# Network Management & Monitoring

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# 1 Request Tracker (RT) Installation and Configuration

# 1.1 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.

# 2 Exercises

# 2.1 Exercise 0

Log in to your virtual machine as the sysadm user.

# 2.2 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 <code>ENTER</code> to continue.

#### Handle RT\_SiteConfig.pm permissions?

- Select  ${\tt <Yes >}$  and press ENTER to continue.

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

• Select **<Yes>** and press ENTER to continue.

	Configuring request-tracker4 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 <0k> <cancel></cancel>
Ļ	

Figure 1: RT installation name

Configuring request-tracker4
The RT web interface needs access to the database password, stored in
the main DT configuration file Decruce of this the file is made
I the main Ri 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 arise this action the file will be analable ally by and and
I 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 SOLite backend, this choice will also affect the permissions of
and the second develop the second sec
automatically-generated local database files.
1
Handle RT SiteConfig.pm permissions?

Figure 2: DB configuration

-	Configuring request-tracker4
Ĺ	
L	The request-tracker4 package must have a database installed and
L	configured before it can be used. This can be optionally handled with
L	dbconfig-common.
L	
L	If you are an advanced database administrator and know that you want to
I	perform this configuration manually, or if your database has already
I.	been installed and configured, you should refuse this option. Details
ŗ	on what needs to be done should most likely be provided in
ļ.	/usr/share/doc/request-tracker4.
÷	Otherwise way should eachebly shores this action
÷	otherwise, you should probably choose this option.
÷	Configure database for request tracker( with deconfigurermon)
1	configure database for request-tracker4 with dbconfig-common?
ï	«Yes» «No»
i	
L	

Figure 3: DB admin password

## 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...).

Configuring requ	est-tracker4
Please provide the password for the a	dministrative account with which
this package should create its MySQL	database and user.
Password of the database's administra	tive user:
<0k>	<cancel></cancel>

Figure 4: DB application password

# **Password confirmation:**

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



Figure 5: DB application password

Initial root password for RT system:

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

   <0k> <cancel></cancel>	Con       Password     ******	figuring req confirmatio	uest-tracker4 n:	
L	<	)k>	<cancel></cancel>	

Figure 6: Initial root password

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!

# 2.3 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:

Not logged in.		RT for netmgmt	» « BEST PRACTICAL
Login			
ſ	Login 4.0.4		
	Username:		
	Password:		
	Login		

Figure 7: Login screen

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

Username: root

**Password:** [SELECTED AT INSTALL]

# 2.4 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)

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:

#### 2.5 Exercise 4

#### **RT** Configuration: Create a Group

Home – Tickets –	Tools 🚽	Log	ged in	as root 👻			
RT at a glance	Articles		•				
	My Day						
	My Remine	lers					
∧ 10 highest price	Offline						
	Approval						Edit
	Configurati	on	•	Users	•	Select	
∧ 10 newest unor	wned tickets			Groups	•	Create	
				Queues	•		Edit
				Custom Fields	•		
∧ Bookmarked Tickets				Global	•		
				Articles	•		Edit
				Tools	•		

Figure 8: Create User

Create a new user	New ticket in General +	Search.	
		Select	Create
∧ Identity	∧ Location		
Usemame: xxsadm (required) Email: xxsadm@pcX.ws.nsrc.i Real Name: System Admin Nickname: Unix login: Language: - : Extra info:	Organization:		
<ul> <li>Access control</li> <li>✓ Let this user access RT</li> <li>✓ Let this user be granted rights (Privileged)</li> <li>root's current password:</li> <li>New password:</li> <li>Retype Password:</li> </ul>	Phone numbers      Home:     Work:     Mobile:     Pager:     Vustom Fields		
✓ Comments about this user			

Figure 9: User creation form

Modify the user sysadm		New tick	ket in 🛛 🖸	General	÷	Search
	Users 🔻	Basics	Members	ships	History	RT at a glance
A Results						
User created     Password set						



