Network Management & Monitoring
Request Tracker (RT) Installation and Configuration

<u>Notes:</u>

- 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 sysadm user.

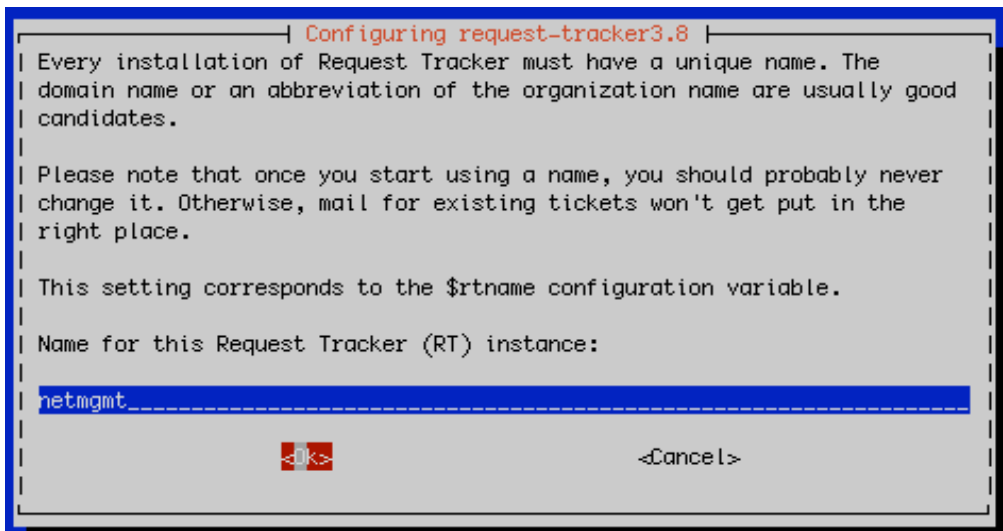### Exercise 1

Install the necessary packages for RT.

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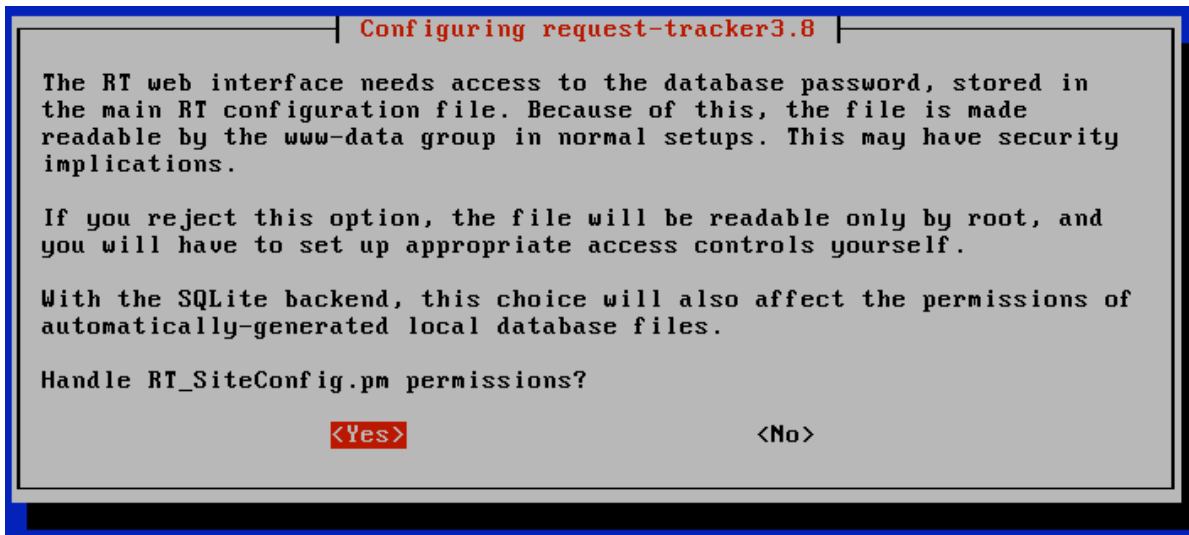
```
$ sudo apt-get install mysql-server rt3.8-apache2 \
    rt3.8-clients rt3.8-db-mysql request-tracker3.8 mutt
```

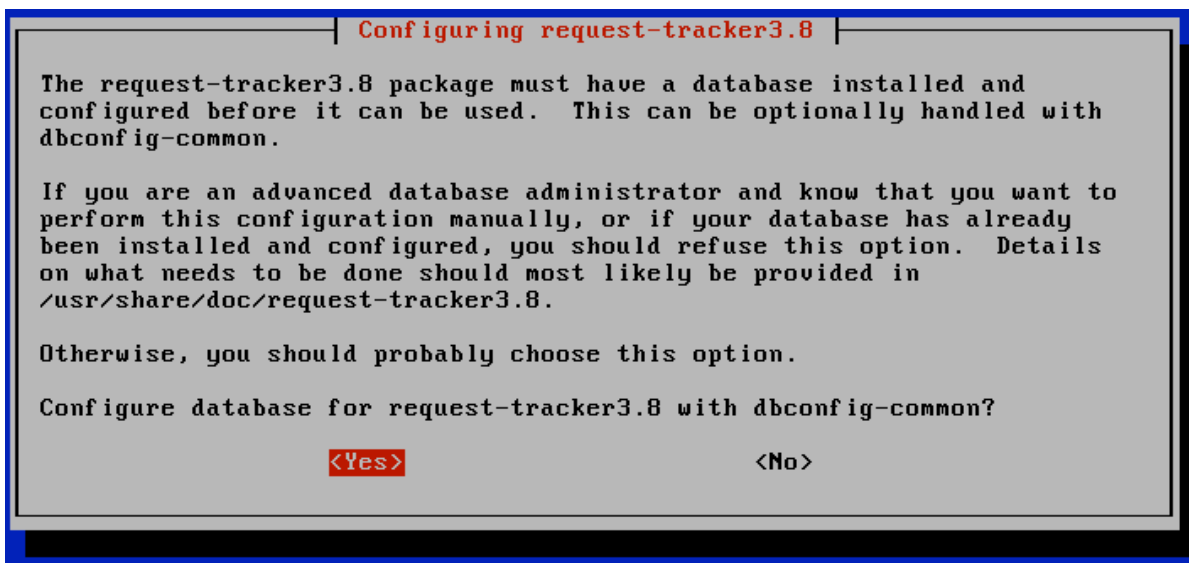Respond "Yes" when prompted if you wish to install the packages.

