

Using The Core Config Manager For Service Management In Nagios XI 5

Purpose

This document describes how to manage services, service groups and service templates using the Nagios XI Core Config Manager (CCM). While monitoring wizards make it easy to set up new services in Nagios XI, the CCM allows for more precise control over service monitoring, notifications, and configurations.

Note: If you are using Nagios XI 2024, please refer to the updated guide [here](#).

Core Config Manager Overview

Services can most easily be setup using the Monitoring Wizard under the main Configure page. However, some administrators may need more customized options, or a greater degree of control over their monitoring setup. The Nagios XI CCM allows for precise control over service monitoring, notifications, and configurations.

You can access the CCM from the **Configure** option on the top menu, and then select the **Core Config Manager** option under the **Advanced Configuration** option, or when you hover your mouse on the Configure option on the top menu it will appear as an option.

This document will discuss how to do the following items within CCM:

- [Adding Services](#)
- [Modifying Services](#)
- [Deleting Services](#)
- [Copying Services](#)
- [Displaying service information](#)
- [Managing service groups](#)
- [Using service templates](#)

Adding Services

To manually add a new service, select the **Services** link located under **Monitoring** on the left menu of CCM. This will bring up the **Service Management** page, which displays a list of the current services being monitored by Nagios XI.

Click the **Add New** button to manually add a new service.

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The screenshot shows the Nagios XI interface. The top navigation bar includes links for Views, Dashboards, Reports, Configure, Tools, Admin, and Enterprise. The left sidebar is titled 'Core Config Manager' and contains a 'Monitoring' section with a sub-menu where 'Services' is selected. The main content area is titled 'Services' and shows a table of 15 services. The table has columns for 'Config Name', 'Service Description', 'Active', 'Status', 'Actions', and 'ID'. The services listed include CPU Usage, Disk Usage on C:/, Ethernet 2 Bandwidth - Inbound, Ethernet 2 Bandwidth - Outbound, Ethernet Bandwidth - Inbound, Ethernet Bandwidth - Outbound, Memory Usage, SNMP Traps, Spooler, Swap Usage, User Count, / Disk Usage, CPU Usage, and Memory Usage. The 'Active' column for all services is 'Yes', and the 'Status' column for all is 'Applied'. The 'Actions' column contains icons for editing, deleting, and other actions. The bottom of the page shows a pagination bar with 'Results per page' set to 15 and 'Jump to page' set to 1.

Config Name	Service Description	Active	Status	Actions	ID
192.168.107.60	CPU Usage	Yes	Applied		21
192.168.107.60	Disk Usage on C:/	Yes	Applied		25
192.168.107.60	Disk Usage on C:/ Alternate	Yes	Applied		31
192.168.107.60	Ethernet 2 Bandwidth - Inbound	Yes	Applied		29
192.168.107.60	Ethernet 2 Bandwidth - Outbound	Yes	Applied		28
192.168.107.60	Ethernet Bandwidth - Inbound	Yes	Applied		27
192.168.107.60	Ethernet Bandwidth - Outbound	Yes	Applied		26
192.168.107.60	Memory Usage	Yes	Applied		23
192.168.107.60	SNMP Traps	Yes	Applied		112
192.168.107.60	Spooler	Yes	Applied		83
192.168.107.60	Swap Usage	Yes	Applied		24
192.168.107.60	User Count	Yes	Applied		22
192.168.157.129	/ Disk Usage	Yes	Applied		51
192.168.157.129	CPU Usage	Yes	Applied		48
192.168.157.129	Memory Usage	Yes	Applied		49

The **Service Management** page will open on the **Common Settings** tab.

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The screenshot displays the 'Service Management' interface in Nagios XI. The 'Check Settings' tab is active, showing fields for 'Config Name' (10.25.13.10), 'Description' (PING), and 'Display name'. The 'Check command' is set to 'check_ping'. The 'Command view' shows the command: '\$USER1\$/check_ping -H \$HOSTADDRESS\$ -w \$ARG1\$ -c \$ARG2\$ -p 5'. Below this, there are input fields for arguments: '\$ARG1\$' (3000,80%), '\$ARG2\$' (5000,100%), '\$ARG3\$', '\$ARG4\$', '\$ARG5\$', '\$ARG6\$', '\$ARG7\$', and '\$ARG8\$'. There are buttons for 'Add Arguments', 'Delete Arguments', and 'Run Check Command'. On the left, there are links for 'Manage Hosts', 'Manage Templates', 'Manage Host Groups', and 'Manage Service Groups'. At the bottom left, there is a 'Save' button and a 'Cancel' button. The 'Active' checkbox is checked.

