

Registry Operations Curriculum

Request Tracker (RT) Installation and Configuration

Notes:

- Commands preceded with "\$" imply that you should execute the command as a general user - not as *root*.
- Commands preceded with "#" imply that you should be working as the *root* user.
- Commands with more specific command lines (e.g. "RTR-GW>" or "mysql>") imply that you are executing commands on remote equipment, or within another program.
- If a command line ends with "\" this indicates that the command continues on the next line and you should treat this as a single line.

Exercises

Exercise 0

Log in to your PC or open a terminal window as the tladmin user.

Exercise 1

Install the necessary packages for RT.

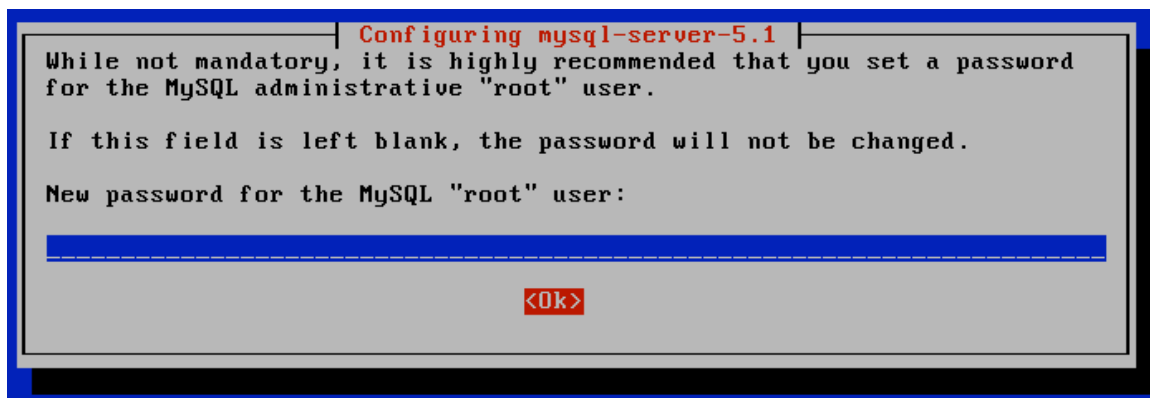
```
$ sudo apt-get install mysql-server-5.1
$ sudo apt-get install rt3.8-apache2
$ sudo apt-get install rt3.8-clients
$ sudo apt-get install rt3.8-db-mysql
$ sudo apt-get install request-tracker3.8
$ sudo apt-get install mutt
```

A quicker way to do this is to specify all the packages on a single line. (Hint, you can copy and paste this if you wish):

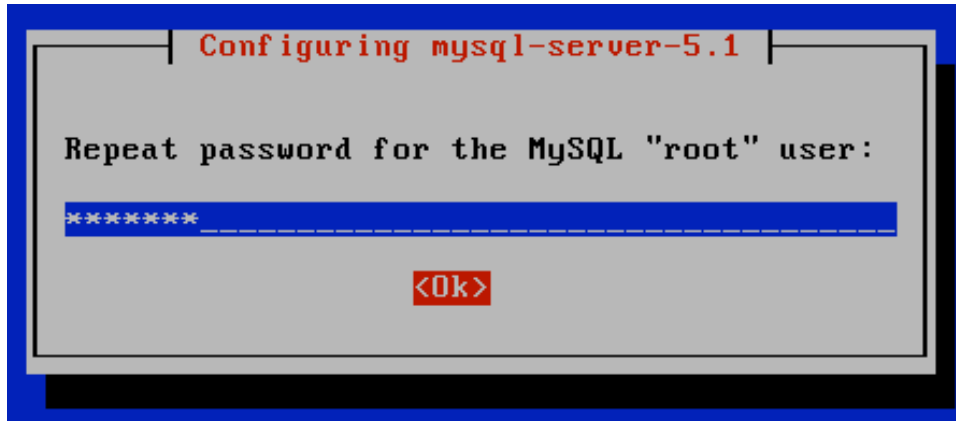
```
$ sudo apt-get install mysql-server-5.1 rt3.8-apache2 \
rt3.8-clients rt3.8-db-mysql request-tracker3.8 mutt
```

Respond "Yes" when prompted if you wish to install the packages.

