

# CHIMERA™

Probably the world's best Network  
Impairment Emulation platform

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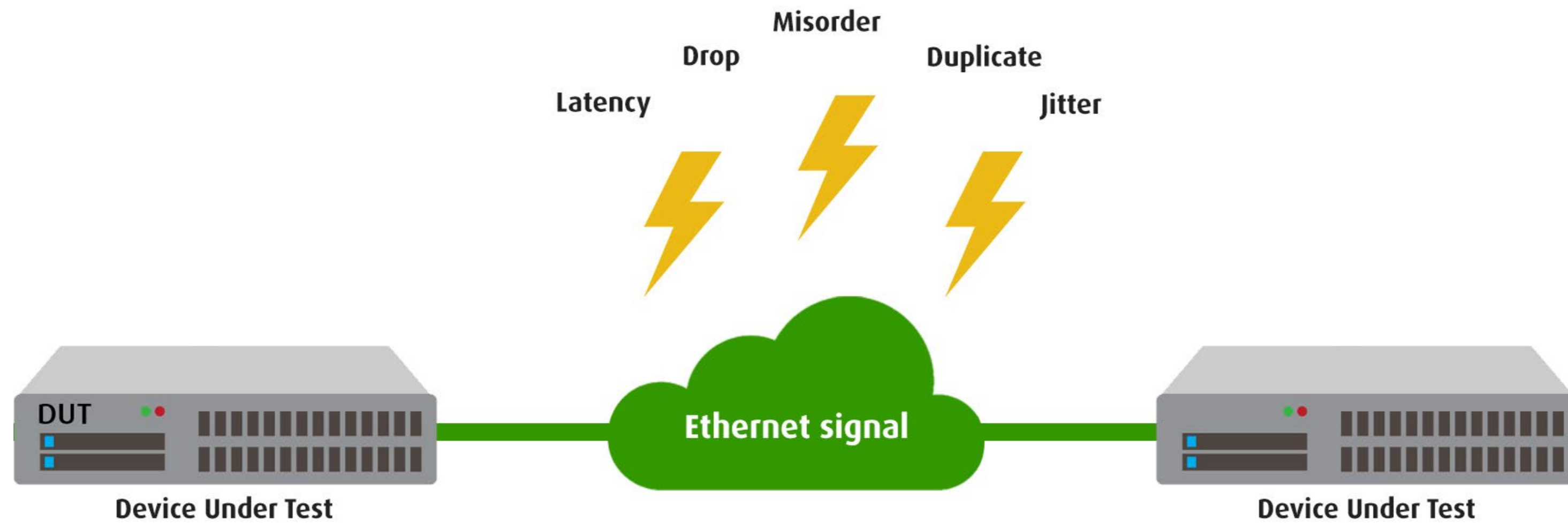
# OVERVIEW

Chimera is a network impairment emulator that makes it easy to introduce consistent, accurate, well-defined and repeatable impairments (e.g. packet manipulation, latency, jitter, bandwidth control and shaping) to traffic between DUTs in the lab.



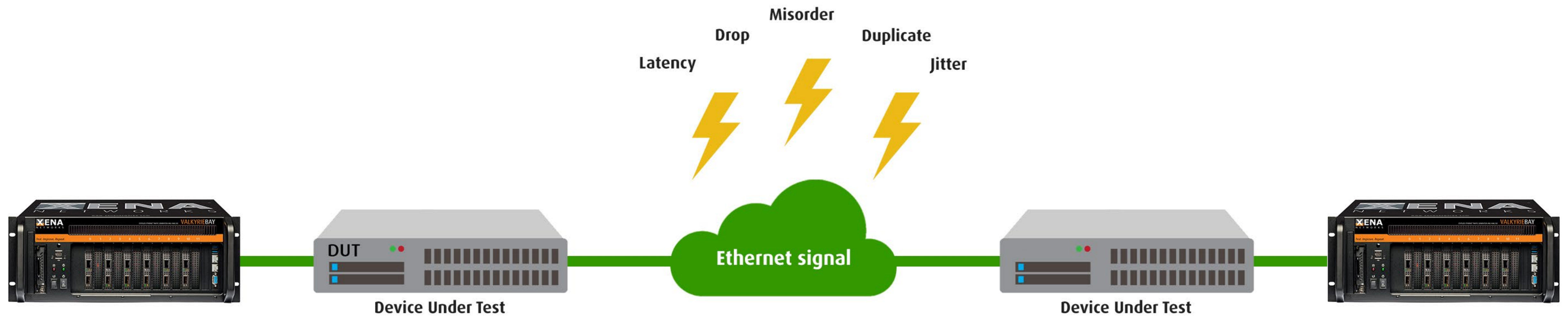
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# Emulating Impairments



