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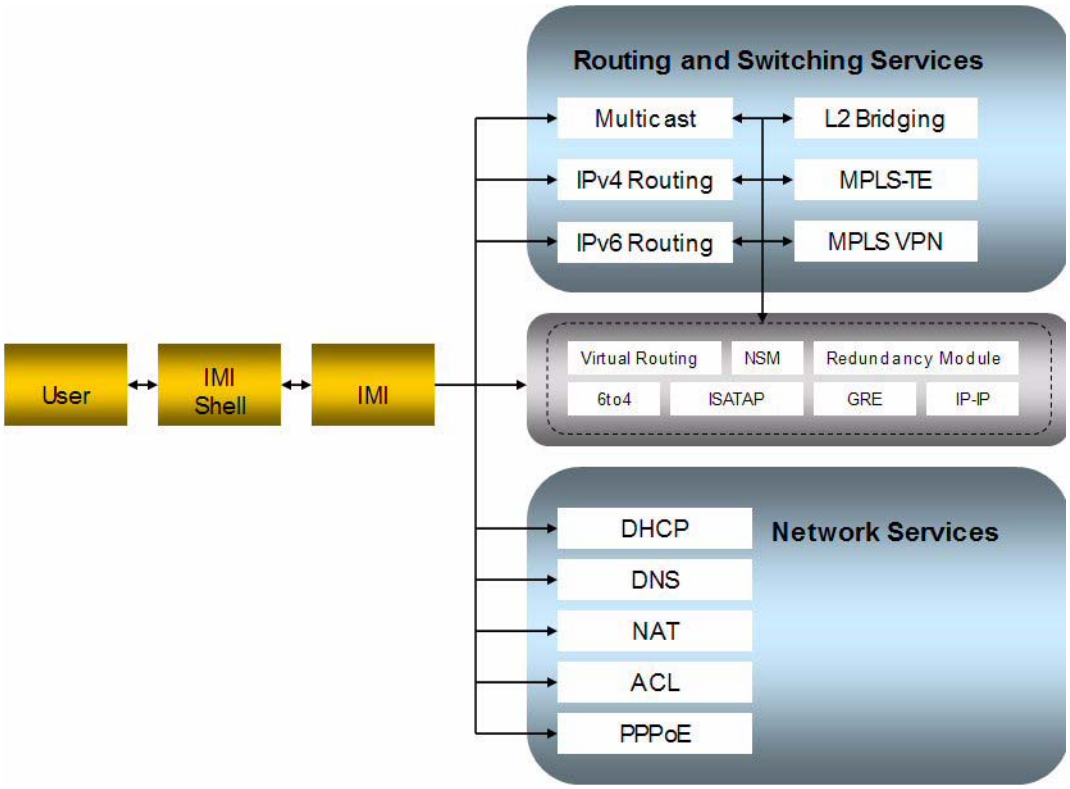
ZebOS®
Network Platform

Management Interface Modules

Overview

IP Infusion's ZebOS® Network Platform Management Interface Modules provide a comprehensive set of tools to manage and control the ZebOS routing and switching protocols. These tools consist of the Integrated Management Interface (IMI) module, IMI Shell (IMISH) module, Basic Access module, and IPv6 Tunneling and Transition module. The Management Interface Modules enable hardware manufacturers to seamlessly integrate a complete management plane with an industry-standard CLI to their routing and switching equipment as well as rapidly build and provision enhanced IP services solutions for access equipment.



Management Interface Modules

ZebOS IMI

The ZebOS IMI Module offers complete, unified management of the ZebOS Network Services Module (NSM) and the individual ZebOS ARS protocols. It allows a system administrator to configure and monitor all ZebOS daemons via one centralized user connection. As a stand-alone management daemon, the IMI maintains a persistent connection to routing daemons, stores configuration data and offers extensive monitoring and logging capabilities. The feature-rich ZebOS IMI provides a hierarchical CLI, which includes Exec, Privileged Exec, Configure, Router, Interface, and additional command modes. It also supports syntax checking, command auto-completion and context-sensitive Help.

In addition, ZebOS IMI allows an end-user to easily configure and manage network services featured in the Linux operating system, such as DNS, DHCP, NAT, ACL, and PPPoE, through the Basic Access Module. The Basic Access Module offers a series of interfaces that enable equipment vendors to easily and rapidly integrate access software into their products and pass on the ease of manageability to their end users.

IMI Shell

ZebOS IMI Shell is a client application that connects to the IMI to enable SSH or TELNET management. Client can deploy it on routing equipment or on a separate management console. The ZebOS IMI Shell supports role-based management, leveraging the secure authentication method of the operating system to manage and validate user names and passwords. In addition, the ZebOS IMI Shell supports sophisticated input and output functions, for example to allow an administrator to save the output of a show command to a file.

The IPv6 Tunneling and Transition Module provides tools and a command line interface (CLI) via the ZebOS Network Services Module to configure and set parameters of IPv6 to IPv4 transition and tunneling protocols such as 6to4, Intra-Site Automatic Tunnel Addressing Protocol (ISATAP), Generic Routing Encapsulation (GRE), and IP-in-IP encapsulation protocols. These features deliver enhanced performance, easy integration and management for access product OEMs/ODMs.

Features

IMI and IMI Shell

- Centralized management of all ZebOS modules from an industry-standard CLI
- Hierarchical command line structure
- CLI support for
  - Command auto-completion
  - Syntax checking
  - Command history
  - Context-sensitive Help and list and “?” command support
- Extensive debug and syslog logging operations

Basic Access

- DNS Client
- DHCP Client/Server
- PPPoE Client
- Network Address Translation (NAT)
- Access Control List (ACL)
- Virtual Server

IPV6 Tunneling and Transition

- 6to4 Transition
- ISATAP
- GRE Encapsulation
- IP-in-IP Tunneling

Benefits

- Stable and robust CLI implementation
- Full integration with ZebOS routing and switching modules
- Single point of configuration and monitoring
- Platform independent implementation
- Extensibility allowing equipment vendors to easily add new protocols and commands
- Intelligent design for seamless integration with existing management applications
- Consolidation of ZebOS Network Platform settings into a single configuration file
- Delivers significant time-to-market advantages for the customer

Requirements

- ZebOS Network Services Module (NSM)
- ZebOS IMI Module

Standard Deliverables

- Source Code (written in ANSI-compliant C)
- Installation Guide
- Configuration Guide
- Command Reference Guide
- Developer Guide