This tab allows you to define the primary service parameters such as **Config Name**, **Description**, and **Display name**.

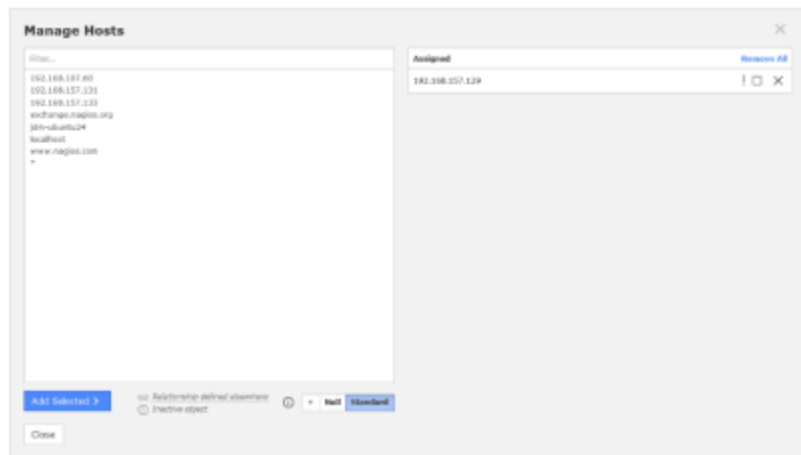
All fields labeled with an asterisk are required fields. Note that the **Active** check box is checked, this enables the service. If this box is un-checked the service configuration won't be put into production when **Apply Configuration** is performed. However, the settings will remain in CCM until you activate the service object.

If you want to add a check for this service, you could select the appropriate command (such as `check_icmp`). Every command in the **Check command** drop down list is associated with a set of Nagios Core commands and arguments. For more detailed descriptions of Nagios commands see the following documents:

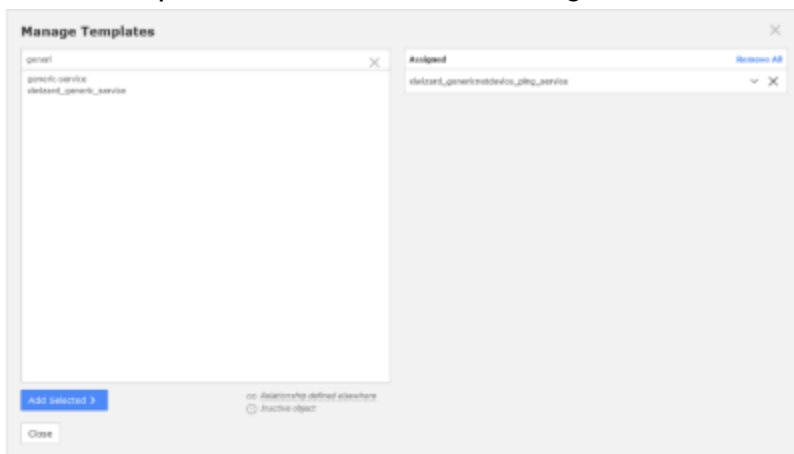
<https://assets.nagios.com/downloads/nagioscore/docs/nagioscore/4/en/objectdefinitions.html#command>

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Use the **Manage Hosts** button to associate the service with a host. Services must be associated with at least one host for them to be valid (can be via a Hostgroup). Services must be associated with at least one host for them to be valid (can be via a Hostgroup).

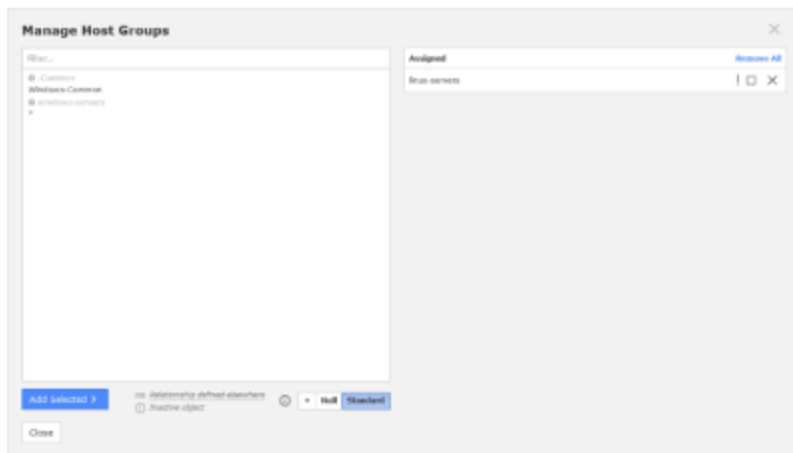


Use the **Manage Templates** button to associate template(s) with the service. Templates provide a method to push the same service settings to similar services.



