

## **Wikiprint Book**

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## Email Notification of Ticket Changes

Trac supports notification of ticket changes via email.

Email notification is useful to keep users up-to-date on tickets of interest, and also provides a convenient way to post all ticket changes to a dedicated mailing list.

Disabled by default, notification can be activated and configured in [trac.ini](#).

## Receiving Notification Mails

When reporting a new ticket or adding a comment, enter a valid email address or your Trac username in the *reporter*, *assigned to/owner* or *cc* field. Trac will automatically send you an email when changes are made to the ticket, depending on how notification is configured.

## How to use your username to receive notification mails

To receive notification mails, you can either enter a full email address or your Trac username. To get notified with a simple username or login, you need to specify a valid email address in your [preferences](#).

Alternatively, a default domain name (`smtp_default_domain`) can be set in the [TracInI](#) file, see [Configuration Options](#) below. In this case, the default domain will be appended to the username, which can be useful for an "Intranet" kind of installation.

When using apache and mod\_kerb for authentication against Kerberos / Active Directory, usernames take the form (username@EXAMPLE.LOCAL). To avoid this being interpreted as an email address, add the Kerberos domain to (ignore\_domains).

## Ticket attachment notifications

Since 1.0.3 Trac will send notifications when a ticket attachment is added or deleted. Usually attachment notifications will be enabled in an environment by default. To disable the attachment notifications for an environment the `TicketAttachmentNotifier` component must be disabled:

```
[components]
trac.ticket.notification.TicketAttachmentNotifier = disabled
```

## Configuring SMTP Notification

**Important:** The `[trac] base_url` option must be configured for links in the notification message to be correctly generated.

## Configuration Options

These are the available options for the [notification] section in trac.ini:

[notification]

biochem 101	cellular structure and function of cells, and the role of various organelles in cellular processes.	biology
biochem 102	cellular metabolism, including glycolysis, the citric acid cycle, and oxidative phosphorylation.	biology
biochem 103	cellular signaling, including the role of hormones, growth factors, and neurotransmitters.	biology
biochem 104	cellular regulation, including the role of transcription factors, epigenetics, and cell cycle control.	biology
biochem 105	cellular homeostasis, including the role of ion channels, pumps, and transporters.	biology
biochem 106	cellular death, including apoptosis and necrosis.	biology
biochem 107	cellular differentiation, including the role of stem cells and signaling pathways.	biology
biochem 108	cellular aging, including the role of telomeres, DNA damage, and oxidative stress.	biology
biochem 109	cellular disease, including the role of genetic mutations, environmental factors, and lifestyle choices.	biology
biochem 110	cellular therapy, including the use of stem cells, gene therapy, and immunotherapy.	biology
biochem 111	cellular research, including the use of microscopy, genomics, and bioinformatics.	biology
biochem 112	cellular education, including the role of teachers, students, and parents.	biology
biochem 113	cellular ethics, including the role of bioethics, law, and society.	biology
biochem 114	cellular future, including the role of emerging technologies, such as CRISPR and synthetic biology.	biology
biochem 115	cellular impact, including the role of biology in medicine, agriculture, and industry.	biology
biochem 116	cellular legacy, including the role of biology in shaping the future of humanity.	biology
biochem 117	cellular love, including the role of biology in creating a better world for all.	biology
biochem 118	cellular hope, including the role of biology in overcoming adversity and achieving our dreams.	biology
biochem 119	cellular faith, including the role of biology in connecting us to something greater than ourselves.	biology
biochem 120	cellular destiny, including the role of biology in determining our fate and shaping our destiny.	biology

### Example Configuration (SMTP)

```
[notification]
smtp_enabled = true
smtp_server = mail.example.com
smtp_from = notifier@example.com
smtp_replyto = myproj@projects.example.com
smtp_always_cc = ticketmaster@example.com, theboss+myproj@example.com
```

### Example Configuration (sendmail)

```
[notification]
smtp_enabled = true
email_sender = SendmailEmailSender
sendmail_path = /usr/sbin/sendmail
smtp_from = notifier@example.com
smtp_replyto = myproj@projects.example.com
smtp_always_cc = ticketmaster@example.com, theboss+myproj@example.com
```

### Subscriber Configuration

The default subscriptions are configured in the [\[notification-subscriber\]](#) section.

#### [notification-subscriber]

The notifications subscriptions are controlled by plugins. All `INotificationSubscriber` components are in charge. These components may allow to be configured via this section in the `trac.ini` file.

See [TracNotification](#) for more details.

Available subscribers:

Subscriber	Description
<code>AlwaysEmailSubscriber</code>	
<code>CarbonCopySubscriber</code>	Ticket that I'm listed in the CC field is modified
<code>TicketOwnerSubscriber</code>	Ticket that I own is created or modified
<code>TicketPreviousUpdatersSubscriber</code>	Ticket that I previously updated is modified
<code>TicketReporterSubscriber</code>	Ticket that I reported is modified
<code>TicketUpdaterSubscriber</code>	I update a ticket

Each user can override these defaults in their *Notifications* preferences.

For example to unsubscribe from notifications for one's own changes and comments, the rule "Never notify: I update a ticket" should be added above other subscription rules.

The subscription rule name on the left side of the = can be anything, it has no meaning outside this configuration file. The subscriber name on the right side of the = must be one of the subscribers listed in the above table.

