CHAPTER 1

Introduction

This chapter introduces Virtual Network Elements (VNEs) and describes the types of information available in this Guide.

This chapter contains the following topics:

Introduction to VNEs

VNEs (Virtual Network Elements) are independent software processes that run on the Cisco ANA Unit Servers. Each VNE is assigned to manage a single network element (NE) using the NE's management interfaces (for example, SNMP and/or Telnet). The VNEs maintain a live model, or abstraction, of each NE and the entire network.

As the VNE loads, it starts investigating the NE and automatically builds a live model of the NE, including its physical and logical inventory, its configuration and its status. After modeling the NE, the VNE begins negotiating with peer VNEs, which represent the peer NEs, in order to determine NE connectivity and topology at different layers. This model of the network topology, NE state, and NE inventory is constantly being updated by the VNEs, which track every change that occurs in the NEs and the network.

The VNEs communicate between themselves to analyze end-to-end flows, which provide information for root-cause and impact analysis, service path tracing, and more.

Understanding the Tables

This section presents legends that describe key information that can be found in the VNE support information chapters in this Guide.

This section contains the following topics:

Certification Level Legend

Table 1-1 describes the meaning of the certification levels found in the VNE support information tables in this Reference Guide.

Table 1-1 Certification Level Legend

Certification Level	Description
N	Not supported.
S	Supported.
V	Verified.

Expedite Legend

Table 1-2 describes the meaning of the Expedite column found in the service event (service alarm) tables in this Reference Guide.

Table 1-2 Expedite Legend in Service Event Tables

Value	Descriptions
Y	The service event is expedited by a syslog or trap generated by the device. This means that the syslog or trap causes the VNE to poll the device without waiting for the usual polling cycle, thus enabling quicker detection of the event.
N	The service event is not expedited. This means that the VNE will detect this event during the next regularly scheduled polling cycle.