



# CHAPTER 27

## Local Switching

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This chapter describes the level of support that Cisco ANA provides for local switching, as follows:

- [Technology Description, page 27-1](#)
- [Information Model Objects \(IMOs\), page 27-2](#)
- [Vendor-Specific Inventory and IMOs, page 27-2](#)
- [Service Alarms, page 27-2](#)

## Technology Description

Please see Part 1: Cisco VNEs in this guide for information about which devices support the various technologies.

## Local Switching

Local switching allows switching of Layer 2 data between two attachment circuits on the same device. Local switching operates in several modes and technologies.

In local switching (also known as *hairpin connection*), frames from one attachment circuit are switched to another attachment circuit on the same router. The attachment interfaces can be on the same line card or on different cards. During this type of switching, no address information is used at all. The local switching act as a kind of tube between the two interfaces.



### Note

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Cisco ANA version 3.6 SP4 and later provides support for local switching only in Ethernet and VLAN modes on CRS-1 devices running IOS-XR software.

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# Information Model Objects (IMOs)

This section describes the following IMOs:

- [Local Switching Entity](#)
- [Local Switching Entry](#)

## Local Switching Entity

The [Local Switching Entity](#) is the container for [Local Switching Entry](#) objects.

**Table 27-1** *Local Switching Entity Interface (ILocalSwitchingEntity)*

| Attribute Name        | Attribute Description                                                                                                                                        | Scheme | Polling Interval |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------------|
| Local Switching Table | A set of ILocalSwitchingEntry objects                                                                                                                        | IpCore | Configuration    |
| PW Switching Table    | A local switching table that contains the pseudowire switching points (VFI point-to-point in the case of IOS and cross-connect group in the case of IOS-XR). |        |                  |

## Local Switching Entry

Each [Local Switching Entry](#) describes a single locally switched cross-connect entry.

**Table 27-2** *Local Switching Entry Interface (ILocalSwitchingEntry)*

| Attribute name               | Attribute Description                                  | Scheme  | Polling Interval |
|------------------------------|--------------------------------------------------------|---------|------------------|
| Local Switching Entry Key    | Entry key for the cross-connect group                  | Product | Configuration    |
| Local Switching Entry Status | Status of the cross-connect                            | Product | Configuration    |
| Segment 1                    | Object Identifier of the first cross-connect endpoint  | Product | Configuration    |
| Segment 1 Port Name          | Name of the first cross-connect endpoint               | Product | Configuration    |
| Segment 1 Status             | Status of first cross-connect endpoint                 | Product | Configuration    |
| Segment 2                    | Object Identifier of the second cross-connect endpoint | Product | Configuration    |
| Segment 2 Port Name          | Name of the second cross-connect endpoint              | Product | Configuration    |
| Segment 2 Status             | Status of second cross-connect endpoint                | Product | Configuration    |

## Vendor-Specific Inventory and IMOs

There are no vendor-specific inventory or IMOs for this technology. Currently, only the Cisco CRS-1 device running IOS-XR is supported.

## Service Alarms

The following alarm is supported for this technology:

- [Local Switching Down, page 41-43](#)

