

How To Integrate Slack with Nagios XI

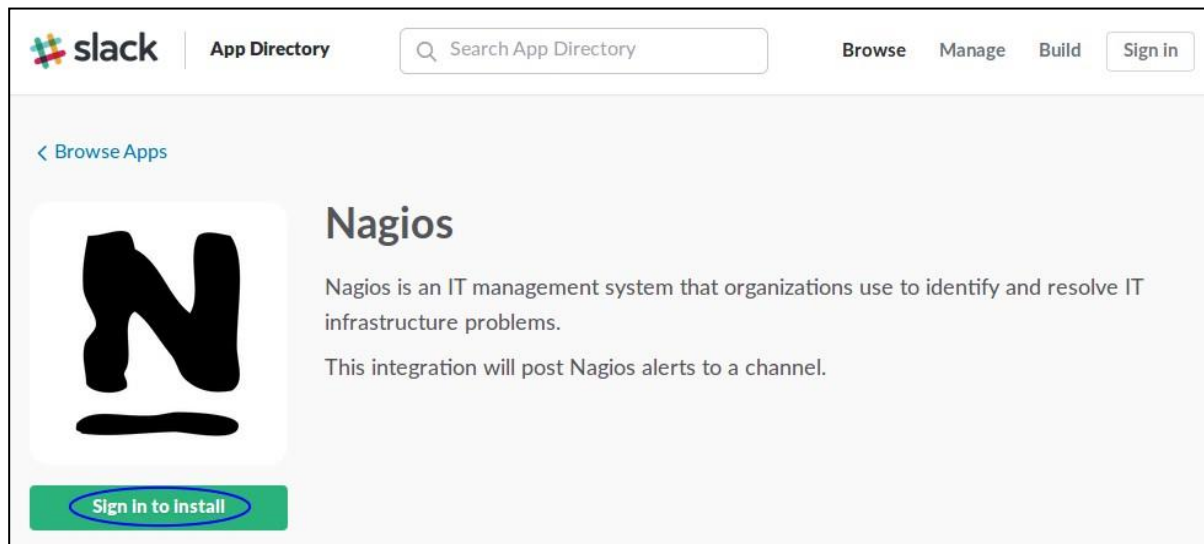
Overview

In Slack you have Channels that receive notifications. The Slack API allows you to target these channels by using the channel name, like #itops. This is used to send notifications from Nagios XI to Slack. This documentation will create a Nagios XI Contact that will use separate Host and Service notification commands to target Slack Channels called #hosts and #services.

Install Nagios App In Slack

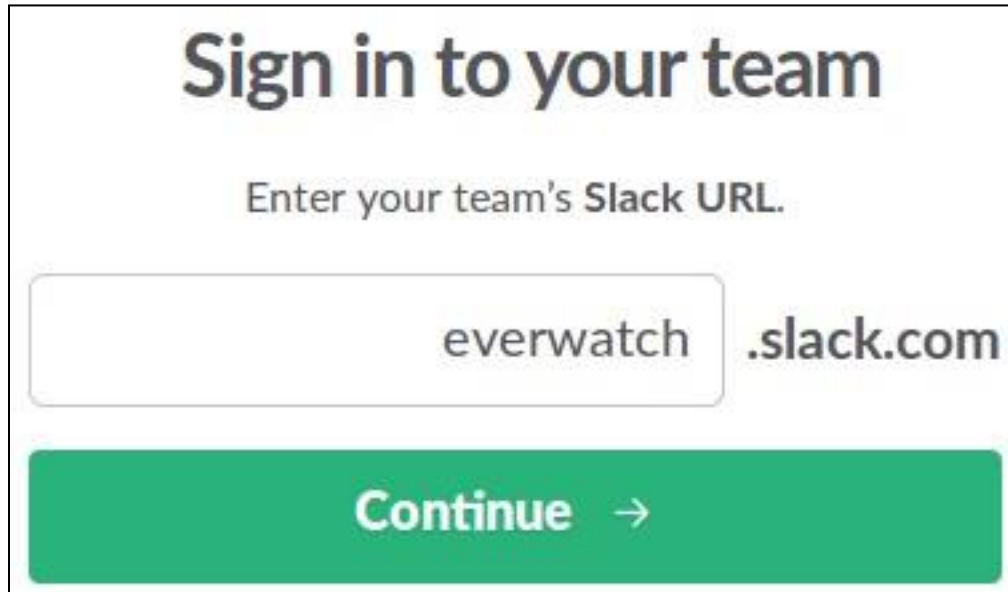
The first step is to install the Nagios App into Slack. Open your web browser to <https://slack.com/apps/A0F81R747-nagios> and you should see a page similar to the following screenshot.

1. Click the **Sign in to install** button



How To Integrate Slack with Nagios XI

1. You will need to provide your team's Slack URL. Populate the field and then click **Continue**.



The screenshot shows a Slack sign-in interface. At the top, it says "Sign in to your team". Below that, it prompts the user to "Enter your team's Slack URL.". There is a text input field containing "everwatch" and ".slack.com" to its right. Below the input field is a large green button with the text "Continue" and a right-pointing arrow.

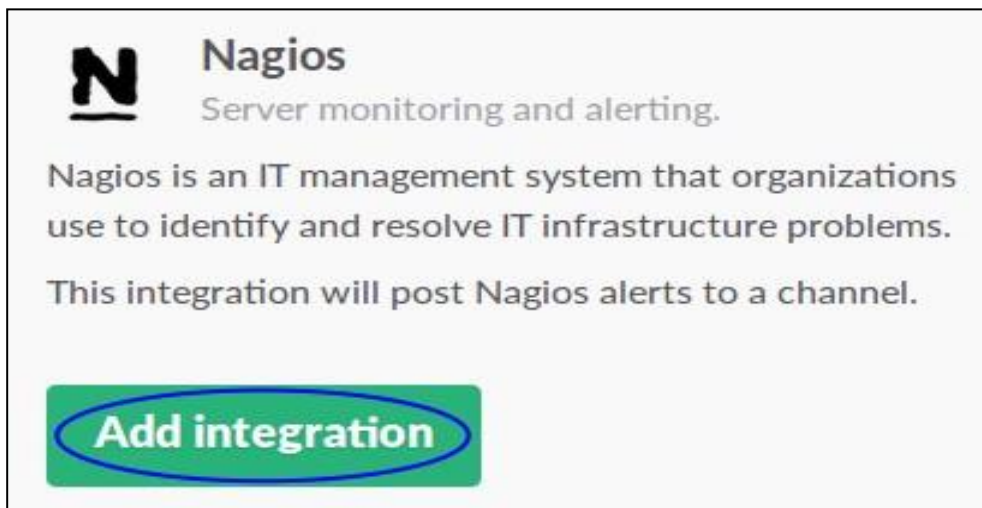
2. You will need to provide your credentials to proceed. Populate the fields and then click **Sign in**.



The screenshot shows an EverWatch sign-in page. At the top, it says "Sign in to EverWatch" with the URL "everwatch.slack.com" below it. It prompts the user to "Enter your email address and password.". There are two text input fields: the first contains "you@example.com" and the second contains "password". Below the input fields is a large green button with the text "Sign in". At the bottom left, there is a checkbox labeled "Keep me signed in" which is checked. At the bottom right, there is a link labeled "Forgot password?".

How To Integrate Slack with Nagios XI

3. Once you have signed in, click the **Add Configuration** button.
4. You will be presented with a summary of the Nagios app. Click the **Add Integration** button.



The next page is where you configure the app. The first section is Setup Instructions, please do not follow these as this document will provide you with instructions specific to Nagios XI. There is nothing wrong with the instructions provided on this screen, it's just that this guide will not work if you don't follow every step correctly (the instructions here aren't specific for Nagios XI).

How To Integrate Slack with Nagios XI

1. Scroll down to the **Integration Settings** section.
2. Take note of the value in the **Token** field, this will be required further on.
In the Customize Name field you can see that Nagios XI has been typed.
3. Click the **Save Settings** button after making the required changes.

Integration Settings


Token
This token is used as the key to your Nagios integration.

[Regenerate](#)


Descriptive Label
Use this label to provide extra context in your list of integrations (optional).

Customize Name
Choose the username that this integration will post as.

Customize Icon
Change the icon that is used for messages from this integration.