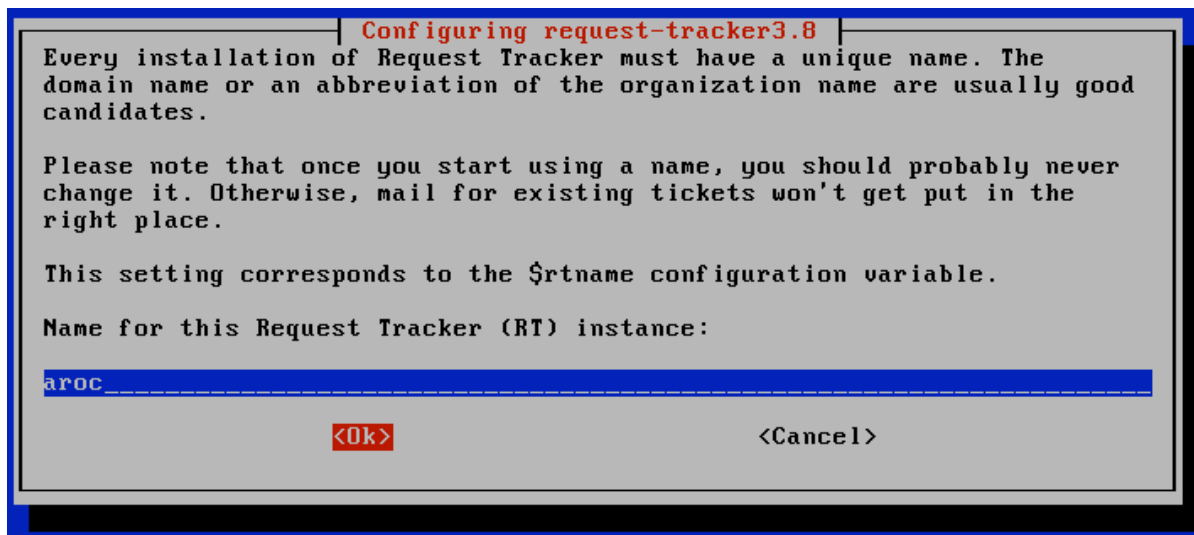
You will now be presented with several windows. Read the instructions below each item to see how to respond:

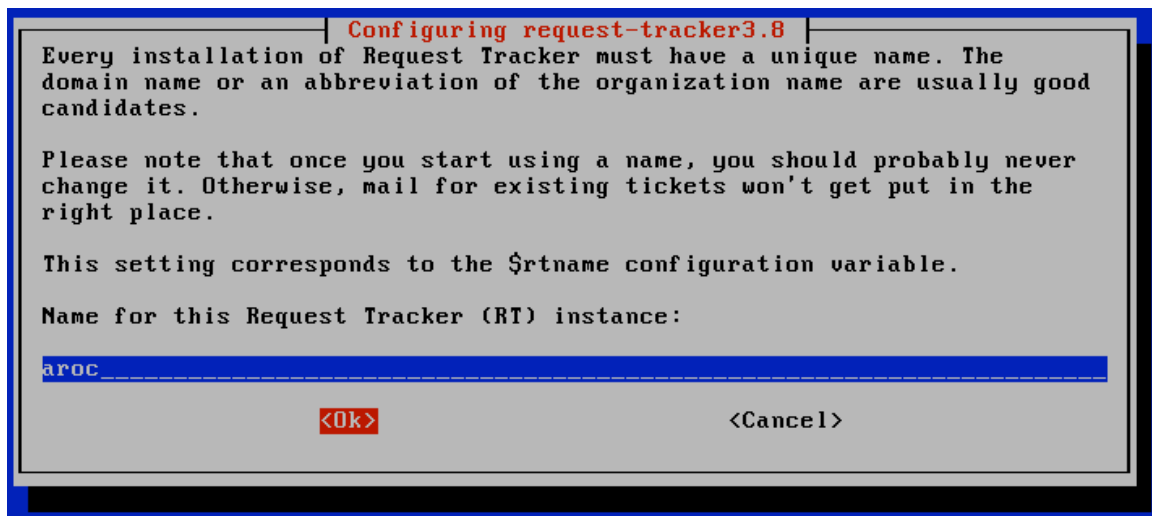


If you enter nothing, then you will receive this prompt again. Please use the administrative password you have been given in class for your machine. If you do not know what this is, then ask your instructor.

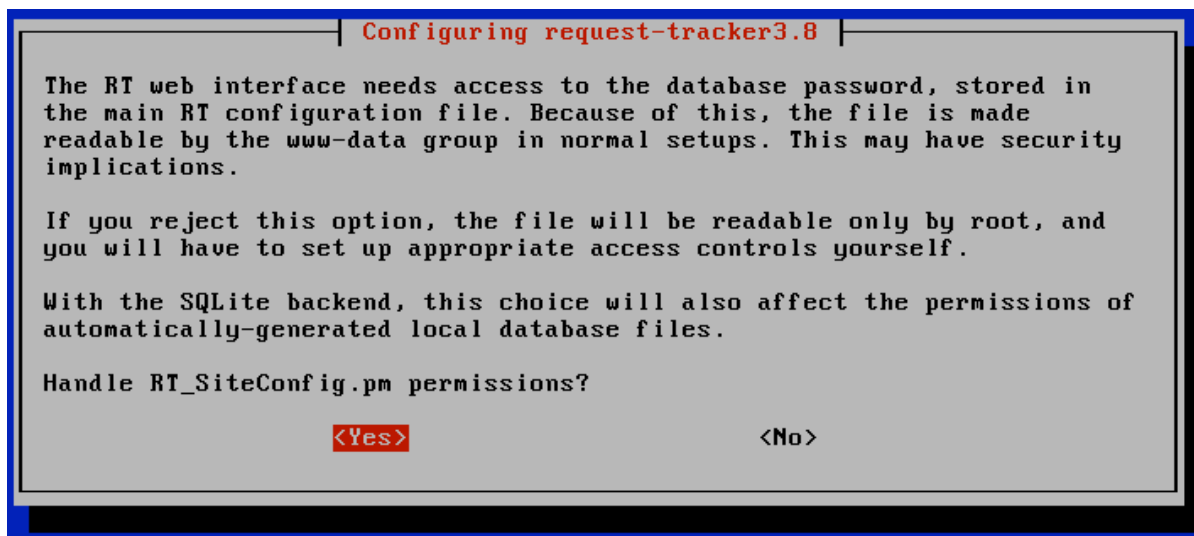


Enter the same password again.

