Valkyrie3918

Standalone RFC3918 application

RFC3918 describes tests for measuring and reporting the throughput, forwarding, latency and Internet Group Management Protocol (IGMP) group membership characteristics of devices that support IP multicast protocols.

Valkyrie3918 is a free PC application developed by Xena Networks to help you perform RFC3918 testing using one or more Xena test chassis. It is automatically installed together with Xena ValkyrieManager, the GUI for operating Xena's hardware.

Valkyrie3918 provides an easy-to-use port configuration panel that lets you add and remove ports, and assign IP addresses and port roles. Ports from multiple ValkyrieBay and ValkyrieCompact chassis can be freely mixed.

The tests can be performed using various framesizes, either as in-test variations or as multiple testruns each using a fixed frame size.

The multicast traffic can be configured to use the exact protocol headers needed. All fields in the protocol headers can be modified. The unicast traffic for mixed class and burdening tests can be specified separately in a similar fashion.

Comprehensive options enhance value

Each test type includes a set of options. These are described below*:

Duration: The duration in seconds of the time used in each trial for the actual measurement. (This does not include the test setup and teardown phases so the total duration of a test will be longer.)

Iterations: The number of times a test is repeated using the same set of variable parameters (packet size, rate, etc.)

Multicast Group Count: Lets you define a multicast group count sweep with a start, end and step value.

Multicast Group Count Selection: Lets you specify a series of multicast group counts which can be used if multiple iterations have been configured.

Initial Rate: The initial rate in percent of the overall rate configured in the Multicast Stream panel.

Maximum Rate: The maximum percent of the overall rate configured in the Multicast Stream panel.

Minimum Rate: The minimum rate in percent of the overall rate configured in the Multicast Stream panel.

Step Rate: Used to increment the rate percentage when iterating from a starting to a maximum rate.

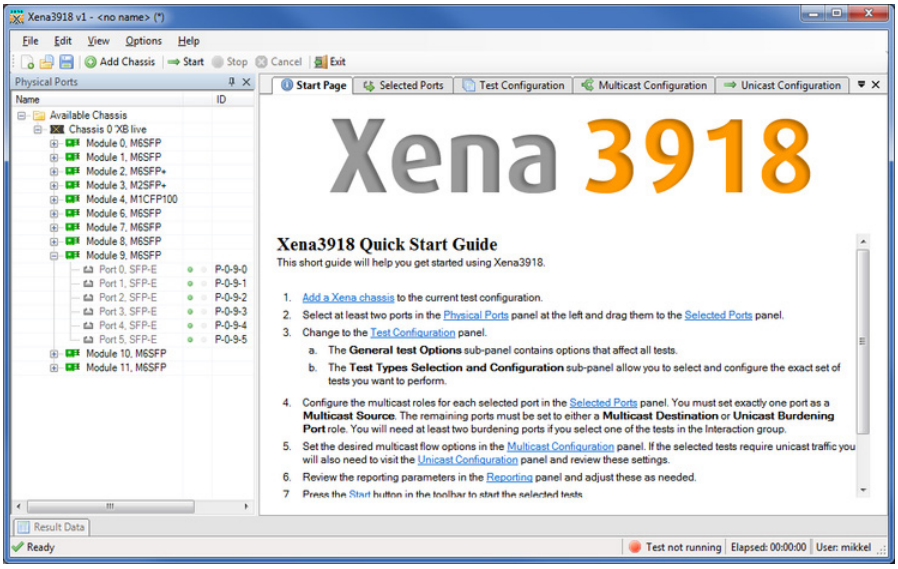
Resolution: A minimum difference between rates which will be used to stop the iteration.

Unicast Traffic Ratio: The percentage of the overall rate configured in the Multicast Stream panel to be used for unicast traffic. (The unicast rate will be added to the configured multicast rate. So if the multicast rate has been set to e.g. 10% and the UC traffic ratio is set to 50% the total rate for the port will be 10% + (50% of 10%) = 15%.)