 At the top, choose the menu item Tools => Configuration => Group => Create

Home 🚽 Tickets 🚽	Tools - Logged in	as root 🚽		
Modify the user s	Modify the user s			ſ
mouny the user s	My Day			
	My Reminders			Users 👻 B
∧ Results	Offline			
User created	Approval			
<ul> <li>Password set</li> </ul>	Configuration	Users		
		Groups	•	Select
. Identifie		Queues		Create
		Custom Fields		Locatio
Username: sysadm	(required	Global		Organizatio
Email: sysadm	@pc36.ws.nsrc	Articles	$\rightarrow$	Address
Real Name: System	Admin	Tools	$\rightarrow$	Address
Niekome				0



- Fill in the name:  ${\tt netmgmt},$  and add a description, then click on  ${\bf Create}$
- You should see the following result:
- Click on Members (top menu)
- 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):

Create a new group						
Name:	netmamt					
Description:	Network Management Administrators					
Enabled (Unchecking this box disables this group)						
Reset						

Figure 12: Create group form

Modify the gro	up netmgmt					New ticket	in Ge
			Grou	ps 👻	Basics	Members	Group F
∧ Results							
Group create     Group netmg	ed gmt: Description chan	ged from (no value)	) to 'Network Ma	nagem	ent Admir	nistrators' by	root
Name:	netmgmt	]					
Description:	Network Management	Administrators					
Senabled (Unche	cking this box disable	es this group)					
Reset							

Figure 13: Group created

Modify the gro	up netmgmt			New ticket in General			
		Groups 👻	Basics	Members Group Rights			
∧ Results							
Group created     Group netragmt: 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							

Figure 14: Group members





• You should see this:



Figure 16: Member added

# 2.6 Exercise 5

**RT** Configuration: Create a New Queue

- At the top, choose the menu item Tools => Configuration => Queue => Create
- Fill in the fields. Let's use the following values and then click on **Create**:

### Queue Name: net

Description: Network Problems Subject Tag: RT: NET Reply Address: net@pcX.ws.nsrc.org Comment Address: net-comment@pcX.ws.nsrc.org Note: Remember to replace pcX with the correct number of your machine You should see this:

Home 🚽 Tickets 🚽	Tools 👻 Logged in	as root 🚽			
Modify the group	Articles				New tick
group	My Day				
	My Reminders		Groups V Basics		6 Members
∧ Results	Offline				
Member added:	Approval				
	Configuration	Users	⊬		
∧ Editing member	Groups	arepsilon			
		Queues	⊬	Select	
Current members		Custom Fields	$\left  \cdot \right $	Create	
Current members	•	Global	$\left  \right $	IDEI 5	
Users		Articles	⊩		
• 🗆 System Ad	lmin	Tools	$\left  \cdot \right $		
Groups					

Figure 17: Create queue

ate a queue			New ticket in General +	Search	
				Select	Creat
Queue Name:	net				
Description:	Network Problems				
Lifecycle:	default ‡				
Subject Tag:	Request Tracker: NET				
Reply Address:	net@pcX.ws.nsrc.org (If left blank, will default to rt@pc36.ws.nsrc.org)	Comment Address:	net-comment@pcX.ws (If left blank, will default to rt- comment@pc36.ws.nsrc.org)		
Priority starts at:	0	Over time, priority moves toward:	0 requires running rt-crontool		
Requests should be due in:	days.				
	Sign by default		Encrypt by default		
	Enabled (Unchecking this box disables this	s queue)			
∧ GnuPG private	key(s) for rt@pc36.ws.nsrc.org				
∧ GnuPG private I	key(s) for rt-comment@pc36.ws.nsrc.org	1			
			1	Create	

Figure 18: Queue create form

🔺 Resu	ults	
• Que	ue cr	eated
<ul> <li>Que</li> </ul>	ue ne	t: Description changed from (no value) to "Network Problems"
<ul> <li>Que</li> </ul>	ue ne	t: CorrespondAddress changed from (no value) to "net@pc36.ws.nsrc.org"
<ul> <li>Que</li> </ul>	ue ne	t: CommentAddress changed from (no value) to "net-comment@pc36.ws.nsrc.org"
<ul> <li>Que</li> </ul>	ue ne	t: SubjectTag changed from (no value) to "Request Tracker: NET"