Use the **Manage Host Groups** button to associate existing host group(s) to the service. Host groups are a way to assign a service to multiple hosts dynamically.

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Use the **Manage Servicegroups** button to add this service to an existing servicegroup. Servicegroups are a way of creating a collection of services to for purposes such as viewing them in the main interface.



The **Check Settings** tab allows you to specify the settings for frequency of checks and also the service state.

If a problem is detected, you can specify the details of how the problem is handled.

You will notice a lot of options have **Skip** chosen. This means that the setting is not being directly defined on the service object, this prevents any settings defined in templates from being overwritten.

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The screenshot displays the 'Service Management' configuration page in Nagios XI. The page is divided into two main columns of settings. The left column includes: 'Initial state' (Warning, Critical, OK, Unknowns), 'Check interval' (60s), 'Retry interval' (60s), 'Max check attempts' (3 attempts), 'Active checks enabled' (On, Off, Skip, Null), 'Passive checks enabled' (On, Off, Skip, Null), 'Check period' (dropdown), 'Freshness threshold' (60s), and 'Check freshness' (On, Off, Skip, Null). The right column includes: 'Obsess over service' (On, Off, Skip, Null), 'Event handler' (dropdown), 'Event handler enabled' (On, Off, Skip, Null), 'Low flap threshold' (%), 'High flap threshold' (%), 'Flap detection enabled' (On, Off, Skip, Null), 'Flap detection options' (Critical, Warning, OK, Unknown), 'Retain status information' (On, Off, Skip, Null), 'Retain new status information' (On, Off, Skip, Null), 'Process perf data' (On, Off, Skip, Null), and 'Is volatile' (On, Off, Skip, Null). At the bottom left are 'Save' and 'Cancel' buttons. At the bottom right is a footer with 'About', 'Legal', and 'Copyright © 2008-2014 Nagios Enterprises, LLC'.

If you look at the previous **Manage Templates** screenshot you'll see the template `xiwizard_genericnetdevice_ping_service` is being used, which has these settings applied (as well as that template using another template).

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The **Alert Settings** tab allows you to specify your notification settings. Use the **Manage Contacts** and **Manage Contact Groups** buttons to associate your existing contacts and contact groups with this service.

The screenshot shows the 'Service Management' page in Nagios XI. The 'Alert Settings' tab is selected. At the top, there are tabs for 'Common Settings', 'Check Settings', 'Alert Settings', and 'Misc Settings'. Below these are two buttons: 'Manage Contacts' and 'Manage Contact Groups'. The 'Notification period' is set to '1h'. The 'Notification options' are 'Warning', 'Critical', 'Unknown', 'Recovery', 'Flapping', and 'Scheduled Downtime'. The 'Notification interval' is set to '1min'. The 'First notification delay' is set to '1min'. The 'Notification enabled' section has 'On', 'Off', 'Skip', and 'Null' buttons, with 'Skip' being selected. The 'Stalking options' are 'Warning', 'Critical', 'Ok', 'Unknown', 'Notification', and 'None'. At the bottom, there are 'Save' and 'Cancel' buttons.

Use the **Manage Contacts** and **Manage Contact Groups** buttons to associate your existing contacts and contact groups with this service.

This is another screenshot of the same Nagios XI 'Service Management' page, 'Alert Settings' tab. The layout and content are identical to the previous screenshot, showing the configuration for notifications and alerting for a specific service.

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The **Misc Settings** tab is for defining additional service information and can be used for adding notes, icon images, and also for setting Free variable definitions.