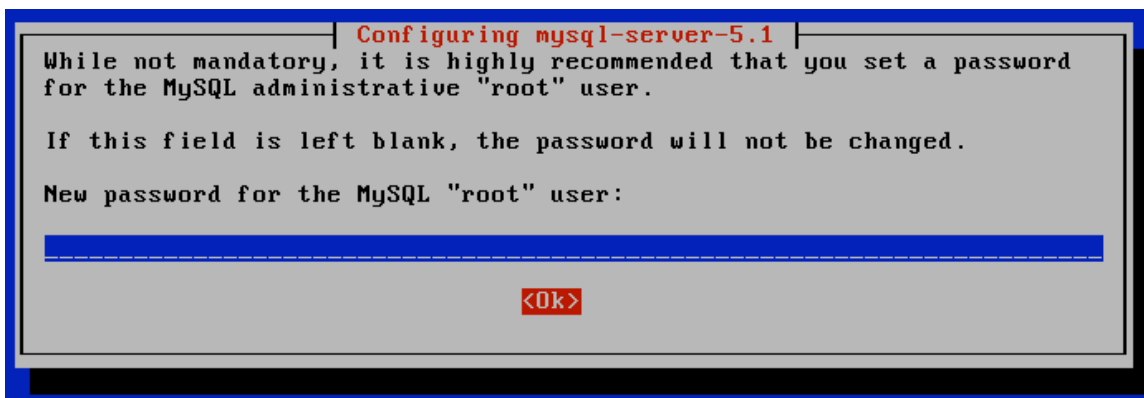You will now be presented with several windows. Read the follwing instructions to see how to respond:

```
┤ Configuring request-tracker3.8 ├
│ Every installation of Request Tracker must have a unique name. The │
│ domain name or an abbreviation of the organization name are usually good │
│ candidates.                                                              │
│                                                                          │
│ Please note that once you start using a name, you should probably never  │
│ change it. Otherwise, mail for existing tickets won't get put in the     │
│ right place.                                                             │
│                                                                          │
│ This setting corresponds to the $rtname configuration variable.          │
│                                                                          │
│ Name for this Request Tracker (RT) instance:                             │
│                                                                          │
│ netmgmt_____ │
│                                                                          │
│              <Ok>                          <Cancel>                       │
│                                                                          │
```

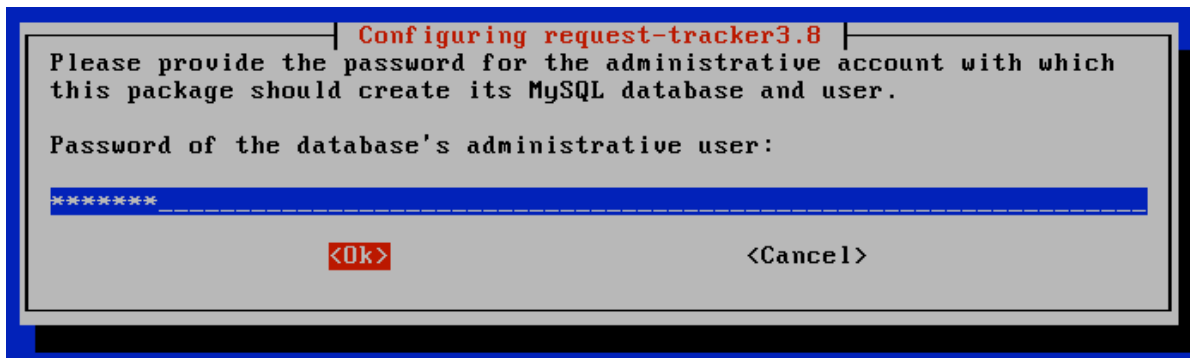**Use the name "netmgmt" for this instance of RT.** (Do not use your machine name)

```
┤ Configuring request-tracker3.8 ├

  The RT web interface needs access to the database password, stored in
  the main RT configuration file. Because of this, the file is made
  readable by the www-data group in normal setups. This may have security
  implications.

  If you reject this option, the file will be readable only by root, and
  you will have to set up appropriate access controls yourself.

  With the SQLite backend, this choice will also affect the permissions of
  automatically-generated local database files.

  Handle RT_SiteConfig.pm permissions?

              <Yes>                          <No>
```

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.

```
┤ Configuring request-tracker3.8 ├

  The request-tracker3.8 package must have a database installed and
  configured before it can be used.  This can be optionally handled with
  dbconfig-common.

  If you are an advanced database administrator and know that you want to
  perform this configuration manually, or if your database has already
  been installed and configured, you should refuse this option.  Details
  on what needs to be done should most likely be provided in
  /usr/share/doc/request-tracker3.8.

  Otherwise, you should probably choose this option.

  Configure database for request-tracker3.8 with dbconfig-common?

              <Yes>                          <No>
```

Choose "Yes"

```
┤ Configuring mysql-server-5.1 ├
  While not mandatory, it is highly recommended that you set a password
  for the MySQL administrative "root" user.

  If this field is left blank, the password will not be changed.

  New password for the MySQL "root" user:

  _____

                            <Ok>
```

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.

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.
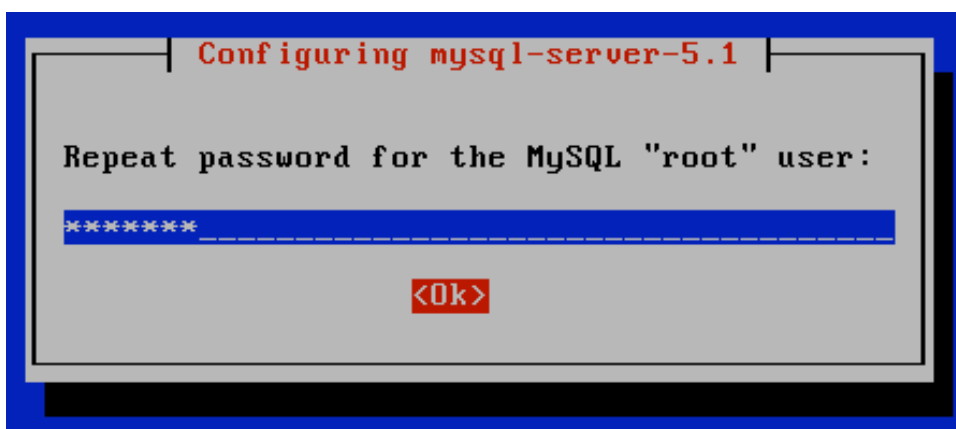
Enter the same password again.

