

Ticket Systems

Learning Objectives

The learning objectives in the tutorial are:

- Installing a ticketing system on the cloud server
- Performing some basic configurations

Tools

- Znuny-6.2.1
- CentOS Stream 8 Server x86_64

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Tut 1: Tutorial (20 min)

Goal of this task is to set up Znuny. After this task, the following data should be available and stored somewhere, e.g., in a local editor, for easy access:

- `< frontendfloatingip >` - the floating ip of the frontend server
- `< otrsuserpassword >` - the password of user otrs
- `< dbuserpassword >` - the password of the database user
- `< agent >` - Znuny agent user name
- `< agentpassword >` - Znuny agent password
- `< root >` - Znuny root user
- `< rootpassword >` - Znuny root password

The `< frontendfloatingip >` can be found in the cloud administration tool `cloud.gwdg.de`

Install the basics:

```
$ sudo dnf install -y epel-release httpd mariadb mariadb-server cpanminus gcc dnf-plugins-core  
$ sudo yum config-manager --set-enabled powertools
```

Install Znuny via RPM:

```
$ sudo yum install -y https://download.znuny.org/releases/RPMS/rhel/7/znuny-6.2.1-01.noarch.rpm
```

Install required Perl Modules (i.e., complete the missing ones):

```
1 $ sudo yum install -y "perl(Moo)" "perl(Text::CSV_XS)" "perl(YAML::XS)" "perl(ModPerl::Util)"
   ↪ "perl(Mail::IMAPClient)" "perl(JSON::XS)" "perl(Encode::HanExtra)"
   ↪ "perl(Crypt::Eksblowfish::Bcrypt)"
2 $ sudo cpanm JavaScript::Minifier::XS CSS::Minifier::XS
```

MySQL / Maria DB needs some config modifications. Create a new file with a text editor of your choice, e.g. nano

```
$ sudo nano /etc/my.cnf.d/znuny_config.cnf
```

and the following content:

Listing 1: znuny_config.cnf

```
1 [client]
2 max_allowed_packet=256M
3 [mysqld]
4 innodb_file_per_table
5 innodb_log_file_size = 256M
6 max_allowed_packet=256M
```

Restart the MariaDB database to apply the changes:

```
$ sudo systemctl start mariadb
```

Configure the webserver. The Apache config is already in place as you have used RPM install previously. Enable MPM prefork module:

```
1 sudo sed -i '/^LoadModule mpm_event_module modules\/mod_mpm_event.so\/s\/^\/#\/'
   ↪ /etc/httpd/conf.modules.d/00-mpm.conf
2
3 sudo sed -i '/^#LoadModule mpm_prefork_module modules\/mod_mpm_prefork.so\/s\/^\/#\/'
   ↪ /etc/httpd/conf.modules.d/00-mpm.conf
```

Znuny uses port 80 by default. You might want to check if this port is already in use using `$ sudo netstat -tulpn | grep LISTEN` and free it if necessary.

Once done, restart the web server to apply the changes:

```
$ sudo systemctl restart httpd
```

Enable the web server and the database to start on boot:

```
$ sudo systemctl enable mariadb httpd
```

Add otrs user to sudoers and set password `< otrsuserpassword >`:

```
$ sudo usermod -aG wheel otrs
```

```
$ sudo passwd otrs
```

Enable Znuny Cron, use `< otrsuserpassword >` for login:

```
$ su - otrs
```

```
$ bin/Cron.sh start
```

Set up the database.

