



Xena1564™

User-friendly Y.1564 application

Xena1564 is a free PC application developed by Xena Networks to help you perform the Y.1564 methodology using one or more Xena test chassis.

Y.1564 is the ITU-T standard for turning up, installing and trouble-shooting Ethernet-based services. Formulated as an improvement over RFC2544 it is the only standard test methodology that allows for complete validation of Ethernet service-level agreements (SLAs) in a single test.

Xena1564 provides full support for both the configuration and performance test types described in Y.1564. It uses the same terminology and features a simple intuitive GUI that lets you connect one or more XenaCompact and/or XenaBay chassis for testing Layer 2 and Layer 3.

You can define multiple Ethernet services and organize them in a custom folder hierarchy. Xena 1564 supports different network topologies and traffic flow directions and can be used for either IPv4 or IPv6.

Via Xena1564, you can define the protocol layers supported by each UNI (Ethernet, Customer and Service VLANs, MPLS, IP and UDP) as well as defining either per-UNI or per-CoS bandwidth profiles for each UNI, plus you can specify CoS-to-DSCP mapping.

Test reports can be generated in both PDF and XML format and extensive configuration options are available for fine-tuning the tests.

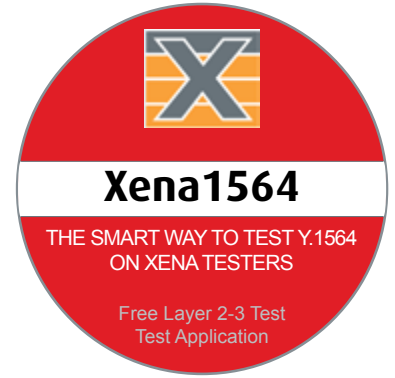
Include Xena1564 in automated scripting environments

The Xena1564 GUI application is suitable for interactive sessions, and the companion Xena1564Run utility is included for performing Y.1564 testing from fully-automated scripting environments.

The Xena1564Run utility lets you execute any test configuration created by the Xena1564 from the command line. (Note that this utility is only capable of executing a Xena1564-generated test configuration, so the test configuration must still be created using the Xena1564 GUI.)

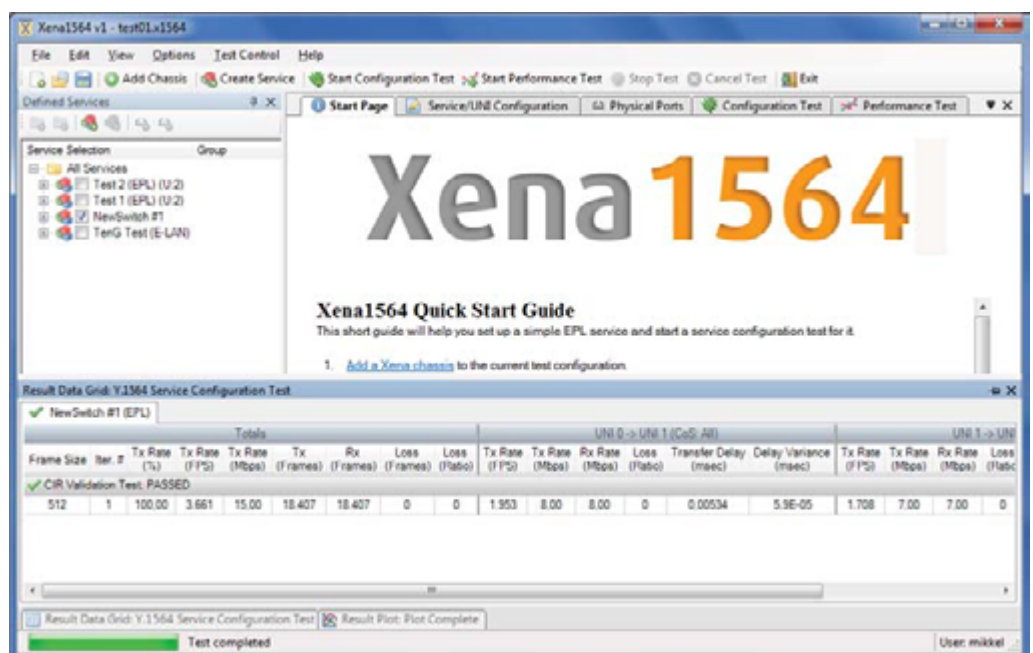
The test reports can be created in either PDF or XML format or both. The automated script environment may need to perform post-processing actions on the generated reports, either by parsing the data or sending the report somewhere else (by email or by copying it to a remote server). The XML report contains both a test results section and a test configuration section. The results section will contain the actual results, whereas the configuration section contains the full configuration used to perform the test.