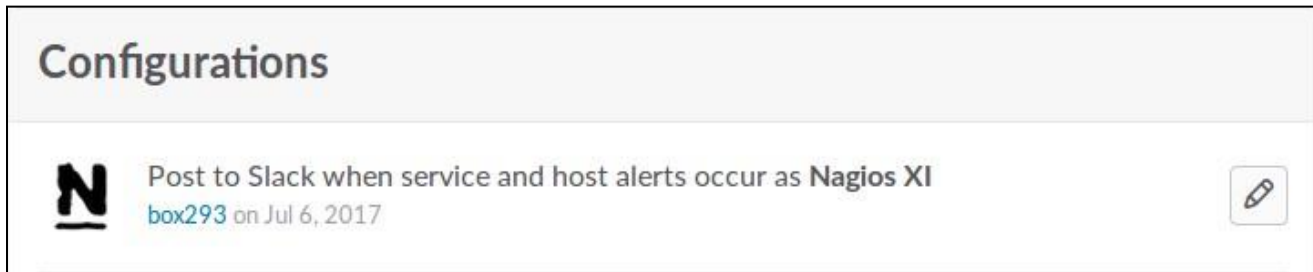
 or

Preview Message
Here's what messages from this integration will look like in Slack.

 **Nagios XI** APP 3:16 PM
This is what messages from this service will look like in Slack.

How To Integrate Slack with Nagios XI

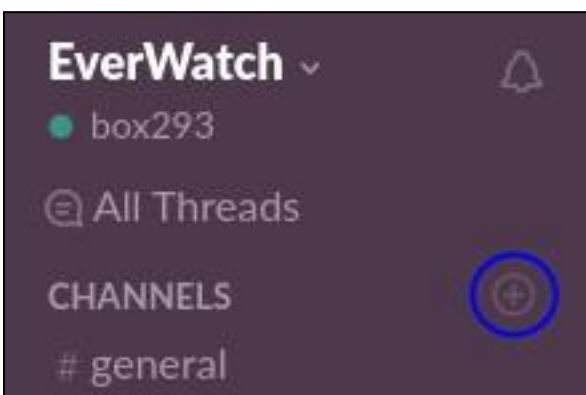
4. Once saved this will appear under your Configurations. You could click the pencil icon to edit it to view the token again if you forgot it.



You have finished with the Slack web page. You can leave it open if you like as you may need to return here to get the Token if you forget it.

Create Channels in Slack

1. Open the Slack application and next to the CHANNELS heading click the + icon.



How To Integrate Slack with Nagios XI

2. On the **Create a channel** page you will need to provide a **Name**. In the screenshot to the right, you can see the channel being created is called hosts.
3. Optionally you can provide a **Purpose**.
4. Click the **Create Channel** button once you've populated the fields.
5. Repeat this step to create a channel called services as this will also be required for this documentation.

Create a channel

Channels are where your team communicates. They're best when organized around a topic — #leads, for example.

Public Anyone on your team can view and join this channel.

Name

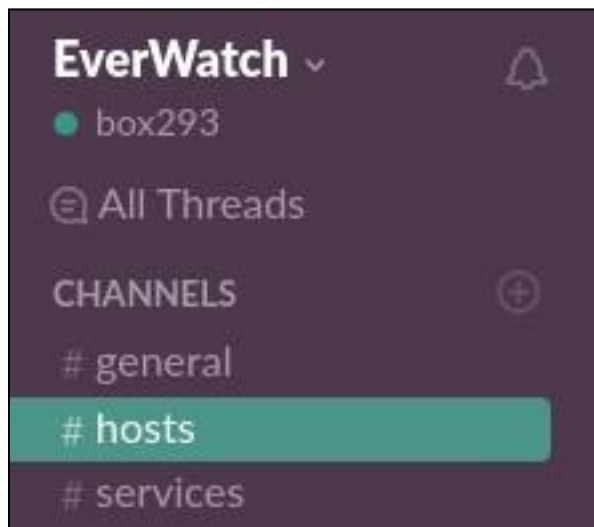
Names must be lowercase, without spaces or periods, and shorter than 22 characters.

Purpose (optional)

What's this channel about?

Send invites to: (optional)

How To Integrate Slack with Nagios XI



Above you can see that two Channels now exist called **hosts** and **services**.

This completes the steps required in Slack. Leave the application open as you'll want to return here once Nagios XI is configured.

Configure Nagios XI

The next step is to configure Nagios XI. This includes:

- [Installing Prerequisites](#)
- [Installing Slack Integration Script](#)
- [Create Commands](#)
- [Create Contact](#)
- [Assign Commands to Contact](#)
- [Assign Contact to Hosts and Services](#)

How To Integrate Slack with Nagios XI

Installing Prerequisites

Open a terminal session to your Nagios XI server as the root user. Execute the following command to install the prerequisites:

RHEL | CentOS | Oracle Linux

```
yum install -y perl-libwww-perl perl-Crypt-SSLeay perl-LWP-Protocolhttps
```

Debian | Ubuntu

```
apt-get install -y libwww-perl libcrypt-ssleay-perl liblwp-protocolhttps-perl
```

Wait while they are installed. Leave this terminal session as you'll need it in the following step.

Installing Slack Integration Script

Execute the following commands to download the slack Integration script:

```
cd /usr/local/nagios/libexec/  
wget -O "slack_nagios.pl" https://raw.githubusercontent.com/tinyspeck/servicesexamples/master/nagios.pl  
chmod 0775 slack_nagios.pl  
chown apache:nagios slack_nagios.pl
```

The next step is to edit the script and define your slack domain and token.

Execute the following command to open the script in vi:

```
vi slack_nagios.pl
```

When using the vi editor, to make changes press **i** on the keyboard first to enter insert mode. Press **Esc** to exit insert mode.

How To Integrate Slack with Nagios XI

Find these lines:

```
my $opt_domain = "foo.slack.com"; # Your team's domain
my $opt_token = ""; # The token from your Nagios services page
```

Type `:66` and press **Enter** to go directly to these lines.

The first line needs to be your team's **slack domain**, this was provided when you signed into your team on the Slack web page.

The second line is the token that was generated when you added the Slack Integration on the Slack web page.

Make the required changes to these two lines.

When you have finished, save the changes in vi by typing:

```
:wq
```

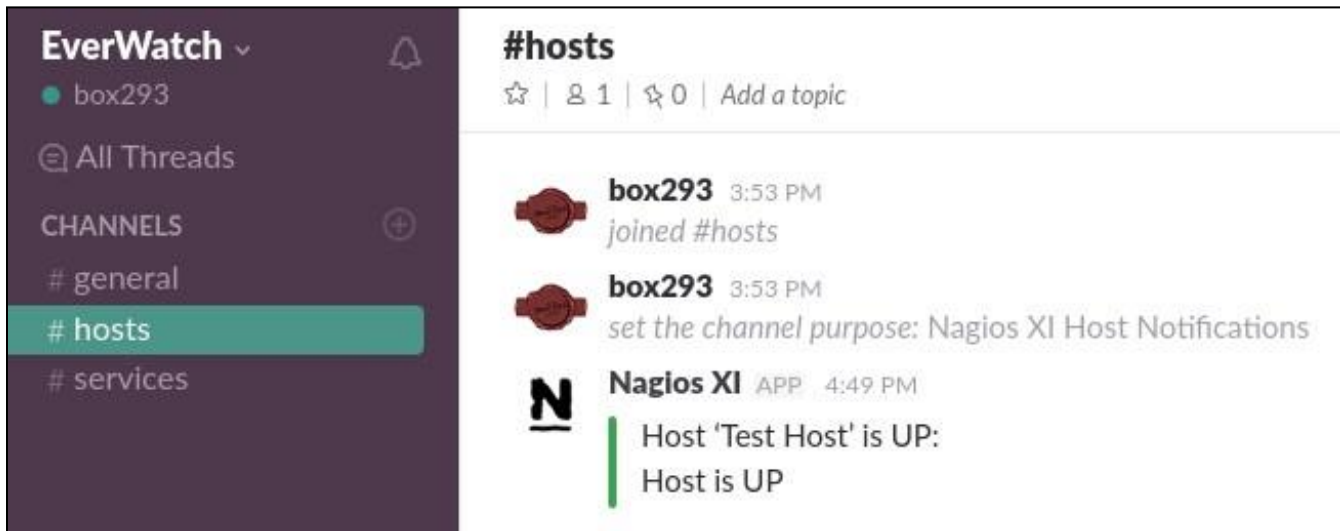
and press **Enter**.

