



Purpose

This document describes how Nagios Log Server sends emails and explains how to configure your email settings. Nagios Log Server uses email to send alerts.

Target Audience

This document is intended for use by Nagios Administrators who want to understand in detail how emails are sent by Nagios Log Server.

Navigation

Email settings in Nagios Log Server are located in **Admin > General > Mail Settings**.

The screenshot shows the Nagios Log Server web interface. The top navigation bar includes links for Home, Dashboards, Alerting, Configure, Help, and Admin (circled in blue). A search bar for logs is also present. The left sidebar contains a menu with categories: Reports (Audit Log), System (Cluster Status, Instance Status, Index Status, Snapshots & Maintenance, System Status, Command Subsystem), Management (User Management, LDAP/AD Integration), and General (Global Settings, Mail Settings (circled in blue), License Information, Proxy Configuration). The main content area is titled "Mail Settings" and includes the following configuration fields:

- From Email:** Nagios Log Server (text), root@localhost (text)
- Reply-To Email:** Nagios Log Server (text), root@localhost (text)
- Send Email Method:** PHP Mail (dropdown menu)
- Send emails as text only (no HTML)

At the bottom of the configuration area, there are two buttons: "Save Settings" (green) and "Test Settings" (grey).

Web Browser Behavior

There are some behaviors of your web browser which you need to be aware of. A lot of different web browsers will auto-complete / auto-populate fields on a web page when it loads. This usually only occurs when it sees a common field that does not have a value, it may have a saved value for that "named field" and hence it will populate that field with that saved value.

Nagios Log Server Understanding Email Sending

On the **Mail Settings** page in Nagios Log Server, when the **Send Email Method** has **SMTP Server** selected you might notice that the username and password fields are already populated. You know that you didn't put a value in here, especially when this is the first time you've visited this page on a fresh install of Nagios Log Server. This is simply your web browser trying to be helpful.

This however isn't that helpful and can actually cause confusion. An example of this is that you might define SMTP settings that don't require a username or password. If you were to click the **Save Settings** button when the username and password fields are populated with the values the web browser auto-completed, it will try and authenticate with those values. Even though your receiving server doesn't require credentials, because they have been saved then they will be used in the email send and will most likely fail as the SMTP server doesn't know about those credentials.

It's important to note that if you clear the username and password fields before clicking the **Save Settings** button, Nagios Log Server will correctly save those settings, it will record that no username or password has been defined. However when the page refreshes, your web browser might re-populate those fields as it thinks it has saved values which should go in there. This is very confusing and hence why it needed to be explained in this documentation.

From & Reply-To

These fields are how you define where the email was sent from and the reply to address. The left field is the **Display Name**. The right field is the actual address and the format is:

```
alias@your.email.domain
```

If the receiver of the email clicked the reply button in their email client then the reply-to address will be used. If you want the ability for people to reply to emails then you need to make sure this is a valid email address.

Methods

Nagios Log Server provides two methods for sending emails:

- PHP Mail
- SMTP

PHP Mail

This mail method uses Postfix to send email. In the operating system the `sendmail` command is actually the `sendmail.postfix` command that provides the ability for Postfix to accept Sendmail commands.

Technical aspects aside, when using the PHP Mail method the Nagios Log Server is responsible for sending emails directly to all the recipients. It contacts the email server for the email recipient and sends the message via SMTP port 25. This means the message is sent using plain text – the contents of the email can be easily viewed by network sniffing programs.

Issues can arise when you send emails to recipients that have spam/virus detection software. The receiving mail server can detect that the email it received is not really from the mail server that is the owner of that domain and it can discard it or move it to a junk mail folder. That behavior is obviously not desired as you want to make sure notifications are being received.

Choosing PHP Mail as your method on the **Mail Settings** page requires no additional settings to be defined.

SMTP Server

Using SMTP Server as the method for sending email allows you to configure Nagios Log Server to use an email server for mail delivery. This could be:

- An internal email server in your organization like
 - Microsoft Exchange
 - Postfix

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- A external email server like:
 - Hosted email services
 - Internet Service Provider

Using an SMTP Server for mail delivery is generally a more secure method of sending emails. It also means that your Nagios Log Server can focus on doing monitoring and not waste computing cycles being an email server.