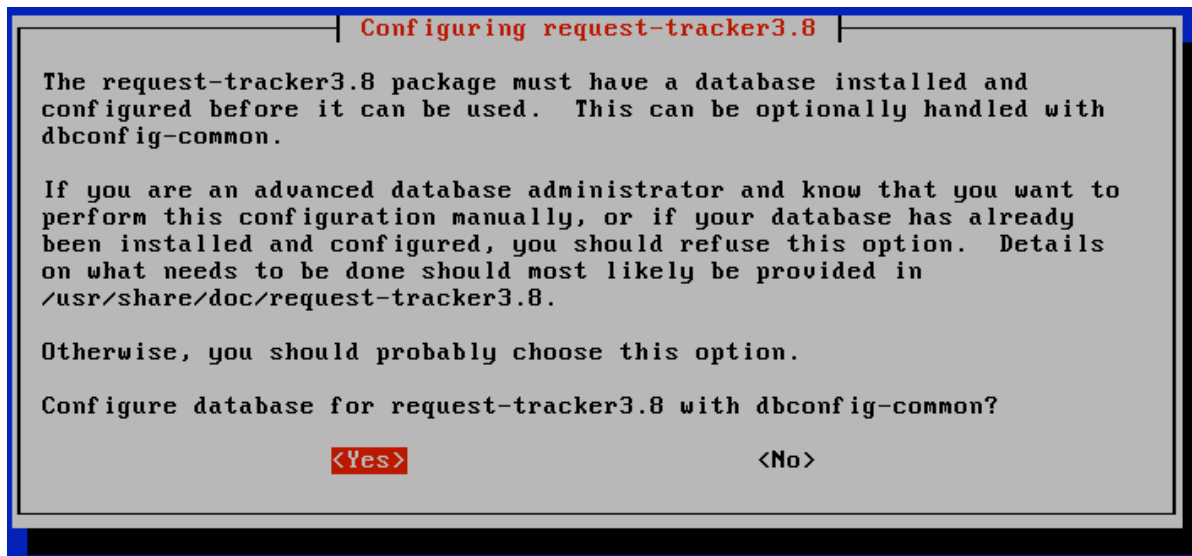




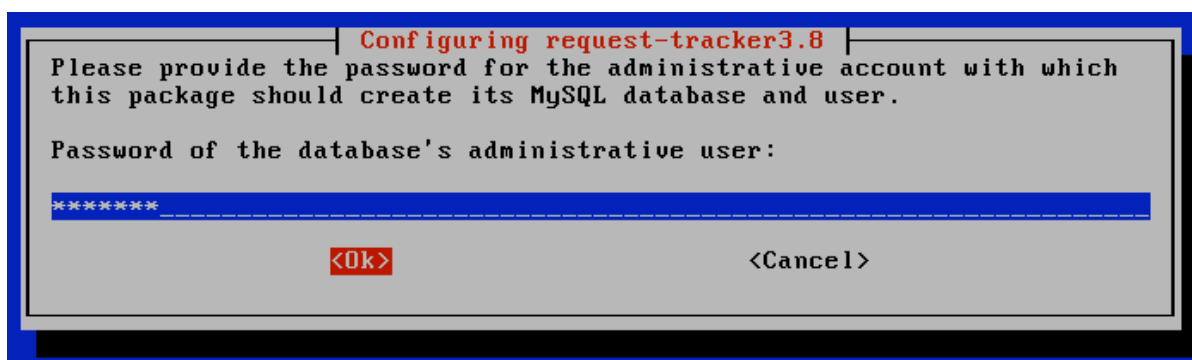
Use the name “aroc” for this instance of RT.



Choose “Yes” – Be aware of this issue. You may wish to manually go and change the permissions for the RT configuration file at a later time.



Choose “Yes”



To keep our installation simple, please use the same password as you did for the MySQL “root” user. You will be prompted either one or two times more for the same password. Please enter it again and select “<OK>” to continue.

At this point you have installed Request Tracker version 3.8. In order to access RT via the Apache web server you need to make one small change.

```
$ cd /etc/apache2/conf.d
$ sudo ln -s /etc/request-tracker3.8/apache2-speedycgi.conf .
$ sudo /etc/init.d/apache2 reload
```

RT is now running and available on your machine.

