

Nagios XI

Understanding Email Sending



Purpose

This document describes how Nagios XI sends emails and explains how to configure your email settings. Nagios XI uses email to send notifications as well as for sending reports.

Target Audience

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

Navigation

Email settings in Nagios XI are 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**](#)

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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.

If you open the **Manage Email Settings** page in Nagios XI 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 XI. 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 **Update 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 **Update Settings** button, Nagios XI 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.

Send Mail From

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

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 clicked 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.

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 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 Sendmail as your method on the **Manage Email Settings** page requires no additional settings to be defined.

SMTP

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

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
- 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 XI server can focus on doing monitoring and not waste computing cycles being an email server.

The settings applicable to for 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 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.

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.

SMTP Settings

Host:	10.25.8.11
Port:	25
Username:	
Password:	
Security:	<input checked="" type="radio"/> None <input type="radio"/> TLS <input type="radio"/> SSL

SMTP Example 2 - Exchange, Authentication, No Security

In this example the SMTP server is an Exchange server that will

SMTP Settings

Host:	10.25.8.21
Port:	587
Username:	nagios_alerts
Password:	*****
Security:	<input checked="" type="radio"/> None <input type="radio"/> TLS <input type="radio"/> SSL

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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.

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 Settings

Host:	10.25.8.21
Port:	587
Username:	nagios_alerts
Password:	*****
Security:	<input type="radio"/> None <input checked="" type="radio"/> TLS <input type="radio"/> 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.

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 understanding email sending in Nagios XI.

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>