Lab-based testing typically means testing under ideal conditions. Frequently, however NEMs want to measure performance under more realistic network conditions or “worst-case scenarios”.

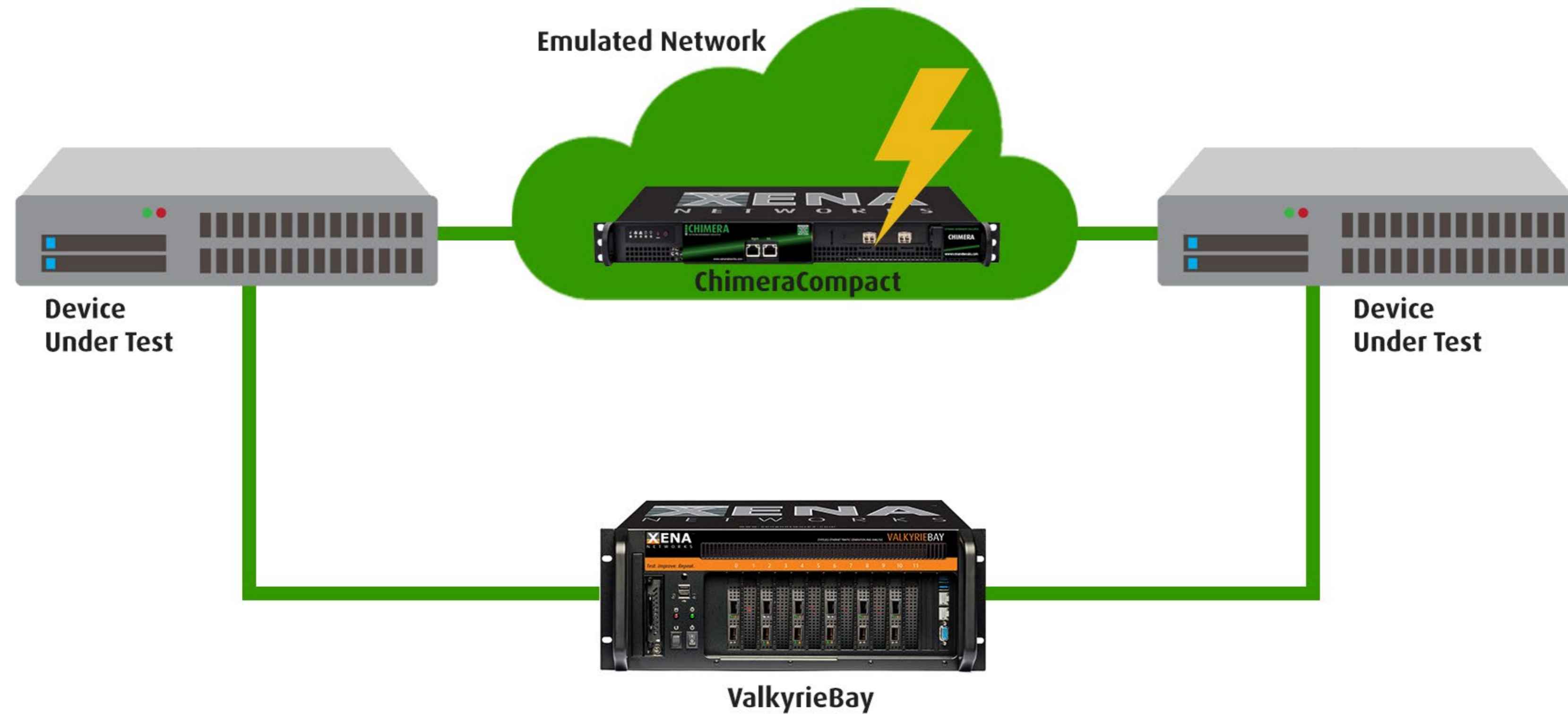
# Emulating Impairments



Using a standard traffic generator makes it easy to generate well-defined “predictable” traffic.