Exercise 2

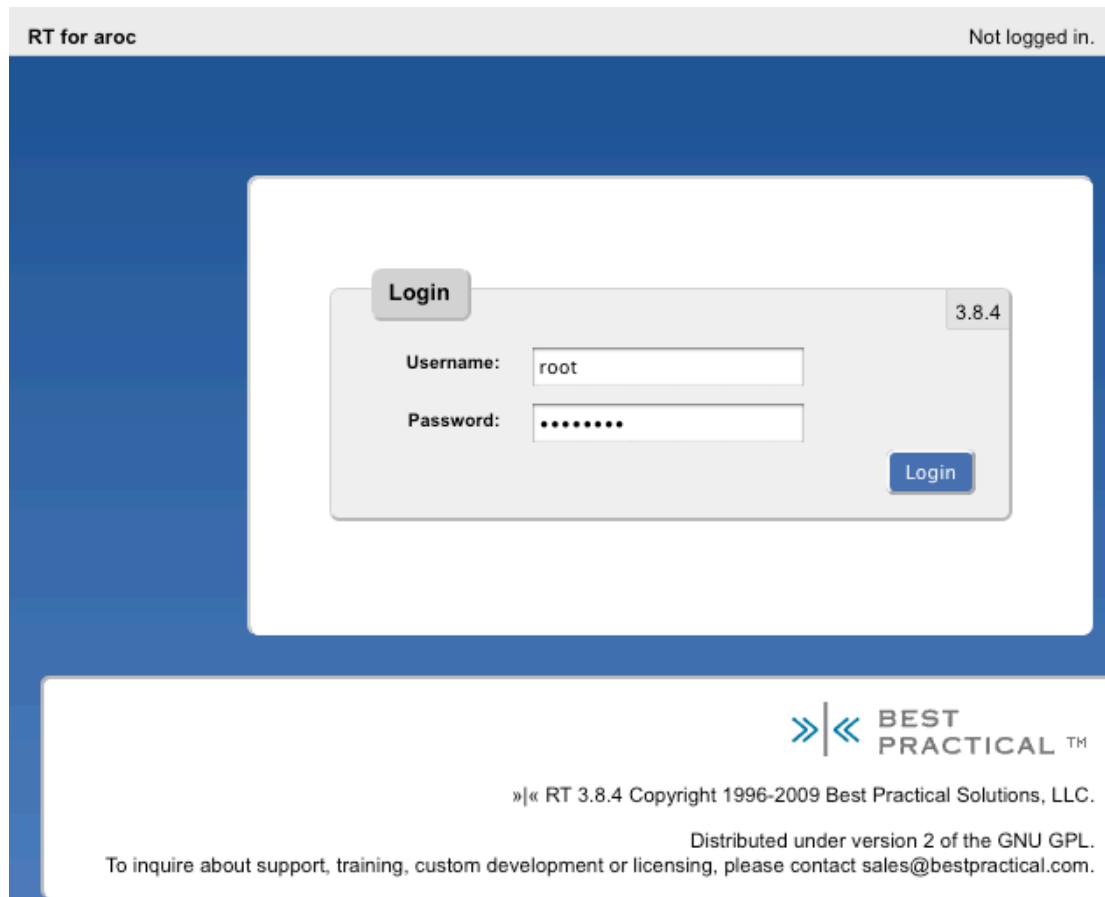
RT Configuration: root User Password Change

Open a web browser and point it to the IP address of the machine where you installed RT.

For example open the link:

<http://localhost/rt/>

You will now see the opening RT screen. You should log in using the default username and password for a new installation. These are “root” and “password” -



RT for aroc Not logged in.

Login 3.8.4

Username: root

Password:

Login

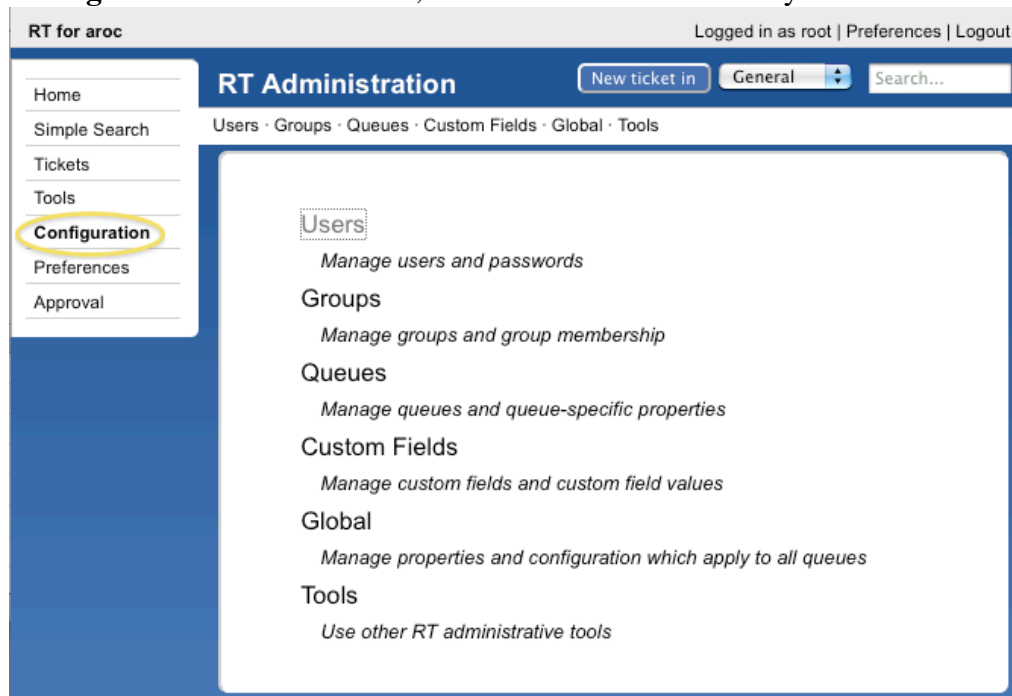
BEST PRACTICAL™

»|« RT 3.8.4 Copyright 1996-2009 Best Practical Solutions, LLC.

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To inquire about support, training, custom development or licensing, please contact sales@bestpractical.com.

