

Chapter 1

Services Interfaces Overview

Interfaces used in router networks fall into two categories:

Networking interfaces, such as Ethernet and SONET interfaces, that primarily provide traffic connectivity. For more information on these interfaces, see the *JUNOS Network Interfaces and Class of Service Configuration Guide*.

Services interfaces that provide specific capabilities for manipulating traffic before it is delivered to its destination.

Service PIC Types

Services interfaces enable you to add services to your network incrementally. The JUNOS software supports the following services Physical Interface Cards (PICs):

Adaptive Services PIC (AS PIC)—Enables you to perform multiple services on the same PIC by configuring a set of services and applications. The AS PIC offers a special range of services you configure in one or more service sets: stateful firewalls, Network Address Translation (NAT), intrusion detection services (IDS), and Internet Protocol Security (IPSec). You can also configure voice services and Layer 2 Tunneling Protocol (L2TP) services. For more information about these services, see “Adaptive Services Overview” on page 19.

ES PIC—Provides a security suite for the Internet Protocol version 4 (IPv4) and Internet Protocol version 6 (IPv6) network layers. The suite provides functionality such as authentication of origin, data integrity, confidentiality, replay protection, and nonrepudiation of source. It also defines mechanisms for key generation and exchange, management of security associations, and support for digital certificates. For more information about encryption interfaces, see “Encryption Interfaces Configuration Guidelines” on page 287.

Monitoring Services PIC—Enables you to monitor traffic flow and export the monitored traffic. Monitoring traffic allows you to perform the following tasks:

Gather and export detailed information about IPv4 traffic flows between source and destination nodes in your network.

Sample all incoming IPv4 traffic on the monitoring interface and present the data in cflowd record format.

Perform discard accounting on an incoming traffic flow.

Encrypt or tunnel outgoing cflowd records, intercepted IPv4 traffic, or both.

Direct filtered traffic to different packet analyzers and present the data in its original format.

For more information about flow monitoring interfaces, see “Flow Monitoring and Discard Accounting Configuration Guidelines” on page 315.

Multilink Services and Link Services PICs—Enable you to split, recombine, and sequence datagrams across multiple logical data links. The goal of multilink operation is to coordinate multiple independent links between a fixed pair of systems, providing a virtual link with greater bandwidth than any of the members. The JUNOS software supports two services PICs based on the Multilink Protocol: the Multilink Services PIC and the Link Services PIC. For more information about multilink and link services interfaces, see “Link and Multilink Services Interfaces Configuration Guidelines” on page 413.

Tunnel Services PIC—By encapsulating arbitrary packets inside a transport protocol, provides a private, secure path through an otherwise public network. Tunnels connect discontinuous subnetworks and enable encryption interfaces, virtual private networks (VPNs), and Multiprotocol Label Switching (MPLS). For more information about tunnel interfaces, see “Tunnel Interfaces Configuration Guidelines” on page 491.