This completes the configuration required at the command line. You can test that it works by executing the following command (it's one long command that wraps over three lines):

```
./slack_nagios.pl -field slack_channel=#hosts -field HOSTALIAS="Test Host" -field
HOSTSTATE="UP" -field HOSTOUTPUT="Host is UP" -field NOTIFICATIONTYPE-
E="RECOVERY"
```

You'll see a lot of output generated in the terminal window, and the end result should be ok.

How To Integrate Slack with Nagios XI



Most importantly you should see it appear in the Slack **#hosts** Channel.

If this works, then you have correctly installed the Slack Integration script.

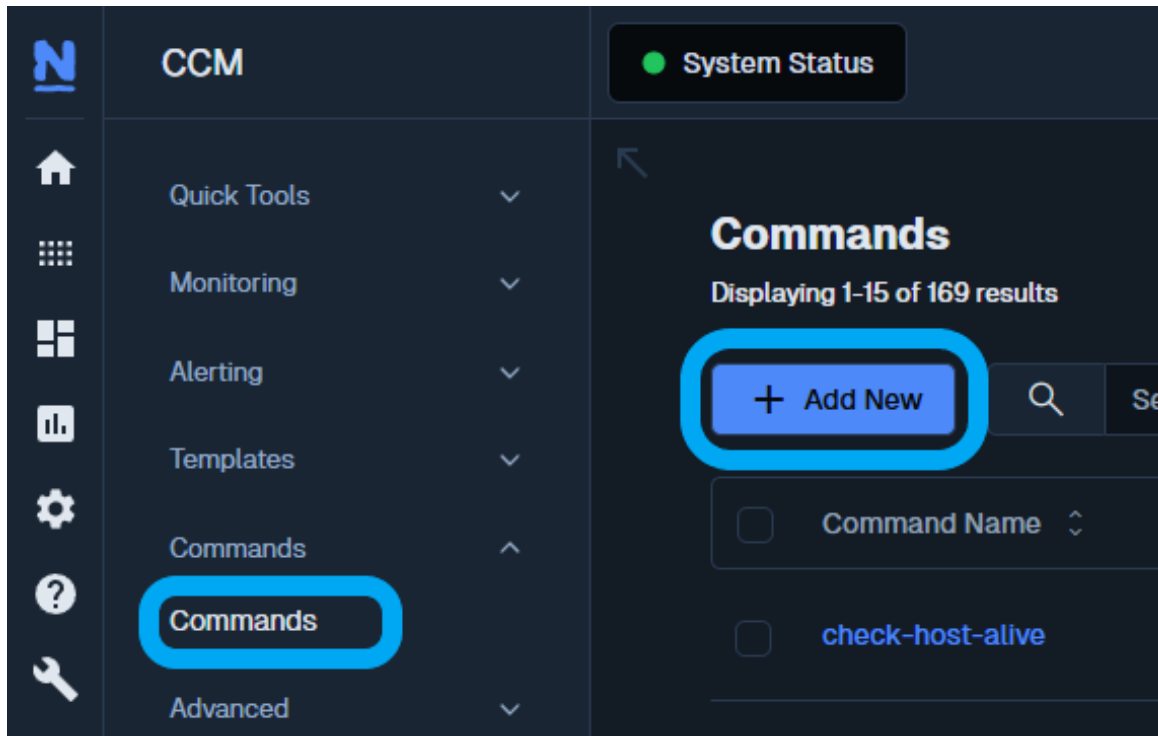
If this does not work, please review the output in the terminal session as it should provide an error explaining why.

This completes all the steps required in the terminal session, you can close it now as the remaining steps will be performed through Nagios XI Core Config Manager.

How To Integrate Slack with Nagios XI

Create Commands

The commands are how the Contacts send host and service notifications. You need to create separate commands for hosts and services due to the different data being submitted.



1. In the left pane expand *Commands* and click the *Commands* menu option.
2. Click the **+Add New** button.
3. Populate the Command Name field with `slack_host_notification_handler`. The Command Line field is shown on the next page as it is too long to fit in the screenshot. Make sure the Command Type is defined as "misc command". Click the **Save** button once you populated the fields.

How To Integrate Slack with Nagios XI

Command Management

Command Name *
Example: check_example

Command Line *
Example: \$USER1\$/check_example -H \$HOSTADDRESS\$ -P \$ARG1\$ \$ARG2\$

Command Type:

Active ⓘ

Available Plugins ⓘ

- You will need to repeat the same steps to create the `slack_service_notification_handler` command. The full details of both commands are shown below. The commands are one long line, they are wrapped over several lines due to their size.

Command Name:

```
slack_host_notification_handler
```

Command Line (note that this is one long command) :

```
$USER1$/slack_nagios.pl -field slack_channel="#hosts" -field HOSTALIAS-S="$HOSTNAME$" -field HOSTSTATE="$HOSTSTATE$" -field HOSTOUTPUT-T="$HOSTOUTPUT$" -field NOTIFICATIONTYPE="$NOTIFICATIONTYPE$"
```

Command Name:


```
slack_service_notification_handler
```

Command Line (note that this is one long command) :

```
$USER1$/slack_nagios.pl -field slack_channel="#services" -field HOSTALIAS-S="$HOSTNAME$" -field SERVICEDESC="$SERVICEDESC$" -field SERVICESTATE="$SERVICESTATE$" -field SERVICEOUTPUT-T="$SERVICEOUTPUT$" -field NOTIFICATIONTYPE="$NOTIFICATIONTYPE$"
```

How To Integrate Slack with Nagios XI

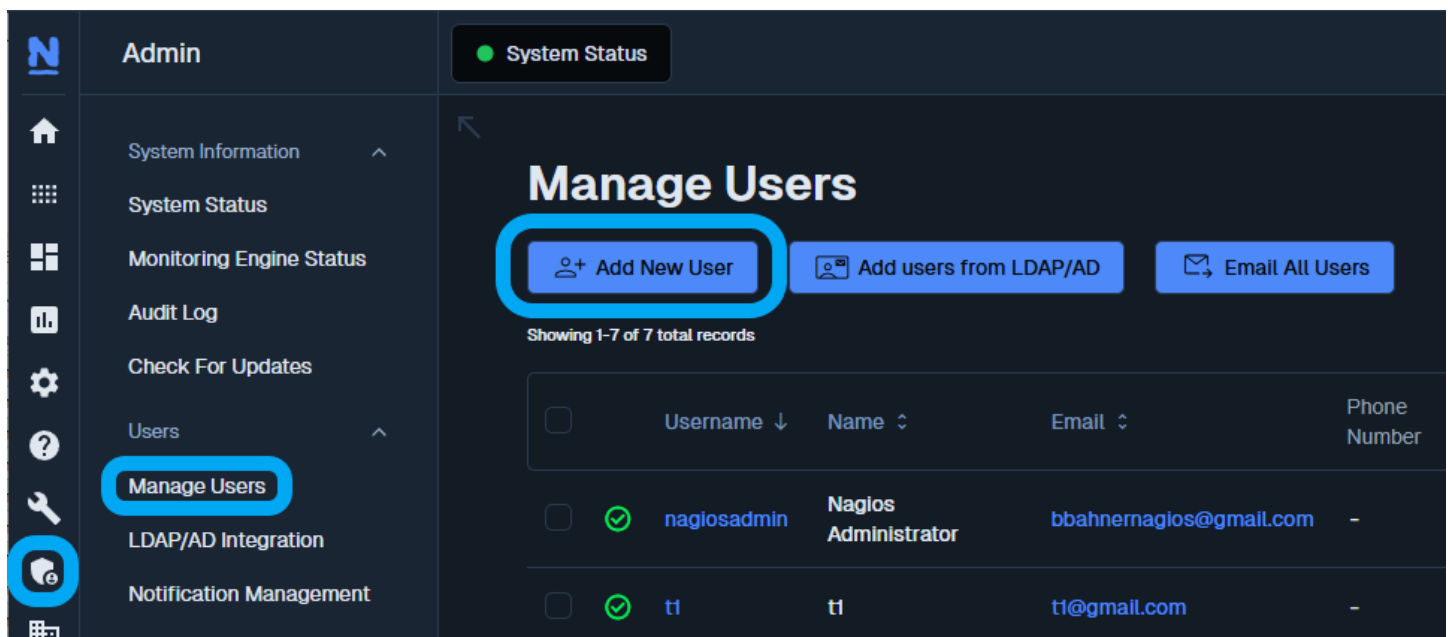
Here is a screenshot of both commands that have been created:

Command Name	Command Line	Active	Actions	ID
<input type="checkbox"/> slack_host_notification_handler	<code>\$USER1\$/slack_nagios.pl -field slack_channel="#hosts" -field HOSTALIAS- S="\$HOSTNAME\$" -field HOSTSTATE="\$HOSTSTATE\$" -field HOSTOUTPUT- T="\$HOSTOUTPUT\$" -field NOTIFICATIONTYPE="\$NOTIFICATIONTYPE\$"</code>	Yes	    	170
<input type="checkbox"/> slack_service_notification_handler	<code>\$USER1\$/slack_nagios.pl -field slack_channel="#services" -field HOSTALIAS- S="\$HOSTNAME\$" -field SERVICEDESC="\$SERVICEDESC\$" -field SERVICESTATE="\$SERVICESTATE\$" -field SERVICEOUTPUT- T="\$SERVICEOUTPUT\$" -field NOTIFICATIONTYPE="\$NOTIFICATIONTYPE\$"</code>	Yes	    	171

Create Contact

The next step is to create a Contact to use for Slack notifications. In Nagios XI, when you create a User, it will automatically create a Contact for you, this is the method being shown here. You could of course go into Configuration Manager and create the Contact, and as this would also work fine, there are a lot of options that need to be defined and this documentation would be several pages longer showing you how to do this.

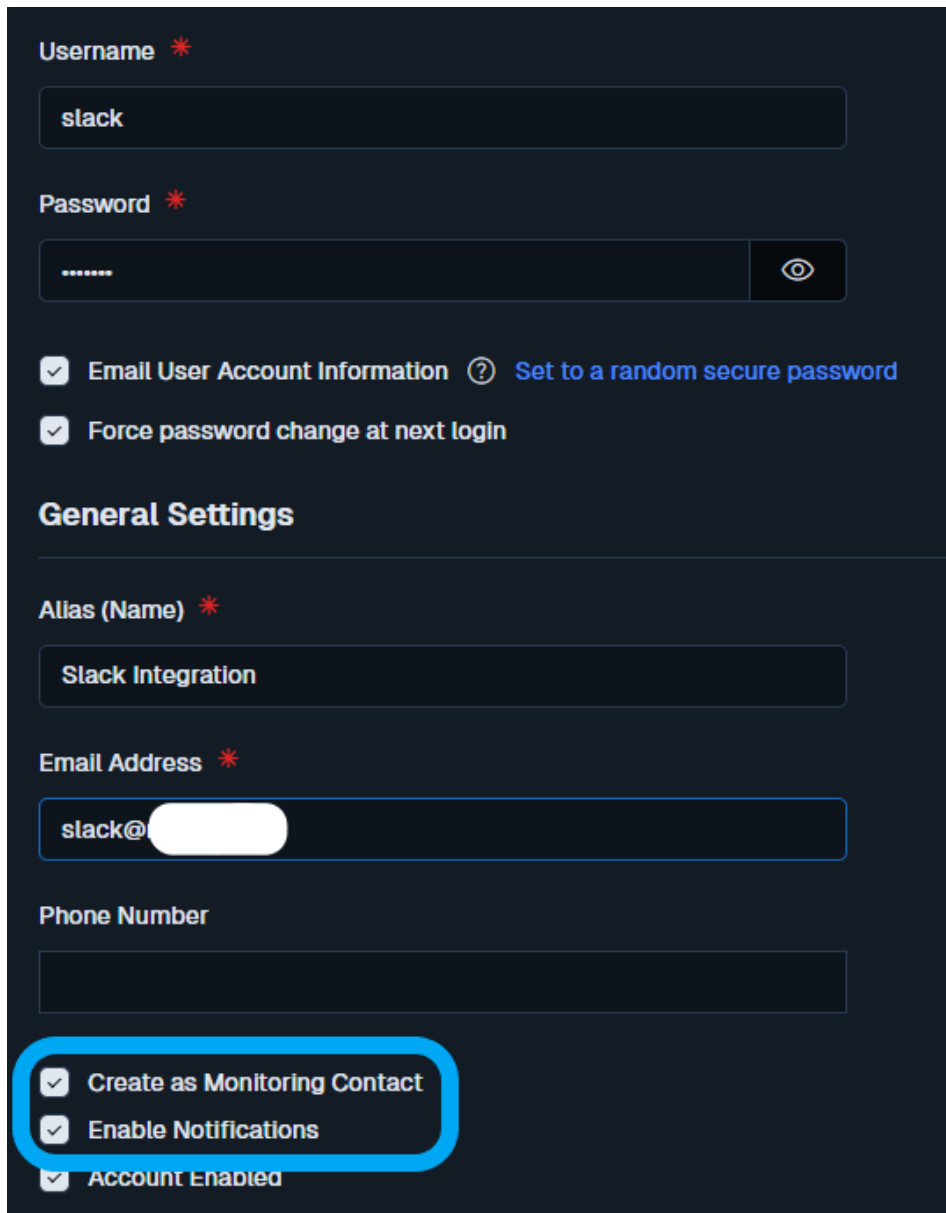
1. Navigate to **Admin > Users > Manage Users** and click the Add New User button.



The screenshot shows the Nagios XI Admin interface. The left sidebar contains navigation options: Admin, System Information, System Status, Monitoring Engine Status, Audit Log, Check For Updates, Users, Manage Users (highlighted), LDAP/AD Integration, and Notification Management. The main content area is titled 'Manage Users' and features three buttons: 'Add New User' (highlighted with a red circle), 'Add users from LDAP/AD', and 'Email All Users'. Below the buttons, it says 'Showing 1-7 of 7 total records'. A table lists users with columns for Username, Name, Email, and Phone Number.

	Username	Name	Email	Phone Number
<input type="checkbox"/>	nagiosadmin	Nagios Administrator	bbahernagios@gmail.com	-
<input type="checkbox"/>	tl	tl	tl@gmail.com	-

How To Integrate Slack with Nagios XI



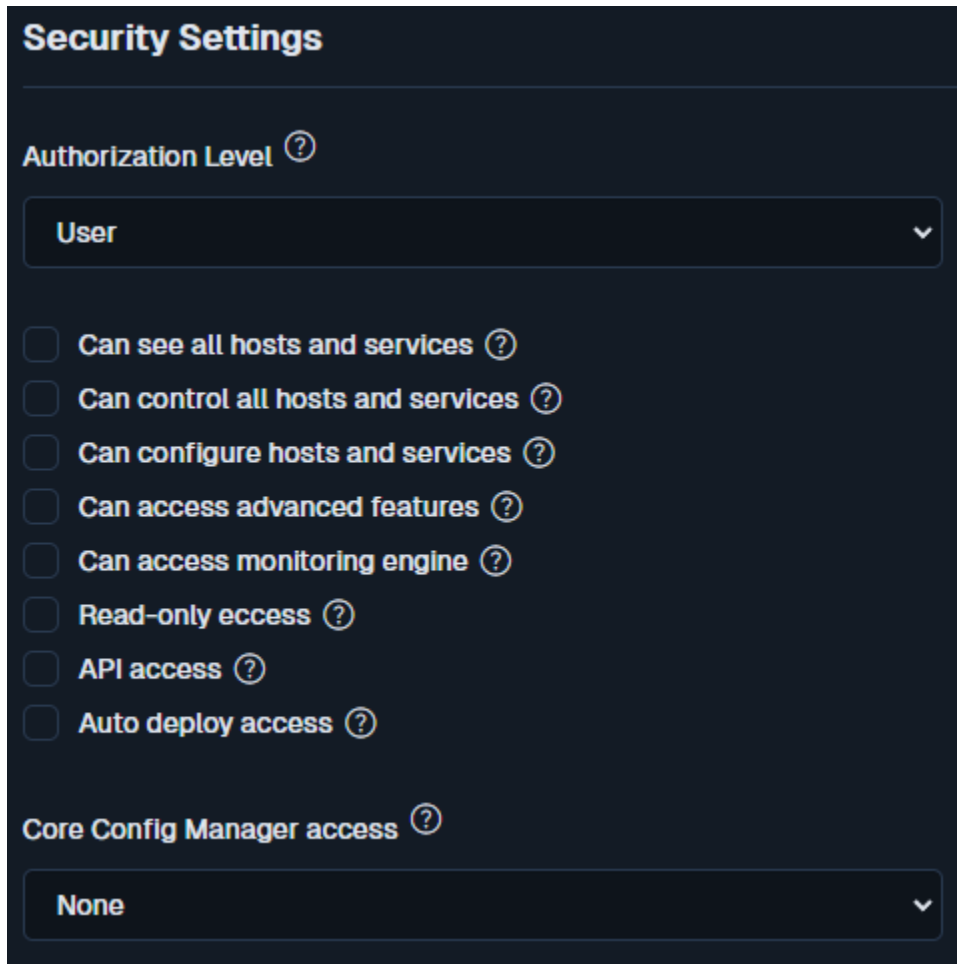
The screenshot shows a dark-themed user creation form in Nagios XI. The form includes the following fields and options:

