



TeraRouting Tester IS-IS Software Module

IS-IS

Product Overview

The IS-IS routing protocol software module works together with all of the basic TeraRouting Tester (TRT) features such as the Flap Scheduler, Traffic Generator, and integrated results. Support for IS-ISv4 and IS-ISv6 is available.

IS-IS Adjacency Features

- 100 IS-ISv4 or 100 IS-ISv6 adjacencies per port
- IPv4 or IPv6 transport per adjacency
- Millions of routes
- Emulates Level 1, Level 2, or Level 1/Level 2 routers
- Supports up to 3 areas per emulated router
- System ID and Circuit ID of each emulated router
- Max LSP size
- Link metrics per level
- Narrow, wide, or narrow/wide metric modes
- Hello Interval, Flood Delay, LSP Refresh Timer, and Retransmit Interval
- Support for Traffic Engineering extensions

IS-IS LSP Generator Wizard

- Quickly configure IS-IS networks for Level 1 areas and Level 2 backbone
- Number of routers in the area
- Maximum number of Point-to-point and Broadcast links per router
- Maximum number of Transit Networks and Routers per transit network
- Number of Internal Routes, Prefix Length Distribution, and Percent Duplicates

- Number of External Routes, Prefix Length Distribution, and Percent Duplicates
- Can generate default Traffic Engineering parameters
- Select generated IP address range
- Generate routes in a manner that prevents route aggregation

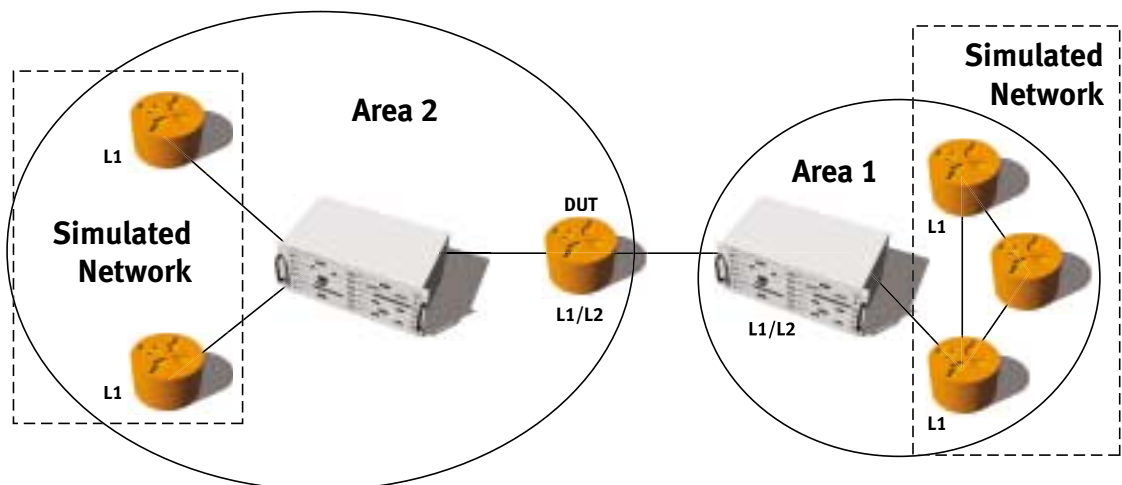
LSP Options

- System ID of the originating router
- Pseudonode ID of the designated IS
- Age, Lifetime, Sequence Number, Overload Bit, and Attached Bit
- Good or bad checksum
- Number of neighbors
- Neighbor ID, Pseudonode ID, and standard and wide metrics for each neighbor link
- Supports the following Traffic Engineering extensions: Local and Remote IP Addresses, Administrative Group, Maximum/Reservable/Unreserved Bandwidth
- Route Blocks may be assigned to an LSP with the following fields:
 - IPv4 or IPv6 routes
 - Number of Routes, Start IP Address, and Increment value for block
 - Internal or external routes
 - Up/Down Bit
 - Narrow and wide metrics
 - Can copy/paste and duplicate one or more LSPs/links

