

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>admit_domains</code>	Comma-separated list of domains that should be considered as valid for email addresses (such as <code>localdomain</code>).	(no default)
<code>ambiguous_char_width</code>	Width of ambiguous characters that should be used in the table of the notification mail.	single

	If <code>single</code> , the same width as characters in US-ASCII. This is expected by most users. If <code>double</code> , twice the width of US-ASCII characters. This is expected by CJK users. (<i>since 0.12.2</i>)	
<code>batch_subject_template</code>	Like <code>ticket_subject_template</code> but for batch modifications. (<i>since 1.0</i>)	<code>\${prefix} Batch modify: \${tickets_descr}</code>
<code>default_format_email</code>	Default format to distribute email notifications.	<code>text/plain</code>
<code>email_address_resolvers</code>	Comma separated list of email resolver components in the order they will be called. If an email address is resolved, the remaining resolvers will not be called.	<code>SessionEmailResolver</code>
<code>email_sender</code>	Name of the component implementing <code>ISender</code> . This component is used by the notification system to send emails. Trac currently provides <code>SmtplibEmailSender</code> for connecting to an SMTP server, and <code>SendmailEmailSender</code> for running a <code>sendmail-compatible</code> executable. (<i>since 0.12</i>)	<code>SmtplibEmailSender</code>
<code>ignore_domains</code>	Comma-separated list of domains that should not be considered part of email addresses (for usernames with Kerberos domains).	(no default)
<code>message_id_hash</code>	Hash algorithm to create unique Message-ID header. (<i>since 1.0.13</i>)	<code>md5</code>
<code>mime_encoding</code>	Specifies the MIME encoding scheme for emails. Supported values are: <code>none</code> , the default value which uses 7-bit encoding if the text is plain ASCII or 8-bit otherwise. <code>base64</code> , which works with any kind of content but may cause some issues with touchy anti-spam/anti-virus engine. <code>qp</code> or <code>quoted-printable</code> , which works best for european languages (more compact than base64) if 8-bit encoding cannot be used.	<code>none</code>
<code>sendmail_path</code>	Path to the <code>sendmail</code> executable. The <code>sendmail</code> program must accept the <code>-i</code> and <code>-f</code> options. (<i>since 0.12</i>)	<code>sendmail</code>
<code>smtp_always_bcc</code>	Comma-separated list of email addresses to always send notifications to. Addresses are not public (Bcc:).	(no default)
<code>smtp_always_cc</code>	Comma-separated list of email addresses to always send notifications to. Addresses can be seen by all recipients (Cc:).	(no default)
<code>smtp_default_domain</code>	Default host/domain to append to addresses that do not specify one. Fully qualified addresses are not modified. The default domain is appended to all	(no default)

	username/login for which an email address cannot be found in the user settings.	
<u>smtp_enabled</u>	Enable email notification.	disabled
<u>smtp_from</u>	Sender address to use in notification emails. At least one of <code>smtp_from</code> and <code>smtp_replyto</code> must be set, otherwise Trac refuses to send notification mails.	trac@localhost
<u>smtp_from_author</u>	Use the author of the change as the sender in notification emails (e.g. reporter of a new ticket, author of a comment). If the author hasn't set an email address, <code>smtp_from</code> and <code>smtp_from_name</code> are used instead. (<i>since 1.0</i>)	disabled
<u>smtp_from_name</u>	Sender name to use in notification emails.	(no default)
<u>smtp_password</u>	Password for authenticating with SMTP server.	(no default)
<u>smtp_port</u>	SMTP server port to use for email notification.	25
<u>smtp_replyto</u>	Reply-To address to use in notification emails. At least one of <code>smtp_from</code> and <code>smtp_replyto</code> must be set, otherwise Trac refuses to send notification mails.	trac@localhost
<u>smtp_server</u>	SMTP server hostname to use for email notifications.	localhost
<u>smtp_subject_prefix</u>	Text to prepend to subject line of notification emails. If the setting is not defined, then <code>[\$project_name]</code> is used as the prefix. If no prefix is desired, then specifying an empty option will disable it.	__default__
<u>smtp_user</u>	Username for authenticating with SMTP server.	(no default)
<u>ticket_subject_template</u>	A Genshi text template snippet used to get the notification subject. The template variables are documented on the TracNotification page.	<code>\${prefix}</code> <code>#{ticket.id}:</code> <code>\${summary}</code>
<u>use_public_cc</u>	Addresses in the To and Cc fields are visible to all recipients. If this option is disabled, recipients are put in the Bcc list.	disabled
<u>use_short_addr</u>	Permit email address without a host/domain (i.e. username only). The SMTP server should accept those addresses, and either append a FQDN or use local delivery. See also <code>smtp_default_domain</code> . Do not use this option with a public SMTP server.	disabled
<u>use_tls</u>	Use SSL/TLS to send notifications over SMTP.	disabled

[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
AlwaysEmailSubscriber	
CarbonCopySubscriber	Ticket that I'm listed in the CC field is modified
NewTicketSubscriber	Any ticket is created
TicketOwnerSubscriber	Ticket that I own is created or modified
TicketPreviousUpdatersSubscriber	Ticket that I previously updated is modified
TicketReporterSubscriber	Ticket that I reported is modified
TicketUpdaterSubscriber	I update a ticket

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
```

Sample Email

* 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](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 <user
```

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](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 ".../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 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](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: SMTPHelloError: (501, '5.5.4 Invalid Address')
```

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

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