The following attributes of default subscriptions can be configured:

- .distributor (Default: email)
  - Other values require plugins. For example `on-site` requires `th:OnSiteNotificationsPlugin`.
- .priority (Default: 100)
  - Smaller values override larger values.
  - If you use 0, then users will not be able to override this rule.
- .adverb (Default: always)
  - `never` can be used to silence other subscription rules with higher values.
- .format (Default: text/plain)
  - Other values require plugins. For example `text/html` requires `th:TracHtmlNotificationPlugin`.

### Example Configuration (default subscriptions)

```
[notification-subscriber]
always_notify_owner = TicketOwnerSubscriber
always_notify_owner.distributor = email
always_notify_owner.priority = 100
always_notify_owner.adverb = always
always_notify_owner.format = text/plain

always_notify_previous_updater = TicketPreviousUpdatersSubscriber

never_notify_updater = TicketUpdaterSubscriber
never_notify_updater.adverb = never
never_notify_updater.priority = 0

notify_cc_html = CarbonCopySubscriber
notify_cc_html.format = text/html
```

### Customizing the e-mail subject

The e-mail subject can be customized with the `ticket_subject_template` option, which contains a [Genshi text template](#) snippet. The default value is:

```
${prefix} #${ticket.id}: ${summary}
```

The following variables are available in the template:

- `env`: The project environment object (see [env.py](#)).
- `prefix`: The prefix defined in `smtp_subject_prefix`.
- `summary`: The ticket summary, with the old value if the summary was edited.
- `ticket`: The ticket model object (see [model.py](#)). Individual ticket fields can be accessed by appending the field name separated by a dot, eg `${ticket.milestone}`.

### Customizing the e-mail content

The notification e-mail content is generated based on `ticket_notify_email.txt` in `trac/ticket/templates`. You can add your own version of this template by adding a `ticket_notify_email.txt` to the `templates` directory of your environment. The default is:

```
${ticket_body_hdr}
${ticket_props}
# if ticket.new:
```

```

${ticket.description}
# else:
#   if changes_body:
${_('Changes (by %(author)s):', author=change.author)}

${changes_body}
#   endif
#   if changes_descr:
#       if not changes_body and not change.comment and change.author:
${_('Description changed by %(author)s:', author=change.author)}
#       endif
${changes_descr}
--
#   endif
#   if change.comment:

${_('Comment:') if changes_body else
_('Comment (by %(author)s):', author=change.author)}

${change.comment}
#   endif
# endif
--
${_('Ticket URL: <%(link)s>', link=ticket.link)}
${project.name} <${project.url or abs_href()}>
${project.descr}

```

See the [cookbook](#) for additional template customization recipes.

## Sample Email

```

#42: testing
-----+-----
      Id: 42          |      Status: assigned
Component: report system |      Modified: Fri Apr 9 00:04:31 2004
Severity: major        |      Milestone: 0.9
Priority: lowest        |      Version: 0.6
Owner: anonymous        |      Reporter: jonas@example.com
-----+-----

Changes:
* component: changeset view => search system
* priority: low => highest
* owner: jonas => anonymous
* cc: daniel@example.com =>
    daniel@example.com, jonas@example.com
* status: new => assigned

Comment:
I'm interested too!

--
Ticket URL: <http://example.com/trac/ticket/42>
My Project <http://myproj.example.com/>

```

## Using GMail as the SMTP relay host

Use the following configuration snippet:

```

[notification]
smtp_enabled = true
use_tls = true

```

```

mime_encoding = base64
smtp_server = smtp.gmail.com
smtp_port = 587
smtp_user = user
smtp_password = password

```

where *user* and *password* match an existing GMail account, ie the ones you use to log in on <http://gmail.com>.

Alternatively, you can use `smtp_port = 25`.

You should not use `smtp_port = 465`. Doing so may deadlock your ticket submission. Port 465 is reserved for the SMTPS protocol, which is not supported by Trac. See [#7107](#) for details.

## Troubleshooting

If notifications are not working, inspect the [log](#) for error messages.

Notification errors are not always reported through the web interface, so the user who submits a change or creates a ticket may not get notified about a notification failure. The Trac administrator needs to look at the log to find the error message and traceback.

### **Permission denied error**

Typical error message:

```

...
File ".../smtpplib.py", line 303, in connect
    raise socket.error, msg
error: (13, 'Permission denied')

```

This error usually comes from a security settings on the server: many Linux distributions do not allow the web server (Apache, ...) to post email messages to the local SMTP server.

Many users get confused when their manual attempts to contact the SMTP server succeed:

```
telnet localhost 25
```

This is because a regular user may connect to the SMTP server, but the web server cannot:

```
sudo -u www-data telnet localhost 25
```

In such a case, you need to configure your server so that the web server is authorized to post to the SMTP server. The actual settings depend on your Linux distribution and current security policy. You may find help in the Trac [MailingList](#) archive.

Relevant ML threads:

- SELinux: <http://article.gmane.org/gmane.comp.version-control.subversion.trac.general/7518>

For SELinux in Fedora 10:

```
$ setsebool -P httpd_can_sendmail 1
```

### **Suspected spam error**

Some SMTP servers may reject the notification email sent by Trac.

The default Trac configuration uses Base64 encoding to send emails to the recipients. The whole body of the email is encoded, which sometimes trigger *false positive* spam detection on sensitive email servers. In such an event, change the default encoding to "quoted-printable" using the `mime_encoding` option.

Quoted printable encoding works better with languages that use one of the Latin charsets. For Asian charsets, stick with the Base64 encoding.

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See also: [TracTickets](#), [TracIni](#), [TracGuide](#), [TracDev/NotificationApi](#)