- Username ***: A text input field containing the value "slack".
- Password ***: A password input field with a masked password "*****" and a toggle icon for visibility.
- Email User Account Information** [?](#) [Set to a random secure password](#)
- Force password change at next login**
- General Settings** (Section Header)
- Alias (Name) ***: A text input field containing the value "Slack Integration".
- Email Address ***: A text input field containing the value "slack@" followed by a masked domain.
- Phone Number**: An empty text input field.
- Create as Monitoring Contact**
- Enable Notifications**
- ACCOUNT ENABLED**

The "Create as Monitoring Contact" and "Enable Notifications" options are highlighted with a blue rounded rectangle.

2. Populate all the required fields.
3. The most important options are **Create as Monitoring Contact** and **Enable Notifications**.

How To Integrate Slack with Nagios XI



The screenshot shows the 'Security Settings' interface for a user in Nagios XI. At the top, the title 'Security Settings' is displayed. Below it, the 'Authorization Level' is set to 'User'. A list of permissions follows, all of which are unchecked: 'Can see all hosts and services', 'Can control all hosts and services', 'Can configure hosts and services', 'Can access advanced features', 'Can access monitoring engine', 'Read-only access', 'API access', and 'Auto deploy access'. At the bottom, 'Core Config Manager access' is set to 'None'. Each setting has a help icon (a question mark in a circle) next to it.

© 2024 Nagios Enterprises, LLC. All rights reserved. Nagios, XI

The Nagios logo and Nagios graphics are the

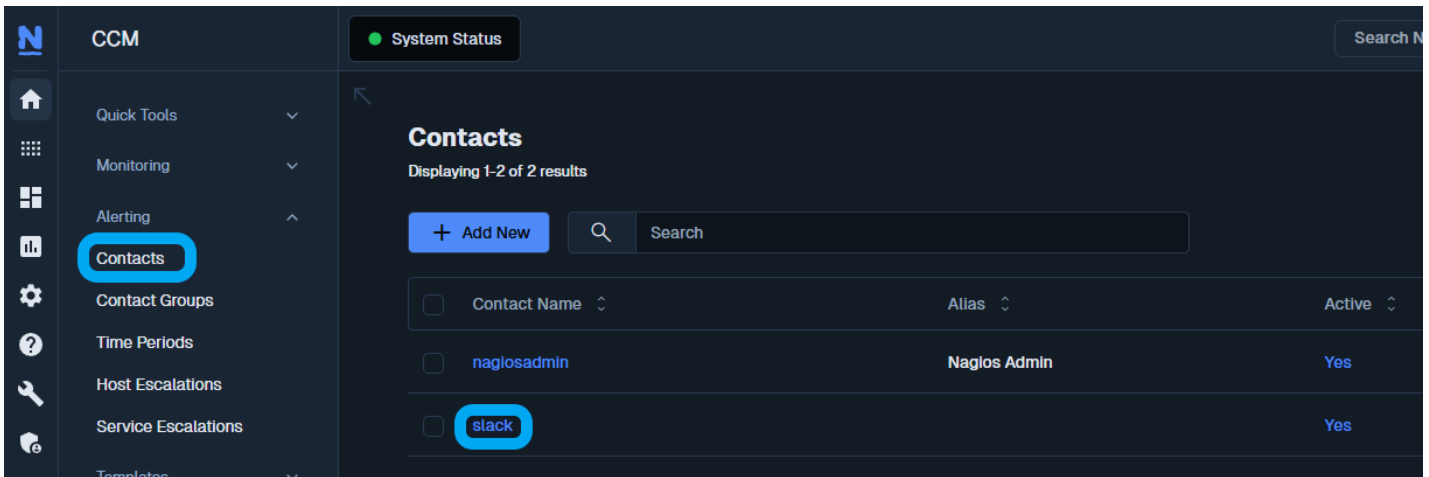
4. All the remaining settings can be left as default.
5. Click the **Add User** button to create the user.

The next step will be to assign the Slack notification commands to this Contact.