The screenshot shows the 'Service Management' interface in Nagios XI. At the top, there's a 'Service Management' header with a dropdown menu and a star icon. Below this is a navigation bar with four tabs: 'Common Settings', 'Check Settings', 'Alert Settings', and 'Misc Settings'. The 'Misc Settings' tab is active. The main content area is divided into two columns. The left column contains five text input fields labeled 'Notes', 'Notes URL', 'Action URL', 'Icon image', and 'Icon image "alt" text'. The right column contains two sections. The first section is 'Custom Variables' with an 'Advanced' link, a description 'Add, remove, or edit the custom variables for this object.', and a button 'Manage Custom Variables' with a counter '0'. The second section is 'Use this configuration as a template' with an 'Advanced' link, a description 'Setting the Generic name allows you to use this service as a template (in the Manage Templates modal) for other service object definitions. We recommend making a new template instead of using this option.', and a text input field labeled 'Generic name'. At the bottom left, there are 'Save' and 'Cancel' buttons.

There are a few important things that you should note about Free variables (custom object variables):

- Custom variable names must begin with an underscore (_) to prevent name collision with standard variables
- Custom variable names are case-insensitive
- Custom variables are inherited from object templates like normal variables
- Scripts can reference custom variable values with macros and environment variables

For additional information about using custom object variables see the following document:

[Understanding Nagios XI Notification Variables](#)






Once you've finished entering information for your new service, click the **Save** button to return to the service Management page.

Click the **Apply Configuration** button to restart Nagios XI and put the new settings into effect. Nagios XI will verify the settings and display a success message that the service was set up correctly.

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Modifying Services






Services can be modified by clicking the **Modify** icon OR the config name itself from the **Service Management** page.

<input type="checkbox"/>	↕ Config Name	↕ Service Description	↕ Active	↕ Status	Actions	↕ ID
<input type="checkbox"/>	192.168.157.128	PING	Yes	Applied	    	120

This will bring up the same set of tabbed menus covered in the **Adding** services section of this tutorial. Refer to that section for a detailed walk through of the tabs that control service settings.

Deleting / Deactivating Services

Services can be deleted by selecting the **Delete** icon from the **Service Management** page.

<input type="checkbox"/>	↕ Config Name	↕ Service Description	↕ Active	↕ Status	Actions	↕ ID
<input type="checkbox"/>	192.168.157.128	PING	Yes	Applied	    	120

Services can be activated or deactivated by clicking on the **Yes** or **No** link under the **Active** column

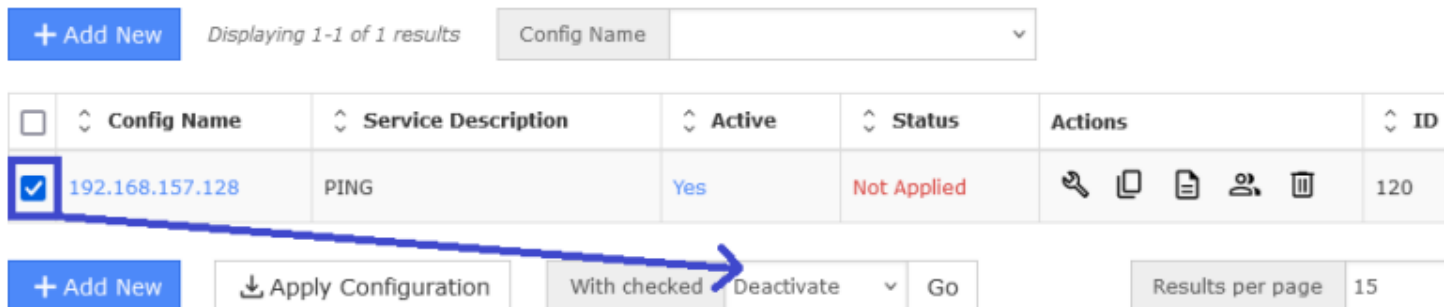
↕ Active	↕ Status
Yes	Applied
Deactivate	Applied

↕ Active	↕ Status
No	-
Activate	Not Applied

Deactivating a service is the same as deleting it as far as the monitoring engine is concerned, but this does preserve the service's configuration within Nagios XI if you want to recover it later.

Multiple services can also be deleted / deactivated by selecting the desired services in the **left checkbox column** and then selecting the action from the **With checked** drop down list.