Log in to MySQL console as database admin user. Ensure to replace `< dbuserpassword >` with a password of your liking and note it. :

```
$ sudo mysql -uroot
```

```

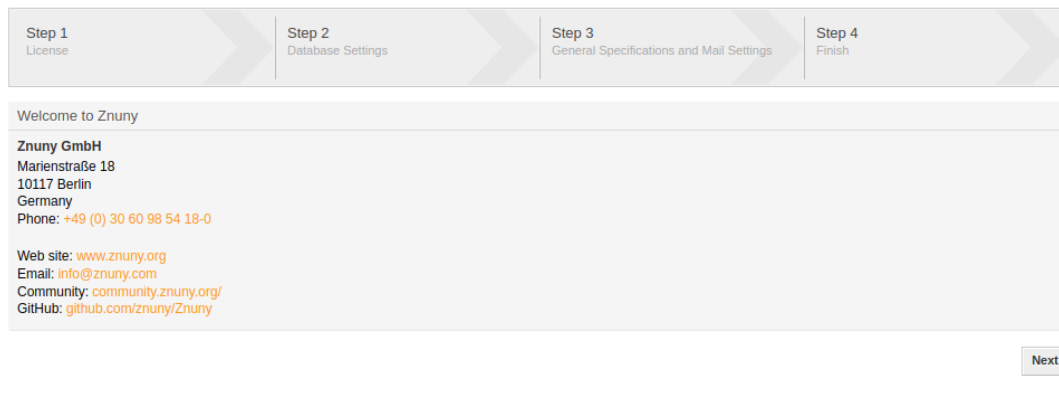
1 # Create a database:
2 CREATE DATABASE otrs CHARACTER SET utf8;
3 # Create a database user (i.e, otrs), and its password <dbuserpassword>
4 CREATE USER 'otrs'@localhost IDENTIFIED BY <dbuserpassword>;
5 # Assign user privileges to the new database:
6 GRANT ALL PRIVILEGES ON otrs.* TO 'otrs'@'localhost';
7 FLUSH PRIVILEGES;
8 quit

```

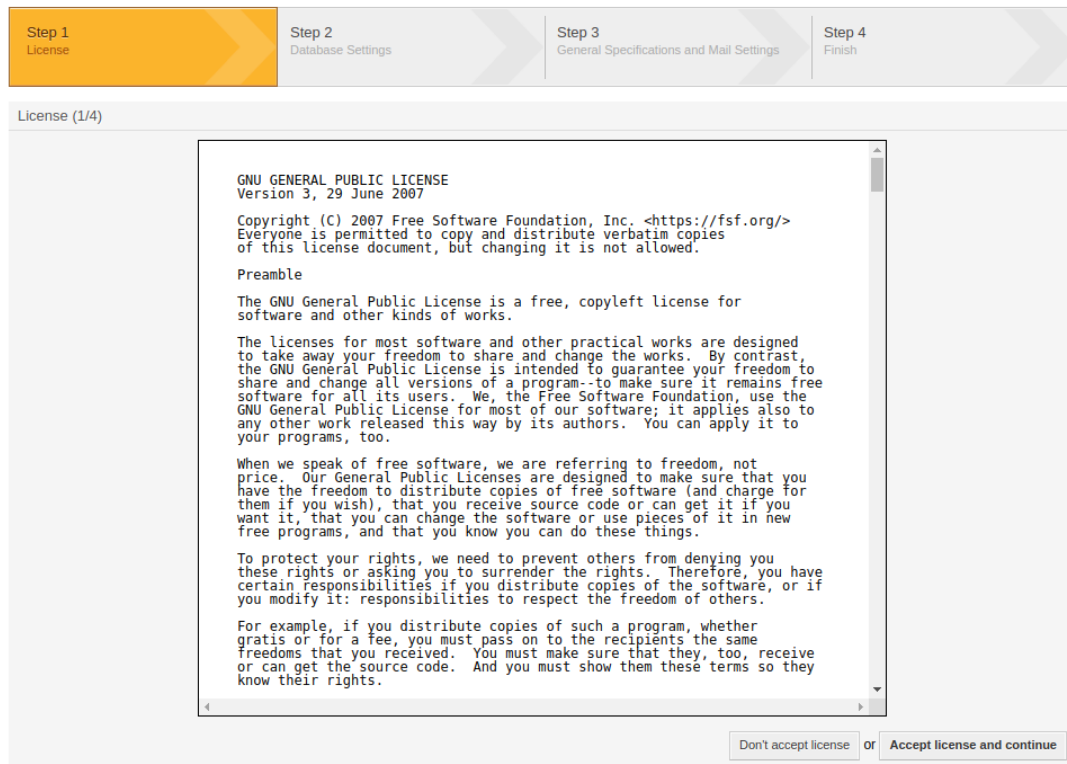
Visit `< frontendfloatingip >/otrs/installer.pl` and follow the configuration steps:

Steps

1. Click next



2. Accept license, and continue



3. Type: MySQL, install type: Use an existing database for OTRS, and click next

Step 1 License

Step 2 Database Settings

Step 3 General Specifications and Mail Settings

Step 4 Finish

Database Selection (2/4)

Type: MySQL
Oracle
PostgreSQL

Install Type: Create a new database for OTRS
 Use an existing database for OTRS

Next

4. Configure MySQL, user: otrs, Password: < *dbuserpassword* >, host: 127.0.0.1, Database name: otrs, and click on database check. If it says successful then click next

Step 1 License

Step 2 Database Settings

Step 3 General Specifications and Mail Settings

Step 4 Finish

Configure MySQL (2/4)

User: otrs

Password: *****
Enter the password for the database user.

