



Test. Improve. Repeat.

# Valkyrie1564 (v1.14)

## A STEP-BY-STEP GUIDE

# AGENDA

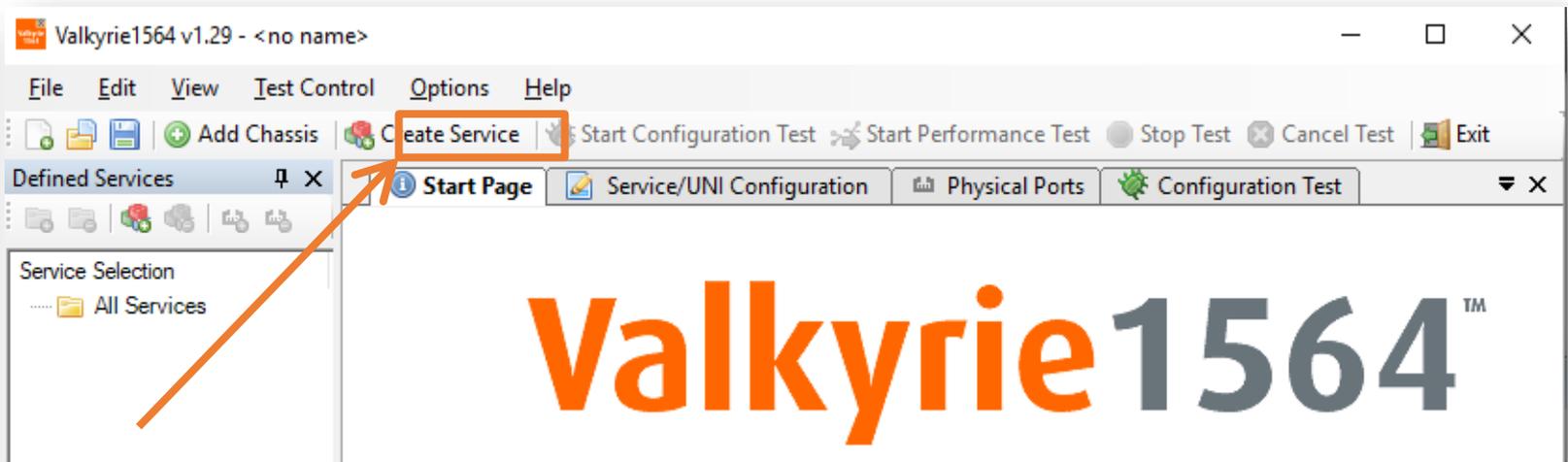
## Valkyrie1564 – Step by Step

- Create Service
- Bandwidth Profile
- Physical Ports
- Service/UNI Configuration
- Configuration Test
- Performance Test
- Reporting



# Create Service

After launching Valkyrie1564, start here:



# Create Service

## GUI Panels

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

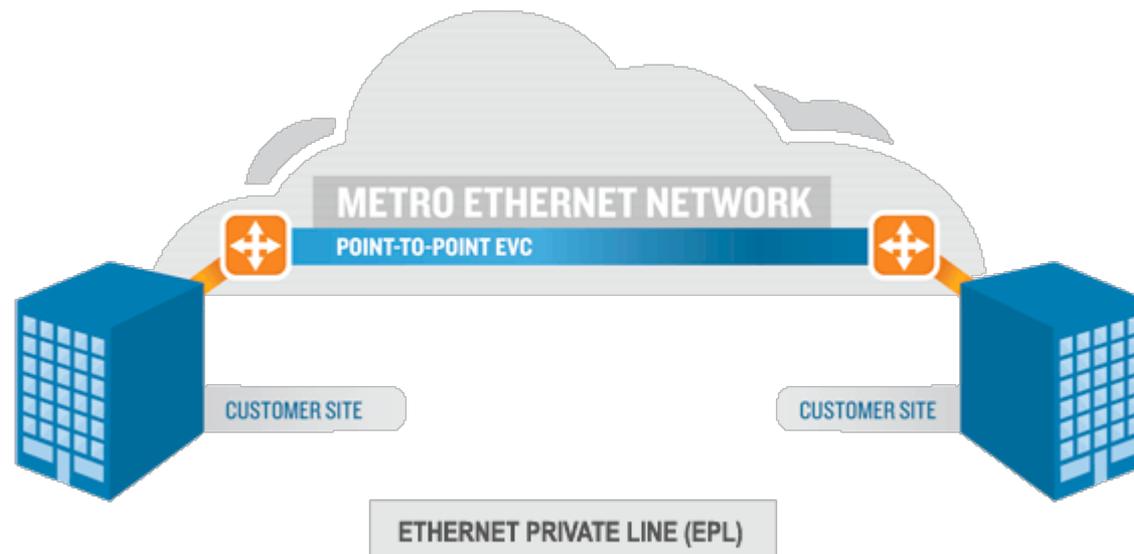
# Create Service

## Service Creation

- 1 Enter a suitable **Service Label** to make the service easy to identify later on.
- 2 Set the **Service Type**:

### Ethernet Private Line (EPL)

Ethernet Private Line is a Point-to-Point service. It consists of two User Network Interfaces (UNIs) with one EVC provisioned between them.

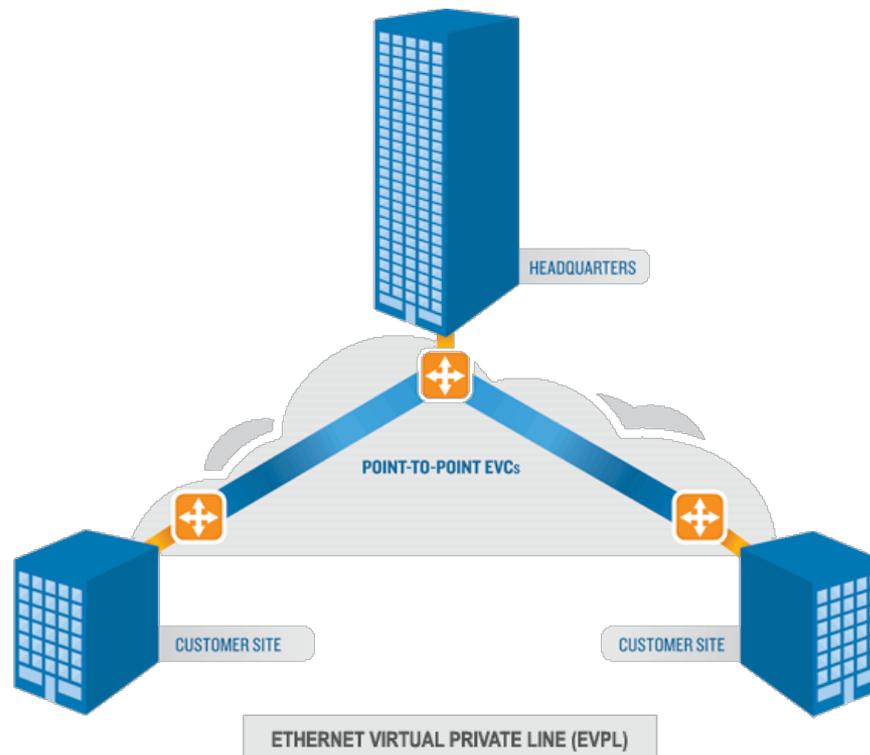


# Create Service

## Service Creation

2 Set the **Service Type**:

**Ethernet Virtual Private Line (EVPL)** is a Point-to-Multipoint service. It consists of two or more user network interfaces (UNIs) with multiple EVCs between them (service multiplexing).

