

Service Node Configuration Mode Commands

To configure a WAAS Node (WN) that is part of an AppNav Cluster, use the **service-insertion service-node** global configuration command. To unconfigure settings, use the **no** form of this command.

```
service-insertion service-node { authentication sha1 key authkey | description description |
enable | node-discovery enable | shutdown max-wait seconds }
```

```
no service-insertion service-node { authentication sha1 key authkey | description description |
enable | node-discovery enable | shutdown max-wait seconds }
```

Syntax Description	
authentication sha1 key <i>authkey</i>	(Optional) Enables authentication between the WN and other devices in the AppNav Cluster and specifies an authentication key of up to 64 alphanumeric characters. This key must match the key configured in the service context.
description <i>description</i>	(Optional) Specifies a description of the node with up to 200 alphanumeric and space characters.
enable	(Optional) Enables the participation of the node in the AppNav Cluster.
node-discovery enable	(Optional) Specifies service-node discovery parameters and enables service-node discovery.
shutdown max-wait <i>seconds</i>	(Optional) Specifies the number of seconds that the node should wait for all connections to terminate when shutting down. Valid values range from 0-3600 seconds. The default is 120 seconds.

Defaults There is no authentication key and no description configured. The shutdown waiting time is 120 seconds. The node is disabled.

Command Modes global configuration

Device Modes application-accelerator
appnav-controller

Usage Guidelines Use the **service-insertion service-node** command to configure a WN that is part of an AppNav Cluster. When used without options, this command initiates the service node configuration mode, which is indicated by a different prompt (config-sn). To return to global configuration mode, enter the **exit** command.

Each WN (and ANC acting as a WN) in the AppNav Cluster must be configured with WN settings by using the **service-insertion service-node** command. To begin using the node in the cluster, you must use the **enable** option.

Examples

The following example shows how to configure and enable a WN:

```
WAE(config)# service-insertion service-node  
WAE(config-sn)# description London branch node 1  
WAE(config-sn)# authentication sha1 key myauthkey  
WAE(config-sn)# shutdown max-wait 120  
WAE(config-sn)# enable
```

Related Commands

- [\(config-sn\) authentication](#)
- [\(config-sn\) description](#)
- [\(config-sn\) enable](#)
- [\(config-sn\) node-discovery enable](#)
- [\(config-sn\) shutdown](#)
- [\(config\) service-insertion](#)
- [show service-insertion](#)

(config-sn) authentication

To configure the WN authentication key, use the **authentication** service node configuration command. To unconfigure the authentication key, use the **no** form of this command.

authentication sha1 key *authkey*

no authentication sha1 key

Syntax Description	sha1 key <i>authkey</i>	Enables authentication between the WN and other devices in the AppNav Cluster and specifies an authentication key of up to 64 alphanumeric characters.
---------------------------	--------------------------------	--

Defaults	No key is defined and authentication is not enabled.
-----------------	--

Command Modes	Service node configuration
----------------------	----------------------------

Device Modes	application-accelerator appnav-controller
---------------------	--

Usage Guidelines	The specified key must match the key configured in the service context.
-------------------------	---

Examples	The following example shows how to configure an authentication key:
-----------------	---

```
WAE(config)# service-insertion service-node
WAE(config-sn)# authentication sha1 key myauthkey
```

Related Commands	<p>(config-sn) description</p> <p>(config-sn) enable</p> <p>(config-sn) node-discovery enable</p> <p>(config-sn) shutdown</p> <p>(config) service-insertion</p> <p>show service-insertion</p>
-------------------------	---

(config-sn) description

To configure the WN description, use the **description** service node configuration command. To unconfigure the description, use the **no** form of this command.

description *description*

no description

Syntax Description	<i>description</i>	Specifies a description of the node with up to 200 alphanumeric and space characters.
---------------------------	--------------------	---

Defaults	No default behavior or values.	
-----------------	--------------------------------	--

Command Modes	Service node configuration	
----------------------	----------------------------	--

Device Modes	application-accelerator appnav-controller	
---------------------	--	--

Examples	The following example shows how to configure a description:	
-----------------	---	--

```
WAE(config)# service-insertion service-node
WAE(config-sn)# description London branch node 1
```

Related Commands	(config-sn) authentication (config-sn) enable (config-sn) node-discovery enable (config-sn) shutdown (config) service-insertion show service-insertion	
-------------------------	---	--

(config-sn) enable

To enable the participation of the WN in the AppNav Cluster, use the **enable** service node configuration command. To disable the node, use the **no** form of this command.

enable

no enable

Syntax Description This command has no arguments or keywords.