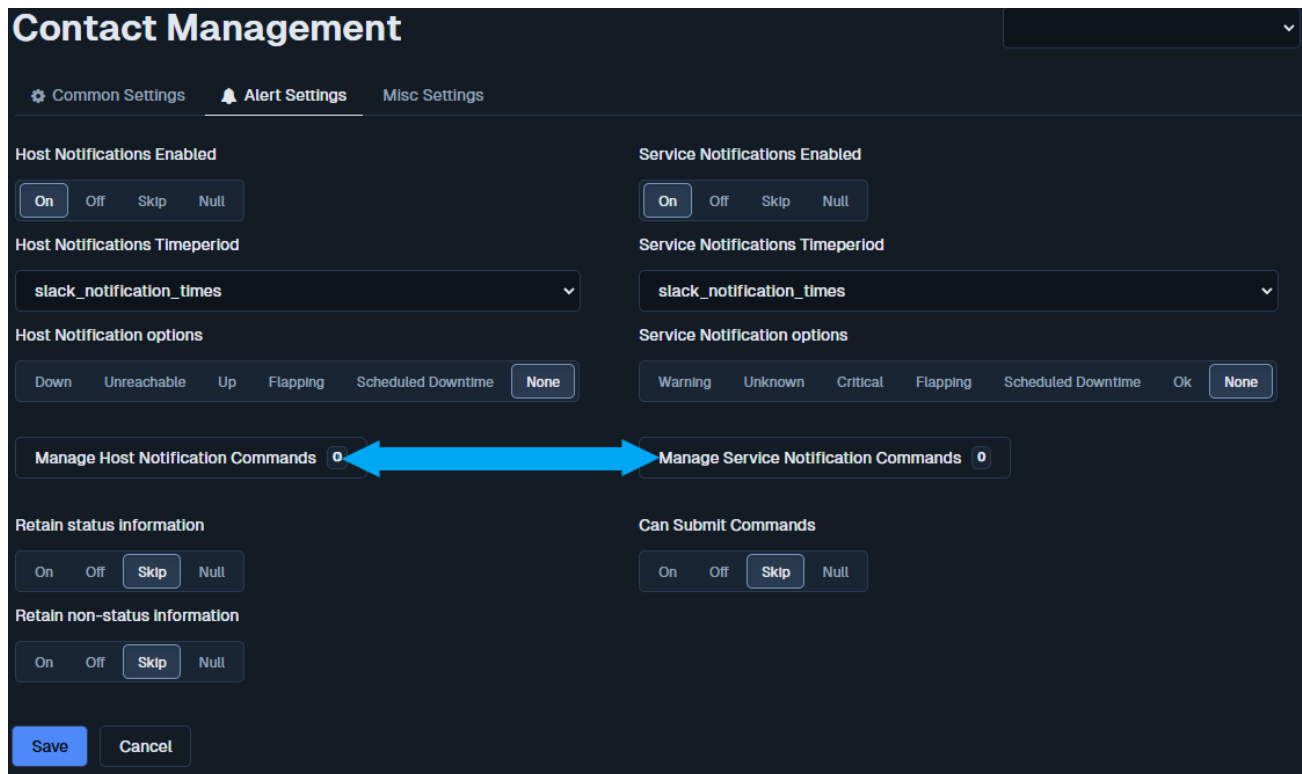
How To Integrate Slack with Nagios XI

Assign Commands To Contact

1. Navigate to **Configure > Core Config Manager**. In the left pane expand Alerting and click **Contacts**.



2. Here you will see the new slack Contact that was just created. Click the Contact Name slack to edit it.



How To Integrate Slack with Nagios XI

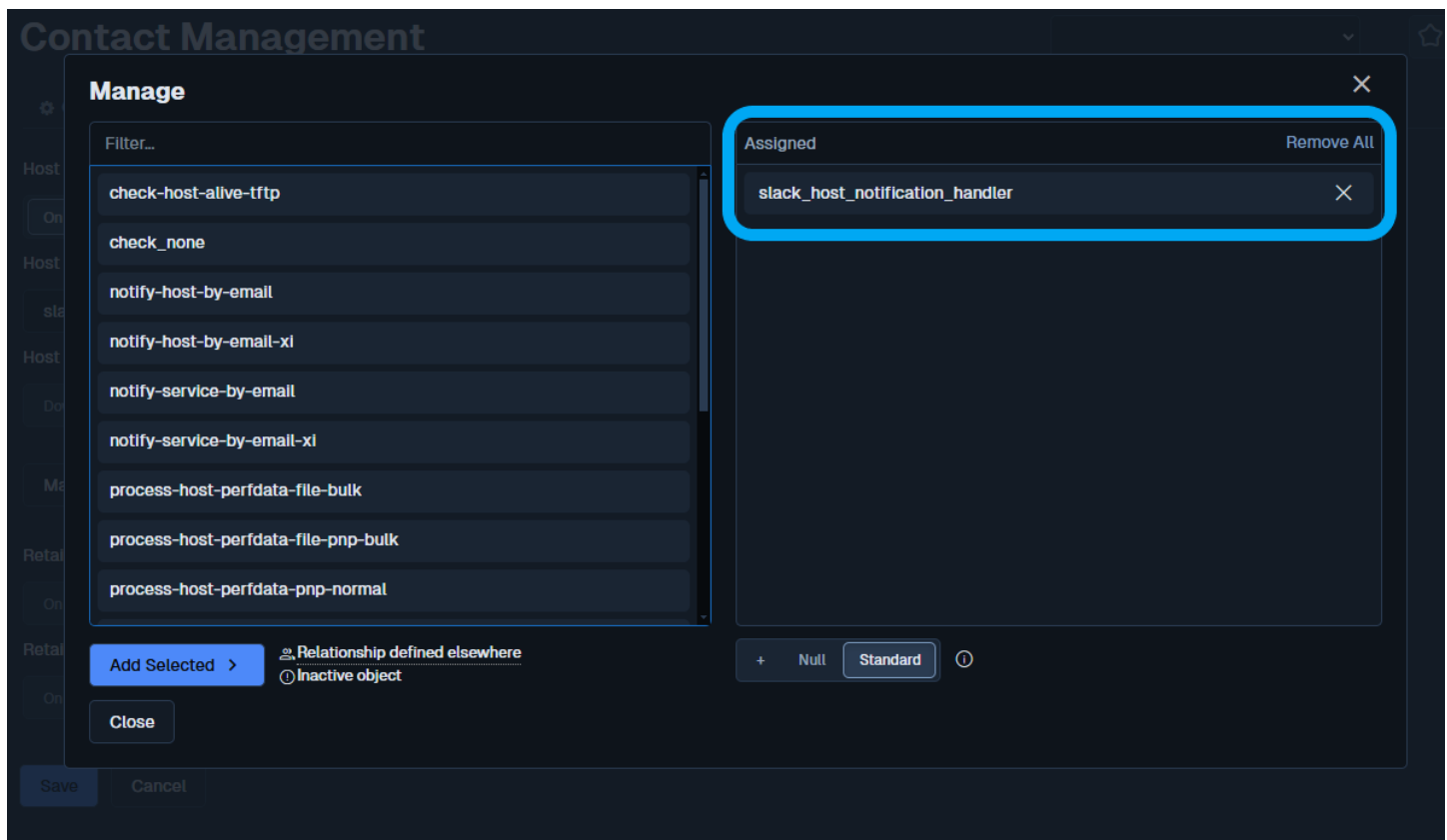
3. Click the **Alert Settings** Tab

There are two buttons here:

Manage Host Notification Commands

Manage Service Notification Commands

4. Click the **Manage Host Notification Commands** button, this will bring up the Manage window.



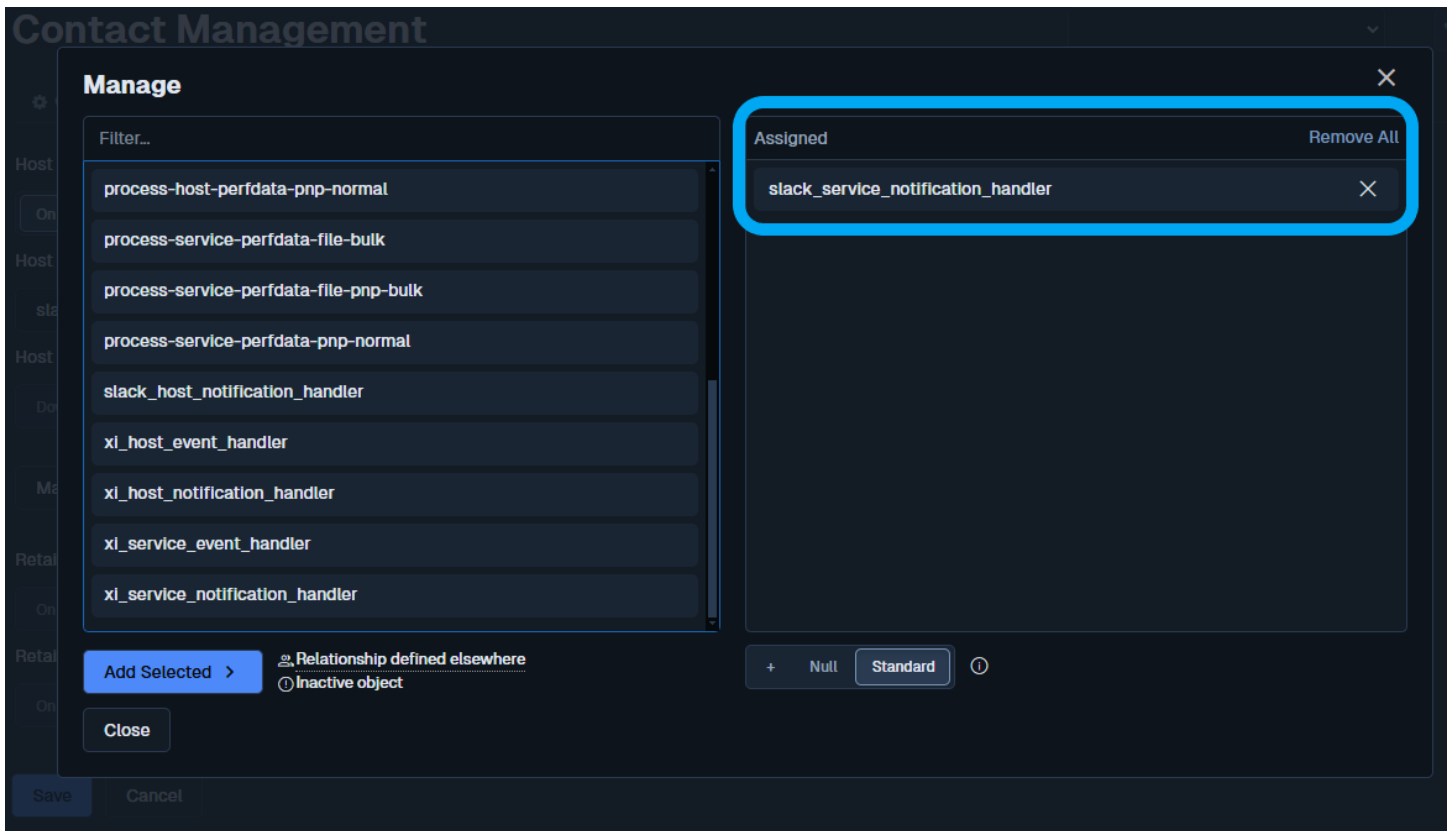
5. In the **Manage** window you need to select the `slack_host_notification_handler` command in the left pane and then click the **Add Selected** button so it appears in the right hand pane.

This is for HOST notifications, hence why you added the `slack_host_xxx` command only.

How To Integrate Slack with Nagios XI

6. Click the Close button.

7. Click the Manage Service Notification Commands button, this will bring up the Manage window.



8. In the Manage window you need to select the `slack_service_notification_handler` command in the left pane and then click the Add Selected button, so it appears in the right hand pane.