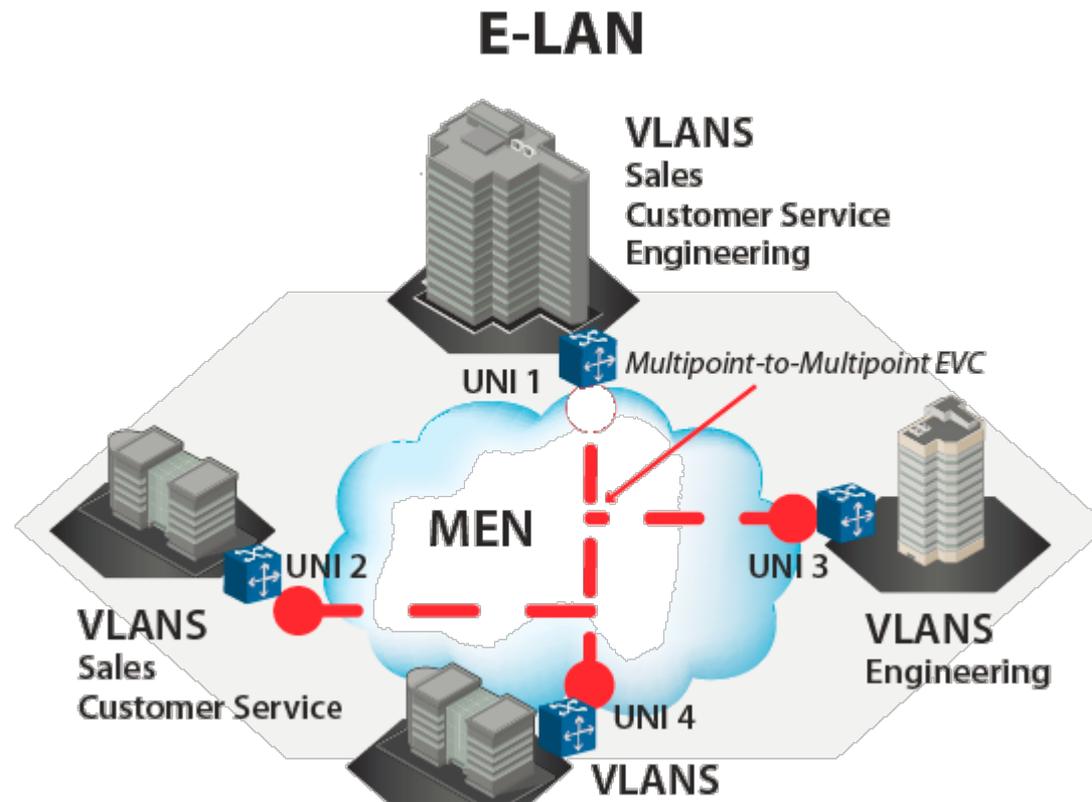


# Create Service

## Service Creation

2 Set the **Service Type**:

**Ethernet Local Area Networks (E-LAN)** - provides a multipoint topology like a local network. Each node can reach any other node.

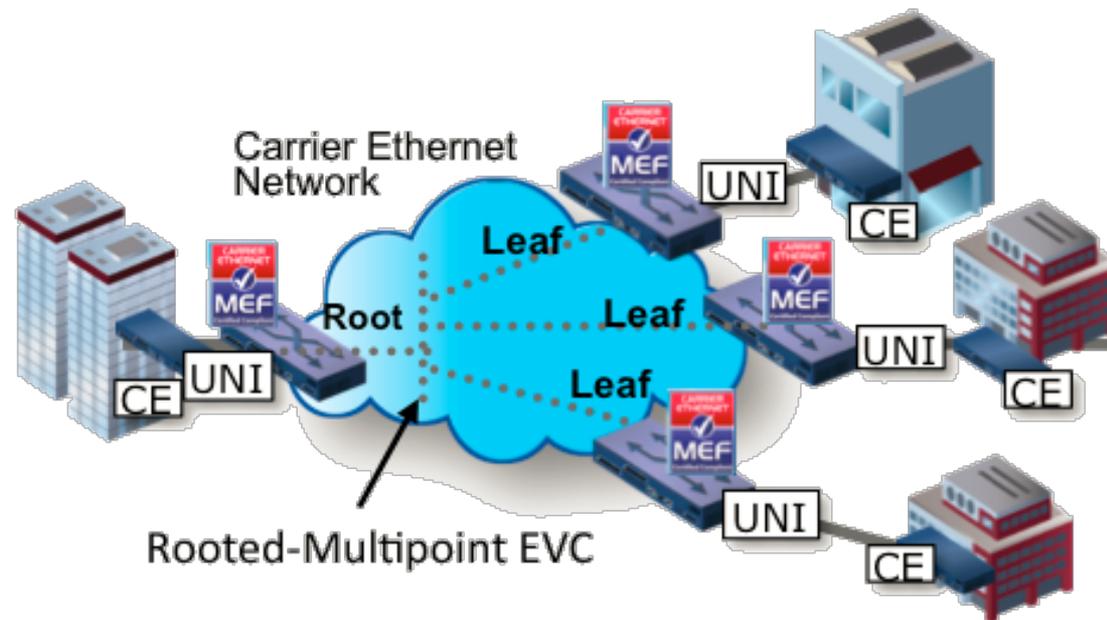


# Create Service

## Service Creation

2 Set the **Service Type**:

**Ethernet Tree(E-Tree)** - a rooted multi-point service that connects a number of UNIs providing sites with hub and spoke multipoint connectivity. Each UNI is designated as either *root* or *leaf* .



# Create Service

## Service Creation

3

These values represents the guarantees you want to issue to the user of the service as part of the *Service Level Agreement (SLA)* for this service. If one or more of the criteria should not be used in the test you can deselect them using the **Use in test** checkboxes to the right.