But as network behavior is often unpredictable – due to signal latency and other forms of impairment – another solution is needed.

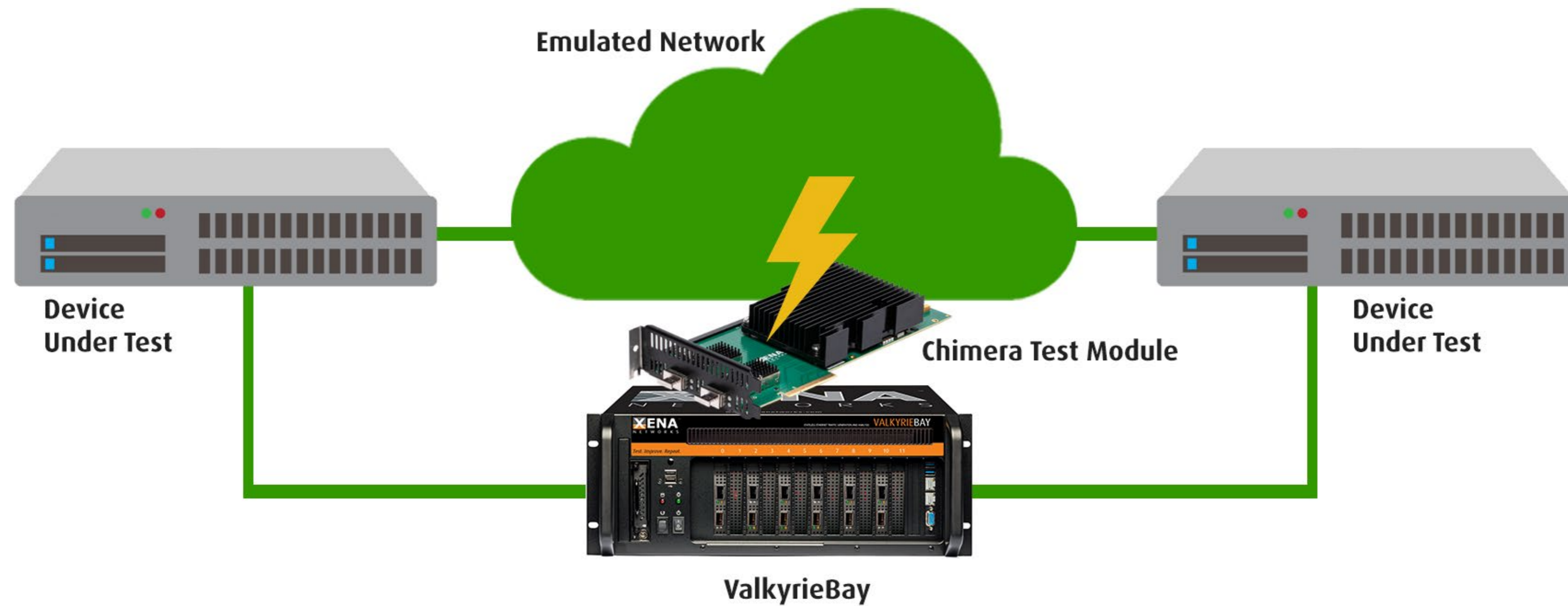
# Emulating Impairments



Chimera makes it easy to introduce consistent, accurate, well-defined and repeatable impairments to the traffic between the DUTs – in the lab.