** Not all options apply to every test type.*

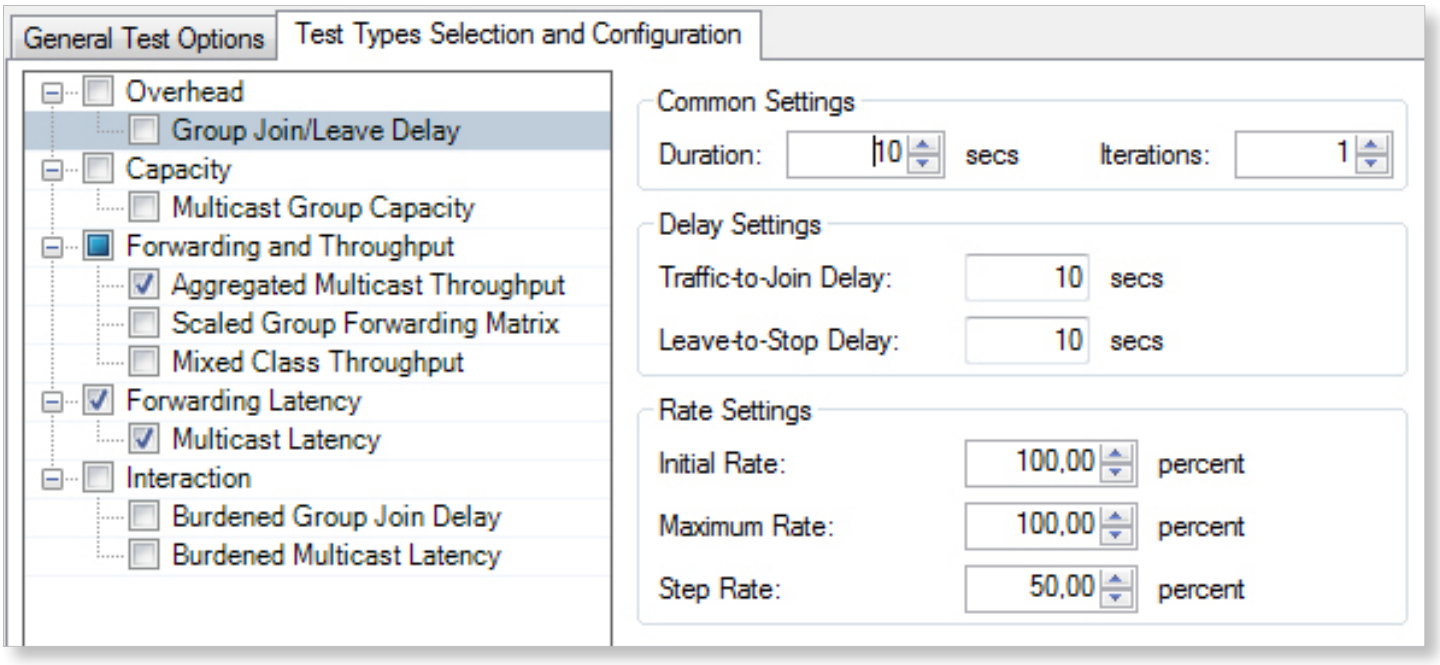
Top Features

- Makes it easy to create, edit and execute all test-types specified in RFC 3918
- Support for IPv4 and IPv6
- Support for all IGMP/MLD versions
- Works seamlessly with multiple ValkyrieBay and ValkyrieCompact test chassis
- Ability to flexibly define protocol layers supported by the test incl. Ethernet, Customer and Service VLANs, IP and UDP
- Extensive configuration options for fine-tuning tests



Installing Valkyrie3918

Valkyrie3918 is automatically installed together with ValkyrieManager. For the latest version, please visit the software download page on our website.



Valkyrie3918 makes it easy to select the relevant test types and offers a simple GUI for defining a wide variety of settings.

Specifications

Valkyrie3918 measures these test types in accordance with RFC 3918. You can also select a subset of these tests if you want to leave out certain tests.

Valkyrie3918 Test Types	Functional Groups
Forwarding and Throughput	Mixed Class Throughput Scaled Group Forwarding Matrix Aggregated Multicast Throughput
Forwarding Latency	Multicast Latency* Min/Max Multicast Latency*
Overhead	Group Join Delay* Group Leave Delay*
Capacity	Multicast Group Capacity
Interaction	Forwarding Burdened Multicast Latency Forwarding Burdened Group Join Delay

*(*These two tests have been combined into one test as both can be executed by the same test procedure)*

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