ball from the GroupServer download page
- 2. Uncompress the tar-ball.
- 3. Copy the file groupserver-10.12/versions.cfg to your existing GroupServer installation.
- 4. In your existing GroupServer installation run:

\$./bin/buildout -N

Update the Virtual Hosting

The virtual hosting will need to be updated in order to use the new skins. Without the new skins the default black-andwhite color scheme will be shown. By default Zope is set up to provide the virtual hosting. To change the Zope setup carry out the following

- 1. Log into the ZMI for your site.
- 2. Select virtual_hosting. You should see the page for the Virtual Host Monster.
- 3. Select the Mappings tab. You should see a line that starts with the name of your site (gstest by default) that is followed path to the site (/example/Content/example_site/).
- 4. Add ++skin++gs_blue to the end of the path for the blue skin. Alternatively add ++skin++gs_green for the green skin.
- 5. Click the Save Changes button.
- 6. Visit the homepage your site (<http://gstest/> by default).
- 7. Reload the page. You may need to hold down Shift when clicking the Reload button to ensure you reload the CSS.

13.2.11 GroupServer 10.11 — Kulfi Craved while Caving

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Date 2010-11-30

Organization GroupServer.org

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The changes below form the bulk of what is new in the Kulfi release of GroupServer:

- Enhancements to groups, including a clearer group properties page, a more flexible delivery settings page, a simplified start a group process, and a new group homepage about tab.
- *Management of a group member* is now easier.
- There have been some set password enhancements and notification updates.
- Finally, the *buildout* process has been improved.

All these enhancements will be available to new GroupServer installations, and those who update an existing groupserver system.

Work is now progressing on GroupServer 10.12 — Lemon Ice in the Cool of the Evening.

Group Properties Page

The page used to set the group properties has been simplified ¹, following a discussion about the properties ². There are fewer properties, as many properties have been replaced by the *group homepage about tab*. The properties that remain have been given clearer names.

¹ The new group properties page closes Ticket 292

² The GroupServer Development group hosted a lively debate about topics

The new group properties page is now a standard zope.formlib form, rather than relying on the older GroupServer XForms code. This means that standard features of forms on GroupServer are present, such as popup help.

Delivery Settings Page

The page used to change the email delivery settings of a group member has been updated ³. The biggest advantage to the new page is that administrators can now change the delivery settings of group members. For members the page looks and behaves much as it did before. However, the system has undergone a major rework behind the scenes. This will make the page easier to maintain, extend and change.

Start a Group

The start a group system has been simplified to a one-step process ⁴. Rather than a separate Preview step the new system dynamically previews the URL and email address of the new group. It also dynamically checks if the group identifier is unique.

It is not possible to create *announcement* groups with the simplified system. However, announcement groups are still supported by GroupServer and will continue to be supported. To create an announcement group first create a discussion group. Then use the ZMI to change the group_template property to announcement.

Group Homepage About Tab

The new group homepage about tab replaces the little-used Charter page ⁵. The new tab provides a blank area where a site administrator is free to write any HTML. The WYMeditor is used to edit the contents of the tab ⁶.

Management of a Group Member

A group administrator is now shown a *Manage Member* link when viewing the profile of a member ⁷. This should make managing members even easier than before.

Set Password

The code used to set and reset passwords has been updated. Members will be shown better error messages when they follow password-reset links multiple times ⁸. In addition all the Set Password pages have been updated to use a single text entry, rather than two password entries ⁹.

Notification Updates

Some notifications that are stored in the ZMI have been updated. In addition better feedback is given for those who fail to change the group-delivery settings by email 10.

1. Ticket 205

2. Ticket 231

³ Creating a new email-settings page closes Ticket 371

⁴ Simplifying the process used to start a group closes Ticket 304

⁵ Creating the About Tab closes Ticket 493

⁶ GroupServer uses the excellent WYMeditor as its HTML editor. Pages that use the editor include *Change Profile*, *Change Site Introduction* and all pages that are editable with the Content Manager (such as *About* and *Policies*.

⁷ Creating a link from the profile page to the manage member page closes Ticket 515

⁸ Knowing when a password has been reset closes Ticket 326

⁹ Why text entries are used to set passwords is explained in this blog post

¹⁰ The clean up to notifications closes three tickets:

Buildout

Buildout is the system that GroupServer uses to install the system. The buildout process has been improved in three ways. First, some issues with the environment relating to installing lxml have been resolved ¹¹. Second, the standard system is used to add the default administrator and user to the example group. This should reduce the chance of errors occurring in the future. Finally, summary information about the new GroupServer site is displayed at the end of the buildout process. This should make it easier to start and view the new GroupServer site.