OVERVIEW

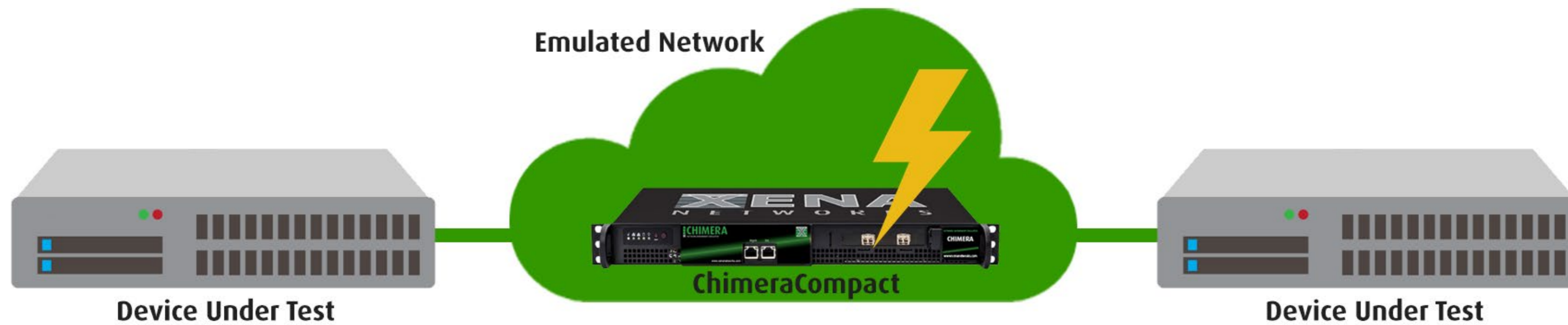
# Emulating Impairments



Chimera can be installed in a Valkyrie chassis where it adds impairment seamlessly to the traffic being generated by the other Valkyrie test modules.

OVERVIEW

# Emulating Impairments



Or Chimera can function as a standalone traffic impairment emulator (i.e. without the Valkyrie traffic generator)



# Chimera and you

## WHO USES CHIMERA?

- Network Equipment Manufacturers
- Government & Defense
- Network Service Provider
- Enterprise IT & Security
- Automotive & Aerospace
- Finance
- Energy & Utility
- Academia

## WHAT DUTs CAN YOU TEST?

- Wireline & Wireless Networks
- Switches
- Firewalls
- Network Interface Cards
- NAT Routers

## WHAT TYPES OF TESTING?

- Performance Testing
- Functional Testing
- QoS and Service Validation
- Security
- Software Application Testing

# Why choose Chimera

## PRICE/PERFORMANCE

- Disruptive pricing: half industry standard
- Free SW licenses
- 3 years' free SW updates
- 3 years' HW warranty
- Free lifetime tech support

## EASE OF USE

- Seamless integration with Valkyrie traffic generation makes testing much faster

## UNIQUE PRODUCT FEATURES

- Industry's only UI integrated Traffic Generation & Impairment solution (Valkyrie & Chimera)
- High-speed Impairment, 10/25/40/50/100GE

## ROCK SOLID PLATFORM

- Robust product platform, based on well the established Xena Valkyrie product
- Compact ChimeraCompact 1U chassis covers 10, 25, 40, 50, 100GE
- Available as a test module that can be installed in the 4U rack mountable ValkyrieBay chassis.

# TYPES OF TESTING

When do you use Chimera to measure emulate a network?



TYPES OF TESTING

## Performance Testing

Performance testing focuses the performance of a DUT via parameters like maximum throughput, latency and jitter.

When performance testing includes analysis of how a DUT can send traffic through a network Chimera emulates realistic network conditions including impairments that are likely to occur when a signal passes through a network.





TYPES OF TESTING

## Functional Testing

Functional testing verifies the basic functionality of the DUT and will depend on the DUT and the application.

Chimera provides a wide range of network emulation features for functional testing, including latency and other typical impairments.

TYPES OF TESTING

## QoS & Service Validation

Chimera offers network emulation for QoS and service validation testing. By adding latency, packet drop and other impairments the user can test that a system under test can maintain a high QoS and service quality guarantee despite difficult network conditions.