4

Specify the **Testflow Characteristics**. For an EPL you can only select the "Pairs" topology as the other topology options are only relevant for multipoint configurations.

You can, however, select the direction for the test traffic. You should keep the default choice of "Bidirectional" for this test.

# Bandwidth Profiles

Profile Label	CIR (Kbps)	CBS (bytes)	EIR (Kbps)	EBS (bytes)
Profile #1	0	10000	0	12176
Profile #2	0	20000	0	12176

Select the **Bandwidth Profiles** tab and click the "Create Profile" button in the small toolbar at the top of the panel.

Click the cell in the CIR column and enter the committed bandwidth you want the UNIs to provide.

Optionally, click the cell in the EIR column and enter the additional excess bandwidth you want the UNIs to provide.

You can also optionally modify the CBS and EBS values.

The default value for both is 12176, according to [MEF 13](#), clause 36.

# Bandwidth Profiles

The screenshot shows a web-based configuration interface with several tabs: Start Page, Service/UNI Configuration, Configuration Test, Physical Ports, Performance Test, Bandwidth Profiles (highlighted), and Reporting Options. Below the tabs are two buttons: Create Profile and Delete Profile. A table lists two profiles:

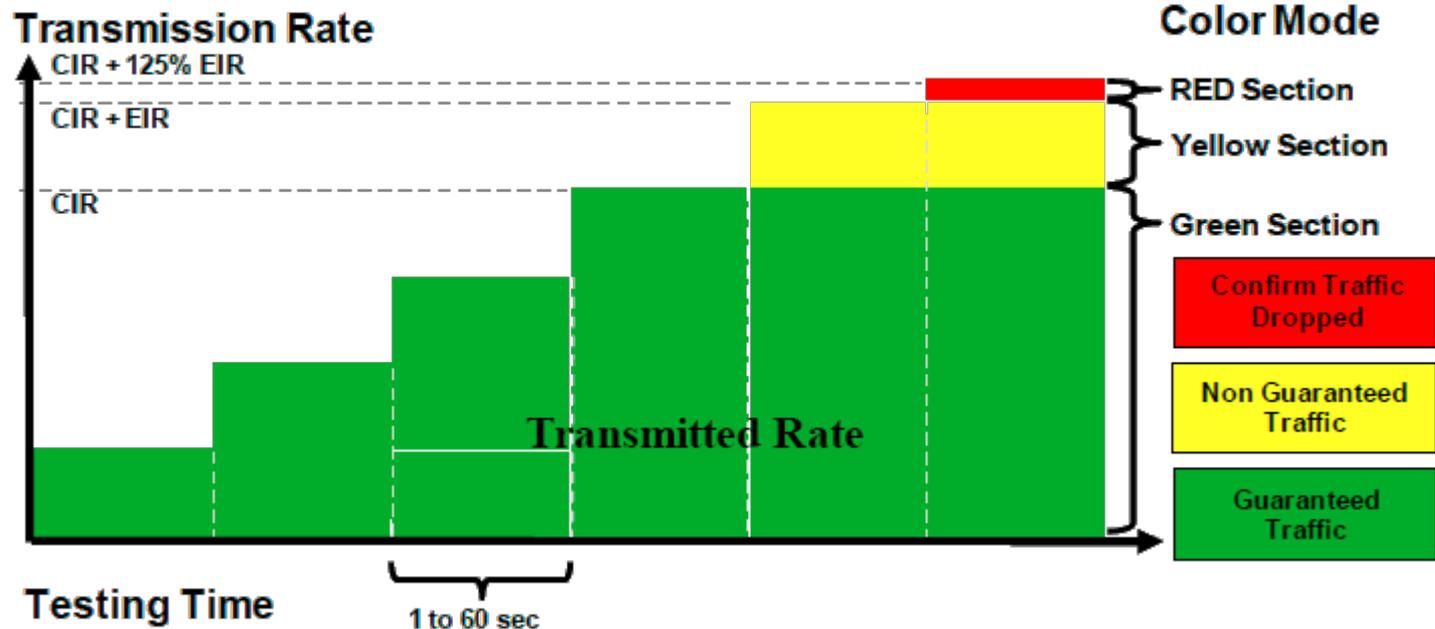
Profile Label	CIR (Kbps)	CBS (bytes)	EIR (Kbps)	EBS (bytes)
Profile #1	0	10000	0	12176
Profile #2	0	20000	0	12176

**CIR** - Committed Information Rate

**CBS** - Committed Burst Size

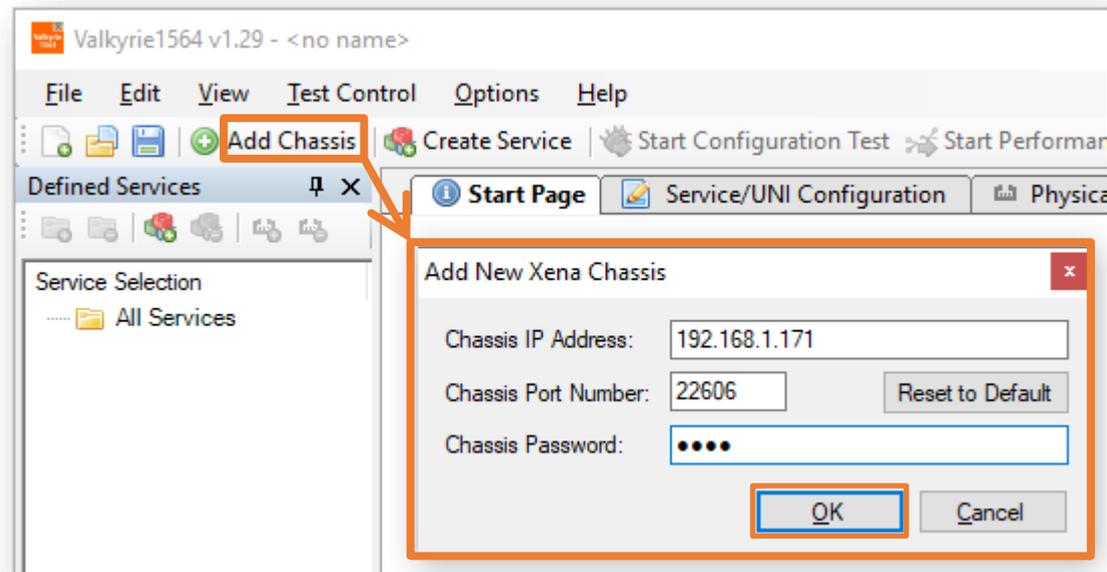
**EIR** - Excess Information Rate

**EBS** - Excess Burst Size



# Physical Ports

1. First add a chassis by clicking “Add Chassis”
2. Enter the IP address of the unit that will be used.
3. Click “OK”.



# Physical Ports

Drag and Drop the ports you want to use on to the right service.