Once you have logged in let's update the password for the root RT user. To do this click on **Configuration** in the left menu, then click on the **Users** entry.



RT for aroc Logged in as root | Preferences | Logout

RT Administration New ticket in General Search...

Users · Groups · Queues · Custom Fields · Global · Tools

Configuration

Home

Simple Search

Tickets

Tools

Preferences

Approval

Users
Manage users and passwords

Groups
Manage groups and group membership

Queues
Manage queues and queue-specific properties

Custom Fields
Manage custom fields and custom field values

Global
Manage properties and configuration which apply to all queues

Tools
Use other RT administrative tools

Once you've clicked on **Users** you should see a screen like the one below:

RT for aroc Logged in as root | Preferences | Logout

Select a user New ticket in General Search...

Select · Create

Privileged users

Select a user:

| # | Name | RealName | EmailAddress |
|----|------|------------|----------------|
| 12 | root | Enoch Root | root@localhost |

(Download as a tab-delimited file)

Find all users whose User Id matches

☐ Include disabled users in search.

Go!

Click on the **root** entry and you will now see a detail screen for this user:

RT for aroc Logged in as root | Preferences | Logout

Modify the user root

Basics · History · Memberships · RT at a glance

New ticket in General Search...

Identity

Username: root (required)

Email: root@localhost

Real Name: Enoch Root

Nickname:

Unix login: root

Language:

Extra info:

Location

Organization:

Address1:

Address2:

City:

State:

Zip:

Country:

Access control

☒ Let this user access RT

☒ Let this user be granted rights

New Password:

Retype Password:

Phone numbers

Home:

Work:

Mobile:

Pager:

Custom Fields

Change the password for the root user to the administrative password that you are using in class. Once you have done this press the **Save Changes** button at the bottom of the screen (not visible in our screen capture). You'll see this at the top of the page if all goes well:

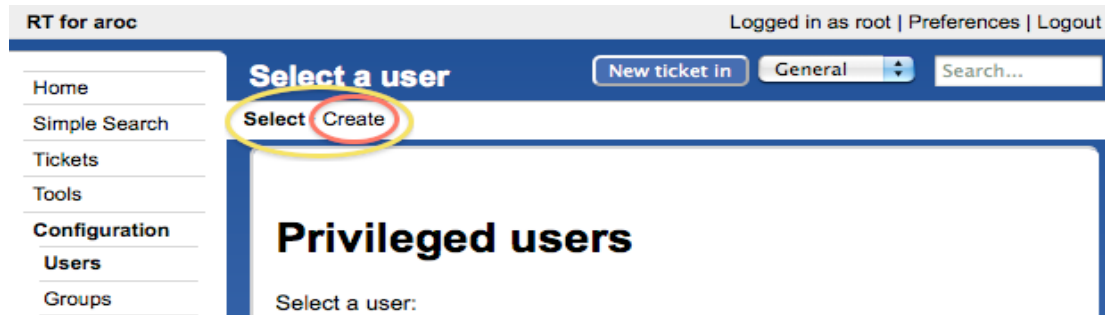
Results

- Password changed

Exercise 3

RT Configuration: Create a User

You should already be logged in to RT as the “root” user. If not, log back in as root.



On the left of the screen click **Configuration** → **Users** and then click on the **Create** item in the upper-left of the screen.

You will now be presented with the following dialogue. Fill in the fields, and make sure the checkbox "Let this user be granted rights" is checked.

The screenshot shows the "Create a new user" form. The top header says "RT for aroc" and "Logged in as root | Preferences | Logout". The main header has "Create a new user" and a "New ticket in" button. Below the header, it says "Select · Create". The form is divided into several sections: "Identity" with fields for Username (tldadmin), Email (tldamin@localhost), Real Name (AROC Admin Account), Nickname, Unix login, Language (English), and Extra info; "Location" with fields for Organization, Address1, Address2, City, State, Zip, and Country; "Phone numbers" with fields for Home, Work, Mobile, and Pager; "Access control" with checkboxes for "Let this user access RT" and "Let this user be granted rights", and fields for New Password and Retype Password; and "Custom Fields" at the bottom.

Use the same password for “tldadmin” as you are using in class. Once done, scroll down the page and click on the **Create** button (bottom right). You should see this:

Modify the user tldadmin New ticket in General Search...

Basics · History · Memberships · RT at a glance

Results

- User created
- Password set

Identity

Location

Exercise 4

RT Configuration: Create a Group

1. Click on **Configuration** (left menu), then **Groups** (middle of screen).
2. Click on **Create** (top menu)

Select a group

Select · **Create**

User-defined groups:
No groups matching search criteria found.
☐ Include disabled groups in listing.
 Find groups whose Name matches

3. Fill in the name: "**netmgmt**", and add a description, then click on "**Create**"

RT for aroc Logged in as root | Preferences | Logout

Create a new group New ticket in General Search...

