

# Network Management & Monitoring

## 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 virtual machine as the sysadm user.

### Exercise 1

Install the necessary packages for RT You should have mysql-server already, but we do the install just in case. This won't cause problems.

Copy the "sudo apt-get install" lines below including the "\" character, minus the "\$" and paste this in to your terminal session on your virtual machine.

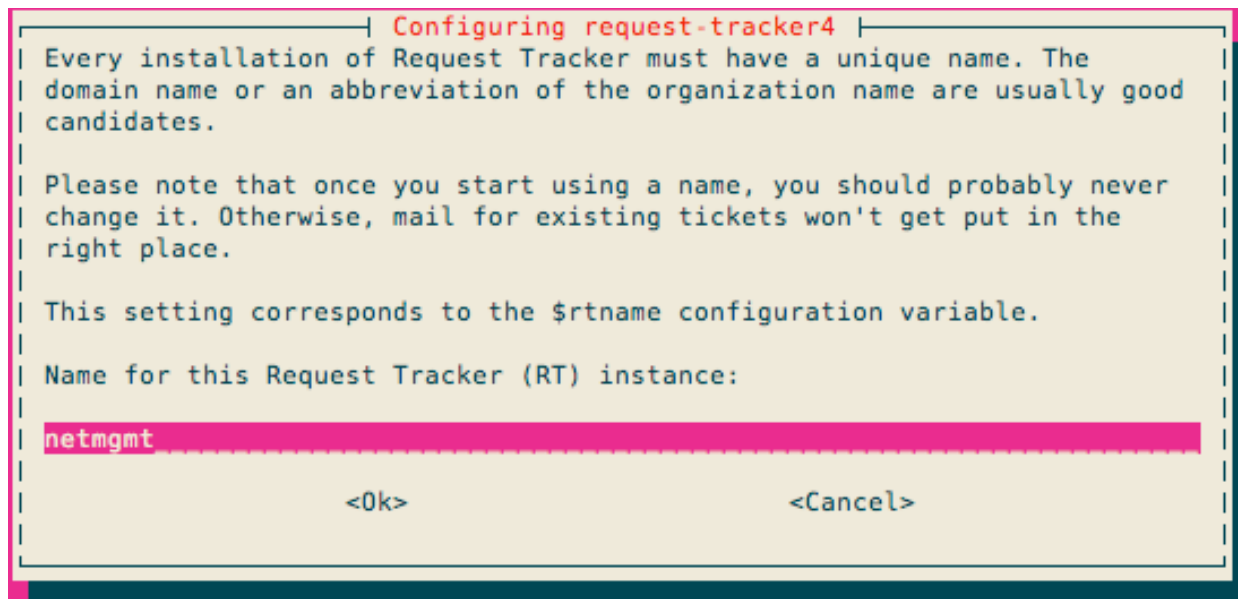
```
$ sudo apt-get install rt4-apache2 rt4-clients rt4-db-mysql \
request-tracker4 libapache2-mod-fastcgi libfcgi-perl mutt
```

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

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

#### **Name for this Request Tracker (RT) instance:**

Remove what is shown and replace with "**netmgmt**", then select "<Ok>" and press ENTER to continue.



## Handle RT\_SiteConfig.pm permissions?

Select “<Yes>” and press ENTER to continue.

```
| Configuring request-tracker4 |
|
| 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>
```

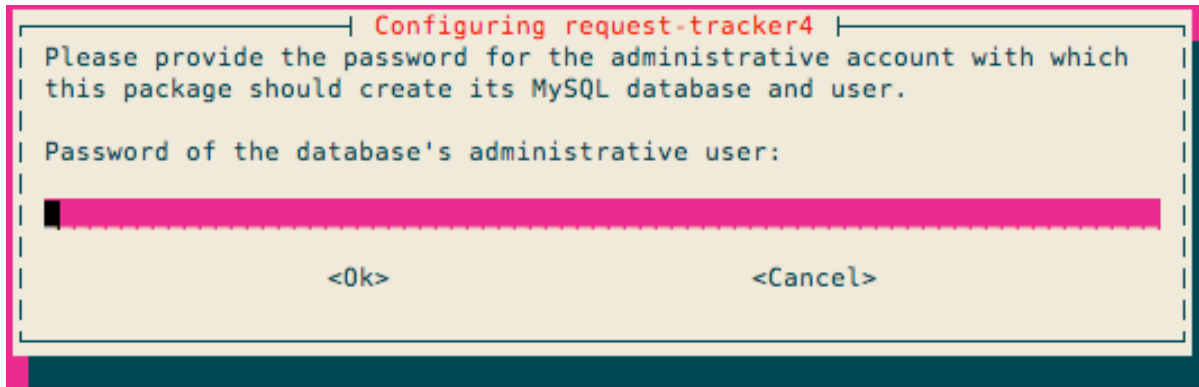
## Configure database for request-tracker4 with dbconfig-common?

Select “<Yes>” and press ENTER to continue.

```
| Configuring request-tracker4 |
|
| The request-tracker4 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-tracker4.
|
| Otherwise, you should probably choose this option.
|
| Configure database for request-tracker4 with dbconfig-common?
|
| <Yes>                                <No>
```

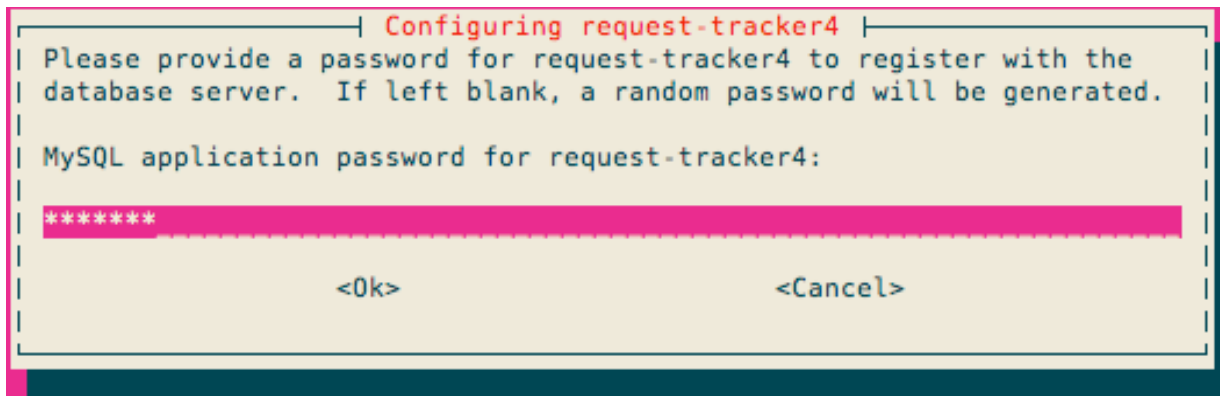
### Password of the database's administrative user:

Enter the MySQL “root” or admin password. This was set earlier in the workshop (probably when you installed Cacti). If you do not remember what this is, or if it’s not written at the front of the classroom, ask an instructor for help.



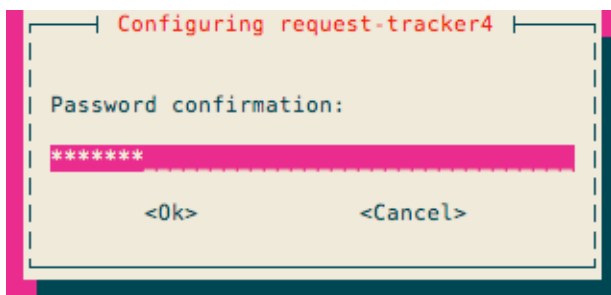
### MySQL application password for request-tracker4:

You may enter any password you wish. This will be used by Request Tracker to connect to MySQL. You generally do not need to remember this password. Pick something that cannot be guessed easily (i.e., don’t use “rt”, “requesttracker”, “1234”, etc...).