The screenshot shows the Valkyrie1564 v1.29 software interface. The window title is "Valkyrie1564 v1.29 - <no name> (\*)". The menu bar includes File, Edit, View, Test Control, Options, and Help. The toolbar contains icons for Add Chassis, Create Service, Start Configuration Test, Start Performance Test, Stop Test, Cancel Test, and Exit. The "Defined Services" pane on the left shows a tree view with "All Services" and "SIMPLE EPL" (checked). The "Physical Ports" tab is active, showing a table of ports. The table has columns for Full Name, ID, Used, Speed, and Speed Sel. The "Port 0" row is highlighted with an orange box, and an orange arrow points from the "SIMPLE EPL" service to this row.

Full Name	ID	Used	Speed	Speed Sel.
Chassis 0 'Test .171' (192.168.1.171)				
Module 0, Odin-10G-3S-6P-CU				
Module 1, Odin-1G-3S-6P-E				
Module 2, Odin-10G-1S-2P-T				
Module 3, Odin-10G-1S-2P				
Module 4, Odin-10G-3S-2P-CU				
Module 5, Odin-1G-3S-6P				
Module 6, Odin-40G-2S-2P				
Module 7, Odin-10G-1S-12P				
Module 8, Odin-10G-1S-6P				
Module 9, Odin-10G-5S-6P-CU				
Module 10, Odin-1G-3S-2P-T				
Module 11, Odin-1G-3S-6P				
Port 0, SFP-E 10/100/1000M	P-0-11-0	No	1 Gbps	
Port 1, SFP-E 10/100/1000M	P-0-11-1	No	1 Gbps	
Port 2, SFP-E 10/100/1000M	P-0-11-2	No	1 Gbps	
Port 3, SFP-E 10/100/1000M	P-0-11-3	No	1 Gbps	
Port 4, SFP-E 10/100/1000M	P-0-11-4	No	1 Gbps	

# Physical Ports

1. Configure the service ports according to the topology.
2. Choose EAST WEST Sides for Port Pairs.

Valkyrie1564 v1.29 - <no name> (\*)

File Edit View Test Control Options Help

Add Chassis Create Service Start Configuration Test Start Performance Test Stop Test Cancel Test Exit

Defined Services

Service Selection Group Peer

All Services

SIMPLE EPL

(0) P-0-11-0 (P) EAST

(1) P-0-11-1 (P) WEST

1) P-0-11-1 (P)

0) P-0-11-0 (P)

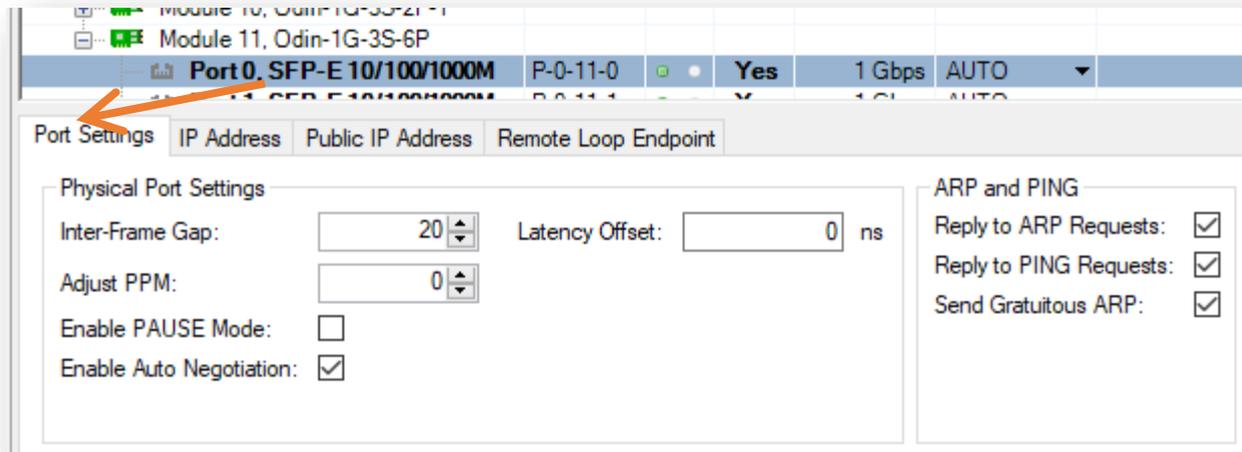
Start Page Service/UNI Configuration Physical Ports

Show only used ports:  Reserve used ports now Expand All Collapse All

Full Name	ID	Used	Speed
Chassis 0 'Test .171' (192.168.1.171)			
Module 0, Odin-10G-3S-6P-CU			
Module 1, Odin-1G-3S-6P-E			
Module 2, Odin-10G-1S-2P-T			
Module 3, Odin-10G-1S-2P			
Module 4, Odin-10G-3S-2P-CU			
Module 5, Odin-1G-3S-6P			
Module 6, Odin-40G-2S-2P			
Module 7, Odin-10G-1S-12P			
Module 8, Odin-10G-1S-6P			
Module 9, Odin-10G-5S-6P-CU			
Module 10, Odin-1G-3S-2P-T			
Module 11, Odin-1G-3S-6P			
Port 0, SFP-E 10/100/1000M	P-0-11-0	Yes	1 Gb
Port 1, SFP-E 10/100/1000M	P-0-11-1	Yes	1 Gb
Port 2, SFP-E 10/100/1000M	P-0-11-2	No	1 Gb
Port 3, SFP-E 10/100/1000M	P-0-11-3	No	1 Gb
Port 4, SFP-E 10/100/1000M	P-0-11-4	No	1 Gb

# Physical Ports

Configure additional port parameters per port:



Inter-Frame Gap:	Specifies the minimum gap between frames generated for a port, expressed as a number of bytes.
Speed Reduction:	Specifies an optional speed reduction on the transmit side of the port, expressed as a ppm value.
Enable PAUSE Mode:	Controls whether the port responds to incoming PAUSE frames.
Enable Auto-Negotiation:	Controls whether auto-negotiation for the port is enabled or not.
Latency Offset:	An optional offset in nanoseconds for the port which is used for latency measurements. You can measure an appropriate value for this by looping two test ports together and performing a latency test. The resulting average latency of this test should be zero. If this is not the case you can adjust the Latency Offset value until you reach a zero value. Then you can use the calibrated value in other tests.

# Physical Ports

Configure additional port parameters per port:

Port Settings | **IP Address** | Public IP Address | Remote Loop Endpoint

This setting allows you to specify the port IP addresses. For IPv6 you also need to specify the MAC address of the port(s).

