

## 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/issues of interest, and also provides a convenient way to post all ticket changes to a dedicated mailing list. For example, this is how the [Trac-tickets](#) mailing list is set up.

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 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).

This is useful to keep up-to-date on an issue or enhancement request that interests you.

### How to use your username to receive notification mails

To receive notification mails, you can either enter a full email address or your username. To get notified with a simple username or login, you need to specify a valid email address in the *Preferences* page.

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`).

## Configuring SMTP Notification

**Important:** For [TracNotification](#) to work correctly, the `[trac] base_url` option must be set in [trac.ini](#).

### Configuration Options

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

#### [notification]

|                                      |   |  |
|--------------------------------------|---|--|
| <code>ignore_domains</code>          | Comma-separated list of domains that should be considered as valid for email addresses (such as localhost).   | (no default)   |
| <code>always_notify_owner</code>     | Always send notifications to the ticket owner (since 0.8).  | false  |
| <code>always_notify_reporter</code>  | Always send notifications to any address in the reporter field.   | false  |
| <code>always_notify_updater</code>   | Always send notifications to the person who makes the ticket property change and to any previous updater of that ticket.  | true   |
| <code>ambiguous_char_width</code>    | Width width of ambiguous characters (e.g. longer or shorter) should be used in the body of notification mail. 0 'longer', the same width as characters in US-ASCII. This is expected by most users. If 'shorter', twice the width of US-ASCII characters. This is expected by CJK users. (since 0.12.2) | single   |
| <code>batch_subject_template</code>  | Like <code>ticket_subject_template</code> but for batch notifications. By default, the template is <code>specific batch notify: ticket&amp;owner</code> . (since 0.8)   | <code>specific batch notify: ticket&amp;owner</code> |
| <code>email_sender</code>            | Name of the component implementing email delivery. This component is used to send the notification system to send emails. Trac currently provides <code>smtp</code> (connector to an SMTP server) and <code>localhostmail</code> (connector for sending to localhost-compatible email). (since 0.10)    | <code>localhostmail</code>                           |
| <code>ignore_domain</code>           | Comma-separated list of domains that should not be considered part of email addresses (for usernames with Kerberos domains).  | (no default)   |
| <code>mime_encoding</code>           | Specifies the MIME encoding scheme for emails. Valid options are 'quoted' for Quoted-Printable, '8' for 8bit, and 'base64' for Base64. If no encoding is specified, the email will be sent as text. If the content is not ASCII, or 8bit otherwise. (since 0.8)   | none   |
| <code>sendmail_path</code>           | Path to the sendmail executable. The sendmail program must accept the <code>-i</code> and <code>-f</code> options. (since 0.8)  | <code>sendmail</code>                                |
| <code>smtp_always_cc</code>          | Email addresses in always send notifications to, regardless of not appear publicly (since 0.10)   | (no default)   |
| <code>smtp_always_cc</code>          | Email addresses in always send notifications to, regardless of not appear publicly (since 0.10)   | (no default)   |
| <code>smtp_default_domain</code>     | Default host/domain to append to address that do not specify one.   | (no default)   |
| <code>smtp_enabled</code>            | Enable email notification.  | false  |
| <code>smtp_from</code>               | Sender address to use in notification emails.   | <code>trac@localhost</code>                          |
| <code>smtp_from_name</code>          | Use the address author as the sender of notification emails. (since 0.8)  | false  |
| <code>smtp_from_name</code>          | Sender name to use in notification emails.  | (no default)   |
| <code>smtp_hostname</code>           | Hostname for SMTP server. (since 0.8)   | (no default)   |
| <code>smtp_port</code>               | SMTP server port to use for email notification.   | 25   |
| <code>smtp_replyto</code>            | Reply-to address to use in notification emails.   | <code>trac@localhost</code>                          |
| <code>smtp_server</code>             | SMTP server hostname to use for email notification.   | <code>localhost</code>                               |
| <code>smtp_subject_prefix</code>     | Text to prepend to subject line of notification emails. If the setting is not defined, then the <code>[ticket, notify]&lt;prefix&gt;</code> . If no prefix is desired, then specifying an empty option will disable it. (since 0.10.5)  | <code>__default__</code>                             |
| <code>smtp_user</code>               | Username for SMTP server. (since 0.8)   | (no default)   |
| <code>ticket_subject_template</code> | A format string template to use to generate the notification subject. By default, the subject template is <code>specific ticket&amp;owner</code> . (since 0.8) (since 0.10.5) (since 0.10.5)  | <code>specific ticket&amp;owner</code>               |
| <code>use_public_cc</code>           | The system will use email addresses of public CC'd recipients. If this option is disabled (the default), recipients are put on BCC. (since 0.10)  | false  |
| <code>use_public_cc</code>           | Prevent email addresses without a host/domain (i.e. usernames only). The SMTP server should accept these addresses, and either support a PQDN or use local delivery. (since 0.10)   | false  |
| <code>use_sla</code>                 | Use SLA field to send notifications over SMTP. (since 0.10)   | false  |