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 service 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 (trailing "/" is *required*):

> http://pcN.ws.nsrc.org/rt/

You will now see the opening RT screen. You should log in using the default username and password for a new installation.

Login as user "root" and password of "password"
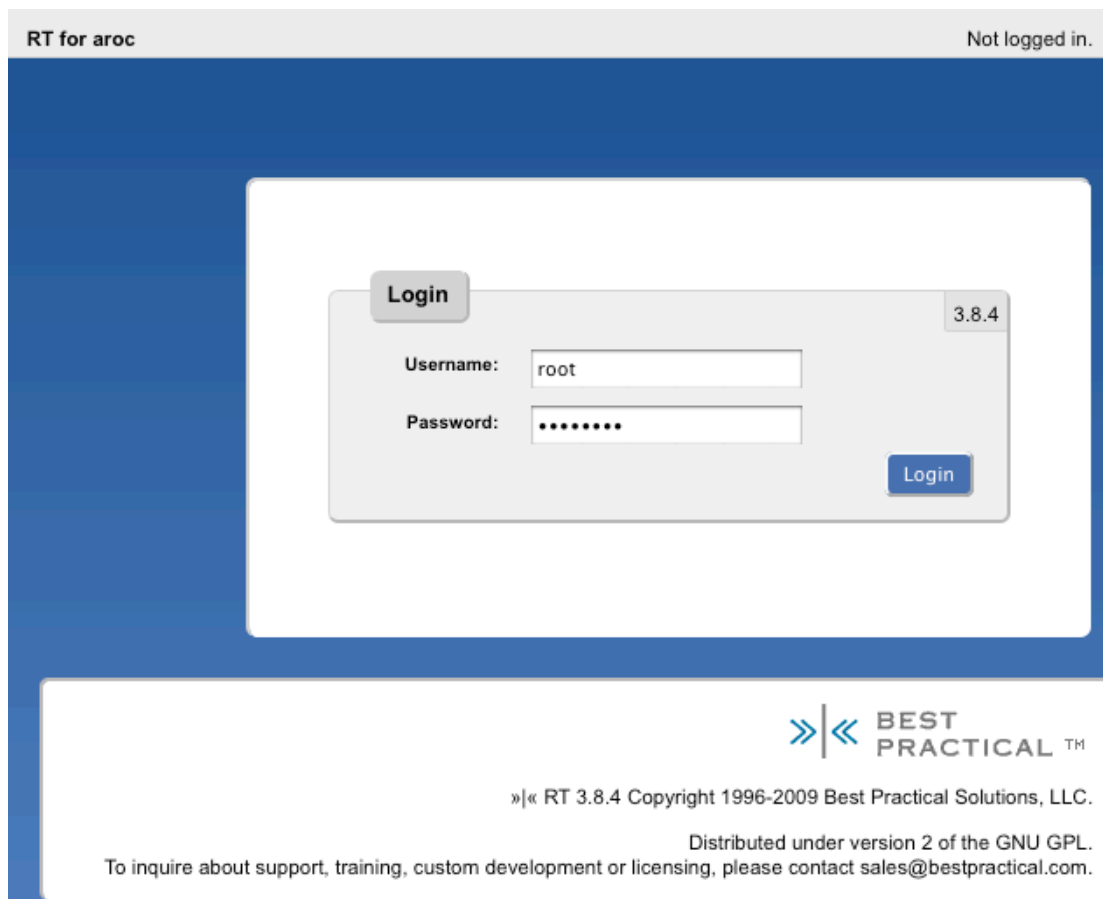
One you have logged in let's update the password for the root RT user. To do this click on **Configuration** in the left menu, then click on the **Users** entry.
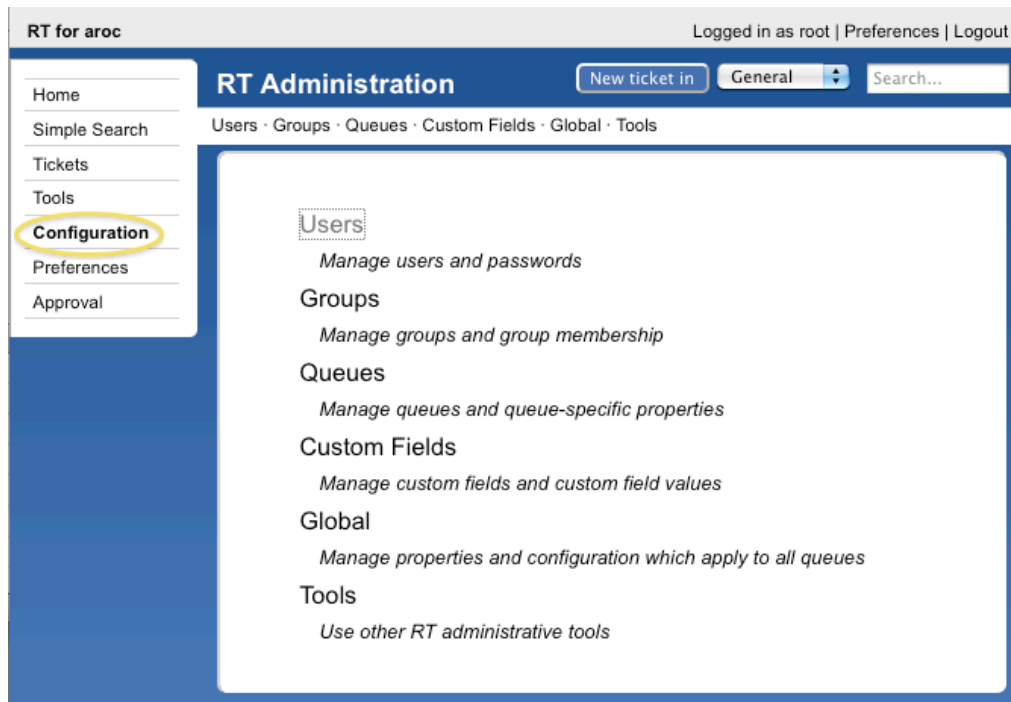
Once you've clicked on **Users** you should see a screen like the one below:

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

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:

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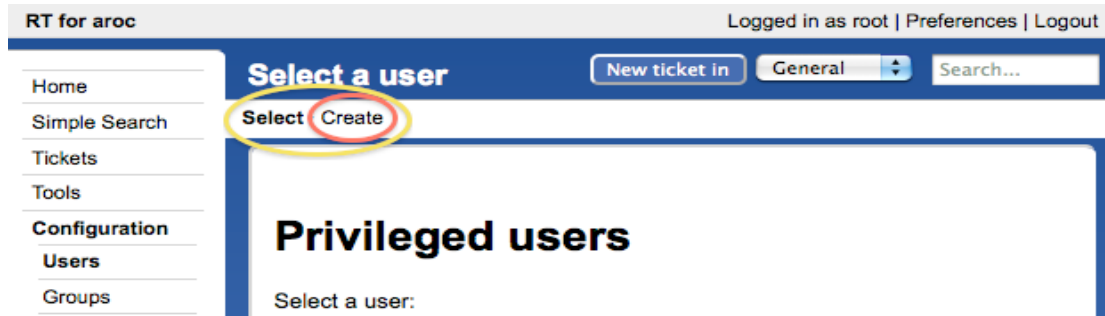
On the left of the screen click **Configuration ➜ Users** and then click on the **Create** item in the upper-left of the screen.

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.
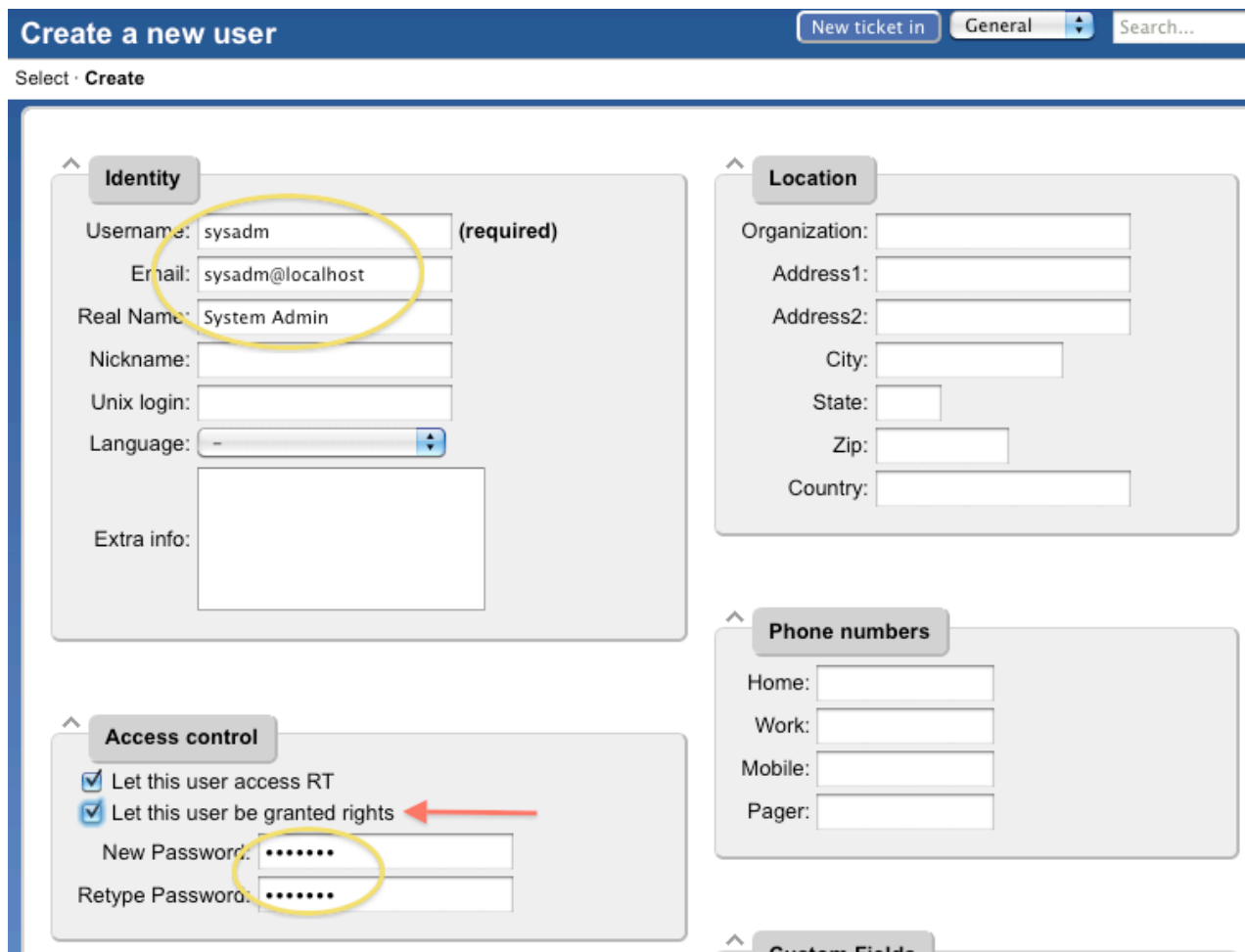
Use the same password for "sysadmin" as you are using in class. **Be sure you check "Let this user be granted rights".** Once done, scroll down the page and click on the **Create** button (bottom right).

