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:

- < frontend floating ip > the floating ip of the frontend server
- $\bullet\ < otrsuser$ password > - the password of user otrs
- $\bullet\ < dbuserpassword >$ the password of the database user
- < agent > Znuny agent user name
- < agent password > Znuny agent password
- < root > Znuny root user
- < rootpassword > Znuny root password

The < frontend floating i p > 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):

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:

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 Zruppy Chap, use < *otrsuserpassword* > for laring

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. : \$ sude myscl ==ureet

\$ 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 < frontend floating i p > /otrs/installer.pl and follow the configuration steps:

Steps

1. Click next

Step 1 License	Step 2 Database Settings	Step 3 Step 4 General Specifications and Mail Settings Finish	
Welcome to Znuny			
Znuny GmbH Marienstraße 18 10117 Berlin Germany Phone: +49 (0) 30 60 98 54 18-0			
Web site: www.znuny.org Email: info@znuny.com Community: community.znuny.org/ GitHub: github.com/znuny/Znuny			
			Next

2. Accept license, and continue

Step 1 License	Step 2 Database Settings Step 3 General Specifications and Mail Settings Step 4 Finish
License (1/4)	
	<pre>A GNU GENERAL PUBLIC LICENSE Version 3, 29 June 2007 Copyright (C) 2007 Free Software Foundation, Inc. Everyone.is permitted to copy and distribute verbatim copies">https://fsf.org/> Everyone.is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed. Preamble The GNU General Public License is a free, copyleft license for software and other kinds of works. The licenses for most software and other practical works are designed to take away your freedom to share and change the works. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change all versions of a program-to make sure it remains free software for all its users. We, the Free Software Foundation, use the GNU General Public License are referring to freedom, not any other work released this way by its authors. You can apply it to your programs, too. When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get if if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things. To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others. For example, if you distribute copies of such a program, whether freedoms that you can change the sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.</pre>
	Don't accept license or Accept license and continue

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

Step 1 License	Step 2 Databas	e Settings	Step 3 General Specifications and Mail Settings	Step 4 Finish
Database Selection (2/4)				
		MySQL Oracle PostgreSQL Create a new database for		
		Use an existing database f	or 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 Step 2 License Database	e Settings	Step 3 General Specifications and N	Aail Settings	Step 4 Finish	
Configure MySQL (2/4)					
User:	otrs				
Password:	•••••				
	Enter the password for the database	se user.			
Host:	127.0.0.1				
Database name:	otrs				
	Result of database check				
	✓ Database check successful.				
				Back Next	t

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 Databas	e Settings Step 3 General Specifications and Mail Settings Finish
System Settings (3/4)	
SystemID:	19 V The identifier of the system. Each ticket number and each HTTP session ID contain this number.
System FQDN:	znuny.novalocal Fully qualified domain name of your system.
AdminEmail:	support@yourhost.example.com Email address of the system administrator.
Organization:	Example Company
LogModule:	Syslog ▼ Log backend to use.
Webfrontend	
Default language:	English (United States) Default language.
CheckMXRecord:	Yes V 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.
	Next

7. Mail Configuration. Skip this step

Step 1 License	Step 2 Databas	e Settings Step 3 General Specifications and Mail Settings Finish
Mail Configuration (3/4)		
Configure Outbound Ma	ul	
	Outbound mail type:	Sendmail 🗸
		Select outbound mail type.
	Outbound mail port:	25
		Select outbound mail port.
Configure Inbound Mail		
	Inbound mail type:	IMAP V
		Select inbound mail type.
	Inbound mail host:	
		Inbound mail host.
	Inbound mail user:	
		User for inbound mail.
	Inbound mail password:	
		Password for inbound mail.
		Check mail configuration Or Skip this step

3

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

Step 1 License	Step 2 Databas	e Settings		Step 3 General Specifications and Mail Settings	Step 4 Finish	
Finished (4/4)						
	Start page:	http://141.5.101.8/otrs/	index.pl			
	User:	root@localhost				
	Password:	bInCIFyr22ePMiO5				

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.