Figure 19: Queue created

# 2.7 Exercise 6

RT Configuration: Give Rights to our Group on the Queue

From the top menu, select  $\mathbf{Tools} => \mathbf{Configuration} => \mathbf{Queue} => \mathbf{Select}$ 

You should see:

#### **Enabled Queues**

Sele	Select a queue:					
#	Name	Description	Address	Priority	DefaultDuein	
	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

Figure 20: Enabled Queues

• Select **net** (click on it) then choose **Group Rights** (top right)

Configuration for que	eue net	New ticket in General \$ Search
	Queues 💌 Basics Watchers Templates 🐨 Scrips 👻 Ticket Custom Fields	Transaction Custom Fields Group Rights User Rights
Queue Name:	net	
Description:	Network Problems	
Lifecycle:	default ‡	
Subject Tag:	Request Tracker: NET	
Reply Address:	net@pc36.ws.nsrc.org         Comment Address:         net-com           (If left blank, will default to rt@pc36.ws.nsrc.org)         Comment Address:         (If left blank)	ment@pc36.v ank, 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 I	by default
	Enabled (Unchecking this box disables this queue)	

Figure 21: Group rights

The following page should look like this:

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

Here, we want to give **Everyone** (including people who are not yet known to RT) some privileges, but only the minimum required. These are found under **General Rights**, and are the following:

YSTEM	Queues	Everyone	Templates V Scrip	s 👻 Ticket Custom Fields	Transaction Custom Fields	Group Rights User R
Privileged Unprivileged		General rights	Rights for Staff	Rights for Administrators		
		Comment	t on tickets			CommentOnTicket
AdminCc		Create tic	kets			CreateTicket
Cc		Reply to t	ickets			ReplyToTicket
Owner		Sign up a	s a ticket Requestor	or ticket or queue Cc		Watch
Requestor		View cust	om field values			SeeCustomField
		View queu	ue			SeeQueue
ISER GROUPS		View ticket	et summaries			ShowTicket
DD GROUP						

Figure 22: Group rights overview

- Create tickets (CreateTicket)
- Reply to tickets (ReplyToTicket)
- View queue (SeeQueue)

rights...

• 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.

	Queues 👻	Basics Watchers	Templates 👻 S	Scrips 🔻 Ticket Custom F	Fields Transa		
SYSTEM		Everyone					
Everyone							
Privileged		General rights	Rights for Stat	ff Rights for Adminis	strators		
Unprivileged		ſ					
		Commer	nt on tickets				
AdminCo		Create tickets					
AdminCc		Reply to tickets					
Cc		Sign up	as a ticket Reques	tor or ticket or queue Co			
Owner							
Requestor		View queue					
USER GROUPS		View ticket summaries					
ADD GROUP							

Figure 23: Modify group rights

Now, click **Save Changes** (bottom right) to make sure the changes are applied. Staying on the same page, we're going to now give the **netmgmt** Group all



Figure 24: Saved rights

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

SYSTEM	Add rights for this group: netmgmt					
Everyone						
Privileged	General rights Rights for Staff Rights for Administrators					
Unprivileged						
	Comment on tickets					
ROLES	Create tickets					
AdminCc	Reply to tickets					
Cc	Sign up og a tigket Beguester er tigket er gueue Co.					
Owner	Sign up as a licket requestor of licket of queue oc					
Requestor	View custom field values					
	View queue					
USER GROUPS	View ticket summaries					
ADD GROUP						
netmgmt						



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

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:

# 2.8 Exercise 7

## RT Configuration: Log in as sysadm

SYSTEM	Add rights for this group: netmgmt				
Privileged	General rights Rights for Staff Rights for Administrators				
Unprivileged					
	Delete tickets				
AdminCo	Forward messages outside of RT				
Co	Modify custom field values				
Owner	Modify tickets				
Requestor	✓ Own tickets				
requestor	Sign up as a ticket or queue AdminCc				
USER GROUPS	Steal tickets				
ADD GROUP	✓ Take tickets				
netmamt	View exact outgoing email messages and their recipients				
instinatine	View ticket private commentary				

Figure 26: All rights selected

~	Results	
	<b>D</b> : 11 O	
•	Right Gra	nted
•	<b>Right Gra</b>	nted
•	Right Gra	nted
•	<b>Right Gra</b>	nted
•	Right Gra	nted

Figure 27: Rights granted

Log out of RT (top menu, select the item Logged in as root => Logout)



Figure 28: Logging out

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

Login			
	Login		
			4.0.4
	Username:	sysadm	
	Password:		
			Login

Figure 29: Logging in as sysadm

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.