TYPES OF TESTING

## Software Application Testing

Software application testing can cover many parameters depending on the application. The testing can be done to verify the basic functionality of the software and to see how it performs under different network conditions. Chimera provides a wide range of network emulation features to emulate network conditions, including latency and other typical impairments.

TYPES OF TESTING

## Security

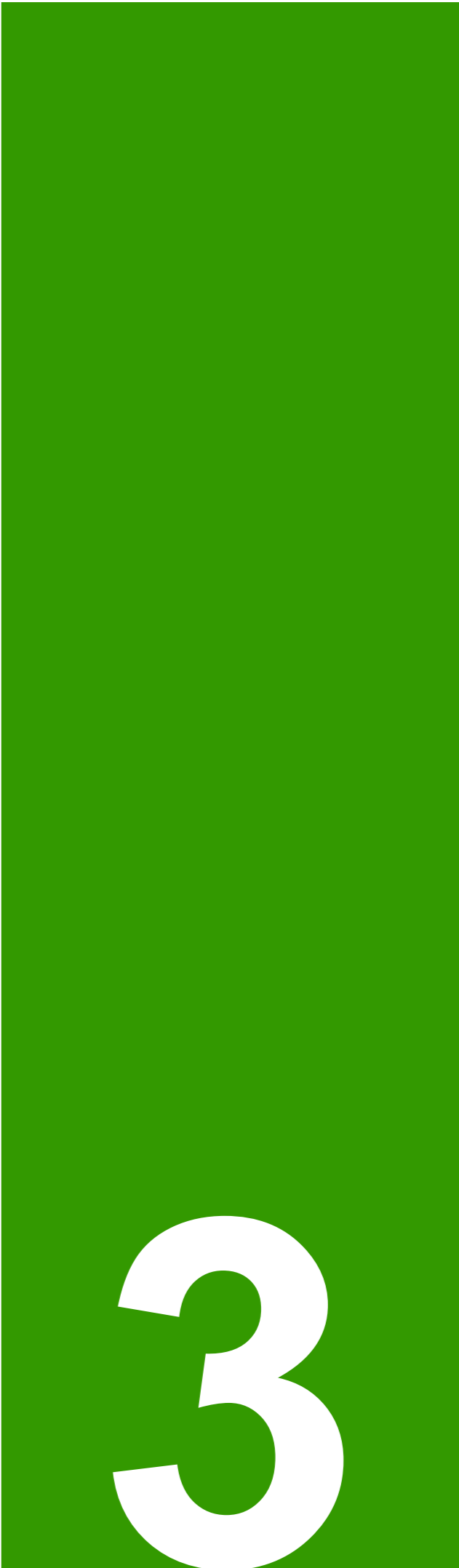
Security testing is usually conducted during development to reveal how a DUT handles abnormal conditions. With Chimera the user can apply all kinds of network conditions to analyze and verify the behavior DUT





# HARDWARE

Different chassis and test modules options to fit all needs.



HARDWARE

## Chimera test module



Chimera is available as a 2-slot test module for a ValkyrieBay chassis, where ValkyrieManager is used to control the impairment emulation as part of its standard user-interface. Chimera can also be controlled through scripting

HARDWARE

# ChimeraCompact



Chimera is also available as ChimeraCompact – a standalone device in a quiet desktop-sized chassis. ValkyrieManager is used to emulate impairment as part of its standard user-interface. Chimera can also be controlled through scripting