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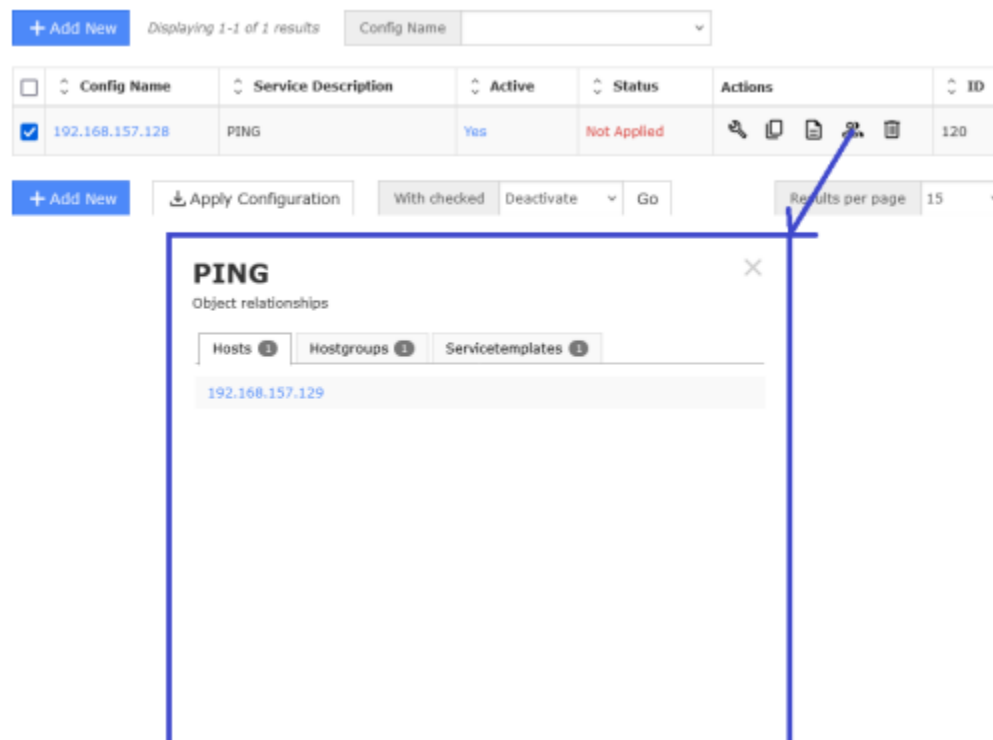


+ Add New Displaying 1-1 of 1 results Config Name

<input type="checkbox"/>	Config Name	Service Description	Active	Status	Actions	ID
<input checked="" type="checkbox"/>	192.168.157.128	PING	Yes	Not Applied		120

+ Add New Apply Configuration With checked Deactivate Go Results per page 15

Note: Services can only be deleted/deactivated once any service dependencies/escalations/group_membership are also deleted/deactivated/modified.
To see if a service has dependencies click the **Information** icon (i) to check for dependencies.



+ Add New Displaying 1-1 of 1 results Config Name

<input type="checkbox"/>	Config Name	Service Description	Active	Status	Actions	ID
<input checked="" type="checkbox"/>	192.168.157.128	PING	Yes	Not Applied		120

+ Add New Apply Configuration With checked Deactivate Go Results per page 15

PING

Object relationships

Hosts 1 Hostgroups 0 Servicetemplates 0

192.168.157.129

This information will be displayed in a pop-up window. In the screenshot above you can see this service belongs to a dependency that prevents it from being deleted or deactivated.

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Copying Services

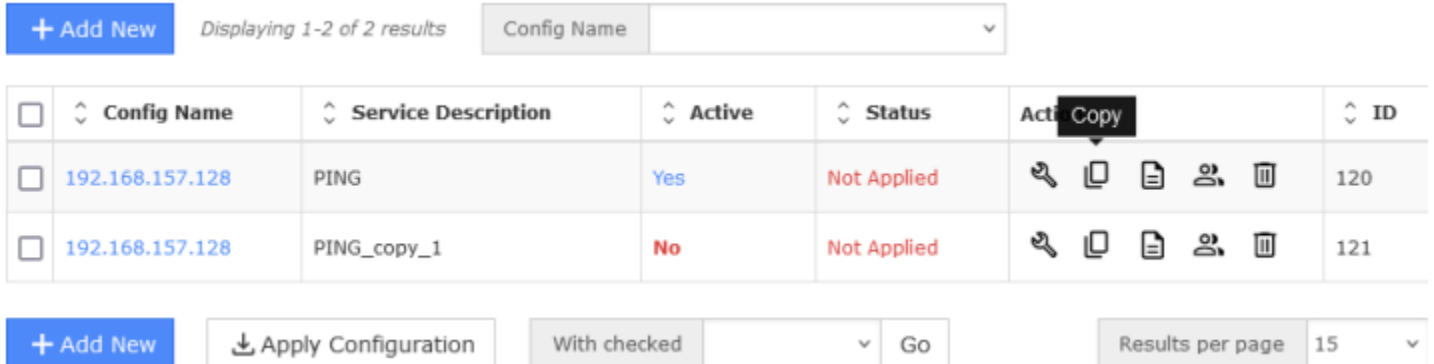
Copying a service is a quick way to start monitoring a new service, especially if the new service will have similar (if not the same) monitoring settings.