# 2.9 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 <> - 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
```

Home Tickets v Tools v Logged in as sysadm v	RT for netmgmt » KEST
RT at a glance	New ticket in net + Search
∧ 10 highest priority tickets I own Ed	Edit My reminders
∧ 10 newest unowned tickets Ed	A Quick search Edit
A Bookmarked Tickets	Lueue new open stated net
∧ Quick ticket creation	A Dashboards
Subject:       Queue:     net     t     Owner:     Me     t       Requestor:     systam@pc36.ws.nsrc.org       Content:	Refresh     Don't refresh this page.     Col

Figure 30: Main page view for sysadm

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

# 2.10 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 you are currently root:

# # su - sysadm

\$ echo "Problem with my router" | mail -s "Router problem" net@pcX.ws.nsrc.org

Remember to replace  $\operatorname{pcX}$  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

# 2.11 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:

me	Tickets 👻	Tools 👻	Logged in as sys	adm 🔟					RT fo	or netmgmt	» « BEST PRACTICAL
۲ at a	a glance							(	New ticket in	iet ‡	Search
											Edit
^	10 highest p	iority tickets	lown				_	\land My re	minders		
						E	dit				
_								_			
~	10 newest ur	owned ticke	ts				_	A Quick	search		
						E	dit				Edit
#	Subject		Queue	Status	Created			Queue	new	open	stalled
	1 Router pro	oblem	net	new	110 min ago	Take		net	1	-	-
_											

Figure 31: Main page - ticket overview

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:

1	∧ 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@pc38.ws.nsrc.org From: sysadm@pc38.ws.nsrc.org (Ubuntu)	Reply Comment Forward
		Download (untitled) / with headers text/plain 23b
*	Fn Nov 09 00:29:27 2012 The RT System itself - Outgoing email recorded	Show

Figure 32: Display ticket

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

#### You should see this:

The ticket is currently <> but you can 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 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:

		Display	History	Basics	People Dates	Links Jur	nbo Reminders	Actions -
^ Message					∧ Ticket and T	Fransaction		
One-time Cc: One-time Bcc: Subject:	Sign _ using Queue's key Encrypt _				Update Type: Status: 🗸 Owner:	new (Unchange open stalled resolved rejected deleted	d) Unchanged)	•
Message:	Search for Articles matching Include Article:			4	Worked:	Minu	ites \$	
$\rightarrow$	On Fri Nov 09 00:29:26 2012, sysadm wrote: > Problem with my router Helio! We think the problem should be fixed now.							
Attach:	body strong Choose File ) no file selected	Ad	dd More File					

Figure 33: Replying to ticket

#1: Router problem						New tick	ket in ne	et ‡	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		^ R	eminders							
ld: 1		New	reminder:							
Status: resolved Priority: 0/		Subje	ot:							
Queue: net		Own	er: Syster	m Admin	\$					
		Du	e:				_	_		
∧ People							Sav	re		

Figure 34: Reply sent

^	History	
		Show all quoted text - Show full headers
#	Fri Nov 09 00:29:26 2012 System Admin - Ticket created Subject: Router problem Data: Fri, 09 Nov 2012 00:29:25 +0000 To: net@pc36.ws.nsrc.org From: sysadm@pc36.ws.nsrc.org (Ubuntu)	Reply Comment Forward
	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
	Hellol We think the problem should be fixed now.	
#	Fri Nov 09 02:25:26 2012 System Admin - Status changed from 'new' to 'resolved'	

Figure 35: View history

#### Using Mutt to Reply to an Email

- After typing **mutt**, select the message you want to respond to using the arrow keys
- Press the  $<<^{**}r^*>>$  key for  $<<^{**}r^*>>$ eply.
- At the bottom of the page you will see, To: System Admin via RT <net@localhost> Press ENTER to continue
- Next you'll see a suggested <> line. Press ENTER to choose what is shown.
- When you see, Include message in reply? ([yes]/no): press EN-TER to include the message.