**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
```

**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 (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 addressed by appending the field name separated by a dot, e.g. `$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 looks like this:

```
$ticket_body_hdr
$ticket_props
{% choose ticket.new %}\
{%   when True %}\
$ticket.description
{%   end %}\
{%   otherwise %}\
{%   if changes_body %}\
${_('Changes (by %(author)s):', author=change.author)}

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

```

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

$change.comment
{%      end %}\
{%      end %}\
{% end %}\

--

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

```

## 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: changset 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/>

```

## Customizing e-mail content for MS Outlook

Out-of-the-box, MS Outlook normally presents plain text e-mails with a variable-width font; the ticket properties table will most certainly look like a mess in MS Outlook. This can be fixed with some customization of the [e-mail template](#).

Replace the following second row in the template:

```
$ticket_props
```

with this instead (*requires Python 2.6 or later*):

```

-----
{% with
    pv = [(a[0].strip(), a[1].strip()) for a in [b.split(':') for b in
        [c.strip() for c in
            ticket_props.replace('|', '\n').splitlines()[1:-1]] if ':' in b]];
    sel = ['Reporter', 'Owner', 'Type', 'Status', 'Priority', 'Milestone',
        'Component', 'Severity', 'Resolution', 'Keywords'] %}\
${'\n'.join('%s\t%s' % (format(p[0]+':', ' <12'), p[1]) for p in pv if p[0] in sel)}
{% end %}\
-----

```

The table of ticket properties is replaced with a list of a selection of the properties. A tab character separates the name and value in such a way that most people should find this more pleasing than the default table, when using MS Outlook.

#42: testing

```

Reporter:                               jonas@example.com
Owner:                                  anonymous
Type:                                   defect
Status:                                 assigned
Priority:                               lowest
Milestone:                             0.9
Component:                             report system
Severity:                               major
Resolution:
Keywords:

```

Changes:

```

* component: changset 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/>>

**Important:** Only those ticket fields that are listed in `sel` are part of the HTML mail. If you have defined custom ticket fields which shall be part of the mail they have to be added to `sel`, example:

```
sel = ['Reporter', ..., 'Keywords', 'Custom1', 'Custom2']
```

However, it's not as perfect as an automatically HTML-formatted e-mail would be, but presented ticket properties are at least readable by default in MS Outlook...

## 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, i.e. 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`. It will not work and your ticket submission may deadlock. Port 465 is reserved for the SMTPS protocol, which is not supported by Trac. See [■#7107](#) for details.

## Filtering notifications for one's own changes and comments

In Gmail, use the filter:

```
from:(<smtp_from>) (("Reporter: <username>" -Changes -Comment) OR "Changes (by <username>)" OR "Comment (by <username>))"
```

to delete these notifications.

In Thunderbird, there is no such solution if you use IMAP (see [http://kb.mozillazine.org/Filters\\_\(Thunderbird\)#Filtering\\_the\\_message\\_body](http://kb.mozillazine.org/Filters_(Thunderbird)#Filtering_the_message_body)).

You can also add this plugin: <http://trac-hacks.org/wiki/NeverNotifyUpdaterPlugin>, or vote for [■#2247](#) to be fixed.

## Troubleshooting

If you cannot get the notification working, first make sure the log is activated and have a look at the log to find if an error message has been logged. See [TracLogging](#) for help about the log feature.

Notification errors are not reported through the web interface, so the user who submit a change or a new ticket never gets notified about a notification failure. The Trac administrator needs to look at the log to find the error trace.

### Permission denied error

Typical error message:

```
...
File ".../smtplib.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 let the web server (Apache, ...) to post email message to the local SMTP server.

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

```
telnet localhost 25
```

The trouble is that 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 browsing 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, it is recommended to 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, it is recommended to stick with the Base64 encoding.

#### **501, 5.5.4 Invalid Address error**

On IIS 6.0 you could get a

```
Failure sending notification on change to ticket #1: SMTPHeloError: (501, '5.5.4 Invalid Address')
```

in the trac log. Have a look [here](#) for instructions on resolving it.

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