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## IP PHONE INTEGRATION USING UNTAGGED VLANS

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### **Overview**

Network Sentry does not provide any special integration logic for different IP phone vendors. Typically, the network administrator deploys the organization's IP phone infrastructure independently of configuring the Network Sentry.

Switch ports are usually configured for IP phones in one of two ways:

1. A tagged VLAN or special voice VLAN for the phone is defined, which operates independently of the untagged VLAN that governs other traffic (data) on that port. Network Sentry does not involve itself with these VLANs. In fact, it is purposefully ignorant of them.

For instructions to Integrate IP Phones using tagged voice VLANs, see  
Network Sentry V8.1 IP Phone Integration  
Network Sentry V8.0 IP Phone Integration

2. An untagged voice VLAN is defined for the IP phone. In this configuration, it is possible for Network Sentry to assign VLANs based on the IP phone connectivity.

### **Considerations**

- If a computer will be plugged in behind the phone, both devices should be configured to communicate over the same untagged VLAN.
- If a computer is plugged in that requires Network Sentry to isolate (e.g. Rogue, At-Risk or not authenticated), the VLAN will be switched. This will cause the IP phone to lose communication.
- The port will be temporarily disabled during any VLAN switching.

## ***IP Phone Integration Process When Using Untagged VLAN***

### **Determine the Device Type**

As long as the device is identified as an IP phone (i.e. the device was registered using “IP Phone” device type), Network Sentry does not consider its presence when calculating the VLAN for the port. If Network Sentry needs to be able to switch VLANs based on the IP phone’s presence, a different device type must be used.

1. Navigate to **System > Settings > Identification > Device Types**.
2. Review the existing device types and determine which one will be used to identify the IP Phone. The **In Use** button allows you to see whether a device type is currently being used in the system.

A new device type can be created to identify the IP Phones. This is helpful to ensure no other devices use the device type. In addition, Network Access Policies can then be configured based on matching the new device type in order to assign the voice VLAN.

Do the following to create a new device type:

- a. Click the **Add** button.
- b. To add a custom icon, click **Upload Icon**. You must upload both a small and large icon.
- c. To add select from a list of custom icons, click **Select from Archive**, choose an icon from the list, and then click **OK**.
- d. Enter a name for the device type icon, and click **OK**.

### **Device Profiling Rules**

If Device Profiling Rules were created to register the IP phones, modify the rule to assign the new device type.

1. Navigate to **Hosts > Device Profiling Rules**.
2. Select the rule and click the **Modify** button.
3. Under **Registration Settings**, select the new device type in the **Type:** drill-down.
4. Click **OK**.

**Note:** DHCP and Passive Fingerprinting methods cannot be used to identify the new IP Phone device type. Network Sentry has a database containing specific fingerprints used to identify certain device types. Custom device types do not have such entries in the database.

## Convert Already Registered IP Phones to Use New Device Type

If IP phones were already registered using the system defined “IP Phone” device type, the host records will need to be edited.

Identify the host records with the IP Phone device type:

1. Navigate to **Hosts > Hosts View**
2. Set custom filter to match **Device Type = IP Phone** under the Host tab, then click **OK**.

If only a few hosts need editing, the host records can be edited manually:

1. Click on the host record and select **Modify Host**.
2. Next to **Device Type**: Select the new device type from the drill-down.
3. Click **OK**.

If a large number of hosts need to be changed, they can be exported and re-imported with the new device type:

1. Export IP Phones to a CSV file.
  - a. Navigate to **Hosts > Hosts View**
  - b. Set custom filter to match **Device Type = IP Phone** under the Host tab, then click **OK**.
  - c. Select the host records that need to be converted (if not all of them need to be).
  - d. Next to **Export to**: at the bottom of the view, click the **CSV** icon.
  - e. Select the **Make Host Importable** checkbox.
  - f. In the resulting file, edit the **host.devType** column.
  - g. Change "IP Phone" to the new Device Type name.
2. Re-import the CSV file with the new Device Type.
  - a. Click the **Import** button.
  - b. Browse to the newly edited CSV file.
  - c. The Import Results will display. Click **OK** to accept.  
**Note:** An Import Error may display if there are any empty column values. The record will still import. Click **OK** to complete import.