

## Configuring GVRP (NSM Procedure)

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As a network expands and the number of clients and VLANs increases, VLAN administration becomes complex, and the task of efficiently configuring VLANs on multiple switches becomes increasingly difficult. To automate VLAN administration, you can enable GARP VLAN Registration Protocol (GVRP) on the network.

GVRP learns VLANs on a particular 802.1Q trunk port, and adds the corresponding trunk port to the VLAN if the advertised VLAN is preconfigured or existing already on the switch. For example, a VLAN named “sales” is advertised to trunk port 1 on the GVRP-enabled device. The device adds trunk port 1 to the sales VLAN if the sales VLAN already exists on the switch.

As individual ports become active and send a request to join a VLAN, the VLAN configuration is updated and propagated among the switches. Limiting the VLAN configuration to active participants reduces the network overhead. GVRP also provides the benefit of pruning VLANs to limit the scope of broadcast, unknown unicast, and multicast (BUM) traffic to interested devices only.

To configure GVRP:

1. In the navigation tree, select **Device Manager > Devices**. In Device Manager, select the device.
2. In the configuration tree, expand **Protocols**.
3. Select **GVRP**.
4. Click the Add icon.
5. Add/modify GVRP settings for the interface as specified in Table 1.



**NOTE:** After you make changes to a device configuration, you must push that updated device configuration to the physical security device for those changes to take effect. You can update multiple devices at one time. See Updating Devices for more information.

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**Table 1: GVRP Configuration Fields**

Option	Function	Your Action
Disable	Select this option to disable GVRP on the interface.	Click to select.
Join Timer	Specifies the maximum number of milliseconds the interfaces wait before sending VLAN advertisements.	Select a value.
Leave Times	Specifies the number of milliseconds an interface must wait after receiving a leave message to remove the interface from the VLAN specified in the message.	Select a value.

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**Table 1: GVRP Configuration Fields** *(continued)*

<b>Option</b>	<b>Function</b>	<b>Your Action</b>
Leaveall Times	Specifies the interval at which Leave All messages are sent on interfaces. Leave All messages help to maintain current GVRP VLAN membership information in the network.	Select a value.

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