Scripting examples showing how easy it is to launch Xena1564 from any scripting language using Xena1564Run, are available via Xena's website, as well as examples showing how the XML result file can be parsed and the results extracted. (See reverse for URLs.)



Top Features

- Full configuration and performance testing according to Y.1564
- Complete validation of Ethernet service-level agreements (SLAs) in a single test
- Multiple protocols supported per UNI (Ethernet, Customer and Service VLANs, MPLS, IPv4, IPv6, and UDP)
- Define Per-UNI or per-CoS bandwidth profiles, and specify CoS-to-DSCP mapping
- Support for different network topologies and traffic flow directions
- Summary and result reports in PDF and XML formats
- Easy execution and results parsing from automated scripting environments
- User-friendly GUI makes Xena 1564 simple to learn, easy to use thereby reducing time-to-test
- Xena1564 is free software supplied with all Xena test equipment



Totals										UNI 0 -> UNI 1 (CoS All)				UNI 1 -> UNI 0				
Frame Size	Iter #	Tx Rate (%)	Tx Rate (Mbps)	Tx Rate (Frames)	Rx Rate (Frames)	Loss (Frames)	Loss (Packets)	Tx Rate (FPS)	Tx Rate (Mbps)	Rx Rate (Mbps)	Loss (Packets)	Transfer Delay (msec)	Delay Variance (msec)	Tx Rate (FPS)	Tx Rate (Mbps)	Rx Rate (Mbps)	Loss (Packets)	
512	1	100.00	3.661	15.00	18.407	18.407	0	0	1.953	8.00	8.00	0	0.00534	5.9E-05	1.708	7.00	7.00	0



UNI Configuration

Frame Configuration | **Ingress Bandwidth Profiles** | Egress Bandwidth Profiles

Frame Header Composition

- VLAN: Customer Tag
- VLAN: Service Tag
- MPLS Header(s)
 - Stack Size:
- IP Header
 - IP Version:
- UDP Header
- Enable UDP Checksum

L2

Frame Payload

Payload Type:

Payload Pattern:

00	00	00	00	00	00
00	00	00	00	00	00
00	00	00	00	00	00

Frame Editor

Ethernet	MPLS
Type	Label Class TI
88 47	0 0 25

Create Ethernet Service

Service Main Type

Service Label:

Service Type: EPL E-LAN E-Tree

Is Virtual Service:

Service Acceptance Criteria

Frame Loss Ratio: Use in test

Frame Transfer Delay: msec Use in test

Frame Delay Variance: msec Use in test

Availability: % Use in test

Testflow Characteristics

Topology: Pairs Blocks Mesh

Direction: East -> West West -> East Bidirectional

WEST ↔ EAST

Create Cancel

Specifications

Xena1564 measures these parameters (in accordance with ITU-T Y.1564):

Totals:

- Tx rate (%)
- Tx rate (Fps)
- Tx rate (Bps)
- Tx and Rx frames
- Loss (frames)
- Loss (ratio)

Per UNI-CoS pair:

- Tx rate (Fps)
- Tx rate (Bps)
- Rx rate (Bps)
- Loss (ratio)
- Transfer Delay
- Delay Variance

Further resources:

- www.xenanetworks.com/resources/
- wiki.xenanetworks.com

The screenshot shows the Xena1564 software interface with various configuration panels. The 'Test Execution Parameters' panel is active, showing settings for iterations (1), step duration (1 second), and break test on fail. The 'Frame Size' panel shows software-controlled sizes with a range from 64 to 1500 bytes. The 'Hardware Controlled Sizes' panel shows min and max sizes of 64 and 1500 bytes respectively. The interface also includes a 'Defined Services' list and a 'Performance Test' button.



Xena Networks is an award-winning manufacturer of advanced Gigabit Ethernet test and measurement solutions.



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