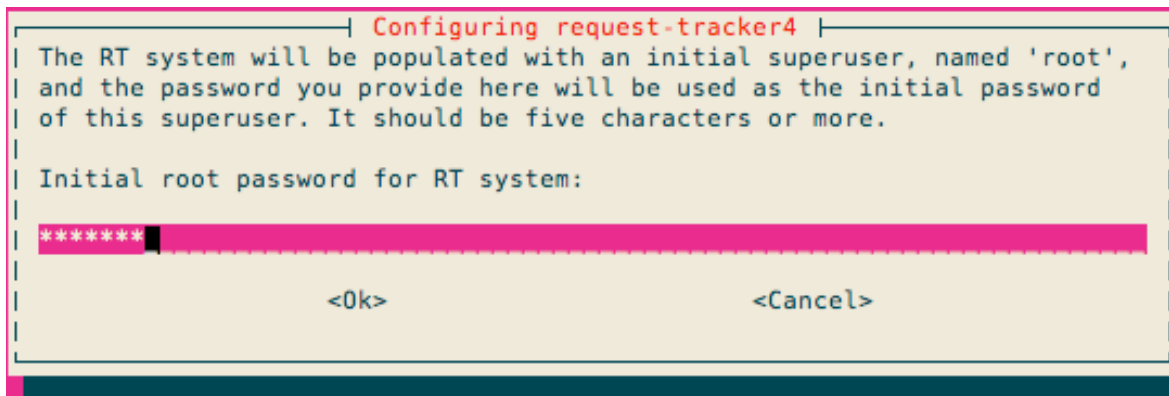
### Password confirmation:

Enter the same password that you created in the previous step.



## Initial root password for RT system:

Use the same password as we used for the MySQL database administrative user.



Now you will see quite a bit of information go across your screen as the Request Tracker installation process completes – It's a big package.

At this point you have installed Request Tracker version 4. In order to access RT via the Apache web server you need to make a few small changes.

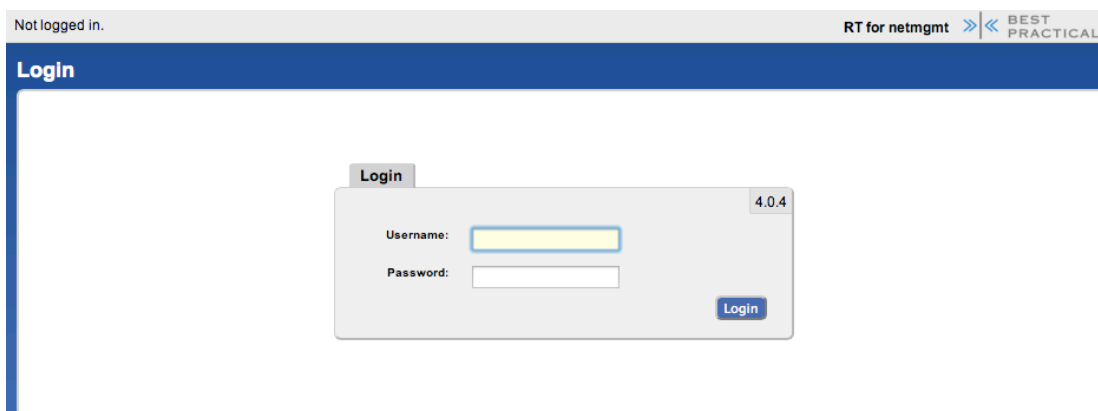
```
$ cd /etc/apache2/conf.d
$ sudo ln -s /etc/request-tracker4/apache2-fastcgi.conf .
$ sudo a2enmod fastcgi
$ sudo service apache2 restart
```

The last step could take up to 30 seconds, so be patient!  
RT should now be up and running!

## Exercise 2

### Log in to RT as the root User

If you go to <http://pcN.ws.nsrc.org/rt/> you will see the RT login screen:



Enter the following information to log in as “root” on RT:

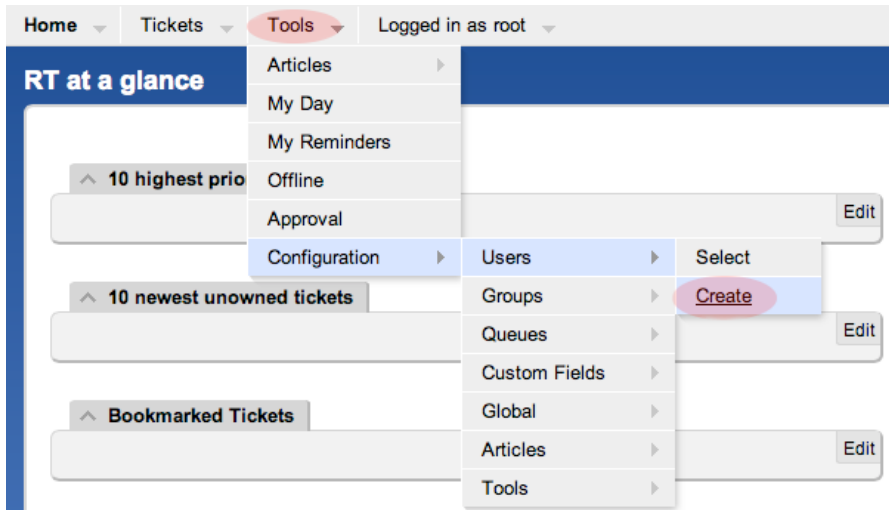
**Username:** root  
**Password:** <SELECTED AT INSTALL>

## Exercise 3

### RT Configuration: Create a User

Now that you are logged in we will create a new user for the rest of these exercises.

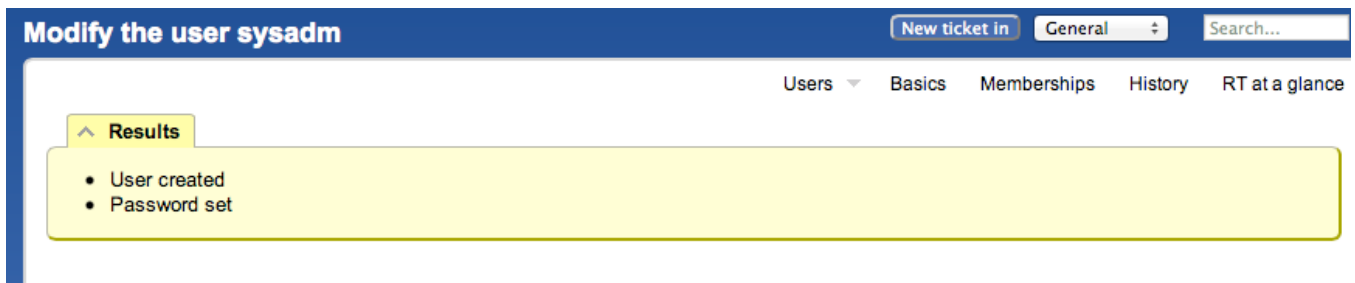
On the top of the screen choose **Tools** → **Configuration** → **Users** and then click on the **Create** item in the menu.



