CHAPTER 25

Local Switching

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

Technology Description

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 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.

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 25-1 Local Switching Entity Interface (ILocalSwitchingEntity)

Attribute Name	Attribute Description	Scheme	Polling Interval
Local Switching Table	A set of ILocalSwitchingEntry objects	IPCore	Configuration

Local Switching Entry

Each Local Switching Entry describes a single locally switched cross-connect entry.

Table 25-2 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.

Network Topology

There is no network topology to be discovered specifically for local switching. Local switching is viewable from the Cisco ANA logical inventory through an appropriate cross-connect container. This modeling enables flow functions to operate according to the cross-connect, permitting correlation and path-tracing.

Service Alarms

The following alarms are supported for this technology:

- Local Switching Entry down
- Local Switching Entry unresolved
- Local Switching Entry up

Both the “Local Switching Entry down” and “Local Switching Entry unresolved” alarms are cleared by the “Local Switching Entry up” alarm.

For detailed information about alarms and correlation, see the *Cisco Active Network Abstraction 3.7 User Guide*.