Update an Existing GroupServer System

To update an existing GroupServer system to Kulfi you will have to *update the package versions*, *update the SQL*, and *update the ZODB*.

Update the Package Versions

Carry out the following steps to update the package versions.

- 1. Download the Kulfi tar-ball from the GroupServer download page
- 2. Uncompress the tar-ball.
- 3. Copy the file groupserver-10.11/versions.cfg to your existing GroupServer installation.
- 4. In your existing GroupServer installation run:

\$./bin/buildout -N

Update the SQL

The *set password* enhancements require an update to the relational database that stores GroupServer data. Carry out the following steps to update the database.

- 1. In instance.cfg look up pgsql_dbname and the pgsql_user, and note their values.
- 2. Run the following command:

```
$ psql -U {psql_user} {psql_dbname} -c "ALTER TABLE "\
    "password_reset ADD COLUMN reset TIMESTAMP WITH TIME ZONE "\
    "DEFAULT NULL;"
```

Older installations will also have to update the table used to record invitations:

```
$ psql -U {psql_user} {psql_dbname} -c "ALTER TABLE "\
   "user_group_member_invitation ADD COLUMN initial_invite "\
   "BOOLEAN DEFAULT FALSE, ADD COLUMN withdrawn_date TIMESTAMP "\
   "WITH TIME ZONE, ADD COLUMN withdrawing_user_id TEXT;"
```

Update the ZODB

To get the *notification updates* into an existing GroupServer system you will have to update the email-templates in the ZODB. Email <support@onlinegroups.net> or GroupServer Development if you need a hand with this.

3. Ticket 531

¹¹ The lxml improvements should resolve the issues that Tom had when installing GroupServer

13.2.12 GroupServer 10.10 — Gelato while Viewing the Sights

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Date 2010-10-26

Organization GroupServer.org

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The changes below form the bulk of what is new in the Gelato release of GroupServer. Work is now progressing on GroupServer 10.11 — Kulfi Craved while Caving.

New Group Homepage

The homepage used by groups has had a major redesign ¹. Now it is divided into multiple tabs. This allows for information to be better organized, and more easily found. Overall the look is cleaner, and the page is easier to use.

Better Bouncing

Sometimes an email to a group member will not get through, and the message bounces. GroupServer has always recorded these bounces. Now this information is presented to the group administrator, who can see a log of failed attempts to send the member an email message 2 .

Resend Invitation

The group administrator now has the option of resending an invitation that did not get through to the new group member ³. There have been many other minor improvements to the invitation system thanks to the feedback from the users of OnlineGroups.Net.

Notification Updates

The email notifications that are sent out by GroupServer in response to an event have been given a through update. They are now clearer and contain more useful information than before ⁴.

• Ticket 15!

• Ticket 509

³ Allowing administrators to reissue an invitation closes Ticket 489

- ⁴ Updating the notifications closes eight tickets
- Ticket 163
- Ticket 215
- Ticket 216
- Ticket 221
- Ticket 222
- Ticket 223
- Ticket 466
- Ticket 513

¹ The details of the new group homepage is available in the Group Homepage Rebuild topic in GroupServer Development. Deploying the new homepage closes Ticket 426 and a slew of sub-tickets.

² Showing a log of the failed attempts to send a message closes

New Favicon

GroupServer now has a new multi-resolution favicon, which is shown in the location bar of the browser ⁵.

New Help System

The user manual and administration manuals are out of date and in need of work. To help with this a new help system has been introduced ⁶. It allows for sections of the manuals to be more easily maintained, which will hopefully allow for better manuals in the future.

Switch to Zope 2.13 Beta

GroupServer now runs on the the latest version of Zope 2. The new features in Zope are used for the *new group homepage*, and the *new help system*.

13.2.13 GroupServer 10.09 — Spaghettieis with a Wafer of Confusion

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Date 2010-09-09

Organization GroupServer.org

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The changes below form the bulk of what is new in the Spaghettieis release of GroupServer. Work is now progressing on GroupServer 10.10 — Gelato while Viewing the Sights.

Invitations

All the pages that deal with issuing and responding to invitations have changed.

Issuing a Single Invitation

The biggest visible change with invitations is to the page used to issue a single invitation. The administrator can write a **personal message** to the invited member. The administrator can preview the message, and preview the response page¹. Hopefully this will encourage more invitations to be written, as they are less likely to get marked as spam, and are more likely to get a response.

