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 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 following instructions to see how to respond:



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></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-track	er3.8	
The request-tracker3.8 package must have a data configured before it can be used. This can be dbconfig-common.	abase installed and optionally handled with	
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?		
<mark>⟨Yes⟩</mark>	<no></no>	

Choose "Yes"



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.

Configuring request-tracker3.8 Please provide the password for the administrative account with which this package should create its MySQL database and user. Password of the database's administrative user:	
KOk>	<cancel></cancel>

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.

Configuring mysql-server-5.1	
Repeat password for the MySQL "root" user:	

< <u>Ck></u>	

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"

RT for aroc	Not logged in.
	Login 3.8.4 Username: root Password:
	» ≪ BEST PRACTICAL ™
	» « RT 3.8.4 Copyright 1996-2009 Best Practical Solutions, LLC.
To inquire about su	Distributed under version 2 of the GNU GPL. pport, training, custom development or licensing, please contact sales@bestpractical.com.

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.

RT for aroc	Logged in as root Preferences Logout	
Home	RT Administration New ticket in General 🗘 Search	
Simple Search	Users · Groups · Queues · Custom Fields · Global · Tools	
Tickets		
Tools Configuration	Users Manage users and passwords	
Approval	Groups	
Approvar	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:



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
Home	Modify the user root	New ticket in General 🗧 Search	
Simple Search	$\textbf{Basics} \cdot \text{History} \cdot \text{Memberships} \cdot \text{RT} \text{ at a glance}$		
Tickets			
Tools	^		
Configuration	Identity	Location	
Users	Username: root	(required) Organization:	
Select	Email: root@localhost	Address1:	
Create	Real Name: Enoch Root	Address2:	
root	Nickname	City	
Groups	Nickitaine.	City.	
Queues	Unix login: root	State:	
Custom Fields	Language: -	Zip:	
Global		Country:	
Tools	Extra info:		
Preferences			
Approval			
		Phone numbers	
		Home:	
	Access control	Work:	
	Let this user access RT	Mobile:	
	 Let this user be granted rights 	Pager:	
	New Password:		
	Retype Password:		
		^ 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:



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** \rightarrow **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.

Create a new user	New ticket in General 🛟 Search
Select · Create	
Identity Username: sysadm Ernail: sysadm@localhost Real Name: System Admin Nickname: Unix login: 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: Wobile: Pager:

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:

Modify the user tIdadmin	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)



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

RT for aroc	Logged in as root Preferences Logout
Home	Create a new group
Simple Search	Select · Create
Tickets	
Tools	Name
Configuration	
Users	
Groups	Enabled (Unchecking this box disables this group)
Queues	Reset
Custom Fields	Create
Global	

You should see the following result (next page):



Reset

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	Modify the group netmgmt	New ticket in General Search
Simple Search	Basics Members Group Rights · User Rights · History	
Tickets		
Tools	Name: netmomt	
Configuration	Description Natural Management Administrators	
Users		
Groups	Enabled (Unchecking this box disables this group)	
Select	Reset	
Create		Save Changes
netmgmt		

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.":

Modify Members

/Admin/Edit the group netmgmt	New ticket in General 🗘 Search
s · Members · Group Rights · User Rights · History	
Celeving membership for group netmgmt	
Current members	Add members
(No members)	Users Enoch Root System Admin Groups

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)

RT for aroc					Logged in as root	Preferences Logout
Home	Admin qu	eues		New ticket	t in General	Search
Simple Search	Select Create)				
Tickets						
Tools						
Configuration	Enab	led Queues				
Users						
Groups	Select a qu	eue:				
Queues						
Custom Fields	# Name	Description	Address	Priority	DefaultDueln	
Global	1 General	The default queue	-/-	0-0	0	Enabled
Tools	Include	disabled queues in listing.				Cal
Preferences						
Approval						

 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

RT for aroc	Logged in as root Preferences Logout
Home	Editing Configuration for queue net
Simple Search	Basics · Watchers · Scrips · Templates · Ticket Custom Fields · Transaction Custom Fields · Group Rights · User Rights · History
Tickets	
Tools	Queue Name: net
Configuration	Description Network Decklope
Users	Description: Network Problems
Groups	Subject Tag: Request Tracker: NET
Queues	net@localhost Comment
Select	Reply Address: (If left blank, will default to Address: (If left blank, will default to rt@ubuntu localdomain)
Create	Over time, priority
net	Priority starts at: 0 moves toward: 0
Custom Fields	Requests should 0 days.
Global	De due in:
Tools	Enabled (Onchecking this box disables this queue)
Preferences	Create
Approval	

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).

RT for aroc	Logged in as root Preferences Logout
Home	Editing Configuration for queue New ticket in General Search
Simple Search	Basics · Watchers · Scrips · Templates · Ticket Custom Fields · Transaction Custom Fields · Group Rights · User Rights ·
Tickets	history
Tools	Queue Name: net
Configuration	Description: Natural Broblems
Users	
Groups	Subject Tag: [RT NET]
Queues	Reply net@localhost Comment net-comment@localhost
Select	Address: (If left blank, will default to Address: (If left blank, will default to
Create	Over time.
net	Priority starts 0 priority moves 0
Custom Fields	toward:
Global	Requests days.
Tools	in:
Preferences	Enabled (Unchecking this box disables this queue)
Approval	Save Changes

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.