Host: 127.0.0.1

Database name: otrs

Result of database check
✔ Database check successful.

Back Next

5. Database setup successful!. Click next

Step 1 License

Step 2 Database Settings

Step 3 General Specifications and Mail Settings

Step 4 Finish

Create Database (2/4)

- ✔ Processing otrs-schema
- ✔ Processing otrs-initial_insert
- ✔ Processing post statements

Database setup successful!

Next

6. System Settings, no change is required click next.

Step 1 License Step 2 Database Settings Step 3 General Specifications and Mail Settings Step 4 Finish

System Settings (3/4)

SystemID: The identifier of the system. Each ticket number and each HTTP session ID contain this number.

System FQDN: Fully qualified domain name of your system.

AdminEmail: Email address of the system administrator.

Organization:

Log

LogModule: Log backend to use.

Webfrontend

Default language: Default language.

CheckMXRecord: Email addresses that are manually entered are checked against the MX records found in DNS. Don't use this option if your DNS is slow or does not resolve public addresses.

7. Mail Configuration. Skip this step

Step 1 License Step 2 Database Settings Step 3 General Specifications and Mail Settings Step 4 Finish

Mail Configuration (3/4)

Configure Outbound Mail

Outbound mail type: Select outbound mail type.

Outbound mail port: Select outbound mail port.

Configure Inbound Mail

Inbound mail type: Select inbound mail type.

Inbound mail host: Inbound mail host.

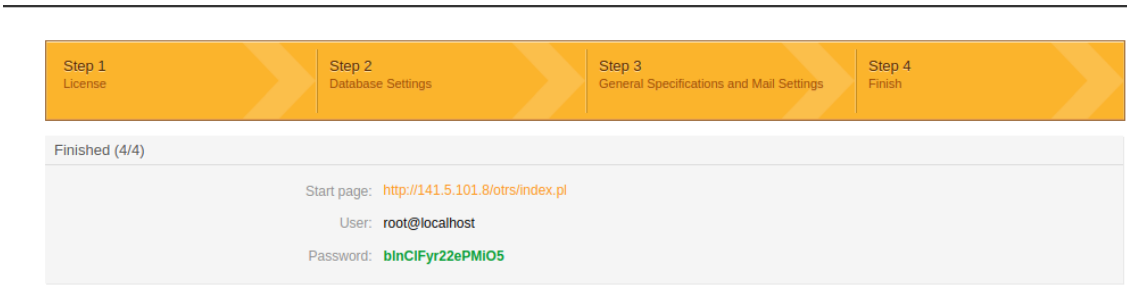
Inbound mail user: User for inbound mail.

Inbound mail password: Password for inbound mail.