The settings applicable to for SMTP Server are as follows.

The **SMTP Server Address** field is the network address of the SMTP server. An IP address or DNS record can be used.

SMTP Security is optional.

- Choosing SSL or TLS will encrypt the communication of the email, preventing the contents of the email from being viewed by network sniffing programs
- TLS is recommended as SSL is now deprecated due to security vulnerabilities (SSL is still supported and valid)
- STARTTLS offers a way to upgrade a plain text connection to an encrypted (SSL or TLS) connection
- Your mail server needs to support SSL or TLS for these methods to be used.

The **SMTP Port** field is the network port the SMTP server is listening on. Common ports are 25 and 587.

The **Username** and **Password** fields are optional, this all depends how your email server is configured. This may be required to allow mail relaying, which is explained in the [Mail Relay](#) section of this document.

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SMTP Example 1 - Postfix, No Authentication, No Security

In this example the SMTP server is a Postfix server that will allow connections from the Nagios Log Server IP address. It does not require authentication and no security settings have been chosen. It is most likely that this Postfix server has the IP address of the Nagios Log Server defined in the `mynetworks` directive of the `main.cf` file.

SMTP Server Address	<input type="text" value="10.25.8.11"/>
SMTP Security	<input type="text" value="None"/>
SMTP Port	<input type="text" value="25"/>
SMTP Username	<input type="text"/>
SMTP Password	<input type="password"/>
<input type="checkbox"/> Send emails as text only (no HTML)	

SMTP Example 2 - Exchange, Authentication, No Security

In this example the SMTP server is an Exchange server that will allow connections from the Nagios Log Server because a username and password is being provided. No security settings have been chosen. No changes were required on the Exchange server, all that is required is the credentials for a user account with a mailbox.

SMTP Server Address	<input type="text" value="10.25.8.21"/>
SMTP Security	<input type="text" value="None"/>
SMTP Port	<input type="text" value="587"/>
SMTP Username	<input type="text" value="nagios_alerts"/>
SMTP Password	<input type="password" value="....."/>
<input type="checkbox"/> Send emails as text only (no HTML)	

SMTP Example 3 - Exchange, Authentication, Security

This is identical to example 2 however in this example the security setting TLS has been chosen. Using this combination of settings will ensure emails are sent encrypted.

SMTP Server Address	<input type="text" value="10.25.8.21"/>
SMTP Security	<input type="text" value="TLS"/>
SMTP Port	<input type="text" value="587"/>
SMTP Username	<input type="text" value="nagios_alerts"/>
SMTP Password	<input type="password" value="....."/>
<input type="checkbox"/> Send emails as text only (no HTML)	

Mail Relay

Mail relay is when you request the SMTP server to send emails to an email domain that it is not responsible for. For example:

- The email address you are sending from is `nagios_alerts@mycompany.com`
 - Your SMTP server is responsible for the `mycompany.com` domain.
- One of your Nagios Log Server users has an email address of `jd@anothercompany.com`
 - When Nagios Log Server uses the SMTP server to send the email to `jd@anothercompany.com` it could be rejected because it needs to send this on to another email server. This email server might be configured to prevent mail relay.

Your email servers may be configured to deny mail relay. This is to prevent a rogue computer from using that SMTP server to send spam email, which could result in your email server from being blacklisted on the internet.

You normally only come across these problems when you don't provide a username and password in your SMTP settings. Most SMTP servers will allow you to send emails to other domains when using authentication credentials. Please refer to your mail server documentation on how to allow mail relay.

Which Instance Sends The Email ?

Nagios Log Server is a clustered application, it consists of one or more instances of Nagios Log Server. When an alert email is being sent, it is sent by the instance that is running the alert.

In areas of Nagios Log Server, like the Mail Settings page, you can send a test email. In these situations it is the instance your web browser that is connected to that will send the email.

Finishing Up

This completes the documentation on understanding email sending in Nagios Log Server.

If you have additional questions or other support related questions, please visit us at our Nagios Support Forums:

<https://support.nagios.com/forum>

The Nagios Support Knowledgebase is also a great support resource:

<https://support.nagios.com/kb>