	----- IPv4 Values -----	----- IPv6 Values -----
IP Address and Prefix:	<input type="text"/> 24	<input type="text"/> 64
IP Gateway:	<input type="text"/>	<input type="text"/>

Set the IP Address IPv4/IPv4 if this is a Layer 3 test.

# Physical Ports

Configure additional port parameters per port:

Port Settings | IP Address | **Public IP Address** | Remote Loop Endpoint

This setting can be used to specify the public IP address of the port if the port is behind a NAT gateway.

----- IPv4 Values -----      ----- IPv6 Values -----

IP Address and Prefix:  24  64

Public IP Address:	<p>If a port is located behind a NAT firewall/router it may be necessary to provide the public IP address offered by the NAT firewall/router.</p> <p>Valkyrie1564 will then perform an ARP request for the public IP address before starting the test to avoid packet loss due to an initial ARP phase.</p> <p>The real (internal) IP address of the port must still be configured in the main port grid as this may be used to send Gratuitous ARP packets from the port to the router before starting the test.</p>
Public IP Prefix:	<p>The network prefix value for the public IP address.</p>

# Physical Ports

Configure additional port parameters per port:

The screenshot shows a configuration window with four tabs: 'Port Settings', 'IP Address', 'Public IP Address', and 'Remote Loop Endpoint'. The 'Remote Loop Endpoint' tab is active and contains the following text: 'This setting is only valid if the port is set to loopback. It specifies the remote endpoint for the loop.' Below this text are two input fields for IP addresses. The first field is labeled 'IP Address:' and is preceded by a blue header '----- IPv4 Values -----'. The second field is preceded by a blue header '----- IPv6 Values -----'. Both fields are currently empty.

Remote Loop IP Address:

When a port with layer-3 protocol segments (IPv4/IPv6) has been configured as a looped port you must specify the IP address of the remote port so that the Xena tester can perform an ARP request for the MAC address.

# Service/Uni Creation

## Frame Configuration

The screenshot displays the 'Service/UNI Configuration' interface. The 'UNI Configuration' section is active, with 'Frame Configuration' selected. The 'Frame Header Composition' section includes the following checked options: 'VLAN: Customer Tag', 'VLAN: Service Tag', 'MPLS Header(s)' (with a stack size of 1), 'IP Header' (set to IPv4), 'UDP Header', and 'Enable UDP Checksum'. A large orange 'L3' label is overlaid on the interface. The 'Frame Payload' section shows 'Payload Type' set to 'Incrementing' and a 'Payload Pattern' of '00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00'. Below these sections is the 'Frame Editor' table.

Ethernet		S-TAG			C-TAG			MPLS		
Type	PCP	Tag	Type	PCP	Tag	Type	Label	Class	TTL	
91 00	0	0	81 00	0	0	88 47	0	0	255	

IPv4		UDP	
DSCP	ID	Src.Port	Dest.Port
0	65535	0	0

# Service/Uni Creation

## Frame Configuration

# L3

1. Select the needed headers for the test:

Frame Header Composition

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

2. Fill in the values for the selected headers:

Frame Editor

Ethernet		S-TAG			C-TAG		
Type	PCP	Tag	Type	PCP	Tag	Type	
91 00	0	0	81 00	0	0	08 00	

IPv4		UDP	
DSCP	ID	Src.Port	Dest.Port
0	65535	0	0

**Pattern** mean you can set your own custom pattern:

**Incrementing** means “000102030405...FF00010203...”

provides built-in data integrity check for payload.

**PRBS** provides Pseudo Random Bit Sequence of  $2^{31}-1$  pattern

No data integrity with adding Payload checksum in port properties

Frame Payload

Payload Type:

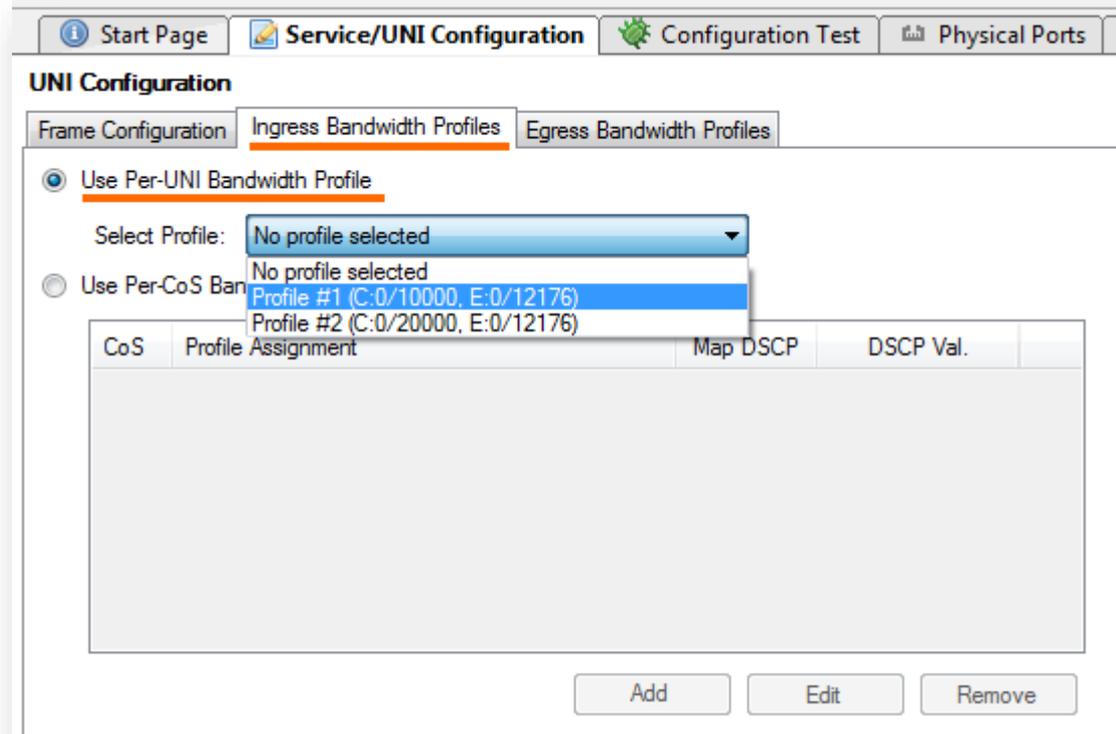
Payload Pattern:

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

# Service/Uni Creation

## Ingress Bandwidth Profiles

Per-UNI Bandwidth - select from pre-built Bandwidth Profiles.