You should see this:
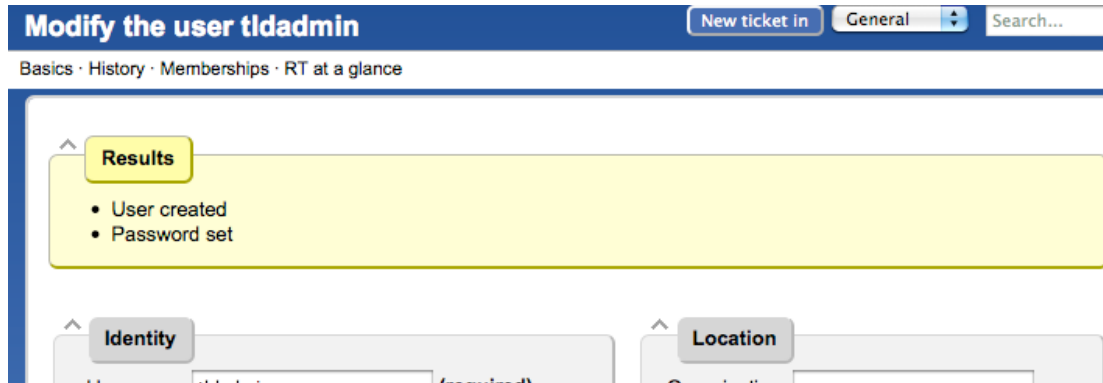
Exercise 4

RT Configuration: Create a Group

1. Click on **Configuration** (left menu), then **Groups** (middle of screen).
2. Click on **Create** (top menu)
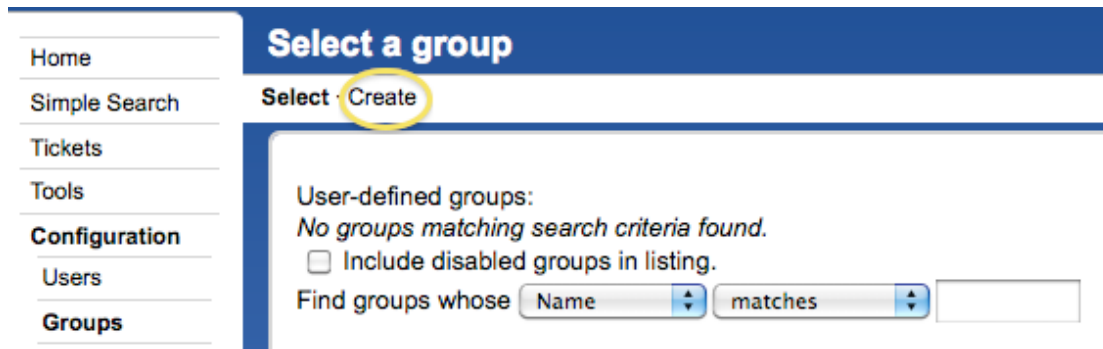
3. Fill in the name: "**netmgmt**", and add a description, then click on "**Create**"
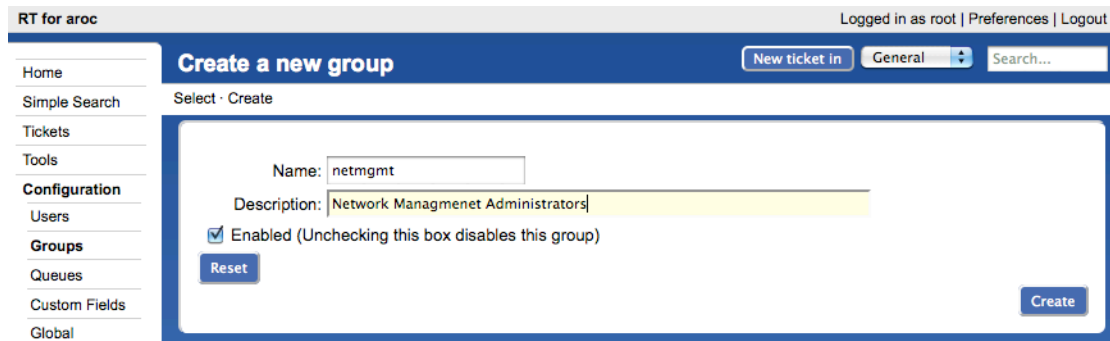
You should see the following result (next page):

Modify the group netmgmt

New ticket in | General | Search...

Basics · Members · Group Rights · User Rights · History

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

Results

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

Name: netmgmt
Description: Network Managmenet Administrators
☑ 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)

Modify the group netmgmt

New ticket in | General | Search...

Basics · Members · Group Rights · User Rights · History

Home
Simple Search
Tickets
Tools
Configuration
Users
Groups
Select
Create
netmgmt

Name: netmgmt
Description: Network Managmenet Administrators
☑ 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 "sysadm" user, with the description "System Admin.":