The **from address** of the invitation is now set to the address of the administrator 2 . This will hopefully reduce the chances of the invitation being caught in a spam filter even further.

⁵ Creating the new favicon for GroupServer closes Ticket 510

⁶ Creating the new help pages closes Ticket 485

¹ The GroupServer Development online group contains examples of

[·] The invitation-message preview and

[•] The response page.

² Setting the From address in invitations correctly will close Ticket 290.

The **email address** entry on the invitation page handles incorrect data better, so only email addresses can be entered 3 . In the future I would like GroupServer to be more flexible with the format of the addresses that are entered, but today is not that day 4 .

Inviting Site Members

The page for inviting site members has been spruced up, but it has not been overhauled in any major way. The **invitation message** can now be changed. However, it cannot be previewed because I am lazy and did not want to go through the hassle of writing a preview of the Accept Invitation page for existing site members. If someone actually uses Invite Site Members and bothers to write a ticket I may get some motivation to write a preview page.

Inviting People In Bulk

The system for inviting people in bulk, by uploading a **CSV**, remains much the same. Those who use the page a lot will notice some better handling of required profile-attributes, but that is about it. The **invitation message** cannot be changed when inviting people in bulk 5.

New Members Accepting Invitations

The page used to accept invitations has undergone a major rewrite. The mechanics (enter a password and join) stay the same. However, the biography of the administrator who issued the invitation is now shown, as well as some sample statistics about the group 6 .

New members are now sent a **welcome message**⁷. Hopefully new members will refer to the Welcome message when trying to get back to the group homepage, rather than relying on the invitation. However, if the new member does follow the invitation again he or she will be shown a page that says that the invitation has been accepted, and to the group homepage and *bookmark* it.

If an invitation is **declined** it is noted by the system⁸. Sadly the unwanted profile is not deleted, due to an odd issue with how Zope redirects. I plan to implement a system for removing the unwanted profiles, but it will have to be a manual process for now⁹.

All **group administrators** will now get an email saying that a new member has joined the group 10. If someone declines an invitation then only the person who issued the invitation is informed.

Existing Members Accepting Invitations

The **profile page** now has a list of invitations on it ¹¹. Clicking on the invitation will go to the *Accept Invitations* page.

The page that allows an existing site-member to accept or decline invitations stays much as it was. It does gain the **group summary** from the *Accept Invitation* page that is shown to new members. It also shares the fixes to the notifications that are sent to the new member and the group administrators.

³ Being strict about what can be entered as an email address fixes Ticket 325. The fix also corrects the same error with the sign up page.

⁴ More tolerant email address handling will hopefully come in Baked Alaska.

⁵ OnlineGroups.Net could not ship an *Invite by CSV* page with an editable message as it is an invitation to spam people. However, we are not be averse to someone writing a page with an editable message and including that in GroupServer.

⁶ The GroupServer Development group contains an example of the new Invitation Response page.

⁷ Sending a welcome message when joining a group will close Ticket 303. Previously new members only saw a welcome message when signing up or joining a group themselves. The same fix also removed a rather nasty hack.

⁸ Logging the declined invitations closes Ticket 278. It is also what allows people to be redurected if they follow invitations that have had a response. It will also add another entry in the ongoing saga "Why Physical Deletes are the Work of the Devil".

⁹ A simple Cron-job would probably be fine at cleaning up the unwanted profiles (see Ticket 446).

¹⁰ Telling all group administrators that a new member has joined a group will close an irritating issue with GroupServer.

¹¹ Adding the list of invitations to the profile page will close Ticket 347.

Join and Leave

The pages that are by people to join a group without an invitation have also changed.

Join and Sign Up

The *Join* and *Sign Up* pages superficially look exactly the same. However, the code for joining a group is shared with the two *Accept Invitations* pages, so the fixes to notifications are also shared. The only specific improvement is a fix to prevent administrators who join **moderated groups** from being moderated 1^2 .

Leave

The Leave page now presents some alternative ways of **reducing email overload**¹⁴. The alternatives are going onto a **daily digest** of topics, or to participate in the group using the **web only**. We hope this will reduce the number of people who leave groups.

Join and Leave Log

People joining and leaving groups is now audited ¹³. The audit-data is then fed into a new *Join and Leave Log* ¹⁵.