Select · Create

Name:

Description:

☒ Enabled (Unchecking this box disables this group)

RT for aroc Logged in as root | Preferences | Logout

- Home
- Simple Search
- Tickets
- Tools
- Configuration
- Users
- Groups
- Select
- Create
- netmgmt**
- Queues
- Custom Fields
- Global
- Tools

Modify the group netmgmt

Basics · Members · Group Rights · User Rights · History

[New ticket in](#)
General

Results

- Group netmgmt: Description changed from (no value) to 'Network Managemenet Administrators' by root

Name:

Description:

☒ Enabled (Unchecking this box disables this group)

[Reset](#)
[Save Changes](#)

Exercise 5

RT Configuration: Add Members to a Group

4. Click on **Configuration** (left menu), then **Groups** (center menu)
5. Click on "netmgmt" (the group you just created)
6. Click on **Members** (top menu)

RT for aroc Logged in as root | Preferences | Logout

- Home
- Simple Search
- Tickets
- Tools
- Configuration
- Users
- Groups
- Select
- Create
- netmgmt**

Modify the group netmgmt

Basics · **Members** · Group Rights · User Rights · History

[New ticket in](#)
General

Name:

Description:

☒ Enabled (Unchecking this box disables this group)

[Reset](#)
[Save Changes](#)

7. In the "Add members" list (right), select the user you created in step 3. This is the "tldadmin" user, with the description "AROC Admin Account.":

RT for aroc Logged in as root | Preferences | Logou

RT/Admin/Edit the group netmgmt New ticket in General Search...

Basics · **Members** · Group Rights · User Rights · History

Editing membership for group netmgmt

Current members
(No members)

Add members

Users
AROC Admin Account
Enoch Root

Groups

(Check box to delete)
Reset

Modify Members

Results

- Member added: tladmin

Exercise 6

RT Configuration: Create a New Queue

1. Click on **Configuration** (left menu), then **Queues** (center menu)
2. Click on **Create** (top menu)

RT for aroc Logged in as root | Preferences | Logout

- Home
- Simple Search
- Tickets
- Tools
- Configuration
- Users
- Groups
- Queues**
- Custom Fields
- Global
- Tools
- Preferences
- Approval

Admin queues
New ticket in General Search...

Select Create

Enabled Queues

Select a queue:

| # | Name | Description | Address | Priority | DefaultDueln | |
|---|---------|-------------------|---------|----------|--------------|---------|
| 1 | General | The default queue | -/- | 0-0 | 0 | Enabled |

☐ Include disabled queues in listing.

Go!

- Fill in the fields. Let's use the following values:
Queue Name: net
Description: Network Problems
Subject Tag: Request Tracker: NET
Reply Address: net@localhost
Comment Address: net-comment@localhost

RT for aroc Logged in as root | Preferences | Logout

- Home
- Simple Search
- Tickets
- Tools
- Configuration
- Users
- Groups
- Queues**
- Select
- Create
- net**
- Custom Fields
- Global
- Tools
- Preferences
- Approval

Editing Configuration for queue net
New ticket in General Search...

Basics · Watchers · Scripts · Templates · Ticket Custom Fields · Transaction Custom Fields · Group Rights · User Rights · History

Queue Name:

Description:

Subject Tag:

Reply Address: (If left blank, will default to rt@ubuntu.localdomain)

Priority starts at:

Requests should be due in: days.

Comment Address: (If left blank, will default to rt-comment@ubuntu.localdomain)

Over time, priority moves toward:

☒ Enabled (Unchecking this box disables this queue)

Create

- Click on **Create**:

Results

- Queue created
- Queue net: Description changed from (no value) to "Network Problems"
- Queue net: CorrespondAddress changed from (no value) to "net@localhost"
- Queue net: CommentAddress changed from (no value) to "net-comment@localhost"
- Queue net: SubjectTag changed to [RT NET]

If your Request Tracker box has a fully qualified domain name you can use this instead of "localhost".

Exercise 7

RT Configuration: Give Rights to our Group on the Queue

1. Click on **Configuration** (left menu), then **Queues** (center menu).
2. Click on "**net**" (the queue that you just created).
3. Click on "**Group Rights**" (top menu).

The screenshot shows the 'Editing Configuration for queue' page in the RT (Red Hat Ticketing) system. The top navigation bar includes 'RT for aroc', 'Logged in as root | Preferences | Logout', and a 'New ticket in' button. The left sidebar contains a menu with 'Home', 'Simple Search', 'Tickets', 'Tools', 'Configuration', 'Users', 'Groups', 'Queues', 'Select', 'Create', 'net' (highlighted), 'Custom Fields', 'Global', 'Tools', 'Preferences', and 'Approval'. The main content area is titled 'Editing Configuration for queue' and has tabs for 'Basics', 'Watchers', 'Scripts', 'Templates', 'Ticket Custom Fields', 'Transaction Custom Fields', 'Group Rights' (circled in yellow), and 'User Rights'. The 'Group Rights' tab is active, showing configuration for the 'net' queue. Fields include: Queue Name: net, Description: Network Problems, Subject Tag: [RT NET], Reply Address: net@localhost, Comment Address: net-comment@localhost, Priority starts at: 0, Over time, priority moves toward: 0, Requests should be due in: 0 days, and a checkbox for 'Enabled' which is checked. A 'Save Changes' button is at the bottom right.

The following menu is pretty long and complex. Here is what you should do:

In the "Everyone" Group, on the right side under **New Rights** select these three items. Use the SHIFT key (or Apple key on a Macintosh) to select multiple items:

- **CreateTicket**
- **ReplyToTicket**
- **SeeQueue**

In the **netmgmt** Group select everything except for the choice "no value" – You can use the shift key to do this. Once this is done, press the **Modify Groups Rights** button on the bottom right of the page.