This is for SERVICE notifications, hence why you added the `slack_service_xxx` command only.

9. Click the **Close** button.

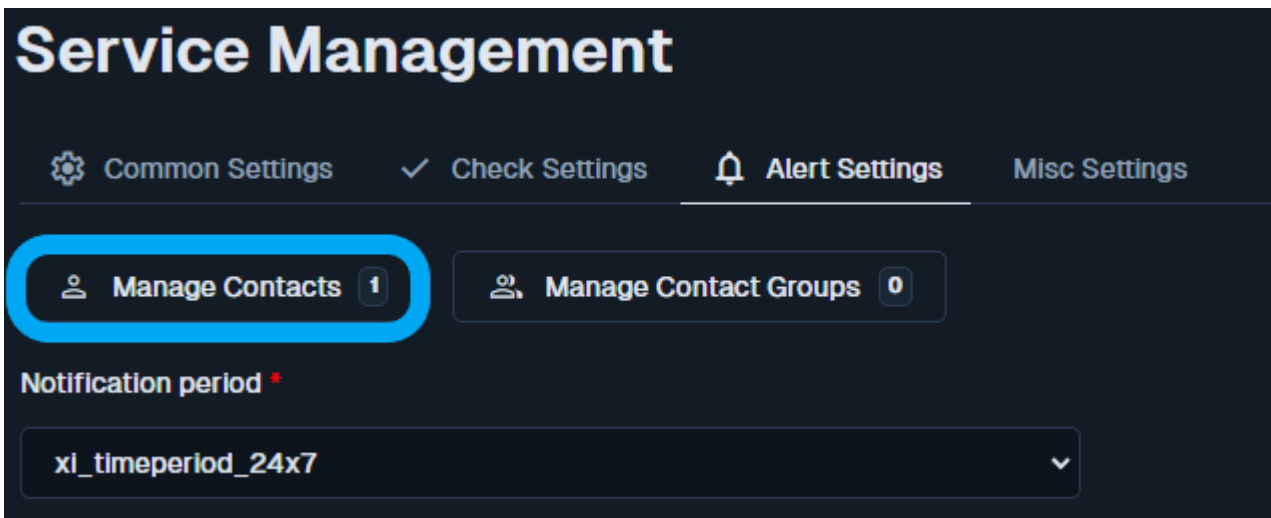
10. Click the **Save** button, this completes the changes required for the Contact object.

How To Integrate Slack with Nagios XI

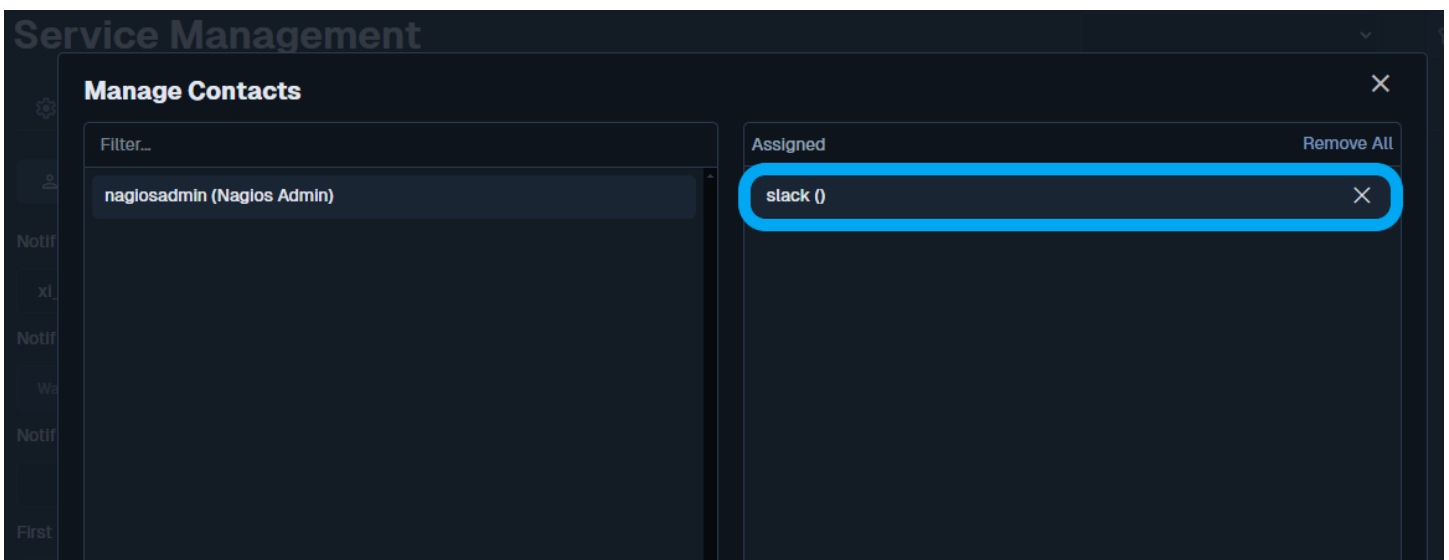
Assigning Contacts to Hosts and Services

The last step is to assign the slack Contact to Hosts and Services that you want to receive notifications for. The step required for a host or service are the same.

11. In the left pane expand **Monitoring** and click **Hosts** or **Services**. Click one of the host or service objects to edit it.



12. Click the **Alert Settings** tab and then click the **Manage Contacts** button.



How To Integrate Slack with Nagios XI

13. In the **Manage Contacts** window you need to select the slack contact in the left pane and then click the **Add Selected** button, so it appears in the Assigned hosts pane on the right.
14. Click the **Close** button and then the **Save** button.
15. Repeat for as many host and service objects that you want to receive notifications for.
16. Once you've made your selections click the **Apply Configuration** button to push these changes into the running monitoring configuration.

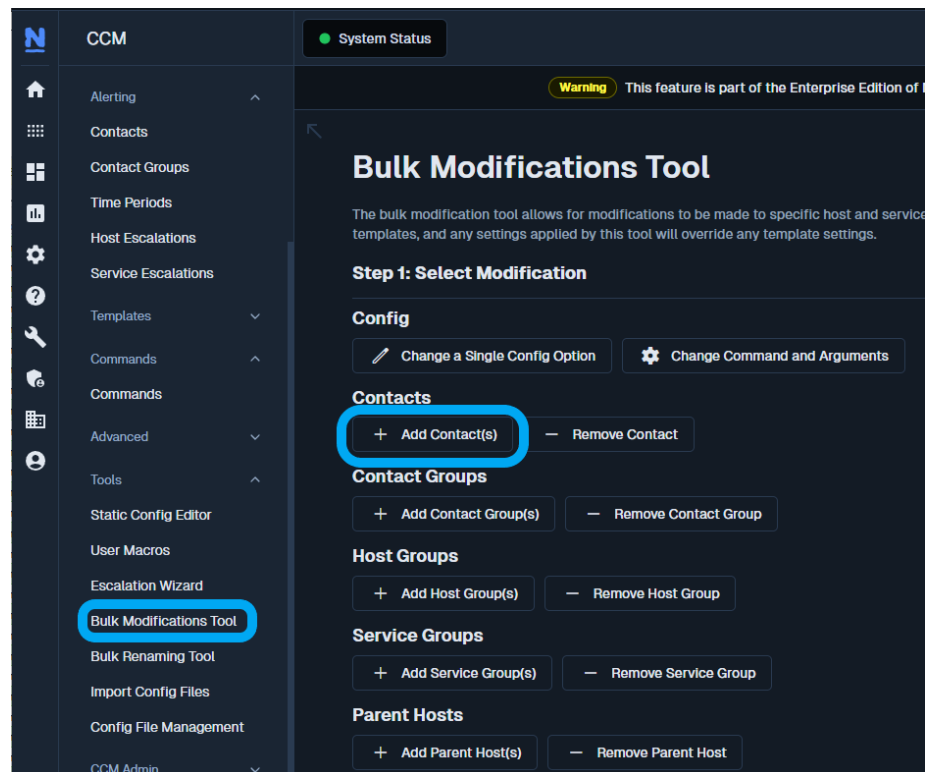
This completes the configuration steps required in Nagios XI to integrate Slack.

Bulk Modifications Tool

The following shows an alternative way to add the Contact to hosts and services using the Bulk Modifications Tool.