To copy a service, click the **Copy** icon from the **service Management** page for the service you want to copy.



If you wanted to copy multiple services, select the desired services you want to copy in the left checkbox column and then select **Copy** from the **With checked** drop down list (same as demonstrated in the [deleting / deactivating services](#) section).

After creating a copy, the duplicate service(s) will be appended with a service description of `_copy_x` that will need to be changed. Copies are also inactive by default, and will need to be activated for monitoring use.



To rename and activate the copied service click the **Modify** icon. Change the entry for **description** to a valid name.

If you are going to use this service with another host then you'll need to change the host using the **Manage Hosts** button.

To activate the copied service, click the **Active** checkbox. Once changes are complete click the **Save** button then click **Apply Configuration** to start monitoring the new service.

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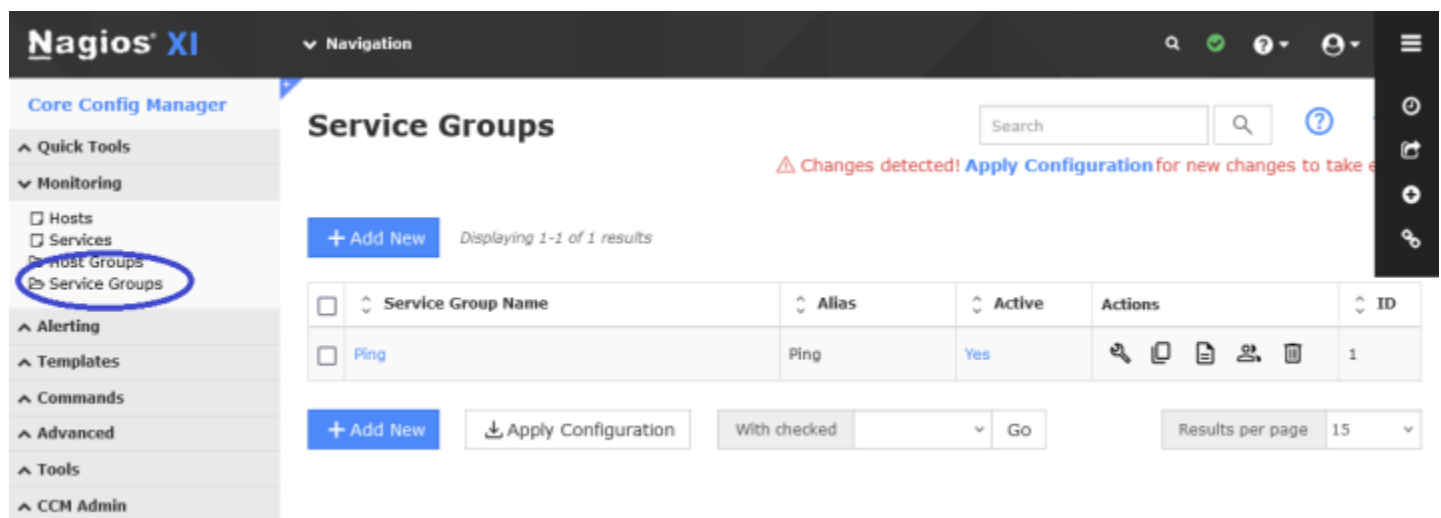
Displaying Service Information

The Information icon displays a service's database information and any related dependencies. This is demonstrated in the [deleting / deactivating services](#) section.






Managing Service Groups

Service Groups allow you to group services in a logical manner, making it easier for users to get a quick view of their network infrastructure. They will not have an impact on the notifications or access control, but will make it easier for both your users to grasp what they are looking at and for you as the administrator to quickly pinpoint where problems are occurring.