The screenshot displays the 'UNI Configuration' window in the XENA Network Management GUI. The 'Ingress Bandwidth Profiles' tab is active. Under the 'Use Per-UNI Bandwidth Profile' radio button, a 'Select Profile:' dropdown menu is open, showing three options: 'No profile selected', 'Profile #1 (C:0/10000, E:0/12176)', and 'Profile #2 (C:0/20000, E:0/12176)'. Below the dropdown is a table with columns for 'CoS', 'Profile Assignment', 'Map DSCP', and 'DSCP Val.'. At the bottom of the window are 'Add', 'Edit', and 'Remove' buttons.

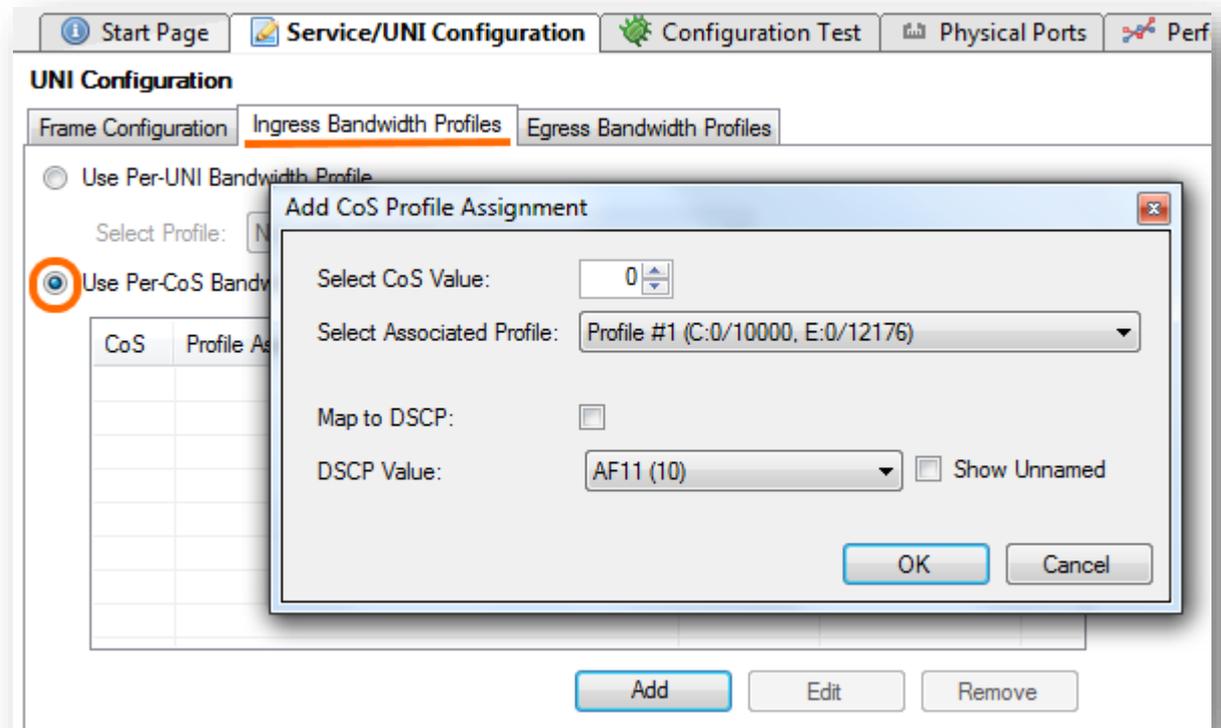
CoS	Profile Assignment	Map DSCP	DSCP Val.
-----	--------------------	----------	-----------

# Service/Uni Creation

## Ingress Bandwidth Profiles

### Per-CoS Bandwidth Profiles

If you want to use the Per-CoS Bandwidth profile you can select the CoS and Map to DSCP Value as well:



# Service/Uni Creation

## Egress Bandwidth Profiles

Per-UNI Bandwidth Profiles –

Select the Egress Bandwidth profile:

The screenshot shows the 'Service/UNI Configuration' window with the 'Egress Bandwidth Profiles' tab selected. The 'Use Per-UNI Bandwidth Profile' radio button is selected. A dropdown menu for 'Select Profile:' is open, showing three options: 'No profile selected', 'Profile #1 (C:0/10000, E:0/12176)', and 'Profile #2 (C:0/20000, E:0/12176)'. Below the dropdown is a table with columns for 'CoS', 'Profile Assignment', 'Map DSCP', and 'DSCP Val.'. At the bottom are 'Add', 'Edit', and 'Remove' buttons.

CoS	Profile Assignment	Map DSCP	DSCP Val.
-----	--------------------	----------	-----------

# Configuration Test

Valkyrie1564 v1.28 - <no name>

File Edit View Test Control Options Help

Add Chassis Create Service Start Configuration Test Start Performance Test Stop Test

Start Page Service/UNI Configuration Physical Ports **Configuration Test** Performance Test

Hold mouse over the various icons to view field explanation

**1** Select Test Steps

Rate Tests

- CIR Validation Test
- CIR Step-Load Test
- Run if CIR Validation Test Fails
- EIR Configuration Test
- Traffic Policing Test

Burst Tests

- CBS Configuration Test
- EBS Configuration Test

**2** Test Execution Parameters

Common Parameters

Iterations: 1

Step Duration: 1 seconds

Break Test On Fail:

CIR Step-Load Parameters

Start Rate: 25 % of CIR

Step Rate: 25 % of CIR

Traffic Policing Parameters

Grace Factor: 0.00 % of CIR

**3** L3 Address Refresh

Refresh Enabled:

Refresh Period: 4.00 seconds

Misc. Settings

Latency Mode: Last-To-Last

**4** Frame Sizes

Software Controlled Sizes

- ITU-T Default 64,128,256,512,1024,1280,1518
- Custom Sizes 512
- Size Range Start size: 100 End size: 1500 Step size: 100

Hardware Controlled Sizes

- Incrementing Min. size: 64 Max. size: 1500
- Butterfly Sizes
- Random Sizes
- Mixed Sizes

Result Data Grid

Idle Test not running Elapsed: 00:00:00 User: ole

# Configuration Test

1

## **Simple CIR validation test Y.1564, chapter 8.1.2, test A.1.**

During the test, the transmitting probe generates frames at the CIR rate.

The receiving probe measures the received rate, loss, delay, and jitter on the stream. The test fails if any of the maximum frame loss ratio, delay, or jitter thresholds are violated.

## **EIR configuration test - Y.1564, chapter 8.1.2, test B.**

During the test, the transmitting probe generates frames at the CIR + EIR rate.

The receiving probe measures received rate, loss, delay, and jitter on the stream. The test fails if the measured rate is less than  $CIR * (1 - \max\_loss)$ .