Manage Members

The Manage Members page looks much the same as it did. Those familiar with the page will notice the **profile photos**, and a subtle rewording of the text. For example, people who have been invited to join the group are now clearly marked as such. Underneath the page has undergone a major rewrite, thanks to the heroic efforts of Alice ¹⁶. The new page now meshes properly with invitations, so invites can be withdrawn without causing any problems ¹⁷.

Change Site Introduction

The page that is used to change the text that appears on the homepage of the site has been updated so it uses the WYMeditor¹⁸. This is the same JavaScript-based HTML editor that is used to change a biography on the *Profile* of a member.

Share Box

The most visible change is to the topics and posts. all the *Short link* links on the topics and posts pages to a JavaScriptbased **share box**¹⁹. The share box provides a quick and easy way to share a post or topic on Facebook, Twitter, or just as a URL.

¹² Administrators being moderated only effects administrators of sites with moderated groups; regardless Ticket 235 is closed.

¹⁴ The alternatives to leaving are shown in an example leave page in the GroupServer Development group.

¹³ Auditing when people join and leave a group closes Ticket 341.

¹⁵ The GroupServer Development group contains some examples of what the *Join and Leave Log* looks like to different people. Creating the log closes Ticket 341.

¹⁶ Neither Ticket 420, Ticket 442 or the appearance of the page convey what a monumental task it was to rewrite the Manage Members page. It is now a page that can be improved, rather than a huge hack.

¹⁷ It would be best if I kept hacks that *used* to exist around invitations to myself. Invitations now work well, closing Ticket 435.

¹⁸ The fix so the WYMeditor on the Change the Site Introduction page closes Ticket 357.

¹⁹ Originally the share-box was slated for Pineapple Snow, but Richard completed the short-link improvements early on the request of a client, closing Ticket 378.

Buildout

Buildout is a project designed to solve 2 problems:

1. Application-centric assembly and deployment

Assembly runs the gamut from stitching together libraries to create a running program, to production deployment configuration of applications, and associated systems and tools (e.g. run-control scripts, cron jobs, logs, service registration, etc.).

Buildout might be confused with build tools like make or ant, but it is a little higher level and might invoke systems like make or ant to get its work done.

Buildout might be confused with systems like puppet or chef, but it is more application focused. Systems like puppet or chef might use buildout to get their work done.

Buildout is also somewhat Python-centric, even though it can be used to assemble and deploy non-python applications. It has some special features for assembling Python programs. It's scripted with Python, unlike, say puppet or chef, which are scripted with Ruby.

2. Repeatable assembly of programs from Python software distributions

Buildout puts great effort toward making program assembly a highly repeatable process, whether in a very openended development mode, where dependency versions aren't locked down, or in a deployment environment where dependency versions are fully specified. You should be able to check buildout into a VCS and later check it out. Two checkouts built at the same time in the same environment should always give the same result, regardless of their history. Among other things, after a buildout, all dependencies should be at the most recent version consistent with any version specifications expressed in the buildout.

Buildout supports applications consisting of multiple programs, with different programs in an application free to use different versions of Python distributions. This is in contrast with a Python installation (real or virtual), where, for any given distribution, there can only be one installed.

To learn more about buildout, including how to use it, see <http://www.buildout.org/>.

14.1 Installation

There are a number of ways to install buildout. You can install it as you would any other package, using pip or easy_install. In this case, you'll get a buildout command that you can use to build projects. To build a project, just use:

buildout

from a project directory.

Buildout's (stubborn) philosophy, however, is that projects should be self-contained, and not require changes to a shared Python installation. To avoid changing a shared Python installation you can download a bootstrap script that, when run, will install buildout locally in your project.

The bootstrap script for buildout version 2 is at:

https://bootstrap.pypa.io/bootstrap-buildout.py

So, for example, to install buildout 2 in a project, you might:

```
wget https://bootstrap.pypa.io/bootstrap-buildout.py
python bootstrap-buildout.py
```

Then to build your project, you can just run:

bin/buildout

from the project directory.

buildout 2 is somewhat backward-incompatible with version 1. Most projects will probably work fine with either. If you need to keep using version 1, however, specify a version requirement when you use pip or easy_install, or use the version 1 bootstrap script at:

http://downloads.buildout.org/1/bootstrap.py

Resources

- genindex
- Documentation: http://groupserver.readthedocs.io/
- Translations: https://www.transifex.com/groupserver/public
- Code repository: https://github.com/groupserver/
- Questions and comments to http://groupserver.org/groups/development
- Report bugs at https://redmine.iopen.net/projects/groupserver

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