- Now you will be placed in an editor possibly vi. Type in your response. We suggest to answer below the original message.
- Save and exit from the text editor (:wq in vi).
- The next screen to appear looks complicated but simply press the y key to send the message.
- That's it. You are done. You can press  ${\boldsymbol{q}}$  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:

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
Hello! We think the problem should be fixed now.	
Fri Nov 09 02:25:26 2012 System Admin - Status changed from 'new' to 'resolved'	
Fri Nov 09 02:31:58 2012 System Admin - Correspondence added	Reply Comment Forward
Subject: Re: [Request Tracker: NET #1] AutoReply: Router problem	
Date: Fri, 9 Nov 2012 02:31:57 +0000	
To: Network Problems via RT <net@pc36.ws.nsrc.org></net@pc36.ws.nsrc.org>	
From: Ubuntu <sysadm@pc36.ws.nsrc.org></sysadm@pc36.ws.nsrc.org>	
Are you sure my problem is fixed ?	Download (untitled) / with headers text/plain 804b
On Fri, Nov 09, 2012 at 12:29:27AM +0000, Network Problems via RT wrote: - Show quoted text -	
Fri Nov 09 02:31:59 2012 The RT System itself - Status changed from 'resolved' to 'open'	

Figure 36: Ticket history showing reply

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!

# 2.12 Adding Watchers to a Queue

We are 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 every time a problem request had been submitted, no?

- To do these exercises you need to log out as the sysadm user and log back back in to Request Tracker as the root user.
- Now log back in as root:

Now to receive an email every time a request is submitted we're going to modify the Queue settings for **net**:

 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:

You should now see this:

Under **New watchers**, enter the group name **netmgmt** in the field: <>, as such:

Home	• .	Tickets 👻	Tools 👻	Logged in	<u>as sysadm</u>	<b>T</b>			
RT a	at a	glance		Logout					N
	^ 1	0 highest pr	iority tickets I	own					1
								Edit	
	A 1	0 newest un	owned tickets						1
								Edit	
	#	Subject		Queue	Status	Created			
	1	2 Missing ca	t	net	new	9 min ag	D	Take	
		1 Router pro	blem	net	open	12 min a	go	Take	

Figure 37: Logout as sysadm

Login		
		4.0.4
Username:	root	
Password:	•••••	
		Login



Home 🚽 Tic	kets 🚽 T	iools 👻	Logged in	n as root ,			
RT at a glar	A	rticles	arepsilon				
	N	ly Day					
	N	ly Reminde	ers				
^ 10 hig	hest prio C	Offline					
	A	pproval					
	С	onfiguration	n ⊧	Users	E		
∧ 10 nev	vest unowne	d tickets		Groups	•		
				Queues	•	Select	
# Su	lbject		Queue	Custom Fields	•	Create	
2 M	ssing cat		net	Global	•	n ago	
				Articles	•		
A Bookn	narked Ticke	ts		Tools	•		
					_		

Figure 39: Select queue

Configuration for queue net											
	Queues 🔻 B	Basics	Watchers	Templates 👻	Scrips 👻						
Queue Name:	net										
Description:	Network Problems	Network Problems									
Lifecycle:	default ‡	default ‡									
Subject Tag:	Request Tracker: NE	Request Tracker: NET									
Reply Address:	net@pc36.ws.nsrc.o (If left blank, will de	net@pc36.ws.nsrc.org if left blank, will default to rt@pc36.ws.nsrc.org)									
Priority starts at:				Over ti	me, priority m						
Requests should be due in:		days	s.								
	Sign by default										
	Enabled (Uncheckir	ng this b	ox disables	this queue)							

Figure 40: Queue watchers

People related to queue net New ticket in General : Search									
	Queues 🔻	Basics	Watchers	Templates 👻	Scrips 👻	Ticket Custom Fields	Transaction Custom Fields	Group Rights	User Rights
Current watchers		New	watchers						
Cc:		Find p	eople whose						
• none		User Find o	name ‡	matches	•	Gol			
(Check box to delete)		Nam	e ‡	matches		Go!			
AdminCc:		Add n	ew watchers:						
<ul> <li>none</li> </ul>		Users							
(Check box to delete)	ck box to delete) No principa	ncipals selec	ted.						
		Group No pri	os ncipals selec	ted.					
Reset						If	you've updated anything abov	e, be sure to Sa	ave Changes