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. Set your email to `sysadm@pcX.ws.nsrc.org` (X = your PC)

A screenshot of the 'Create a new user' form in the RT web interface. The form is divided into several sections: 'Identity', 'Location', 'Access control', 'Phone numbers', and 'Custom Fields'. The 'Identity' section contains fields for Username (sysadm), Email (sysadm@pcX.ws.nsrc.org), Real Name (System Admin), Nickname, Unix login, Language, and Extra info. The 'Location' section contains fields for Organization, Address1, Address2, City, State, Zip, and Country. The 'Access control' section contains checkboxes for 'Let this user access RT' and 'Let this user be granted rights (Privileged)', both of which are checked. Below these checkboxes are fields for 'root's current password', 'New password', and 'Retype Password'. The 'Phone numbers' section contains fields for Home, Work, Mobile, and Pager. The 'Custom Fields' section is currently collapsed. At the bottom right of the form, there is a 'Create' button highlighted with a red circle.

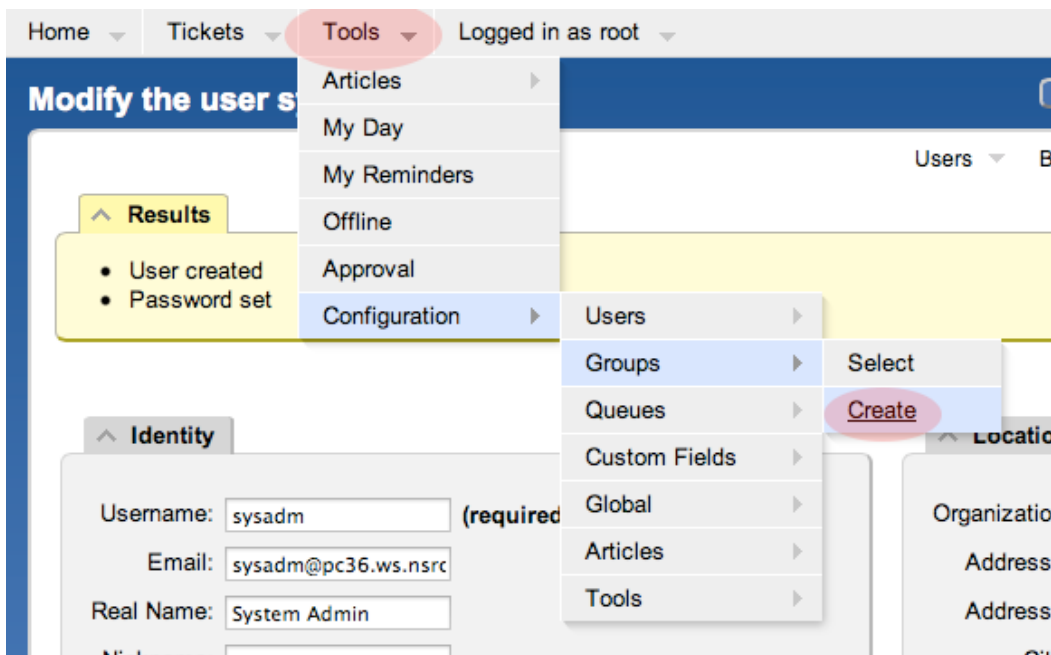
Use the same password for “sysadm” as you are using in class. **Be sure you check “Let this user be granted rights”**. Once done, scroll down the page and click on the **Create** button (bottom right). You should see this:



## Exercise 4

### RT Configuration: Create a Group

- a At the top, choose the menu **Tools** → **Configuration** → **Group** → **Create**



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

A screenshot of the 'Create a new group' form. The form has a blue header with the title 'Create a new group'. Below the header, there are two text input fields: 'Name' with the value 'netmgmt' and 'Description' with the value 'Network Management Administrators'. There is a checkbox labeled 'Enabled (Unchecking this box disables this group)' which is checked. At the bottom left, there is a 'Reset' button.

- b You should see the following result (next page):

The screenshot shows the 'Modify the group netmgmt' page with the 'Results' tab selected. The results box contains two items: 'Group created' and 'Group netmgmt: Description changed from (no value) to 'Network Management Administrators' by root'. Below the results, the 'Name' field is 'netmgmt' and the 'Description' field is 'Network Management Administrators'. The 'Enabled' checkbox is checked. A 'Reset' button is at the bottom left.

Modify the group netmgmt New ticket in Ge

Groups Basics Members Group f

^ Results

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

Name: netmgmt

Description: Network Management Administrators

☒ Enabled (Unchecking this box disables this group)

Reset

- a Click on **Members** (top menu)

The screenshot shows the 'Modify the group netmgmt' page with the 'Members' tab selected. The 'Results' tab is still active, showing the same two items. The 'Name' field is 'netmgmt' and the 'Description' field is 'Network Management Administrators'. The 'Enabled' checkbox is checked. A 'Reset' button is at the bottom left.

Modify the group netmgmt New ticket in General

Groups Basics **Members** Group Rights

^ Results

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

Name: netmgmt

Description: Network Management Administrators

☒ Enabled (Unchecking this box disables this group)

Reset

- a In the "Add members" field (right), type in the name of the user you created in step 3. This is the "sysadm" user. Then click on **Modify Members** (bottom right):

The screenshot shows the 'Modify the group netmgmt' page with the 'Members' tab selected. The 'Editing membership for group netmgmt' section is visible. It has two columns: 'Current members' (showing '(No members)') and 'Add members'. In the 'Add members' section, the 'Add user' field contains 'sysadm' and the 'Add group' field is empty. A 'Reset' button is at the bottom left, and a 'Modify Members' button is at the bottom right.

Modify the group netmgmt New ticket in General Search...

Groups Basics **Members** Group Rights User Rights History

^ Editing membership for group netmgmt

| Current members | Add members                    |
|-----------------|--------------------------------|
| (No members)    | Add user: sysadm<br>Add group: |

(Check box to delete)

Reset Modify Members

- b You should see this:

The screenshot shows the 'Modify the group netmgmt' page with the 'Results' tab selected. The results box contains one item: 'Member added: sysadm'.

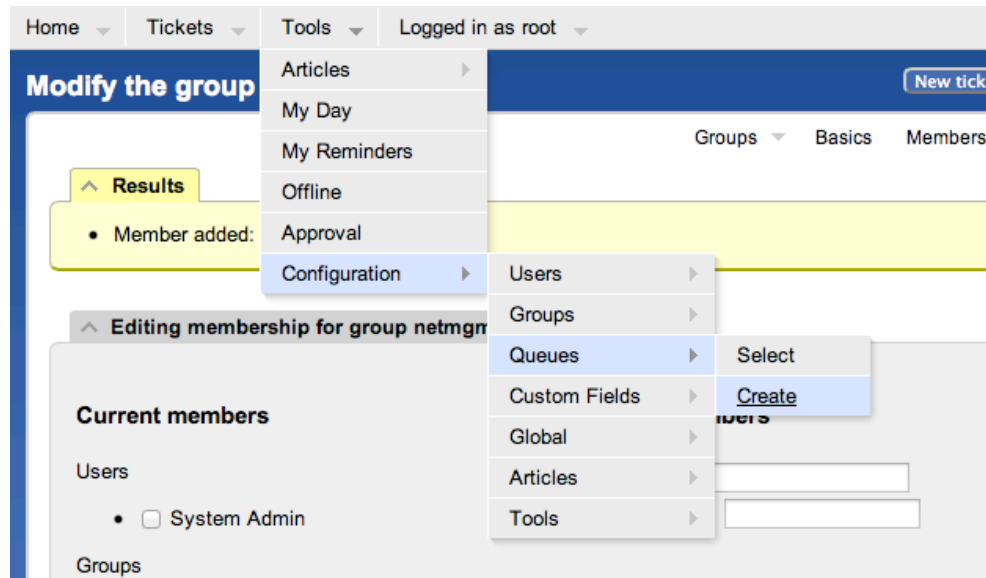
^ Results

- Member added: sysadm

## Exercise 5

### RT Configuration: Create a New Queue

- a At the top, choose the menu **Tools** → **Configuration** → **Queue** → **Create**