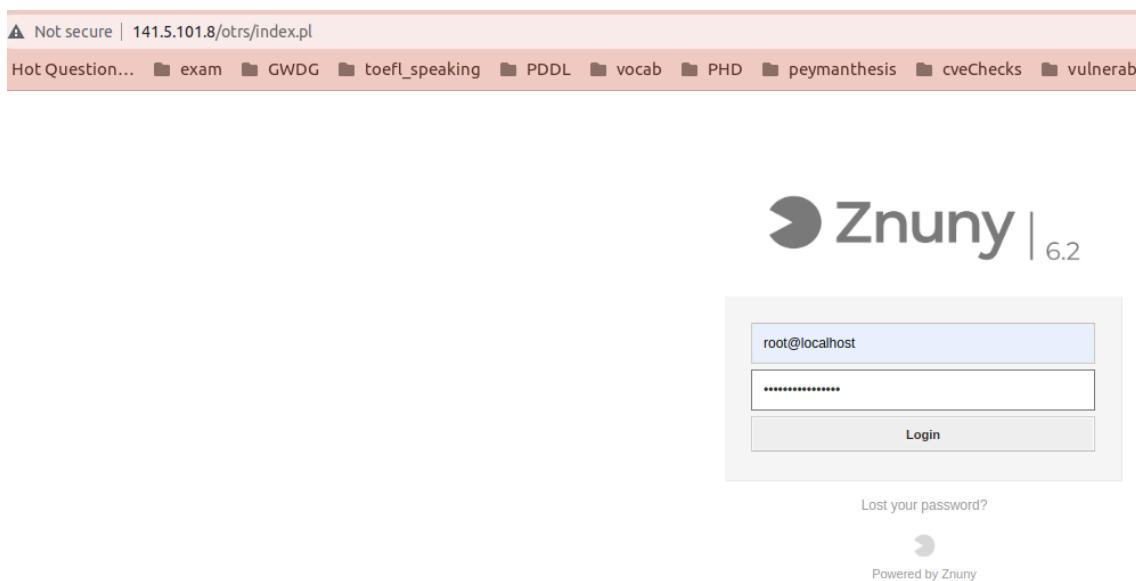
or

➤

8. Finished, copy the password `< rootpassword >` and username `< root >`. Open the given link in new tab.



9. Agent login page. Enter the username and password from last step, and click on login. Please note that your IP address will differ from the one in the picture.



Next, configure the system.

The first page you see after login is this. Consider the Red and Yellow/Orange notification at the top of the page. We need to first resolve those issues by clicking on them:

- OTRS Daemon is not running.
- Time zone
- Do not use Super User account.

1. OTRS Daemon is not running

Please ensure you are still using otrs user:

```
$ /opt/otrs/bin/otrs.Daemon.pl stop  
$ /opt/otrs/bin/otrs.Daemon.pl start
```

2. Please select a time zone (Berlin) in your preferences and confirm it by clicking the save button (checkmark at the end of the line).

Dashboard Customers Calendar Tickets Reports Admin

Don't use the Superuser account to work with ZnuNY! Create new Agents and work with these accounts instead. ...

Please select a time zone in your preferences and confirm it by clicking the save button. ...

OTRS Daemon is not running. ...

Reminder Tickets

My locked tickets (0) | Tickets in My Queues (0) | All tickets (0)

Priority

Escalated Tickets

My locked tickets (0) | Tickets in My Queues (0) | All tickets (0)

New Tickets

My locked tickets (0) | Tickets in My Queues (0) | All tickets (1)

TICKET#	AGE	TITLE
2021012710123456	1 h 8 m	ZnuNY says hi!

Open Tickets

My locked tickets (0) | Tickets in My Queues (0) | All tickets (0)

Ticket Queue Overview

QUEUE	NEW	OPEN	PENDING REMINDER	TOTAL
Raw	1	0	0	1
TOTAL	1	0	0	1

Settings

7 Day Stats

Upcoming Events

none

News

- ZnuNY 6.4.5
- ZnuNY LTS 6.0.48
- ZnuNY 6.4.4
- ZnuNY LTS 6.0.47
- ZnuNY 6.4.3
- ZnuNY LTS 6.0.46

Dashboard Customers Calendar Tickets Reports Admin

Don't use the Superuser account to work with ZnuNY! Create new Agents and work with these accounts instead. ...

Please select a time zone in your preferences and confirm it by clicking the save button. ...

Personal Preferences > User Profile

Preferences

Set up your personal preferences. Save each setting by clicking the checkmark on the right.

Change password

Current password:

New password:

Verify password:

Set a new password by filling in your current password and a new one. ✓

Avatar

You can change your avatar image by registering with your email address root@localhost at gravatar.com. Please note that it can take some time until your new avatar becomes available because of caching.

Change your avatar image. ✓

Language

English (United States)

Select the main interface language. Did you know? You can help translating OTRS at translate.otrs.com. ✓

Time Zone

Europe/Berlin

Select your personal time zone. All times will be displayed relative to this time zone. ✓