Figure 41: Modify queue watchers

# New watchers

Find people whose									
Username	ŧ	matches	\$		Go!				
Find groups whose									
Name	\$	matches	÷	netmgmt	Go!				

Add new watchers:

# Users

No principals selected.

# Groups

No principals selected.

Figure 42: New watchers

...

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	e whos	e	
Username	\$	matches	\$ Go!
Find group	s whos	e	
Name	\$	matches	\$ Go!

Add new watchers:

Users No principals selected.

#### Groups

•	1	- 1	netmgmt (Network Management Administrators)
		Cc	
		AdminCc	

Figure 43: Matched groups

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

The result should look like this:



Figure 44: Watchers modified

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 - run 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.

# 2.13 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:



Figure 45: Search tickets

and you will see a screen like this:

Home   Tickets   Tools   Logged in as root	RT for netmont Sector A
Query Builder	New ticket in General Search
Add Criteria	Edit Search Advanced
id         [less than 3]           Subject 3)         [mitches 3]           Queue (in 3)         [	1 i - And/Or Dakes
Aggregator   Aggregator  AD  OR	∧ Saved searches
	Add these terms         Privacy:         My saved searches         1           Add these terms and Search         Description:         Save           Lead saved search:         •         Lost
A Sorting	A Display Columns
Order by:         (id         1)         (Asc         1)           [none]         1)         (Asc         1)           [none]         1)         (Asc         1)           [none]         1)         (Asc         1)           [none]         1)         (Asc         1)           (none]         1)         (Asc         1)           (none]         1)         (Asc         1)           (Asc         1)         (Asc         1)	Add Columns:     Format:     Show Columns:       d     Link:     Image: Subject       Subject     See:     Image: Subject       Status     See:     Image: Subject       UpdateStatus     Sey:     Image: Subject
	Update format and Searth

Figure 46: Ticket search form

If you are going to search for items in a queue and there are already items in the <> box, then you should delete the items from the <> box first. Next in the <> box in the <<Queue>>" choice select the <<net>> queue from the drop-down menu (see below):

me 🗸 Tickets 🚽 Tools 🚽 Logged in as root 🤟	RT for netrogent SEST
Jery Builder	New ticket in General Search
Add Criteria	Edit Search Advanced Show Results Bulk Update Chart Feeds
id less than ± Subject ± matches = Queue is ± net = Status is ± - = = Owner ± is = - = Requestor £ matches = Created ± before ± Time Worke ± less than ± Priority ± less than ±	Queue = 'net' 3 1 ↓ - And/Or Delete
HasMember 2 is 2	∧ Saved searches
Aggregator ©AND UOR	Privog: My saved searches : 2 Description: Save sheese terms
Add these terms	and Search

Figure 47: Adding search terms

Click on <> or <> - If you just do <> then go to the bottom of the page and click on <> - RT will keep the search terms until you delete them at a later time.

Add Columns:	Format:	Show Columns:	
id QueueName Subject Status ExtendedStatus UpdateStatus v	Link: - + Title: Size: - + Style: - +	id Subject Status QueueName ↑ ↓ Delete	
			Update format and Sea

Figure 48: Execute 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:

Η	ome 👻	Tickets 🚽 Tools 🤟	Logged in as root 📼						
F	Found 3 tickets New ticket in								
ſ					Edit Search	Advanced Show Result			
	#	Subject Requestors		Status Created	Queue Told	Owner Last Updated			
		1 Router problem sysadm@pc36.ws.nsrc.org		resolved 3 hours ago	net	Nobody 49 min ago			
		2 Missing cat nsrc@noc.ws.nsrc.org		NEW 45 min ago	net	Nobody 45 min ago			
		3 Missing cat nsrc@noc.ws.nsrc.org		new 10 min ago	net	Nobody 10 min ago			
	Don't r	efresh this page.	¢ Change						

Figure 49: Search results