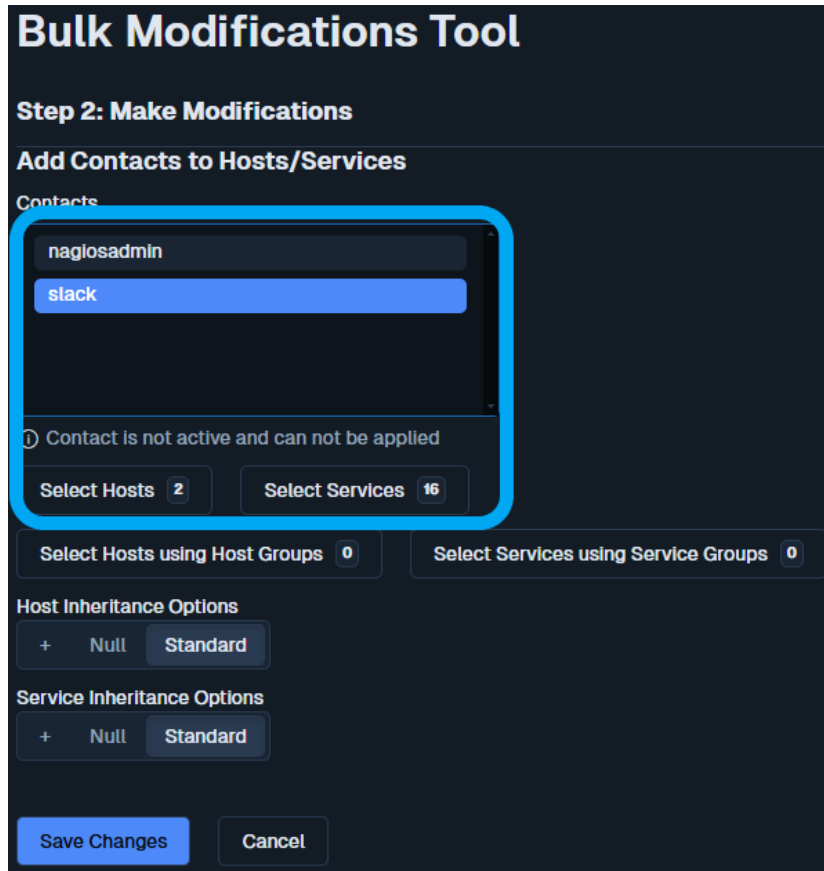
If you have a lot of objects, you can use the **Bulk Modifications** Tool to add the Contact to multiple objects at once.

1. In the left pane expand **Tools** and click **Bulk Modifications Tool**.



How To Integrate Slack with Nagios XI

2. Click the **Add Contact(s)** button.



3. On step 2 you need to make multiple selections.
4. First select the Contact(s) that you want to assign to hosts and services.
5. Then use the **Select Hosts** and **Select Services** buttons to make your selections.
6. You need to select the host(s) in the left pane and then click the Add Selected button, so they appear in the right-hand pane.
7. Click **Close** after making your selections.
8. Once you've made all your selections for Contacts, Hosts and Services click the **Save Changes** button. The Bulk Modifications Tool will then update the Configuration Manager database with your changes. You will need to click the Apply Configuration button to push these changes into the running monitoring configuration.

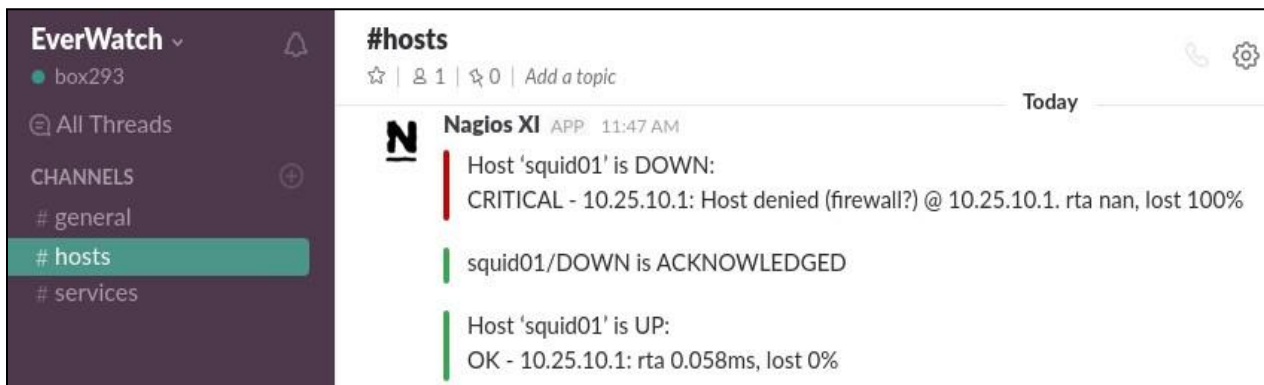
How To Integrate Slack with Nagios XI

Notifications In Slack

Now that Slack has been integrated with Nagios XI, here are some examples showing what you will see in Slack when notifications are sent.

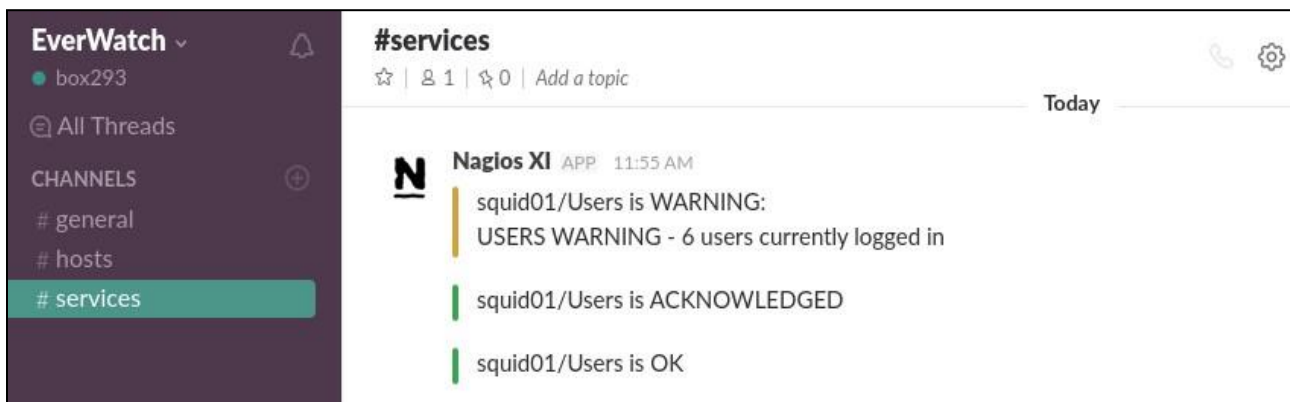
Here is an example of a host notification. To simulate this, I added a firewall rule to reduce ping traffic which caused Nagios to see this host as down.

You can see how Slack has a vertical red line for the DOWN notification and a vertical green line for the UP notification.



Here is an example of a service notification. To simulate this, I SSH'd into this server 6 times which caused Nagios to determine if this service was in a warning state.

You can see how Slack has a vertical orange line for the WARNING notification and a vertical green line for the OK notification.



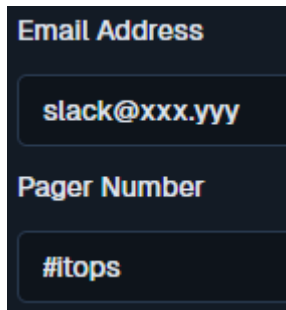
How To Integrate Slack with Nagios XI

Other Methods

In the example demonstrated in this documentation, notifications were sent to separate Slack channels. This is defined in the notification commands created:

```
-field slack_channel="#hosts"  
-field slack_channel="#services"
```

You might want to have slack contacts created for different departments and these contacts would target these channels, such as #itops and #devs.



The image shows a dark-themed configuration interface with two input fields. The first field is labeled "Email Address" and contains the text "slack@xxx.yyy". The second field is labeled "Pager Number" and contains the text "#itops".

You could store the name of the department in a Contact's directive, for example the pager directive.

Then in your host and service notification commands you would reference the pager directive using a macro:

```
-field slack_channel="$CONTACTPAGER$"
```

This demonstrates the flexibility of Nagios and using Macros in commands.

[How to Use the Nagios XI User Macros Component](#)

Finishing Up

This completes the documentation on configuring slack notifications with Nagios XI through the Nagios Slack App. 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](#)