- a Fill in the fields. Let's use the following values and then click on **Create**:
  - Queue Name:** net
  - Description:** Network Problems
  - Subject Tag:** Request Tracker: NET
  - Reply Address:** net@pcX.ws.nsrc.org
  - Comment Address:** [net-comment@pcX.ws.nsrc.org](mailto:net-comment@pcX.ws.nsrc.org)
- b Remember to replace pcX with the correct number of your machine

A screenshot of the 'Create a queue' form in the RT web interface. The form has a blue header with 'Create a queue', 'New ticket in', 'General', and a search bar. The form fields are: 'Queue Name' (net), 'Description' (Network Problems), 'Lifecycle' (default), 'Subject Tag' (Request Tracker: NET), 'Reply Address' (net@pcX.ws.nsrc.org), 'Comment Address' (net-comment@pcX.ws.nsrc.org), 'Priority starts at' (0), 'Over time, priority moves toward' (0), 'Requests should be due in' (days), 'Sign by default' (checkbox), 'Encrypt by default' (checkbox), 'Enabled' (checkbox, checked), and 'GnuPG private key(s) for rt@pc36.ws.nsrc.org' and 'GnuPG private key(s) for rt-comment@pc36.ws.nsrc.org'. A 'Create' button is at the bottom right.

- a You should see this



## Results

- Queue created
- Queue net: Description changed from (no value) to "Network Problems"
- Queue net: CorrespondAddress changed from (no value) to "net@pc36.ws.nsrc.org"
- Queue net: CommentAddress changed from (no value) to "net-comment@pc36.ws.nsrc.org"
- Queue net: SubjectTag changed from (no value) to "Request Tracker: NET"

## Exercise 6

### RT Configuration: Give Rights to our Group on the Queue

- a From the top menu, select **Tools** → **Configuration** → **Queue** → **Select**
- b You should see:

### Enabled Queues

Select a queue:

| # | Name    | Description       | Address                                           | Priority | DefaultDueln |         |
|---|---------|-------------------|---------------------------------------------------|----------|--------------|---------|
| 1 | General | The default queue | -/-                                               | 0-0      | 0            | Enabled |
| 3 | net     | Network Problems  | net@pc36.ws.nsrc.org/net-comment@pc36.ws.nsrc.org | 0-0      | 0            | Enabled |

- Select “net” (click on it) then choose “Group Rights” (top right)

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

Queues **Basics** Watchers Templates Scripts Ticket Custom Fields Transaction Custom Fields **Group Rights** User Rights

Queue Name:

Description:

Lifecycle:

Subject Tag:

Reply Address:   
(If left blank, will default to rt@pc36.ws.nsrc.org)

Comment Address:   
(If left blank, will default to rt-comment@pc36.ws.nsrc.org)

Priority starts at:

Over time, priority moves toward:   
*requires running rt-crontool*

Requests should be due in:  days.

☐ Sign by default ☐ Encrypt by default

☒ Enabled (Unchecking this box disables this queue)

The following page should look like this:

**Modify group rights for queue net** New ticket in General Search...

Queues Basics Watchers Templates Scripts Ticket Custom Fields Transaction Custom Fields **Group Rights** User Rights

**SYSTEM**

Everyone  
Privileged  
Unprivileged

**ROLES**

AdminCc  
Cc  
Owner  
Requestor

**USER GROUPS**

**ADD GROUP**

**General rights** Rights for Staff Rights for Administrators

☐ Comment on tickets CommentOnTicket

☐ Create tickets CreateTicket

☐ Reply to tickets ReplyToTicket

☐ Sign up as a ticket Requestor or ticket or queue Cc Watch

☐ View custom field values SeeCustomField

☐ View queue SeeQueue

☐ View ticket summaries ShowTicket

Save Changes

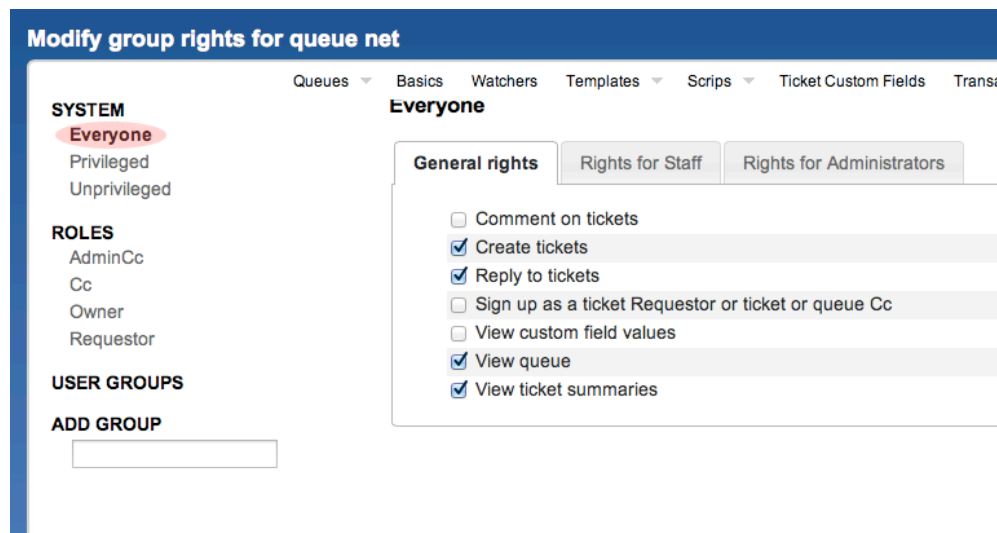
Note the three categories: “**General rights**”, “**Rights for Staff**”, “**Rights for Administrators**”

Here, we care about giving **Everyone** (including people who are not yet known to RT) some privileges, but only the minimum. These are **General Rights**, and are the following:

- ☒ **Create tickets** (CreateTicket)
- ☒ **Reply to tickets** (ReplyToTicket)
- ☒ **View queue** (SeeQueue)
- ☒ **View ticket summaries** (ShowTicket)

So start by selecting these 4 privileges by checking the 4 boxes in your browser.

Notice that **Everyone** on the left is already highlighted.



Now, click **Save Changes** (bottom right) to make sure we don’t lose our changes.



Staying on the same page, we’re going to now give the **netmgmt** Group everything...

To do this, first type in the name of the group in the **ADD GROUP** field in the lower left:

**SYSTEM**

Everyone  
Privileged  
Unprivileged

**ROLES**

AdminCc  
Cc  
Owner  
Requestor

**USER GROUPS****ADD GROUP**

netmgmt

**Add rights for this group: netmgmt****General rights**

## Rights for Staff

## Rights for Administrators

- ☐ Comment on tickets
- ☐ Create tickets
- ☐ Reply to tickets
- ☐ Sign up as a ticket Requestor or ticket or queue Cc
- ☐ View custom field values
- ☐ View queue
- ☐ View ticket summaries

Now check **ALL** the boxes in “General Rights”, “Rights for Staff”, “Rights for Administrators”.