Out Of Office Time

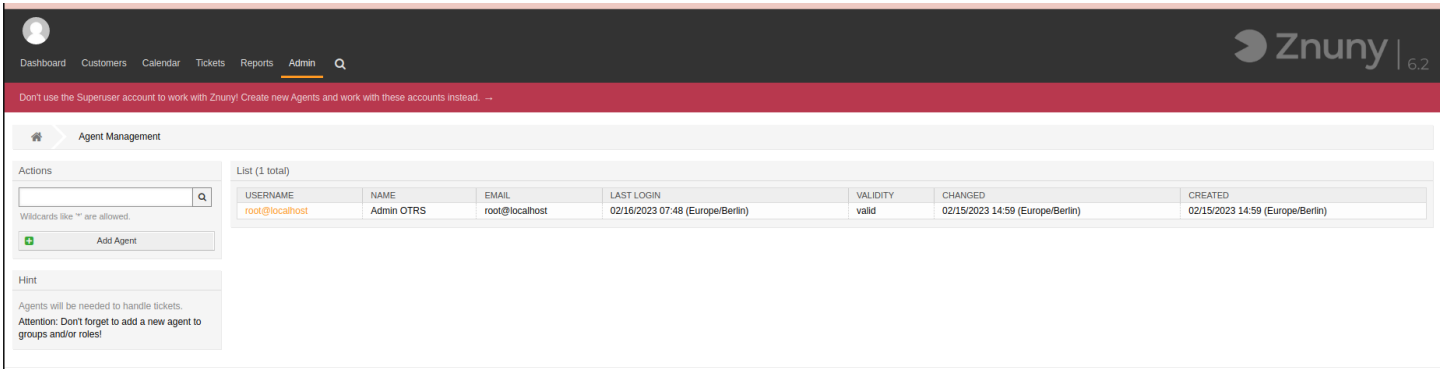
Active: On Off

Start: 02/15/2023

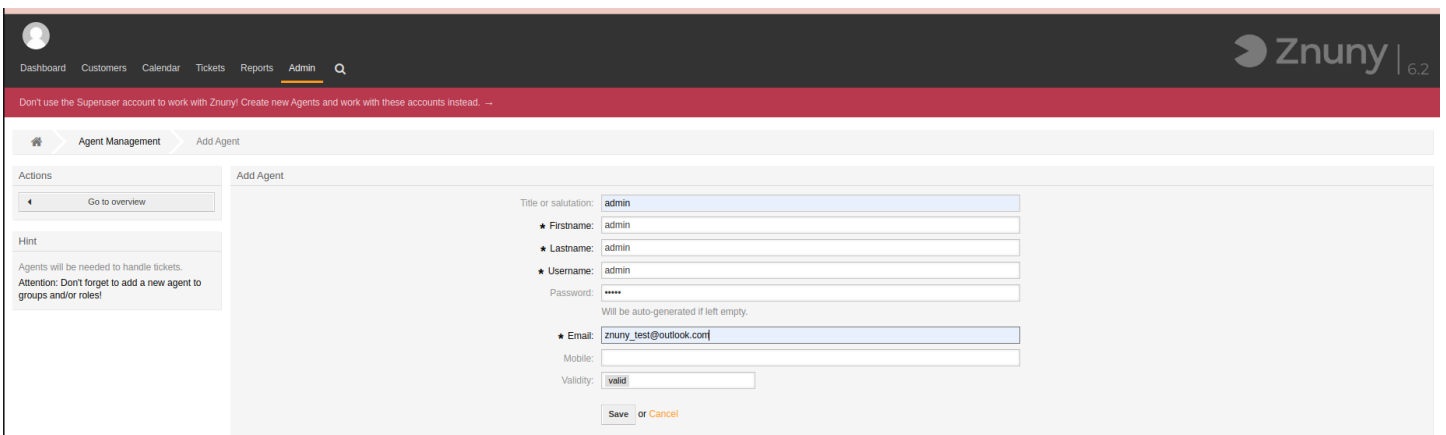
End: 02/16/2023

If you're going to be out of office, you may wish to let other users know by setting the exact dates of your absence. ✓