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

Enoch Root
System Admin

Groups

(Check box to delete)
Reset

Modify Members

You should see this:
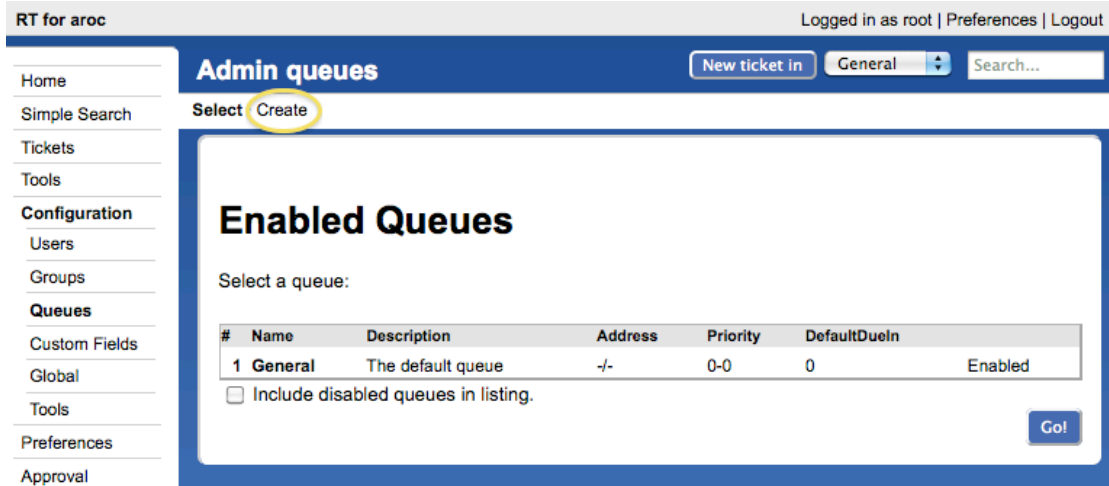
Results

- Member added: sysadm

Exercise 6

RT Configuration: Create a New Queue

1. Click on **Configuration** (left menu), then **Queues** (center menu)
2. Click on **Create** (top menu)
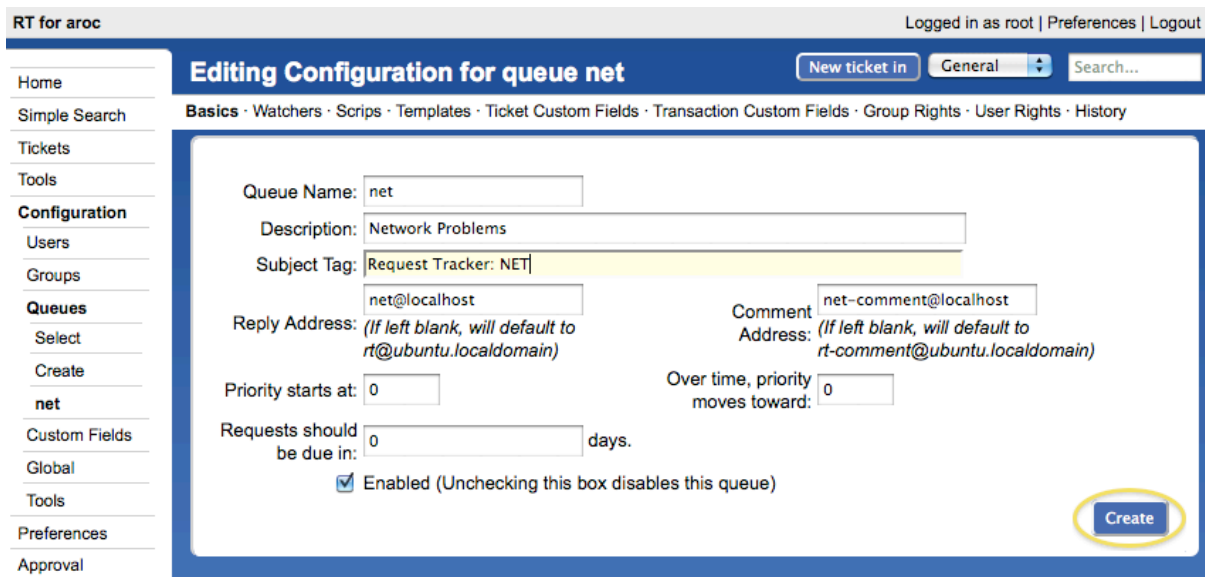
1. Fill in the fields. Let's use the following values:
   Queue Name: net
   Description: Network Problems
   Subject Tag: Request Tracker: NET
   Reply Address: net@localhost
   Comment Address: net-comment@localhost

2. 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 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 CTRL key (or Apple key on a Macintosh) to select multiple items:

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

In the **netmgmt** Group select <u>everything</u> 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.

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System groups

Everyone

Current rights	New rights
(Check box to revoke right) ☐ CreateTicket ☐ ReplyToTicket ☐ SeeQueue ☐ ShowTicket	StealTicket / TakeTicket / Watch / WatchAsAdminCc / (no value)

Unprivileged

Current rights	New rights
No rights granted.	StealTicket / TakeTicket / Watch / WatchAsAdminCc / (no value)

Privileged

Current rights	New rights
No rights granted.	StealTicket / TakeTicket / Watch / WatchAsAdminCc / (no value)

Roles

Requestor

Current rights	New rights
No rights granted.	StealTicket / TakeTicket / Watch / WatchAsAdminCc / (no value)

Owner

Current rights	New rights
No rights granted.	StealTicket / TakeTicket / Watch / WatchAsAdminCc / (no value)

Cc

Current rights	New rights
No rights granted.	StealTicket / TakeTicket / Watch / WatchAsAdminCc / (no value)

AdminCc

Current rights	New rights
No rights granted.	StealTicket / TakeTicket / Watch / WatchAsAdminCc / (no value)

User defined groups

netmgmt

Current rights	New rights
No rights granted.	StealTicket / TakeTicket / Watch / WatchAsAdminCc / (no value)

Reset

Modify Group Rights

You will see a bunch of this (next page):

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)
☐ AdminQueue	
☐ AssignCustomFields	
☐ CommentOnTicket	
☐ CreateTicket	
☐ DeleteTicket	
☐ ForwardMessage	
☐ ModifyACL	
☐ ModifyCustomField	
☐ ModifyQueueWatchers	
☐ ModifyScrips	
☐ ModifyTemplate	
☐ ModifyTicket	
☐ OwnTicket	
☐ ReplyToTicket	
☐ SeeCustomField	
☐ SeeQueue	
☐ ShowACL	
☐ ShowOutgoingEmail	
☐ ShowScrips	
☐ ShowTemplate	
☐ ShowTicket	
☐ ShowTicketComments	
☐ StealTicket	
☐ TakeTicket	
☐ Watch	
☐ WatchAsAdminCc	