A Not secure 14	41.5.101.8/0	trs/index.pl							
Hot Question	🖿 exam	GWDG	toefl_speaking	PDDL	🖿 vocab	PHD	peymanthesis	cveChecks	🖿 vulnerabi
							3 Zn	uny	6.2
							root@localhost		
							•••••		
								Login	
							Lost yo	ur password?	
							Power	S red by Znuny	

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).

•							🗩 Znuny 📋
Dashboard Customers C	Calendar Tickets Reports Admin (2					
Please select a time zone in yo	our preferences and confirm it by clicking the sa	we button. \rightarrow					
OTRS Daemon is not running.	-						
teminder Tickets							► Settings
Ny locked tickets (0) Tickets	in My Queues (0) All tickets (0)						7 Day Stats
none	TICKET#			AGE	1	TITLE	Created Closed
Priority							1
scalated Tickets							
y locked tickets (0) Tickets in	n My Queues (0) All tickets (0)						
	TICKET#			AGE	1	NTLE	
none							
ew Tickets							
ly locked tickets (0) Tickets in	n My Queues (0) All tickets (1)						0 Thu Fri Sat Sun Mon Tue
TICKET#				AGE	TITLE		
20210127	10123456			1 h 8 m	Znuny says hi!		Upcoming Events
pen Tickets							none
	n My Queues (0) All tickets (0)						
	TICKET#			T AGE		TITLE	News
none	IICKE1#			TAGE		THE	Znuny 6.4.5
							Znuny LTS 6.0.48
cket Queue Overview							Znuny 6.4.4 Znuny LTS 6.0.47
							Znuny 6.4.3
QUEUE	NEW	OPEN		IG REMINDER		TOTAL	Znuny 0.4.3 Znuny LTS 6.0.46
Raw	1	0	0			1	
TOTAL	1	0	0				

			_
Dashboard Customers Calendar Tickets	s Reports Admin Q	🕽 Znuny	
Don't use the Superuser account to work with Znu			
Please select a time zone in your preferences and	d confirm it by clicking the save button. 🛶		
A Personal Preferences User	Profile		
Preferences	Change password		
Set up your personal preferences. Save each setting by clicking the checkmark on the right.	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 2 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		
	EuroperBerlin	Select your personal time zone. All times will be displayed relative to this time zone.	~
	Out Of Office Time		
	Active: ○ on ● Off Start: ○ 2 ♥ (15 ♥) (2023 ♥) ● End: ○ 2 ♥ (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

Dashboard C	Customers Calendar	Tickets	Reports Admin Q						Znuny
Don't use the Su									
Ag	gent Management								
Actions			List (1 total)						
Wildcards like '*' a	are allowed.	Q	USERNAME root@localhost	NAME Admin OTRS	EMAIL root@localhost	LAST LOGIN 02/16/2023 07:48 (Europe/Berlin)	VALIDITY valid	CHANGED 02/15/2023 14:59 (Europe/Berlin)	CREATED 02/15/2023 14:59 (Europe/Berlin)
٥	Add Agent								
Hint									
	eeded to handle tickets. lorget to add a new age les!								

Click on add agent, and fill out the form. Make sure to take note of the login credentials $\langle agent \rangle$ and $\langle agentpassword \rangle$.

Dashboard Customers Calendar Tickets	Reports <u>Admin</u> Q		> Znuny
Don't use the Superuser account to work with Znu			
Agent Management Add Ag	ent		
Actions	Add Agent		
Go to overview	Title or salutation:	admin	
	* Firstname:	admin	
Hint	* Lastname:	admin	
Agents will be needed to handle tickets. Attention: Don't forget to add a new agent to	* Username:	admin	
groups and/or roles!	Password:		
		Will be auto-generated if left empty.	
		znuny_test@outlook.com	
	Mobile:		
	Validity:	valid	
		Save of Cancel	

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

Dashboard Customers Calendar Tickets		S Znuny e					
Don't use the Superuser account to work with Znu	unyt Create new Agents and work with these accounts instead Change Group Relations for Agent 'admin admin'						
Actions	Change Group Relations for Agent admin						
Go to overview Filter	CROUP R MOVE_INTO CREATE NOTE OWNER PRIORITY RW admin I						
Just start typing to filter	users C C Cancel						
	Reference						

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 Znuny 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.