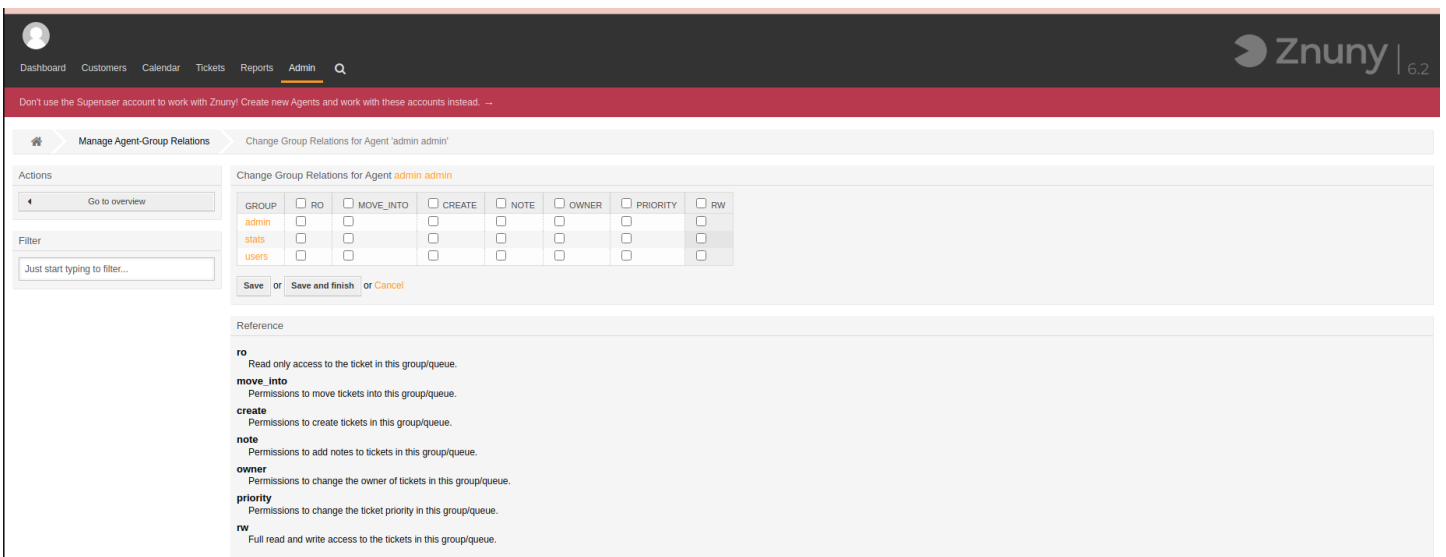
3. Don't use the Superuser account to work with Znuny! Create new Agents and work with these accounts instead



Click on add agent, and fill out the form. Make sure to take note of the login credentials *< agent >* and *< agentpassword >*.



After clicking on save, the next page is asking about the permission setting. We give it full permission by selecting all.



Later for the exercise section, we should logout (by clicking on the profile picture), and login with the new agent you have just created.

Tut 2: Tutorial (10 min)

This is a short description of the features of the Znuzy web interface. You may use this as reference for the exercise.

Agent Web Interface: Overview The Agent Web Interface consists of the following tabs

- Dashboard, Customers, Calendar, Tickets, Reports, Admin, and Search
 1. The **Dashboard** is the main page of the system, here you can get an overview about the tickets and other stuff related to the ticket activity.
 2. **Tickets** button, you will get a sub-menu with options to change the ticket's view, create a new ticket or search for a specific ticket.
 3. The **Report** (Statistics) button presents a menu that allows you to choose from an overview of the registered statistics, creating a new one or importing an existing one.
 4. The **Customers** button leads you to the Customer Management screen.
 5. By clicking the **Admin** button, you can access all of the administrator modules, which allows you to create new agents, queues, etc.
 6. There is also a **Search** button to make ticket searches.

Agent Web Interface: Dashboard

- Dashboard's widgets
 - Reminder Tickets (Tickets that are set as pending and the reminder date has been reached.)
 - Escalated Tickets (Tickets that are escalated.)
 - New Tickets (Tickets that have state New.)
 - Open Tickets / Need to be answered (Tickets that have state Open and are ready for work with them.)
- Dashboard Settings
 - It allows you to control the widgets you want to show or hide.

Agent Web Interface: Admin

In the Admin page of the OTRS web interface, an agent can add/modify agents, customers and queues, ticket and mail settings, install additional packages such as FAQ and ITSM, and much more.

- Agent Management
 - Administrators can add, change or deactivate agent accounts. Furthermore, they can also manage agent preferences, including the language and notification settings for the individual agent's interface.
- Ticket Settings
 - The statuses (predefined states) of tickets, different queues, the template for responding to a specific ticket, and so on are specified or set here.

Agent Web Interface: Admin

- Users, Groups and Roles
 - OTRS supports different types of users and customers. In this section you can create or modify new users, groups, customers, and etc.

- Communication and Notifications

In this section, in "PostMaster Mail Accounts", you can configure the inbound and outbound mail setting. And in "Email Addresses" section, you can set the email for system.