# Configuration Test

## 2 Test Execution Parameters

### Common Parameters:

**Duration:** Fill in the duration of each iteration.

**Iterations:** Fill in the number of iteration per this test.

**Break Test On Fail:** Stop test immediately as it would imply a configuration error.

Iterations:

Step Duration:  seconds

Break Test On Fail:

### CIR Step-Load Parameters:

**Start Rate:** The Rate in which the test will start.

**Step Rate:** The Rate increment value.

CIR Step-Load Parameters

Start Rate:  % of CIR

Step Rate:  % of CIR

### Traffic Policing Parameters:

**Grace Factor:** This is the value referred to in the standard as **M Factor**. The M factor is added to allow for the effect of the traffic policer's CBS and EBS settings, and test time.

Grace Factor:  % of CIR

\*Experience will determine the values for M.

# Configuration Test

## 3 L3 Address Refresh:

If the **Enable Refresh** checkbox is checked the tester will periodically emit ARP requests (for IPv4) or Neighbor Advertisement requests (for IPv6). The period can be set using the **Refresh Period** field.

### Misc. Settings:

**Latency Mode:** Select the Latency mode to be measured.

Refresh Enabled:   
Refresh Period:  seconds

Latency Mode:

# Configuration Test

4

## ITU-T Default:

The default setting is to use the ITU-T standard frame sizes: 64, 128, 256, 512, 1024, 1280 and 1518 bytes.

The following options are also available:

## Custom Sizes:

Lets you specify a comma-separated list of values - useful if you only want to test using one or two packet sizes

**Size Range:**  Size Range Start size:  End size:  Step size:

Lets you specify a a range of packet sizes and the steps.

**Incrementing Sizes:**  Incrementing Min. size:  Max. size:

Lets you specify a Min and Max size – the sizes: Min,Min+1,Min+2,...,Max.

## Butterfly Sizes:

Lets you specify a Min and Max size – the sizes: Min, Max, Min+1, Max-1, Min+2, Max-2,...

Incrementing  Butterfly Sizes  Random Sizes

Min. size:  Max. size:



Lets you specify a Min and Max size – The sizes will vary among Min – Max randomly.

# Configuration Test

4

## Mixed Sizes:

The Xena tester will use a more or less random mix of packet sizes when sending traffic.

Mixed Weights Configuration

This form enable you to configure the percentage weights for the 'Mixed Sizes' packet size mode. The sum of all weights must be 100.

Packet Sizes:	56	60	64	70	78	92	256	496	512	570	576	594	1438	1518	9216	16360
Weights:	0	0	0	0	57	3	5	1	2	5	1	4	4	18	0	0

Average Packet Size: 464.000 bytes  
Validation State: The sum of packet weights is 100%.

Buttons: Set Default, OK, Cancel

*\*Note that the use of this option will introduce a slight inaccuracy when calculating various results, as the packet sizes are not deterministic. A weighted average will be used.*

# Performance Test

Valkyrie1564 v1.28 - <no name>

File Edit View Test Control Options Help

Add Chassis Create Service Start Configuration Test

Physical Ports Configuration Test **Performance Test** Bandwidth Profiles

Hold mouse over the various ? icons to view field explanation

**1** Test Period

- 15 Minutes
- Unbounded
- 2 Hours
- Custom Period:
- 24 Hours

00:01:00 (HH:MM:SS)

**2** Availability Settings

Frame Loss Ratio for SES: 0.50

**3** L3 Address Refresh

Refresh Enabled:

Refresh Period: 4.00 seconds

Misc. Settings

Latency Mode: Last-To-Last

**4** Frame Sizes

Software Controlled Sizes

- ITU-T Default 64,128,256,512,1024,1280,1518
- Custom Sizes 64,128,256,512,1024,1280,1518
- Size Range Start size: 100 End size: 1500 Step size: 100

Hardware Controlled Sizes

- Incrementing Min. size: 64 Max. size: 1500
- Butterfly Sizes
- Random Sizes
- Mixed Sizes

Result Data Grid

Idle Test not running Elapsed: 00:00:00 User: ole

# Performance Test

1

*Time Period:* Select how long you would like to run the test.

**Unbounded** mean it will stopped manually by the user.

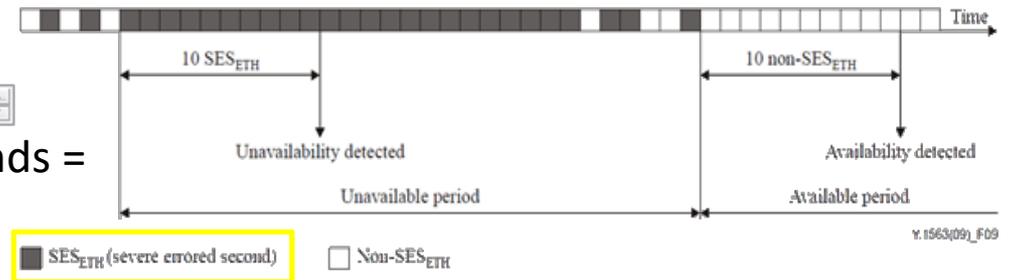
15 Minutes     Unbounded  
 2 Hours     Custom Period:  
 24 Hours     (HH:MM:SS)

2

*Availability settings:*

Frame Loss Ratio for SES:

Severe Errored Seconds =



3

*L3 Address Refresh:*

If the **Enable Refresh** checkbox is checked the tester will periodically emit ARP requests (for IPv4) or Neighbor Advertisement requests (for IPv6). The period can be set using the **Refresh Period** field.

*Misc. Settings:*

**Latency Mode:** Select the Latency mode to be measured.

Latency Mode:

# Performance Test

4

## ITU-T Default:

The default setting is to use the ITU-T standard frame sizes : 64, 128, 256, 512, 1024, 1280 and 1518 bytes.

The following options are also available:

## Custom Sizes:

Lets you specify a comma-separated list of values - useful if you only want to test using one or two packet sizes

**Size Range:**  Size Range Start size:  End size:  Step size:

Lets you specify a range of packet sizes and the steps.

**Incrementing Sizes:**  Incrementing Min. size:  Max. size:

Lets you specify a Min and Max size – the sizes: Min,Min+1,Min+2,...,Max.

## Butterfly Sizes:

Lets you specify a Min and Max size – the sizes: Min,Max, Min+1, Max-1, Min+2, Max-2,...

Incrementing  Butterfly Sizes  Random Sizes

Min. size:  Max. size:

## Random Sizes:

Butterfly Sizes

Random Sizes

Lets you specify a Min and Max size – The sizes will vary among Min – Max randomly.

# Performance Test

4

## Mixed Sizes:

The Xena tester will use a more or less random mix of packet sizes when sending traffic.

