Integrated Services Digital Network

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

Technology Description

ISDN is a digital telephony and data transport service offered by regional telephone carriers. ISDN involves digitization of the telephone network, which permits voice, data, text, graphics, music, video, and other source material to be transmitted over existing telephone wires.

ISDN offers two types of channels: A 64-Kb/s Bearer (B) channel used for data, and a 64-Kb/s (maximum) Delta (D) channel used for signaling and control over layers 1, 2, and 3 of the Open Systems Interconnection (OSI) model. It also offers two types of channel-based services: The 192-Kb/s Basic Rate Interface (BRI) service, which offers two B channels and one D channel (2B+D); and the 1.544/2.048-Mb/s Primary Rate Interfaces (PRI) service, which offers 23 to 31 B channels and one D channel, respectively, for the xDSL interface backup.

Information Model Objects (IMOs)

This section describes the following IMOs:

- ISDN Interface (IIsdnLayer2)
- ISDN Channel (IIsdnChannel)
- ISDN Physical (IIIsdnLayer1)

ISDN Interface

The data link layer ISDN Interface object is bound by its Containing Termination Points attribute to a physical layer ISDN Physical object. It is accessed primarily by a PPP Encapsulation bound by its Contained Connection Termination Points attribute.

Table 22-1   ISDN Interface (IIsdnLayer2)

Attribute Name	Attribute Description	Scheme	Polling Interval
Control Administrative Status	Administrative status (*Unknown, Up, Down, Testing*)	Product	Status
Operational Status	Operational status (*Unknown, Up, Down, Testing, Dormant, Not Present*)	Product	Status
Channels Table	Array of ISDN Channels	Product	Configuration
IANA Type	Internet Assigned Numbers Authority (IANA) type of the sublayer	N/A	N/A
Containing Termination Points	Underlying termination points (connection or physical)	Product	N/A
Contained Connection Termination Points	Bound connection termination points	Product	N/A

ISDN Channel

The data link layer ISDN Channel object describes an ISDN Interface channels table's entry.

Table 22-2   ISDN Channel (IIsdnChannel)

Attribute Name	Attribute Description	Scheme	Polling Interval
Control Administrative Status	Administrative status (*Unknown, Up, Down, Testing*)	Product	Status
Operational Status	Operational status (*Unknown, Up, Down, Testing, Dormant, Not Present*)	Product	Status

ISDN Physical

The physical layer ISDN Physical object is bound by its Containing Termination Points attribute to a Port Connector object. It is accessed by the data link layer ISDN Interface bound by its Contained Connection Termination Points attribute.

Table 22-3   ISDN Physical (IIIsdnLayer1)

Attribute Name	Attribute Description	Scheme	Polling Interval
All attributes are the same as those of Physical Layer (IPhysicalLayer).			

Vendor-Specific Inventory and IMOs

There are no vendor-specific inventory or IMOs for this technology.

Service Alarms

The following alarms are supported for this technology:

■ **Service Alarms**