**SYSTEM**

Everyone  
Privileged  
Unprivileged

**ROLES**

AdminCc  
Cc  
Owner  
Requestor

**USER GROUPS****ADD GROUP**

netmgmt

**Add rights for this group: netmgmt**

## General rights

**Rights for Staff**

## Rights for Administrators

- ☒ Delete tickets
- ☒ Forward messages outside of RT
- ☒ Modify custom field values
- ☒ Modify tickets
- ☒ Own tickets
- ☒ Sign up as a ticket or queue AdminCc
- ☒ Steal tickets
- ☒ Take tickets
- ☒ View exact outgoing email messages and their recipients
- ☒ View ticket private commentary

Once this is done, press the **Save Changes** button on the bottom right of the page. You should see:

This is **after** having selected items. Remember to press Modify Group Rights after selecting the new rights. Once you press the “Modify Group Rights” button you will see a bunch of this:

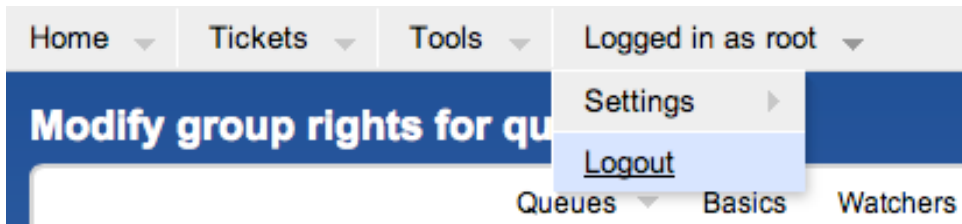
**Results**

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

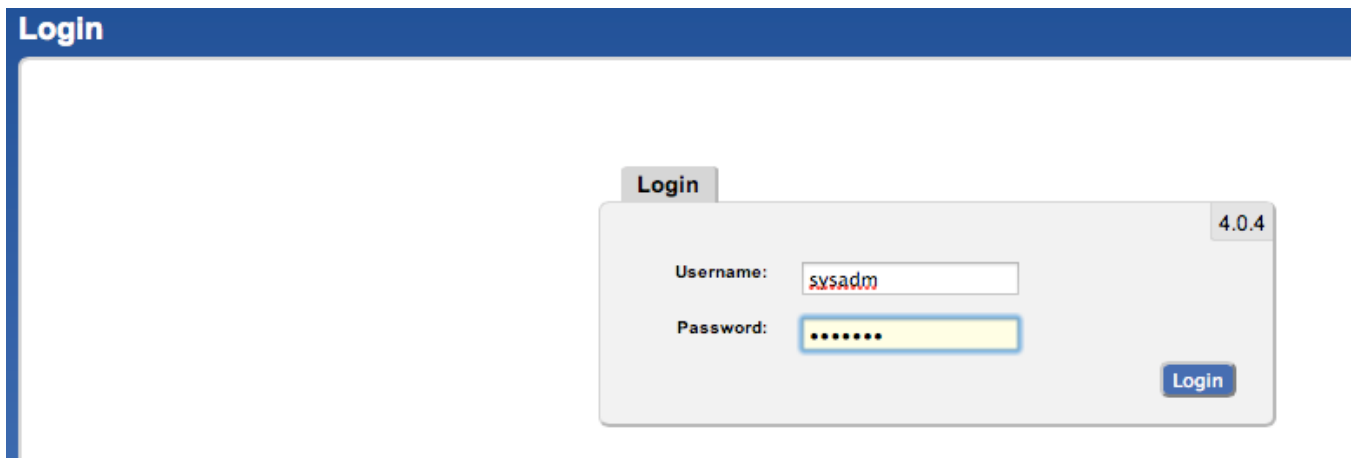
## Exercise 7

### RT Configuration: Log in as sysadm

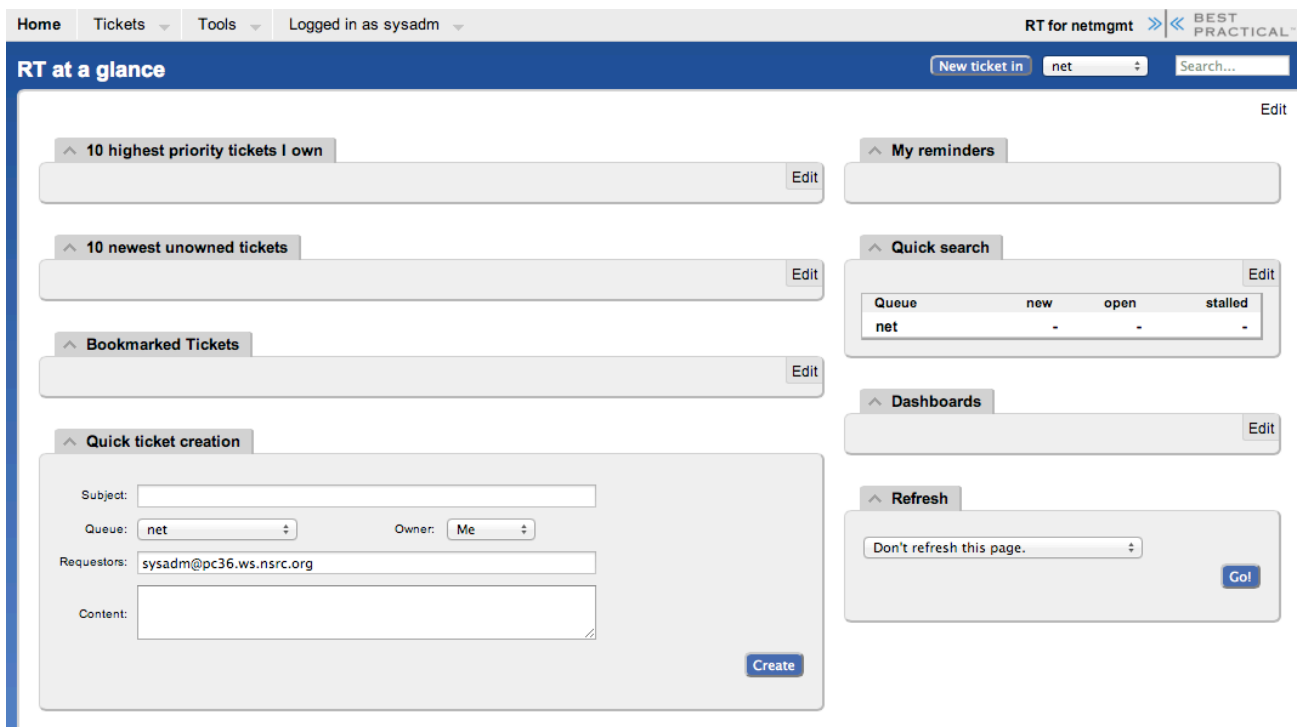
Log out of RT (top menu, **Logged in as root** → **Logout**)



Now log back in as the sysadm user you have created:



You should see the following:



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 8**

### **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`

```
$ sudo editor /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. Some editors might cause the above-lines to become multiple lines. Be sure that you only have two new lines in your `/etc/aliases` file after copying and pasting in the text above.

Now run the command:

```
$ sudo newaliases
```

## **Exercise 9**

### **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@pcX.ws.nsrc.org
```

Remember to replace pcX with the correct name of your server.

Now check that you have received email:

```
$ mutt
```

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

The mail should say something similar to this:

---

Date: Fri, 9 Nov 2012 00:29:27 +0000  
From: Network Problems via RT <net@pcX.ws.nsrc.org>  
To: sysadm@pcX.ws.nsrc.org  
Subject: [Request Tracker: NET #1] AutoReply: Router problem

Greetings,

This message has been automatically generated in response to the creation of a trouble ticket regarding:  
"Router problem",  
a summary of which appears below.