Mixed Weights Configuration

This form enable you to configure the percentage weights for the 'Mixed Sizes' packet size mode. The sum of all weights must be 100.

Packet Sizes:	56	60	64	70	78	92	256	496	512	570	576	594	1438	1518	9216	16360
Weights:	0	0	0	0	57	3	5	1	2	5	1	4	4	18	0	0

Average Packet Size: 464.000 bytes  
Validation State: The sum of packet weights is 100%.

Buttons: Set Default, OK, Cancel

*\*Note that the use of this option will introduce a slight inaccuracy when calculating various results, as the packet sizes are not deterministic. A weighted average will be used.*

# Reporting

1

Valkyrie1564 v1.28 - <no name>

File Edit View Test Control Options Help

Add Chassis Create Service Start Configuration Test Start Performance Test Stop Test

Physical Ports Configuration Test Performance Test Bandwidth Profiles Reporting Options

Report Identification

Customer Name: Xena Networks

Customer Service ID:

Customer Access ID:

Comments:

Report Generation Options

Report Naming

Report Filename Prefix: valkyrie 1564-Report

Append Timestamp to Filename:

Report Content

Include Stream Information in Report:

Include Charts in Report:

Throughput Unit for Charts: Frames/s

Report Formats

Generate PDF Report

Generate XML Report

Result Data Grid

Idle

Test not running Elapsed: 00:00:00 User: ole

2

# Reporting

## 1 *Report Identification:*

This section contains options that help identify the test context.

**Customer Name:** Customer Name:

The name of the customer for which the test is performed.

Customer Service ID:

**Customer Service/Access Id:** Customer Access ID:

These options let you provide details about the network circuits you are testing.

### **Comments:**

Lets you provide any multi-line comments for the test configuration.

Comments:

# Reporting

2

*Report generation Options:*

## Report Naming

### **Report Filename Prefix:**

Specifies the prefix for the report filename.

Report Filename Prefix:

xena1564-report

Append Timestamp to Filename:



### **Append Timestamp to Filename:**

If checked, a timestamp on the form <YYYYMMDD-HHMMSS> is added to the filename prefix.

# Reporting

## 2 Report Content:

Include Stream Information in Report:

Include Charts in Report:

Throughput Unit for Charts:

### Include Stream Information in Report:

If checked the report will also contain detailed results for each port. If unchecked only the totals will be reported.

### Include Charts in Report

If checked the report will include bar charts showing the test results. (This is only applicable for PDF type reports.)

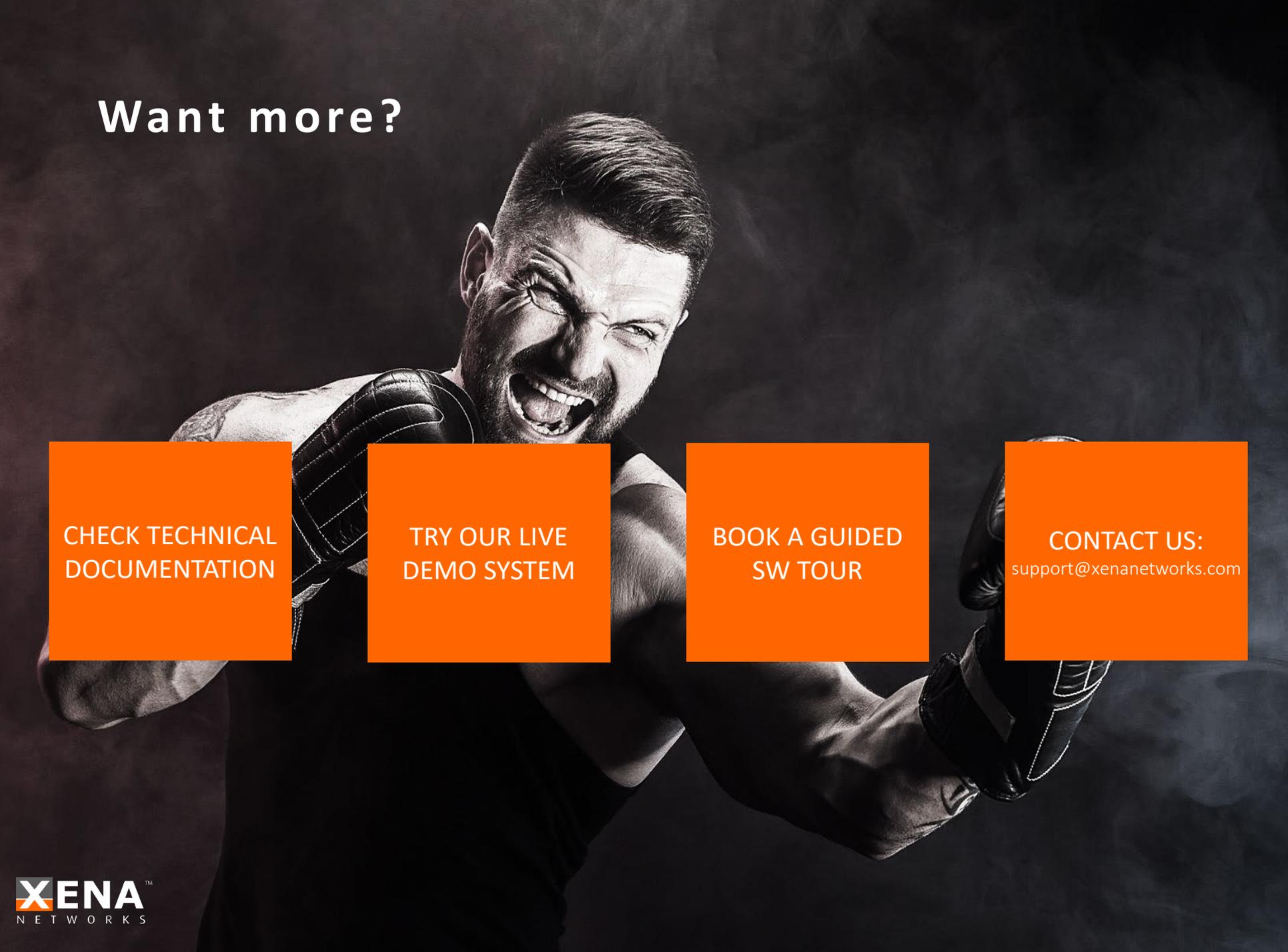
### Throughput Unit for Charts

This property allow you to determine whether the units of data are referred to as "packets" or "frames".

### Report Formats:

Select which type(s) of reports will be generated. You can enable several. The generated report files will be given a file extension that matches the selected type i.e. ".pdf" for PDF files and so forth.

**\*XML Report Specification** - You can find the [specification for the XML Report here](#).



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