Defaults Disabled.

Command Modes Service node configuration

Device Modes application-accelerator
appnav-controller

Usage Guidelines A WN must be enabled before it can actively participate in an AppNav Cluster and receive traffic for optimization.

Examples The following example shows how to enable a WN for participation in an AppNav Cluster:

```
WAE(config)# service-insertion service-node  
WAE(config-sn)# enable
```

Related Commands

- [\(config-sn\) authentication](#)
- [\(config-sn\) description](#)
- [\(config-sn\) node-discovery enable](#)
- [\(config-sn\) shutdown](#)
- [\(config\) service-insertion](#)
- [show service-insertion](#)

(config-sn) node-discovery enable

To enable the node discovery of the Service Node(SN) in the AppNav Cluster, use the **node-discovery enable** service node configuration command. To disable the service node, use the **no** form of this command.

```
node-discovery enable{bvi bridge_group_number | GigabitEthernet interface_slot | portchannel
etherchannel_index | standby standby_index}
```

```
no node-discovery enable
```

Syntax	Description
bvi <i>bridge_group_number</i>	Select a bridge virtual interface for node-discovery.
GigabitEthernet <i>interface_slot</i>	Selects a gigabit ethernet interface for node discovery.
portchannel <i>etherchannel_index</i>	Selects an ethernet channel interface for node discovery.
standby <i>standby_index</i>	Selects a standby group for node discovery.

Defaults

When service node is enabled, node discovery is enabled by default on eth0 interface.

Command Modes

Service node configuration

Device Modes

application-accelerator
appnav-controller

Usage Guidelines

Use the **node-discovery enable command** to configure the service node in the L2 proximity of any participating AppNav Controller so that it is automatically added to the cluster and can participate in WAN optimization. The node discovery configuration for a Service Node cannot be changed when the SN is enabled. To make changes on the node discovery configuration for a SN, the SN should be first disabled. For e.g. if you want to enable/disable the node discovery or change the node discovery interface, you can do so only when the SN is disabled.

Examples

The following example shows how to enable the node discovery of a SN for participation in an AppNav Cluster:

```
WAE(config)# service-insertion service-node
WAE(config-sn)# node-discovery enable ?
WAE(config-sn)# bvi 1
WAE(config-sn)# GigabitEthernet 1
WAE(config-sn)# portchannel 2
WAE(config-sn)# standby 1
```

Related Commands

(config-sn) authentication

(config-sn) description

(config-sn) shutdown

(config) service-insertion

show service-insertion

(config-sn) shutdown

To configure the WN shutdown timeout, use the **shutdown** service node configuration command. To unconfigure the shutdown timeout, use the **no** form of this command.

shutdown max-wait *seconds*

no shutdown max-wait

Syntax Description	max-wait <i>seconds</i>	Specifies the number of seconds that the node should wait for all connections to terminate when shutting down. Valid values range from 0-3600 seconds. The default is 120 seconds.
---------------------------	--------------------------------	--

Defaults	The shutdown waiting time is 120 seconds.
-----------------	---

Command Modes	Service node configuration
----------------------	----------------------------

Device Modes	application-accelerator appnav-controller
---------------------	--

Examples	The following example shows how to configure the shutdown timeout for two minutes:
-----------------	--

```
WAE(config)# service-insertion service-node
WAE(config-sn)# shutdown max-wait 120
```

Related Commands	(config-sn) authentication (config-sn) description (config-sn) enable (config-sn) node-discovery enable (config) service-insertion show service-insertion
-------------------------	--