

Understanding Email Sending in Nagios Log Server 2024R2

Purpose

This document describes how Nagios Log Server 2024R2 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 are found in **Admin > General > Mail Settings**:

The screenshot shows the Nagios Log Server 2024R2 web interface. The breadcrumb navigation at the top reads "Home > Admin > Mail". The left sidebar contains a "Management" section with a yellow circle around the "Mail Settings" icon. The main content area is titled "Mail Settings" and includes the following fields:

- From Email:** Two input fields containing "Nagios Log Server" and "root@localhost".
- Reply-To Email:** Two input fields containing "Nagios Log Server" and "admin@domain.local".
- Send Email Method:** A dropdown menu set to "PHP Mail".
- Send emails as text only (no HTML):** An unchecked checkbox.
- Buttons:** "Save Settings" (green) and "Test Settings" (with an envelope icon).

Below the settings, there is a "System" status indicator with a green dot.

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Web Browser Behavior

There are some behaviors of your web browser which you need to be aware of. Many 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. Your browser may have a saved value for that **named** field and hence it will populate that field with the saved value.

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, but can be cause for confusion.

For example, 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 to 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. Hopefully the above will help you avoid confusion and errors.

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.

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Send Email Method

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 received.

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

SMTP Server

Note: Microsoft made changes to basic SMTP based authentication on October 1, 2022. Please see this [Microsoft update](#) for more information.

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

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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 for SMTP Server are as follows:

- **SMTP Server Address:** This field specifies the network address of the SMTP server. You can use either an IP address or DNS record.
- **SMTP Security** (Optional).
 - SSL or TLS encrypts email transmissions, preventing email content from being intercepted by network sniffing tools.
 - TLS is recommended because SSL is deprecated due to security vulnerabilities. However, SSL is still supported if needed.
 - STARTTLS allows a plain-text connection to be upgraded to an encrypted (SSL or TLS) connection.
 - Your mail server needs to support SSL or TLS for these methods to be used.
- **SMTP Port:** Specifies the network port used by the SMTP server. Common ports are 25 and 587.
- **Username and Password** (Optional): These fields may be required depending on your email server configuration. Authentication might be necessary for mail relaying, which is explained in the [Mail Relay](#) section of this document.

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 **my networks** directive of the `main.cf` file.

The screenshot shows the SMTP configuration interface with the following fields and values:

- SMTP Server Address:** 10.25.8
- SMTP Security:** None (dropdown menu)
- SMTP Port:** 25
- SMTP Username:** (empty text field)
- SMTP Password:** (empty text field)
- ☐ Send emails as text only (no HTML)

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

SMTP Example 3 - Exchange, Authentication, Security, Text only

In this example the security setting **TLS or STARTTLS** has been chosen. Using this combination of settings will ensure emails are sent encrypted. Also note that the bottom **Send emails as text only** option has been checked, so messages will be sent as plaintext.

SMTP Server Address	10.25.8.21
SMTP Security	TLS or STARTTLS
SMTP Port	587
SMTP Username	nagios_alerts
SMTP Password	●●●●●●●●●●●●●●●●
<input checked="" 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.

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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 that your web browser 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 Forum, Nagios Knowledge Base, or Nagios Library:

[Visit Nagios Support Forum](#)

[Visit Nagios Knowledge Base](#)

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