Exercise 8

RT Configuration: Log in as sysadmin

Log out of RT and log back in as the sysadmin user you have created.
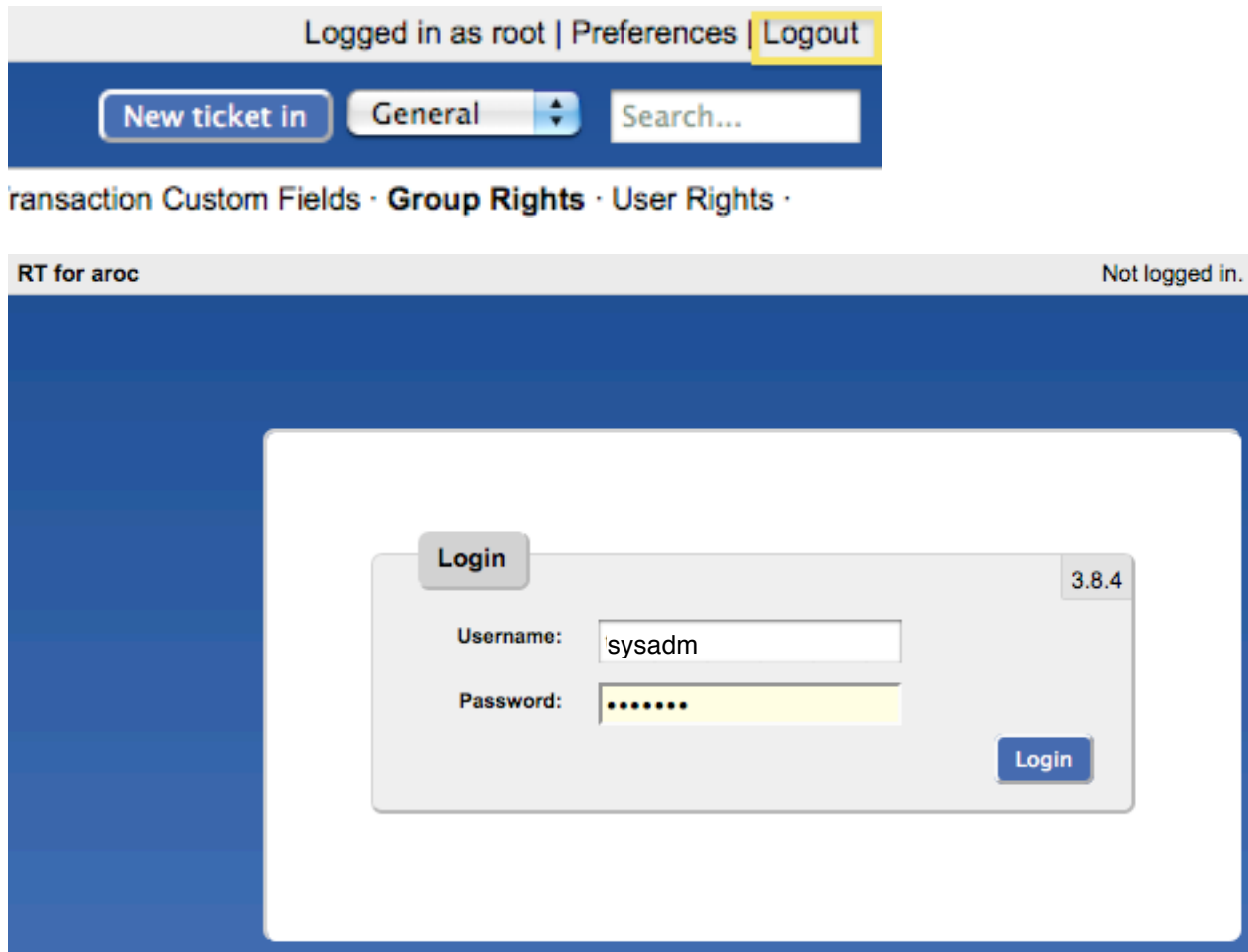
You should see this:
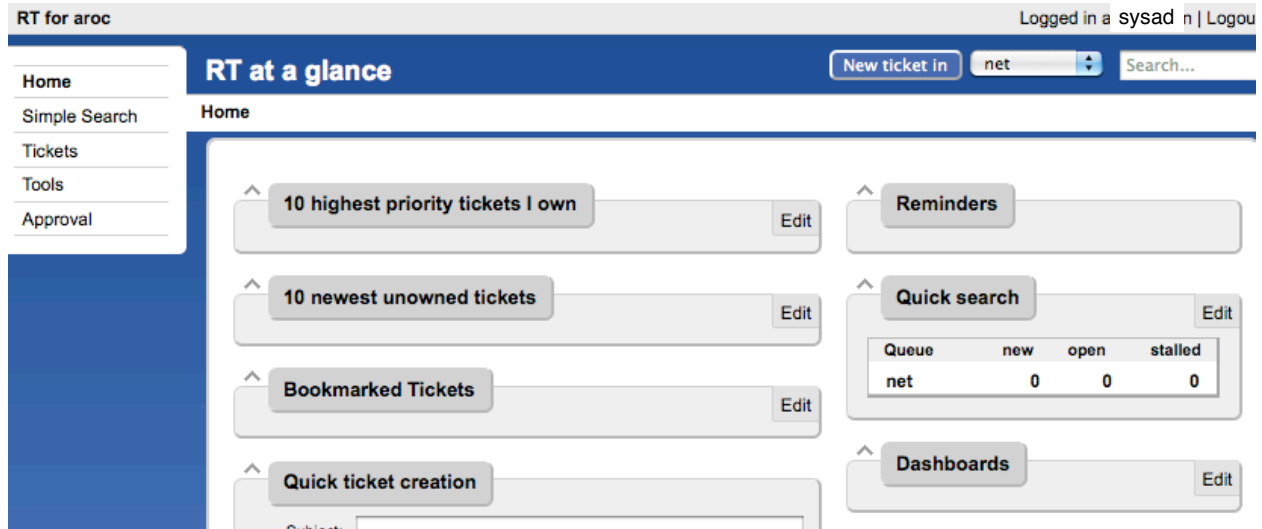
At this point RT has been properly configured for initial operation. Now we must configure email properly to talk with our new "net" queue in RT.

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 (copy and paste!):

```
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 sysadm user (not as root!):

If root:
```
# su - sysadm

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

Now check that you have received email:

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

You should see an email from Request Tracker acknowledging that your ticket has been created. If you do not take these steps, and then send the mail again:

```
$ sudo touch /var/mail/sysadm
$ sudo chown sysadm:mail /var/mail/sysadm
```

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 sysadmin 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:

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):

You should see this

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 (sysadm in this case) replies to the email you just sent, then the ticket will be reopened.

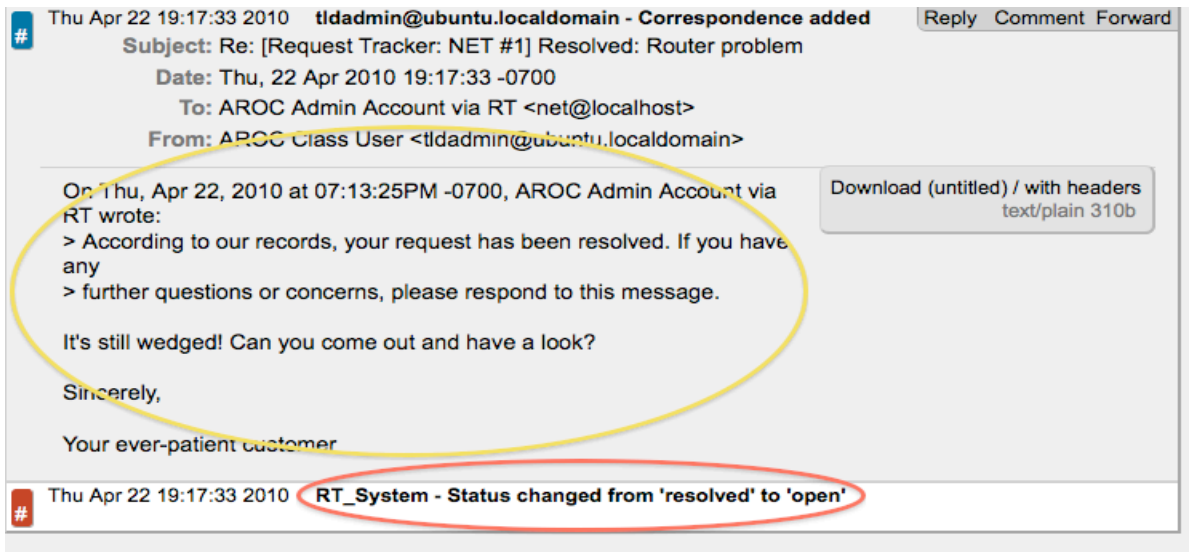View the history at the bottom of the page to see that the ticket is currently closed:

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

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

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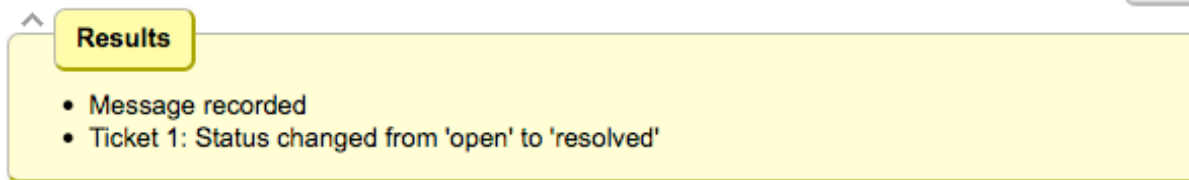
Thu Apr 22 19:17:33 2010   tldadmin@ubuntu.localdomain - Correspondence added   Reply Comment Forward
Subject: Re: [Request Tracker: NET #1] Resolved: Router problem
Date: Thu, 22 Apr 2010 19:17:33 -0700
To: AROC Admin Account via RT <net@localhost>
From: AROC Class User <tldadmin@ubuntu.localdomain>

Download (untitled) / with headers
text/plain 310b

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.

Exercise 12

Finding a ticket once it's closed.

After a ticket has been resolved or closed may notice that it disappears from your Queue. Actually finding a closed ticket requires a few steps. First, click on Tickets and you will see a screen like this:
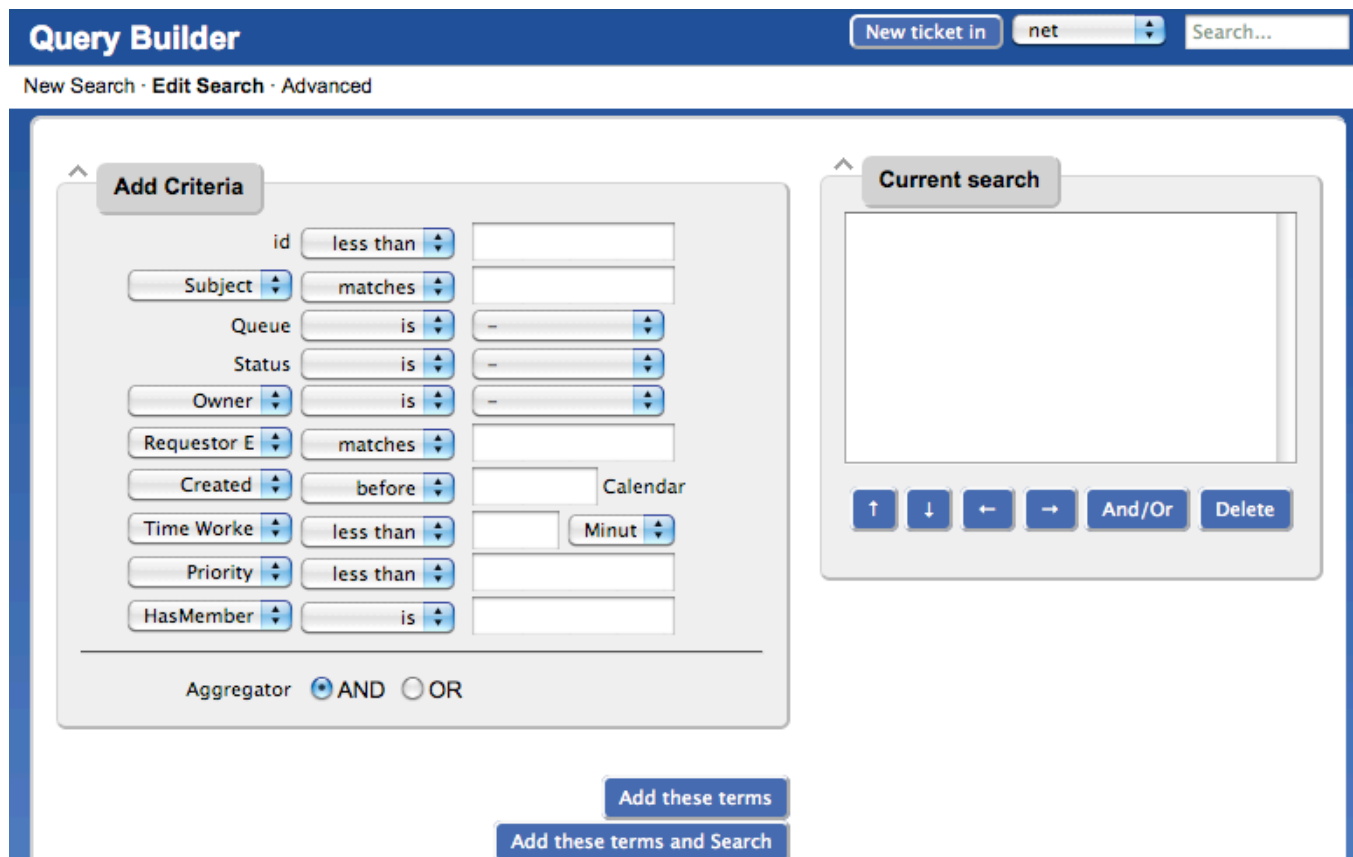
If you are going to search for items in a queue and there are already items in the "Current search" box, then you should delete the items from the "Current search" box first. Next in the "Add Criteria" box in the "Queue" choice select the "net" queue from the drop-down menu (see below):

Click on "Add these terms" or "Add these terms and Search" – If you just do "Add these terms" then go to the bottom of the page and click on "Update format and Search" – RT will keep the search terms until you delete them at a later time.

And the results of your search will look something like this and you will be able to view tickets that have been closed, resolved, etc.:

Found 2 tickets

New Search · Edit Search · Advanced · **Show Results** · Bulk Update · Graph

New ticket in | net | Search...

Spreadsheet · RSS · iCal · Editable text

#	Subject Requestors	Status Created	Queue Told	Owner Last Updated	Priority Time Left
1	Router problem sysadm@noc.ws.nsrc.org	resolved 33 min ago	net 29 min ago	Nobody 29 min ago	0
2	Router problem sysadm@noc.ws.nsrc.org	resolved 28 min ago	net 26 min ago	Nobody 26 min ago	0

Don't refresh this page. | Change

bar | chart by | Status | Go