System groups

Unprivileged

Current rights

No rights granted.

New rights

StealTicket
TakeTicket
Watch
WatchAsAdminCc
(no value)

Privileged

Current rights

No rights granted.

New rights

StealTicket
TakeTicket
Watch
WatchAsAdminCc
(no value)

Everyone

Current rights

No rights granted.

New rights

OWNTicket
ReplyToTicket
SeeCustomField
SeeQueue
ShowACL
ShowOutgoingEmail

Roles

Requestor

Current rights

No rights granted.

New rights

StealTicket
TakeTicket
Watch
WatchAsAdminCc
(no value)

Owner

Current rights

No rights granted.

New rights

StealTicket
TakeTicket
Watch
WatchAsAdminCc
(no value)

Cc

Current rights

No rights granted.

New rights

StealTicket
TakeTicket
Watch
WatchAsAdminCc
(no value)

AdminCc

Current rights

No rights granted.

New rights

StealTicket
TakeTicket
Watch
WatchAsAdminCc
(no value)

User defined groups

netmgmt

Current rights

No rights granted.

New rights

StealTicket
TakeTicket
Watch
WatchAsAdminCc
(no value)

Reset

Modify Group Rights

You will see a bunch of this:

Results

- Right Granted
- Right Granted
- Right Granted
- Right Granted
- Right Granted
- Right Granted
- Right Granted
- Right Granted
- Right Granted
- Right Granted
- Right Granted
- Right Granted
- Right Granted
- Right Granted
- Right Granted

and all the rights that the Group “netmgmt” now has on the NET queue (bottom of page):

User defined groups

netmgmt

| Current rights | New rights |
|--|------------|
| (Check box to revoke right) | (no value) |
| <input type="checkbox"/> AdminQueue | |
| <input type="checkbox"/> AssignCustomFields | |
| <input type="checkbox"/> CommentOnTicket | |
| <input type="checkbox"/> CreateTicket | |
| <input type="checkbox"/> DeleteTicket | |
| <input type="checkbox"/> ForwardMessage | |
| <input type="checkbox"/> ModifyACL | |
| <input type="checkbox"/> ModifyCustomField | |
| <input type="checkbox"/> ModifyQueueWatchers | |
| <input type="checkbox"/> ModifyScripts | |
| <input type="checkbox"/> ModifyTemplate | |
| <input type="checkbox"/> ModifyTicket | |
| <input type="checkbox"/> OwnTicket | |
| <input type="checkbox"/> ReplyToTicket | |
| <input type="checkbox"/> SeeCustomField | |
| <input type="checkbox"/> SeeQueue | |
| <input type="checkbox"/> ShowACL | |
| <input type="checkbox"/> ShowOutgoingEmail | |
| <input type="checkbox"/> ShowScripts | |
| <input type="checkbox"/> ShowTemplate | |
| <input type="checkbox"/> ShowTicket | |
| <input type="checkbox"/> ShowTicketComments | |
| <input type="checkbox"/> StealTicket | |
| <input type="checkbox"/> TakeTicket | |
| <input type="checkbox"/> Watch | |
| <input type="checkbox"/> WatchAsAdminCc | |

Exercise 8

RT Configuration: Log in as tldadmin

Log out of RT and log back in as the tldadmin user you have created.

Logged in as root | Preferences | Logout

New ticket in General Search...

Transaction Custom Fields · Group Rights · User Rights ·

RT for aroc Not logged in.

Login

3.8.4

Username: tldadmin

Password:

Login

You should see this:

RT for aroc Logged in as tldadmin | Logout

RT at a glance New ticket in net Search...

Home Simple Search Tickets Tools Approval

Home

10 highest priority tickets I own Edit

10 newest unowned tickets Edit

Bookmarked Tickets Edit

Quick ticket creation

Reminders

Quick search Edit

| Queue | new | open | stalled |
|-------|-----|------|---------|
| net | 0 | 0 | 0 |

Dashboards Edit

At this point RT has been properly configured for initial operation. Now we must configure email properly to talk with our new “net” queue in RT.

Exercise 9

RT Configuration: Email

RT will work with the MTA (Mail Transfer Agent) of your choice. In our case we are using Postfix configured to run as an MTA for an “Internet Site” – that is, to deliver email locally and remotely using SMTP.

Edit the file `/etc/aliases`

Add the following two lines at the end of the file:

```
net-comment: "|/usr/bin/rt-mailgate --queue net --action comment --url http://localhost/rt/"
net:        "|/usr/bin/rt-mailgate --queue net --action correspond --url http://localhost/rt/"
```

Save the file and exit, then run the command:

```
$ sudo newaliases
```

Exercise 10

RT Configuration: Create an Email and Tickets

Let's create an email and send it to the RT “net” queue. Do this as the `tldadmin` user (not as `root`!):

```
$ echo "Problem with my router" | mail -s "Router problem" net@localhost
```

Now check that you have received email:

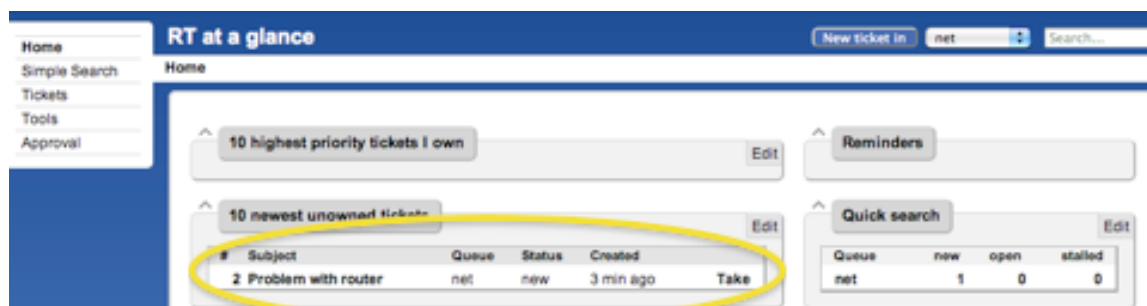
```
$ mutt -f /var/mail/tldadmin
```

You should see an email from Request Tracker acknowledging that your ticket has been created.

Exercise 11

RT Configuration: View, Reply, Resolve, Reopen Tickets in Request Tracker

Go back to your web browser where you are logged in to RT as the `tldadmin` user and click on the ticket in the main view page (what you see when you first log in):



You will see a bunch of information about the ticket. Scroll to the bottom of the page. Here you can **Reply** to the ticket:

History Brief headers — Full headers

Thu Apr 22 18:45:52 2010 tldadmin@ubuntu.localdomain - Ticket created Reply Comment Forward

Subject: Router problem
To: net@localhost
Date: Thu, 22 Apr 2010 18:45:49 -0700 (PDT)
From: tldadmin@ubuntu.localdomain (AROC Class User)

Problem with my router Download (untitled) / with headers
text/plain 23b

Thu Apr 22 18:45:53 2010 RT_System - Outgoing email recorded Show

Go ahead and type in a reply, set the **Status** of the ticket to **Resolved** (upper-right drop-down menu), and then click on **Update Ticket** (bottom-right):

Update ticket #1 (Router problem) New ticket in net Search...

Display · History · Basics · Dates · People · Links · Reminders · Jumbo

Open · Take ... Comment · Reply · Resolve · ☆

Status: **resolved** Owner: Nobody (Unchanged) Worked: Minutes

Update Type: **Reply to requestors**

Subject: Router problem

One-time Cc:

One-time Bcc:

Attach: Browse... Add More Files

Message:

On Thu Apr 22 18:45:52 2010, tldadmin@ubuntu.localdomain wrote:
 > Problem with my router

It's fixed!

Your friendly network administrator.

Update Ticket

You should see this

Results

- Message recorded
- Ticket 1: Status changed from 'open' to 'resolved'

The ticket is currently “Resolved,” but you can either reopen the ticket via the RT web interface at any time, or if the original ticket creator (tldadmin in this case) replies to the email you just sent, then the ticket will be reopened.

View the history at the bottom of the page to see that the ticket is currently closed:

History Brief headers — Full headers

Thu Apr 22 18:45:52 2010 **tldadmin@ubuntu.localdomain - Ticket created** Reply Comment Forward

Subject: Router problem
To: net@localhost
Date: Thu, 22 Apr 2010 18:45:49 -0700 (PDT)
From: tldadmin@ubuntu.localdomain (AROC Class User)

Problem with my router Download (untitled) / with headers
text/plain 23b

Thu Apr 22 18:45:53 2010 **RT_System - Outgoing email recorded** Show

Thu Apr 22 19:13:24 2010 **tldadmin - Correspondence added** Reply Comment Forward

On Thu Apr 22 18:45:52 2010, tldadmin@ubuntu.localdomain wrote:
 > Problem with my router Download (untitled) / with headers
text/html 187b

It's fixed!

Your friendly network administrator.

Thu Apr 22 19:13:25 2010 **RT_System - Outgoing email recorded** Show

Thu Apr 22 19:13:25 2010 **RT_System - Status changed from 'new' to 'open'**

Thu Apr 22 19:13:25 2010 **tldadmin - Status changed from 'open' to 'resolved'**

Thu Apr 22 19:13:25 2010 **RT_System - Outgoing email recorded** Show

If you went back to your terminal session as the tldadmin user and typed:

```
$ mutt -f /var/mail/tldadmin
```

and responded to the email generated from Request Tracker, then your ticket status will change. You can see this by reloading the RT web page for the ticket and viewing the history at the bottom of the page:

Thu Apr 22 19:17:33 2010 **tldadmin@ubuntu.localdomain - Correspondence added** Reply Comment Forward

Subject: Re: [Request Tracker: NET #1] Resolved: Router problem
Date: Thu, 22 Apr 2010 19:17:33 -0700
To: AROC Admin Account via RT <net@localhost>
From: AROC Class User <tldadmin@ubuntu.localdomain>

On Thu, Apr 22, 2010 at 07:13:25PM -0700, AROC Admin Account via RT wrote:
 > According to our records, your request has been resolved. If you have any
 > further questions or concerns, please respond to this message.

It's still wedged! Can you come out and have a look?

Sincerely,

Your ever-patient customer

Thu Apr 22 19:17:33 2010 **RT_System - Status changed from 'resolved' to 'open'**

You now have a functioning RT instance with email integration. A bit later we will extend the use of RT by integrating it with other Network Monitoring software using the `rt-mailgate` facility that we have already configured in the `/etc/aliases` file.