System groups



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

Results
Pight Granted
• Nghi Graned
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

(no value)

- (Check box to revoke right)
- AdminQueue
- AssignCustomFields
- CommentOnTicket
- CreateTicket
- DeleteTicket
- E ForwardMessage
- ModifyACL
- ModifyCustomField
- ModifyQueueWatchers
- ModifyScrips
- ModifyTemplate
- ModifyTicket
- OwnTicket
- ReplyToTicket
- SeeCustomField
- SeeQueue
- ShowACL
- ShowOutgoingEmail
- ShowScrips
- ShowTemplate
- ShowTicket
- ShowTicketComments
- StealTicket
- TakeTicket
- Watch
- WatchAsAdminCc

RT Configuration: Log in as sysadmin

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



ransaction Custom Fields · Group Rights · User Rights ·

RT for aroc			Not logged in.
	Login Username: Password:	sysadm	3.8.4 Login

You should see this:

RT for aroc		Logged in a SySad n Logou
Home	RT at a glance	New ticket in net Search
Simple Search	Home	
Tickets		
Tools	A to highest aging the tickets Leven	^ Perminders
Approval	To highest priority tickets I own	Edit
	10 newest unowned tickets	Edit Queue new open stalled
	Bookmarked Tickets	Edit
	Quick ticket creation	Dashboards

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.

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):

Home	RT at a glance			New ticks	tin net	Search
Simple Search Tickets Tools Approval	10 highest priority tickets I	own	Ed	it Remi	nders	
	10 newest unowned tickets Subject 2 Problem with router	Queue Status net new	Ed Created 3 min ago Take	it Quick Queue net	new of 1	Edit open stalled 0 0

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 Subject: Router problem To: net@localhost Date: Thu, 22 Apr 2010 18:45:49 -0700 (PDT) From: tldadmin@ubuntu.localdomain (AROC Class User)	Reply Comment Forward
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 · Basic	s · Dates · People · Links · Reminders · Jumbo			
		Open · Take ·	·· Comment	· Reply · Resolve · ਨੂੰ
Status	resolved Cwner: Nobody (Unchanged) Worked:	Minutes 🛟		
Update Type:	Reply to requestors	1		
Subject:	Router problem			
One-time Cc:				
One-time Bcc:]		
Attach:	Browse Add More Files			
Message:	v			
	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



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		Brie	f headers — Full hea
Thu Apr 22 18:45:52 2010 Subject: Router To: net@lo Date: Thu, 22 From: tldadm	tldadmin@ubuntu.localdomain - Ticket created problem ocalhost 2 Apr 2010 18:45:49 -0700 (PDT) in@ubuntu.localdomain (AROC Class User)	Reply	Comment Forwar
Problem with my route	r	Download (untitle	ed) / 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 Forwar
On Thu Apr 22 18:45:5 > Problem with my rou It's fixed!	52 2010, tldadmin@ubuntu.localdomain wrote: ter	Download (untitle	ed) / with headers text/html 187b
Your friendly network a	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	d'	
Thu Apr 22 19:13:25 2010	RT_System - Outgoing email recorded		Show

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 = 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></tldadmin@ubuntu.localdomain></net@localhost>	added Reply Comment Forward
	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?	Download (untitled) / with headers text/plain 310b
#	Sincerely, Your ever-patient customer Thu Apr 22 19:17:33 2010 RT_System - Status changed from 'resolved' to 'or	ben'

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:

Query Dunuer	New licket In Thet Search
New Search · Edit Search · Advanced	
Add Criteria id less than \$ Subject \$ matches \$ Queue is \$ - \$ Status is \$ - \$ Owner \$ is \$ - \$ Requestor E \$ matches \$ Created \$ before \$ Calendar Time Worke \$ less than \$ Minut \$ Priority \$ less than \$ minut \$	Current search ↑ ↓ ← → And/Or Delete
Aggregator 💿 AND 🔘 OR	
Add these terms	

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):

Query Builder	New ticket in net Search
New Search \cdot Edit Search \cdot Advanced \cdot Show Results \cdot Bulk Update \cdot Grap	ph
Add Criteria id less than \$ Subject \$ matches \$ Queue is \$ net \$ Queue is \$ Queue is \$ net \$ Queue is \$	Current search Queue = 'net' ↑ ↓ ← → And/Or Delete
Aggregator 💿 AND 🔘 OR	
Add these terms and	e terms I Search

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.

Add Columns:	Format:	Show Columns:	
ueueName Ibject atus tendedStatus odateStatus	Link: - + Title: Size: - + Style: - +	id Subject Status QueueName ↑ ↓ Delete	

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.:

Fo	ound	l 2 tickets	New ticket in net Search							
New	lew Search · Edit Search · Advanced · Show Results · Bulk Update · Graph									
Γ					Spreadshee	t · 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.				bar 🗘	chart by Status	÷ Go				