Introduction

The Cisco 1100 Terminal Services Gateway is a modular terminal gateway that provides asynchronous connections to the console ports for different kinds of network devices such as Cisco third-party network devices, and servers. The Cisco 1100 Terminal Services Gateway offers integrated asynchronous ports, optional switching, and simplified Ethernet. It also supports secure tunnels, such as IPSec, generic routing encapsulation (GRE), and Cisco Dynamic Multipoint VPN, all at scale.

The Cisco 1100 Services Terminal Gateway with the LAN and WAN connections can be configured by means of interface modules and Network Interface Modules (NIMs).

The following features are provided for enterprise and service provider applications:

- Enterprise Applications
    - High-end branch gateway
    - Centralized Management
    - Zero Touch Provisioning
    - Mulit Tenant
    - Role based access to server and session
    - Regional site aggregation
    - Key server or PfR master controller
    - Device consolidation or "Rack in a Box"
- Service Provider Applications
    - High-end managed services in Customer-Premises Equipment (CPE)
    - Services consolidation platform
    - Flexible customer edge terminal gateway

The Cisco 1100 Terminal Services Gateway runs Cisco IOS XE software, and uses software components in many separate processes. This modular architecture increases network resiliency, compared to standard Cisco IOS software.

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- Processes, on page 2

Sections in this Document

Table 1: Sections in this Document

Section	Description
Overview	Provides a high-level description of the router and describes the main internal processes of the router.
Using Cisco IOS XE Software	Describes the basics of using Cisco IOS XE software with the router.
Managing the Device Using Web User Interface	Describes the uses of a Gigabit Ethernet management interface and a web user interface.
Console Port, Telnet, and SSH Handling	Describes software features that are common across Cisco IOS XE platforms.
Installing the Software	Contains important information about filesystems, packages, licensing, and installing software.
Basic Router Configuration	Describes the basic tasks required to configure a router.
Slot and Subslot Configuration	Provides information about the chassis slot numbers and subslots where the service modules are installed.
System Messages	Provides information about syslog messages.
Trace Management	Describes the tracing function where logs of internal events on a router are recorded.
Environmental Monitoring and PoE Management	Describes the environmental monitoring features on a router.
Factory Reset	Describes how it can be used to protect or restore a router to an earlier, fully functional state.

Processes

The list of background processes in the following table may be useful for checking router state and troubleshooting. However, you do not need to understand these processes to understand most router operations.

Table 2: Individual Processes

Process	Purpose	Affected FRUs	Sub Package Mapping
Chassis Manager	Controls chassis management functions, including management of the High Availability (HA) state, environmental monitoring, and FRU state control.	RP SIP ESP	RPControl SIPBase ESPBase
Host Manager	Provides an interface between the IOS process and many of the information gathering functions of the underlying platform kernel and operating system.	RP SIP ESP	RPControl SIPBase ESPBase
Logger	Provides IOS logging services to processes running on each FRU.	RP SIP ESP	RPControl SIPBase ESPBase
IOS	Implements all forwarding and routing features for the router.	RP	RPIOS
Forwarding Manager	Manages downloading of configuration details to the ESP and the communication of forwarding plane information, such as statistics, to the IOS process.	RP ESP	RPControl ESPBase
Pluggable Services	Provide integration between platform policy applications, such as authentication and the IOS process.	RP	RPControl
Shell Manager	Provides user interface (UI) features relating to non-IOS components of the consolidated package. These features are also available for use in diagnostic mode when the IOS process fails.	RP	RPControl

Process	Purpose	Affected FRUs	Sub Package Mapping
IO Module process	Exchanges configuration and other control messages with a NIM.	IO Module	SIPSPA
CPP driver process	Manages CPP hardware forwarding engine on the ESP.	ESP	ESPBase
CPP HA process	Manages HA state for the CPP hardware forwarding engine.	ESP	ESPBase
CPP SP process	Performs high-latency tasks for the CPP-facing functionality in the ESP instance of the Forwarding Manager process.	ESP	ESPBase

For further details of router capabilities and models, see the Hardware Installation Guide for Cisco 1100 Terminal Gateway.