You can define new service groups by selecting the **service Groups** menu item (under Monitoring) from the Core Config Manager menu and clicking the **+ Add New** button.



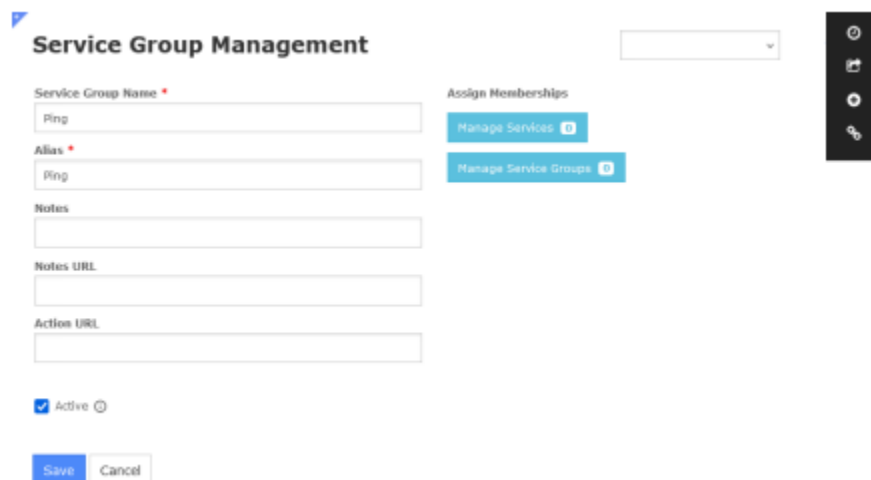
The screenshot shows the Nagios XI Core Config Manager interface. On the left, the 'Monitoring' menu is expanded, and 'Service Groups' is highlighted with a blue circle. The main content area is titled 'Service Groups' and features a search bar, a '+ Add New' button, and a table of existing service groups. A red warning message at the top indicates 'Changes detected! Apply Configuration for new changes to take effect'. The table lists one service group named 'Ping' with an alias of 'Ping' and an active status of 'Yes'. Below the table, there are buttons for '+ Add New', 'Apply Configuration', and a 'Go' button next to a 'With checked' dropdown. A 'Results per page' dropdown is set to 15.

<input type="checkbox"/>	Service Group Name	Alias	Active	Actions	ID
<input type="checkbox"/>	Ping	Ping	Yes	    	1

You will need to give the new service group a name and description.

You can add **services** or **service groups** to the newly created service group using the Manage services button and **Manage Service Groups** buttons.

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The screenshot shows the 'Service Group Management' form in Nagios XI. It includes fields for 'Service Group Name' (containing 'Ping'), 'Alias' (containing 'Ping'), 'Notes', 'Notes URL', and 'Action URL'. There are checkboxes for 'Active' and buttons for 'Save' and 'Cancel'. On the right, there are buttons for 'Manage Services' and 'Manage Service Groups', and a vertical toolbar with icons for search, edit, delete, and other actions.

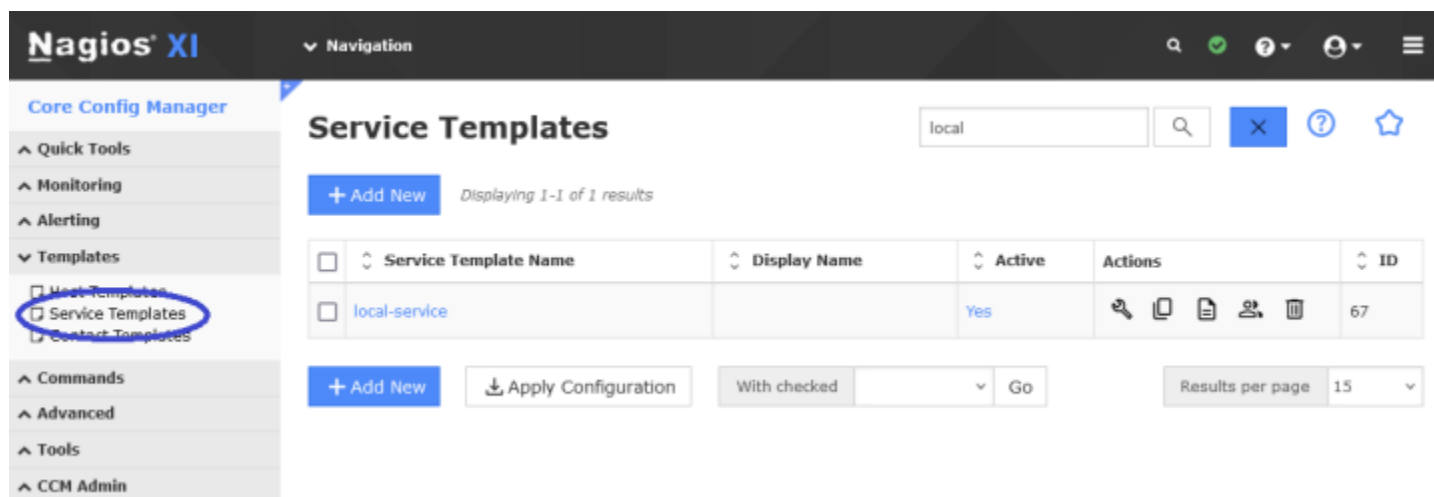
When you are finished click the **Save** button.

