

ZebOS®  
Advanced Routing Suite

# IS-IS Modules for IPv4 and IPv6

SKU ZOS-ISIS  
SKU ZOS-ISIS6

The ZebOS® Advanced Routing Suite (ARS) Intermediate System-to-Intermediate System (IS-IS) Module provides an IETF-compliant implementation of IS-IS for IPv4 and IPv6. It is based on link-state technology with two levels of hierarchy. IS-IS forwards the Open Systems Interconnect (OSI) and IP packets unaltered; packets are transmitted directly over the underlying link-layer protocols using the Dijkstra algorithm to find the shortest path to the destination.

The ZebOS IS-IS Module communicates with ZebOS Network Services Module (NSM) to pass routing information to the forwarding plane. The IS-IS Module is fully integrated into the NSM and the other IPv4/IPv6 protocol modules. In addition, IP Infusion's IS-IS solution can be used in embedded equipment and on standard server platforms. It is a control plane software module that can also be integrated into a range of network processor environments, and is pre-configured to support many popular operating systems. The ZebOS IS-IS Module is written in ANSI C.

## Features

- Link state synchronization:
  - Link state update
  - Link state database
- Hello for adjacency maintenance
- Areas for hierarchical topology
- Multiple instances
- Shortest path routing calculations based on the Dijkstra algorithm
- Area password authentication
- Domain password authentication
- Interface password authentication
- IS-IS interface state machine
- IS-IS protocol data unit
- IS-IS Traffic Engineering with optional CSPF
- Overload bit
- IS-IS Mesh Groups
- Domain-wide Prefix Distribution with Two-Level IS-IS
- Redistribution of information from another routing protocol
- MIBs support (get/get\_next/set)
- Command line interface
- Attached Level 2 Area
- IS-IS Multi-topology support
- Metric-style transition support
- Summary Address
- Sequence Modulus
- Dynamic Hostname Exchange Mechanism
- IS-IS Restart
- Optional GMPLS Extensions

## Benefits

- Delivers significant time-to-market advantages for the customer
- Stable, robust implementation of IS-IS tested using a variety of conformance and performance test tools
- Interoperability with major router vendors

## Requirements

SKU	PRODUCT NAME
ZOS-NSM	ZebOS Network Services Module

## Standards Supported

STANDARD	FUNCTION
ISO-10589	Intermediate System-to-Intermediate System
RFC 1195	Use of OSI IS-IS for Routing in TCP/IP and Dual Environments
RFC 2763	Dynamic Hostname Exchange Mechanism for IS-IS
RFC 2973	IS-IS Mesh Groups
RFC 2966	Domain-wide Prefix Distribution with Two-Level IS-IS
draft-ietf-isis-traffic-04	IS-IS Extensions for Traffic Engineering
draft-ietf-isis-wg-mib-09	Management Information Base for IS-IS
draft-noguchi-isis-protocol-topology-01	Protocol Topology Support for IS-IS
draft-ietf-isis-gmpls-extensions-16	IS-IS Extensions in Support of Generalized MPLS
draft-ietf-isis-restart-02	Restart signaling for IS-IS
draft-ietf-isis-wg-multi-topology-06	M-ISIS: Multi-topology Routing in IS-IS
draft-ietf-isis-ipv6-05	Routing IPv6 with IS-IS

## Supported Operating Systems

- Linux
- MontaVista Professional Edition

## Standard Deliverables

- Source Code (written in ANSI-compliant C)
- IS-IS Command References
- Developer Guide

## Special Considerations

- End System-IS (ES-IS) and ES are not supported.
- Connectionless Network Services (CLNS) routing and forwarding are not supported.
- Only IP routing is supported.



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