There is no need to reply to this message right now. Your ticket has been assigned an ID of [Request Tracker: NET #1].

Please include the string:

[Request Tracker: NET #1]

in the subject line of all future correspondence about this issue. To do so, you may reply to this message.

Thank you,

net@pcX.ws.nsrc.org

---

If, for some reason, you do not see mail try taking these steps, and then send the mail again:

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

## **Exercise 10**

### **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 sysadm user and click on the Home menu item (top left).

You should then be presented with an updated view with the current ticket:

Home Tickets Tools Logged in as sysadm RT for netgmt BEST PRACTICAL

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

10 highest priority tickets I own Edit

My reminders Edit

10 newest unowned tickets Edit

| # | Subject        | Queue | Status | Created     |      |
|---|----------------|-------|--------|-------------|------|
| 1 | Router problem | net   | new    | 110 min ago | Take |

Quick search Edit

| Queue | new | open | stalled |
|-------|-----|------|---------|
| net   | 1   | -    | -       |

Now, click on the ticket subject.

You will see many pieces of information about the ticket. Scroll to the bottom of the page.

Here you can **Reply** to the ticket:

History

Show all quoted text — Show full headers

# Fri Nov 09 00:29:26 2012 **System Admin - Ticket created** Reply Comment Forward

Subject: Router problem  
Date: Fri, 09 Nov 2012 00:29:25 +0000  
To: net@pc36.ws.nsrc.org  
From: sysadm@pc36.ws.nsrc.org (Ubuntu)

Problem with my router

Download (untitled) / with headers  
text/plain 23b

# Fri Nov 09 00:29:27 2012 **The RT System itself - Outgoing email recorded** Show

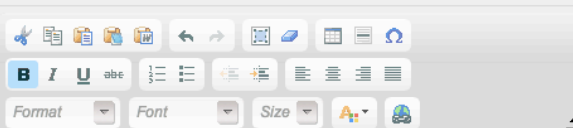
Go ahead and type in a reply, set the **Status** of the ticket to **Resolved** (upper-right drop-down menu), and then click on **Update Ticket** (bottom-right):

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

Display History Basics People Dates Links Jumbo Reminders Actions ☆

Message

One-time Cc:   
One-time Bcc:   
Sign ☐ using Queue's key Encrypt ☐  
Subject: Router problem  
Message: Search for Articles matching   
Include Article:  Go



On Fri Nov 09 00:29:26 2012, sysadm wrote:  
> Problem with my router

→ Hello! We think the problem should be fixed now.

body strong

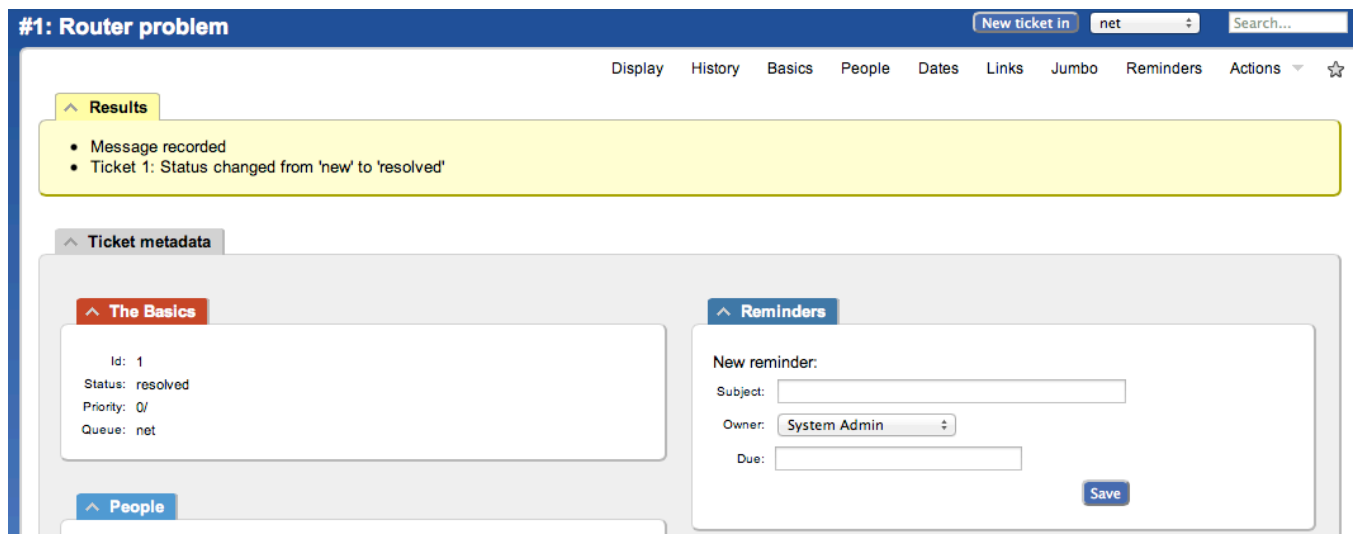
Attach: Choose File no file selected Add More Files

Update Ticket

Ticket and Transaction

Update Type:   
Status:  new (Unchanged) open stalled resolved rejected deleted  
Owner:  Unchanged  
Worked:  Minutes

## You should see this:



#1: Router problem

New ticket in net Search...

Display History Basics People Dates Links Jumbo Reminders Actions ☆

Results

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

Ticket metadata

The Basics

Id: 1  
Status: resolved  
Priority: 0/  
Queue: net

Reminders

New reminder:

Subject:

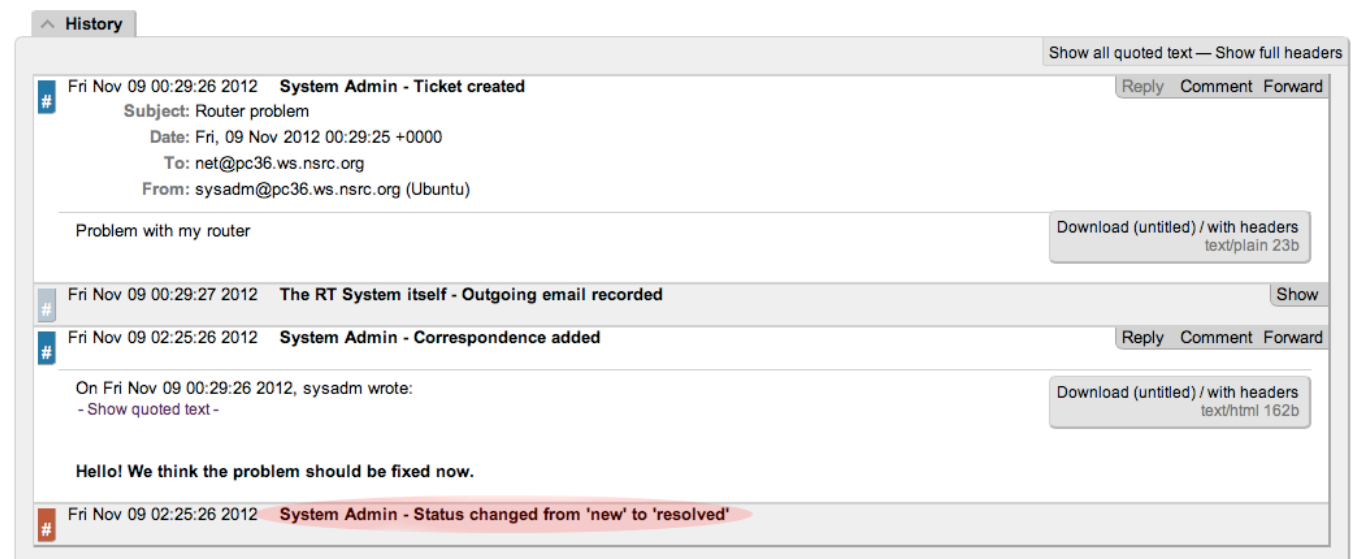
Owner: System Admin

Due:

Save

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:



History

Show all quoted text — Show full headers

# Fri Nov 09 00:29:26 2012 System Admin - Ticket created

Subject: Router problem

Date: Fri, 09 Nov 2012 00:29:25 +0000

To: net@pc36.ws.nsrc.org

From: sysadm@pc36.ws.nsrc.org (Ubuntu)

Problem with my router

Download (untitled) / with headers  
text/plain 23b

# Fri Nov 09 00:29:27 2012 The RT System itself - Outgoing email recorded

Show

# Fri Nov 09 02:25:26 2012 System Admin - Correspondence added

Reply Comment Forward

On Fri Nov 09 00:29:26 2012, sysadm wrote:  
- Show quoted text -

Download (untitled) / with headers  
text/html 162b

Hello! We think the problem should be fixed now.

# Fri Nov 09 02:25:26 2012 System Admin - Status changed from 'new' to 'resolved'

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

```
$ mutt
```

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:

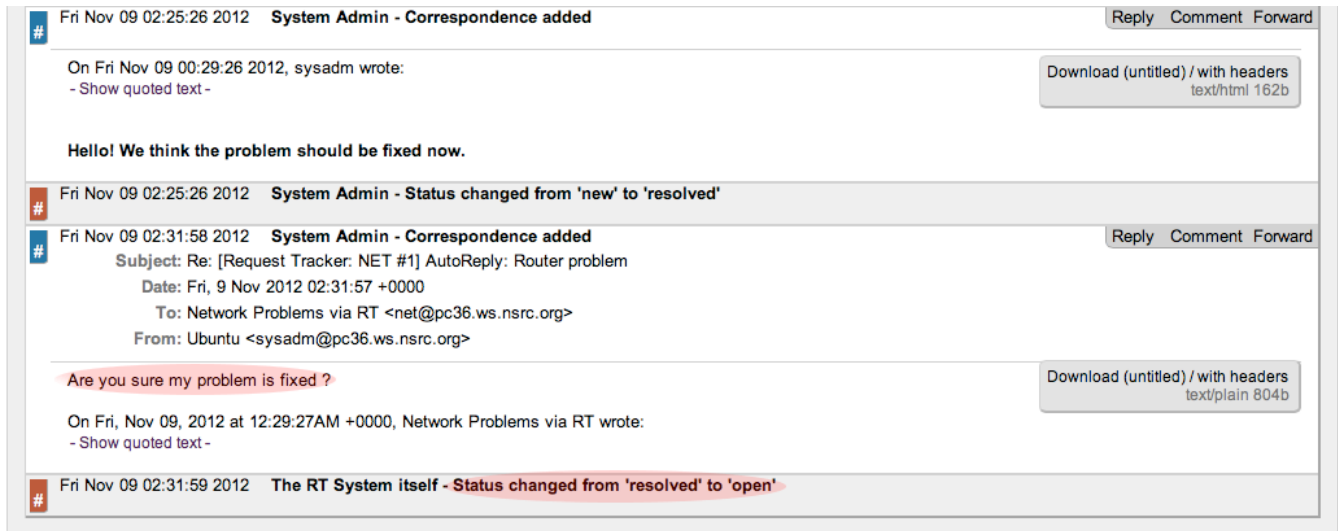
### Using Mutt to Reply to an Email

- a After typing “**mutt**”, select the message you want to respond to.
- b Press the “**r**” key for “**r**”eply.
- c At the bottom of the page you will see, “To: System Admin via RT <net@localhost>” –



Press ENTER to continue.

- d Next you'll see a suggested "Subject:" line. Press ENTER to choose what is shown.
- e When you see, "Include message in reply? ([yes]/no):" press ENTER to include the message.
- f Now you will be placed in an editor – possibly vi. Type in your response. We suggest at the bottom of the page.
- g Save and exit from the text editor (:wq in vi).
- h The next time screen looks complicated but in reality just press the "y" key to send the message.
- i That's it. You are done. You can press "q" to exit Mutt at this point if you wish.



You now have a functioning RT instance with email integration!

You can experiment a bit. Now, this is not a very realistic setup, since you are communication with yourself! But in fact, other users in the classroom can send you email:

- Make sure they have configured their mail software (`sudo apt-get install postfix` then accept the defaults)
- Have the users send a mail to you, for example:

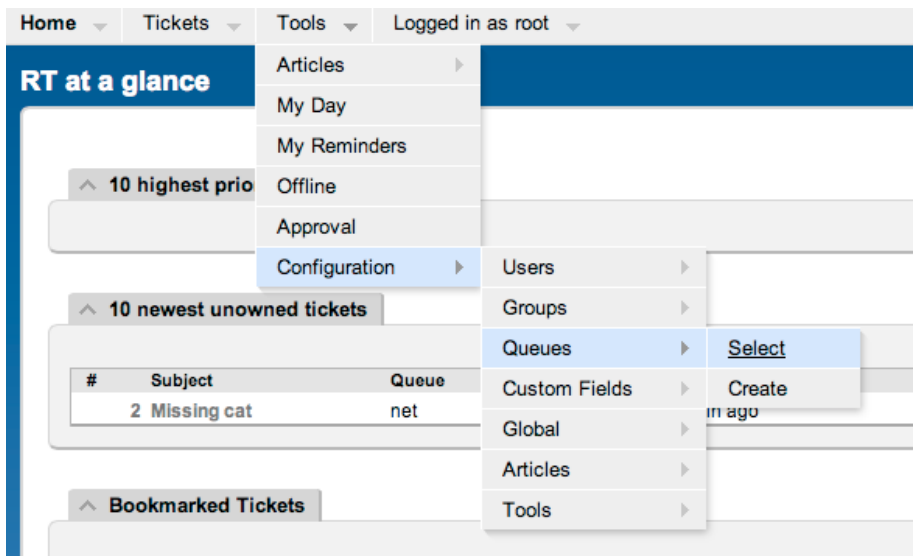
```
echo "Where is my cat ?" | mail -s "Missing cat" net@pcX.ws.nsrc.org
```

- This should automatically create tickets in the **net** queue on your pc "pcX" – verify that you do receive the tickets!

But we're still missing an important feature: it's not practical to have to log into RT to check if tickets have arrived. It would be much more convenient if we received an email that a problem request had been submitted, no ?

To do this, we're going to modify the Queue settings for **net**:

- a From the top menu, select **Tools → Configuration → Queue → Select**



From the Queue page, select the **net** queue by clicking on its name, and you select the **Watchers** menu option at the top:

The screenshot shows the 'Configuration for queue net' page. The 'Watchers' tab is selected. The form includes fields for 'Queue Name' (net), 'Description' (Network Problems), 'Lifecycle' (default), 'Subject Tag' (Request Tracker: NET), 'Reply Address' (net@pc36.ws.nsrc.org), 'Priority starts at' (empty), and 'Requests should be due in' (empty days). There are checkboxes for 'Sign by default' and 'Enabled (Unchecking this box disables this queue)'. The 'Enabled' checkbox is checked.