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Application: ISIS Border Router

TeraRouting Tester IS-IS applications



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IS-IS Flap Events

- Break/Restore Physical Links
- Stop/Resume Hellos (all or individual ports/routers)
- Set/Clear Overload Bit (all or individual ports/routers)
- Zero the LSP Age (all or individual LSPs)
- Remove LSP Neighbor (all or individual LSP and Neighbor tuples)
- Withdraw routes per area, prefix length, primary, or secondary route
- Readvertise LSPs by area

IS-IS Real Time and Final Results

- Statistics per port and per router
- Sent/Received Point-to-point Hellos
- Sent/Received Level 1/Level 2 LAN Hellos
- Sent/Received Level 1/Level 2 LSPs
- Sent/Received Level 1/Level 2 PSNPs
- Sent/Received Level 1/Level 2 CSNPs

Related Specifications

- SO/IEC 10589 – Base IS-IS specification
- RFC 1195 – Describes the use of IS-IS for IPv4 routing
- draft-ietf-isis-traffic-xx – Describes traffic engineering extensions for IS-IS
- draft-ietf-isis-ipv6-xx – Describes the use of IS-IS for IPv6 routing

Supported Modules

Module	Description
LAN-3301A	10/100/1000Base-T Ethernet, Copper, 2-port, TeraMetrics module
LAN-3302A	10/100Base Ethernet, Copper, 2-port, TeraMetrics module
LAN-3311A	1000Base Ethernet, GBIC, 2-port, TeraMetrics module
POS-3505As	POS OC-48c, 1-port, single mode, 1310nm, TeraMetrics module
POS-3505AR	POS OC-48c, 1-port, single mode, 1550nm, TeraMetrics module
POS-3511A	POS OC-3c/OC-12c, 2-port, multi-mode, 1300nm, TeraMetrics module
POS-3511As	POS OC-3c/OC-12c, 2-port, single mode, 1310nm, TeraMetrics module
POS-3519As	POS OC-192c, 1-port, 2-slot, single mode, 1310nm, TeraMetrics module
POS-3519AR	POS OC-192c, 1-port, 2-slot, single mode, 1550nm, TeraMetrics module
XLW-3721A	10GBase Ethernet Optical, XENPAK, 1-port, 2-slot, TeraMetrics module

Requirements

- TeraRouting Tester Software (SWF-1230A)
- An SMB-600 or SMB-6000B chassis.
- An IBM or compatible Pentium™ PC running Windows® 98/2000/NT, with mouse and color monitor.
- Microsoft Excel 97 or Microsoft Excel 2000.

Ordering Information

SWF-1230A

TeraRouting Tester with RIP software module

SWF-1231A

OSPF software module for TRT

SWF-1232A

IS-IS software module for TRT

SWF-1234A

BGP software module for TRT

SWF-1235A

IPv6 software module for TRT

SWF-1239A

All available software modules for TRT

SWF-1255A

SMB API and Scripting Automation Interface

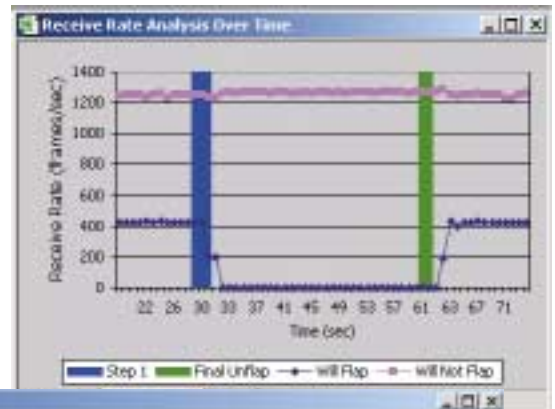
SUS-SMB

12-month Software Update Support Service

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Port	Router	State	Sent Pkts	Received	LI Sent	LI Received	LSPs	CSNPs	PSNPs		
0/0/0	00-00-02-00-00-03	Up	0	0	4	12	14	1	0	3	0

TeraRouting Tester IS-IS test result screens

