

Dynamic Pairing

Use the Dynamic Pairing feature to pair a virtual Q-SYS hardware component in your design with a matching physical hardware device on the network, either by the device's network name (hostname) or by the switch port to which the device is connected. This allows for easy swapping of Q-SYS hardware without having to update your design and redeploy it to the Q-SYS Core processor, preventing audio and control downtime.

Requirements

- To configure Dynamic Pairing, one or more hardware components in your design must have the **Dynamically Paired** property set to 'Yes'.

Note: If the hardware does not support **Dynamic Pairing**, this property does not exist.

- The paired hardware device must be the same type of hardware and configuration as the virtual hardware component in your design. For example, if you configure a virtual I/O Frame component with four Line Out cards, you can only connect an I/O Frame with four Line Out cards to pair with the virtual component.
- To use the **Switch Port** pairing method, the network switch must support the Link Layer Discovery Protocol (LLDP). Check with your local IT person if you have questions about LLDP and port labeling.
- If a device is configured for redundancy, it cannot be dynamically paired.

Pairing Methods

You can pair a logical Q-SYS hardware component in your design to a matching physical hardware device in one of two ways:

Network Name

The logical hardware component in your design is paired to a physical hardware component on the network with a hostname that matches the Network Name selected in Core Manager.

Tip: Select this method when you primarily care about the exact device name rather than where it connects to the network. For example, if you knew that your Q-SYS installation would eventually expand to need an additional Page Station, you could build the Page Station into your design now and use a Network Name

dynamic pairing to integrate the Page Station in the future - without having to redeploy your design.

Switch Port

The logical hardware component in your design is paired to the physical hardware component on the network that is connected to the Switch Port selected in Core Manager. (The Switch Port is commonly the port's MAC address, but your switch may use different labeling.) Once you have selected a Switch Port for pairing, Q-SYS will always look for matching hardware plugged into that specific switch port to pair with the virtual component in your design.

Tip: Select this method when you primarily care about where the device is being plugged in. For example, if you have multiple I/O-22 devices – each on a rolling cart serving a different purpose – any of them could be plugged into the LAN port in a conference room and Q-SYS will treat them the same, without having to redeploy your design.

Configuring Dynamic Pairing

1. In your design:
 - Select a virtual hardware component and set the **Dynamically Paired** property to 'Yes'.
 - Set the **Is Required** property to 'No' to avoid a Fault error (and instead report as 'Not Present') if the hardware device is not connected to the network.
2. Save and run your design on the Core.
3. In Q-SYS Core Manager, select **Dynamic Pairing**. All devices configured for Dynamic Pairing are listed.
4. Click **Edit**.
5. For the device you want to pair, select the pairing **Method**. See [See Pairing Methods](#).
6. Select the **Pairing**:
 - For the Network Name method, select from a list of discovered hardware devices matching the virtual hardware component type in your design.
 - For the Switch Port method, select from a list of switch ports that have connected hardware devices matching the virtual hardware component type in your design.
7. Click **Save**.