You should now see this:

The screenshot shows the 'People related to queue net' page. The 'Watchers' tab is selected. The page is divided into 'Current watchers' and 'New watchers' sections. The 'Current watchers' section shows 'Cc:' and 'AdminCc:' with 'none' listed. The 'New watchers' section has fields for 'Find people whose' and 'Find groups whose' with 'Username' and 'Name' dropdowns, 'matches' dropdowns, and 'Go!' buttons. There are also sections for 'Add new watchers' with 'Users' and 'Groups' subsections, each showing 'No principals selected.' At the bottom, there is a 'Reset' button and a 'Save Changes' button.

Under **New watchers**, enter the group name **netmgmt** in the field:  
“Find groups whose [NAME] [matches]”, as such:

### New watchers

Find people whose

Username matches  **Go!**

Find groups whose

Name matches  **Go!**

Add new watchers:

#### Users

*No principals selected.*

#### Groups

*No principals selected.*

And click on **Go!**

RT will search for all groups matching **netmgmt**. Of course there is only one right now, which we created earlier. RT finds it and displays the following:

### New watchers

Find people whose

Username matches  **Go!**

Find groups whose

Name matches  **Go!**

Add new watchers:

#### Users

*No principals selected.*

#### Groups

- ☒ - netmgmt (Network Management Administrators)  
Cc  
AdminCc

Notice how we select “**AdminCc**” from the pull down menu **Groups** next to **netmgmt**. Do this and click on **Save Changes** at the bottom right.

The result should look like this:

**Results**

- Added netmgmt to members of AdminCc for this queue.

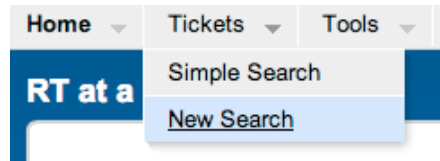
What does it mean ? Well, ask another user to send you a mail, like before, but this time you should receive a mail from RT with the ticket notification – check **mutt** as **sysadm**.

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.

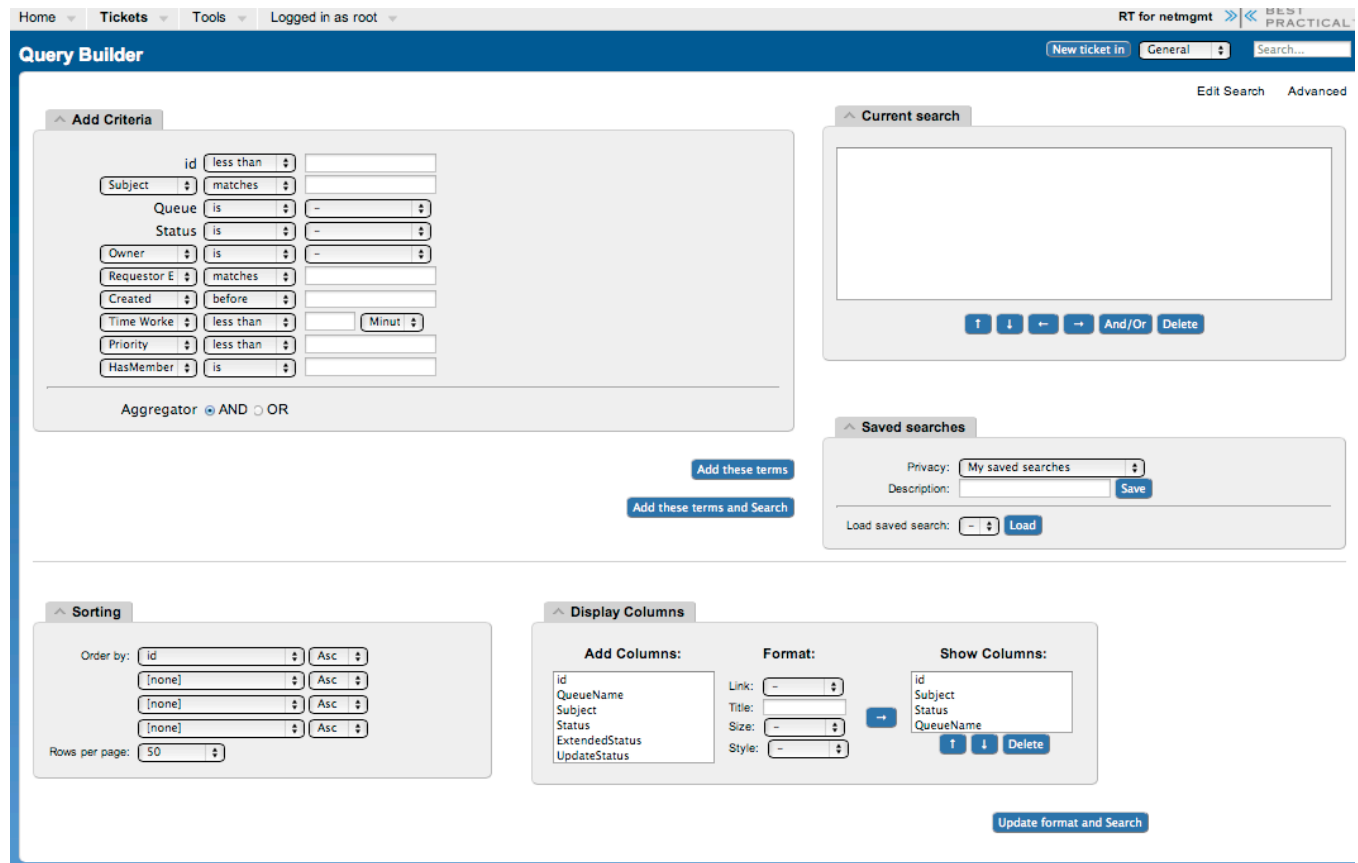
## Exercise 11

### 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** ➔ **New Search** on the top menu in RT:



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):

Home Tickets Tools Logged in as root RT for netmgmt BEST PRACTICAL

## Query Builder

New ticket in General Search...

Edit Search Advanced Show Results Bulk Update Chart Feeds

^ Add Criteria

id less than

Subject matches

Queue is **net** 1

Status is

Owner is

Requestor E matches

Created before

Time Worked less than  Minut

Priority less than

HasMember is

Aggregator ☒ AND ☐ OR

2

Add these terms

Add these terms and Search

^ Current search

Queue = 'net'

3

↑ ↓ ← → And/Or Delete

^ Saved searches

Privacy: My saved searches

Description:  Save

Load saved search:  Load

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.

^ Display Columns

Add Columns:

id QueueName Subject Status ExtendedStatus UpdateStatus

Format:

Link:

Title:

Size:

Style:

Show Columns:

id Subject Status QueueName

↑ ↓ Delete

Update format and Search

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. Clearly there will be more tickets in the results over time:

Home Tickets Tools Logged in as root

## Found 3 tickets

New ticket in

Edit Search Advanced Show Results

| # | Subject Requestors                        | Status Created          | Queue Told | Owner Last Updated   |
|---|-------------------------------------------|-------------------------|------------|----------------------|
| 1 | Router problem<br>sysadm@pc36.ws.nsrc.org | resolved<br>3 hours ago | net        | Nobody<br>49 min ago |
| 2 | Missing cat<br>nsrc@noc.ws.nsrc.org       | new<br>45 min ago       | net        | Nobody<br>45 min ago |
| 3 | Missing cat<br>nsrc@noc.ws.nsrc.org       | new<br>10 min ago       | net        | Nobody<br>10 min ago |

Don't refresh this page. Change