

# Understanding Email Sending in Nagios XI 2024

## Purpose

This document describes how to Understand Email Sending in Nagios XI 2024.

## Navigation

Email settings in Nagios XI is located in **Admin > System Config > Email Settings**.

**Email Settings**

Modify the settings used by your Nagios XI system for sending email alerts and informational messages.

[Send a Test Email](#)

[Outbound](#)  [Inbound](#)

Note: Mail messages may fail to be delivered if your XI server does not have a valid DNS name. For more information, read [Understanding Email Sending in Nagios XI](#).

**Outbound Mail Settings**

Send From:

Send Method:

- Sendmail
- SMTP with Basic Auth
- Gmail with OAuth2
- Microsoft with OAuth2

Logging:  Enable logging of mail sent with the internal mail component (PHPMailer) /usr/local/nagiosxi/tmp/phpmailer.log

[Update Settings](#)

## Erroneous Autofill

To be helpful, many browsers may try to automatically enter credentials into your email settings field values. Before hitting the **Update Settings** button, make sure that your credentials are correctly configured. For example, if you do not have authentication on your SMTP server, ensure that the username and password fields under SMTP with Basic Auth are empty before hitting **Update Settings**.

## Send From

Under the **Email Settings** section the **Send From** field is how you define where the email was sent from. The format is:

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```
Plain Text Name <alias@your.email.domain>
```

The `< >` brackets are required. If this is not correctly formatted, then the email will be sent. However, in some circumstances the mail sending program may default to the system default and it may come from something like:

```
Root User <root@localhost>
```

If the receiver of the email clicks the reply button in their email client, then this is the email address that will be replied to. If you want the ability for people to reply to emails, then you need to make sure this is a valid email address. When sending mail with OAuth2, you will need to use an email address associated with the OAuth credentials used.

## Methods

Nagios XI provides two methods for sending emails:

- Sendmail / Postfix
- SMTP
- Gmail with OAuth2
- Microsoft with OAuth2

## Sendmail / Postfix

This mail method uses Postfix to send email. It is referred to in the interface as Sendmail because this is historically the most common mail sending method. 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 **Sendmail** method the Nagios XI 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 receives 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 **Sendmail** as your method on the **Manage Email Settings** page requires no additional settings to be defined.

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## SMTP

**NOTE: Microsoft deprecated basic SMTP based authentication on October 1, 2022. Please see this [Microsoft update](#) for more information. You can configure sending from a Microsoft mail account using [SMTP with OAuth 2.0](#).**

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

- An internal email server in your organization like
  - Microsoft Exchange
  - Postfix
- An 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 XI server can focus on doing monitoring and not waste computing cycles being an email server.

The settings applicable to SMTP are as follows:

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

The **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 on 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.

**Security** is optional. Choosing TLS or SSL 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). Your mail server needs to support TLS or SSL for this method to be used.

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## SMTP Example 1 - Postfix, No Authentication, No Security

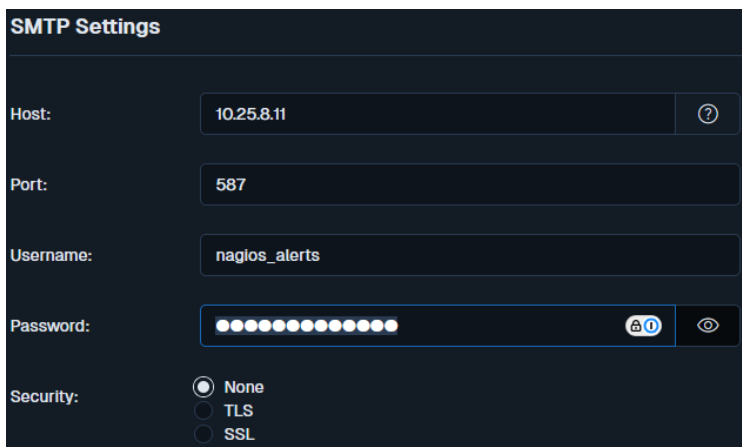
In this example, the SMTP server is a Postfix server that will allow connections from the Nagios XI server IP address. It does not require authentication, and no security settings have been chosen. It is most likely that this Postfix server has the IP address of the Nagios XI server defined in the `mynetworks`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



The screenshot shows the 'SMTP Settings' configuration page. The 'Host' field is set to '10.25.8.11'. The 'Port' field is set to '25'. The 'Username' and 'Password' fields are empty. The 'Security' section has three radio buttons: 'None' (selected), 'TLS', and 'SSL'.

## SMTP Example 2 - Exchange, Authentication, No Security

In this example the SMTP server is an Exchange server that will allow connections from the Nagios XI 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.

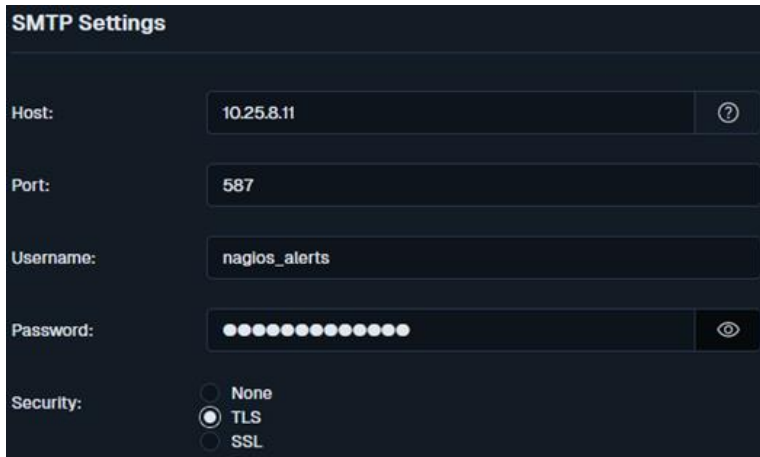


The screenshot shows the 'SMTP Settings' configuration page. The 'Host' field is set to '10.25.8.11'. The 'Port' field is set to '587'. The 'Username' field is set to 'nagios\_alerts'. The 'Password' field is filled with dots and has a lock icon and a visibility icon. The 'Security' section has three radio buttons: 'None' (selected), 'TLS', and 'SSL'.

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## 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.



The screenshot shows the 'SMTP Settings' configuration form in Nagios XI. The fields are as follows:

- Host:** 10.25.8.11
- Port:** 587
- Username:** nagios\_alerts
- Password:** [Redacted]
- Security:**  TLS,  None,  SSL

## SMTP Debug Logging

The following KB article provides steps on how to perform debug logging for troubleshooting SMTP issues:

[PHPMailer – Troubleshooting Using Debug Logging](#)

## 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 XI users has an email address of jd@anothercompany.com
  - When Nagios XI 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.

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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.

## Gmail with OAuth2

For information on setting up Gmail SMTP, see [Setting up Gmail SMTP with OAuth 2.0](#).

## Microsoft with OAuth2

For information on setting up Microsoft SMTP, see [Setting up Microsoft SMTP with OAuth 2.0](#).

## Finishing Up

This completes the documentation on how to understand email sending in Nagios XI 2024. 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](#)

[Visit Nagios Library](#)