Remember to **Apply Configuration** when you are done making configuration changes.

Using Service Templates

Service templates can be created by selecting the **Service Templates** link from the Core Config menu Templates. This will bring up the **Service Template Management** page.

Many administrators prefer to create their own service templates to specify default values for check commands, notification settings, and contact settings. Templates can also inherit values from other templates, which can be useful for creating universal settings for services and services.



The screenshot shows the 'Service Templates' management page in Nagios XI. The left sidebar shows the 'Core Config Manager' menu with 'Service Templates' highlighted. The main area displays a table of service templates. The table has columns for 'Service Template Name', 'Display Name', 'Active', 'Actions', and 'ID'. There is one template listed: 'local-service' with ID 67. The 'Active' status is 'Yes'. Below the table, there are buttons for '+ Add New', 'Apply Configuration', and a 'Results per page' dropdown set to 15.

<input type="checkbox"/>	Service Template Name	Display Name	Active	Actions	ID
<input type="checkbox"/>	local-service		Yes		67

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From the **service Template Management** page, you can add, modify, copy, or delete existing templates. Nagios XI comes with an existing selection of service templates that can be used or modified for your monitoring needs. The **Service Template Management** page uses the same layout and menu system as the **Service Management** page. See the above section on [Adding services](#) for details on navigating the user interface.

Important Note: Templates can inherit values from other parent templates. If a template has a parent template assigned via the **Manage Templates** button, it will inherit that template's settings. Be careful when modifying the "**generic**" templates, as these are the main parent templates and this may affect many of the other templates that inherit values from it.

Bulk Modifications Tool

When you need to update a configuration setting for multiple services you can use the **Bulk Modifications Tool**, which is located under the **Tools** menu. This allows you to make a change like adding a contact to a selection of services, instead of manually editing each service.

The **Bulk Modifications Tool** is available when you have the Nagios XI Enterprise License. If you are not licensed for the **Enterprise Edition** you can enable a 60 day trial which allows you to use all the features of the Bulk Modifications Tool.

The following screenshot shows the location and options of the **Bulk Modifications Tool**.

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The screenshot shows the Nagios XI Core Config Manager interface. On the left is a navigation sidebar with categories: Quick Tools, Monitoring, Alerting, Templates, Commands, Advanced, Tools, and CCM Admin. The 'Tools' category is expanded, showing options like Static Config Editor, User Macros, Escalation Wizard, Bulk Modifications Tool (selected), Bulk Renaming Tool, Import Config Files, and Config File Management. The main content area is titled 'Bulk Modifications Tool' and includes a description: 'The bulk modification tool allows for modifications to be made to specific host and service configurations. This tool does not interact with settings or relationships defined in templates, and any settings applied by this tool will override any template settings.' Below this is 'Step 1: Select Modification', which lists various actions in blue buttons: 'Change a Single Config Option', 'Change Command and Arguments', '+ Add Contact(s)' and '- Remove Contact', '+ Add Contact Group(s)' and '- Remove Contact Group', '+ Add Host Group(s)' and '- Remove Host Group', '+ Add Service Group(s)' and '- Remove Service Group', '+ Add Parent Host(s)' and '- Remove Parent Host', '+ Add Custom Variables' and '- Remove Custom Variables', '+ Add Service(s)', 'Change Templates', and 'Change Config Names'.

Finishing Up

This completes the documentation on using the Core Config Manager for service management in Nagios XI. 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](#)