Lightweight flightcase available

# SOFTWARE

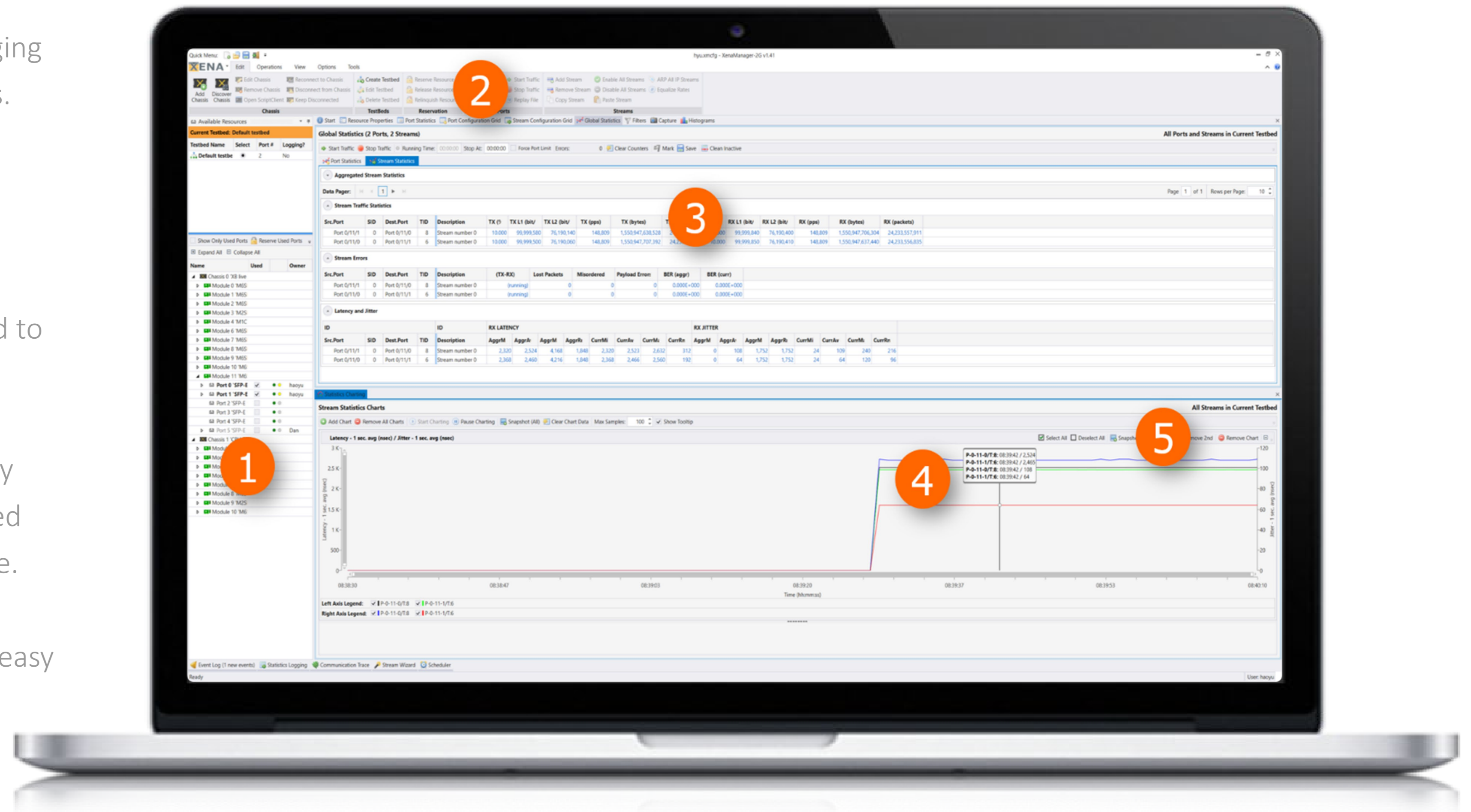
We work hard to make sure your job easy. All our software is designed to be intuitive and user-friendly.



## SOFTWARE

# User Friendly UI

1. Easy to use “tree” structure for managing test bed of chassis, modules and ports.
2. Top ribbon provides instant access to commonly used functions.
3. Color-coding and tool tips are included to make user-interface very intuitive.
4. Graphical elements help testers quickly scan results. Panels can also be dragged free of main UI for testing convenience.
5. Convenient reporting options make it easy to export and document results.
6. Same UI as the Xena Valkyrie



SOFTWARE

# ValkyrieManager

ValkyrieManager is a Windows-based application to configure and generate streams of Ethernet traffic between your Chimera tester and devices under test (DUTs) and then analyze the results.



Chimera's impairment functions are accessible directly from ValkyrieManager.

Included for free with every. Latest version can always be downloaded [here](#)

# AUTOMATION

Chimera boasts the best test automation & scripting options



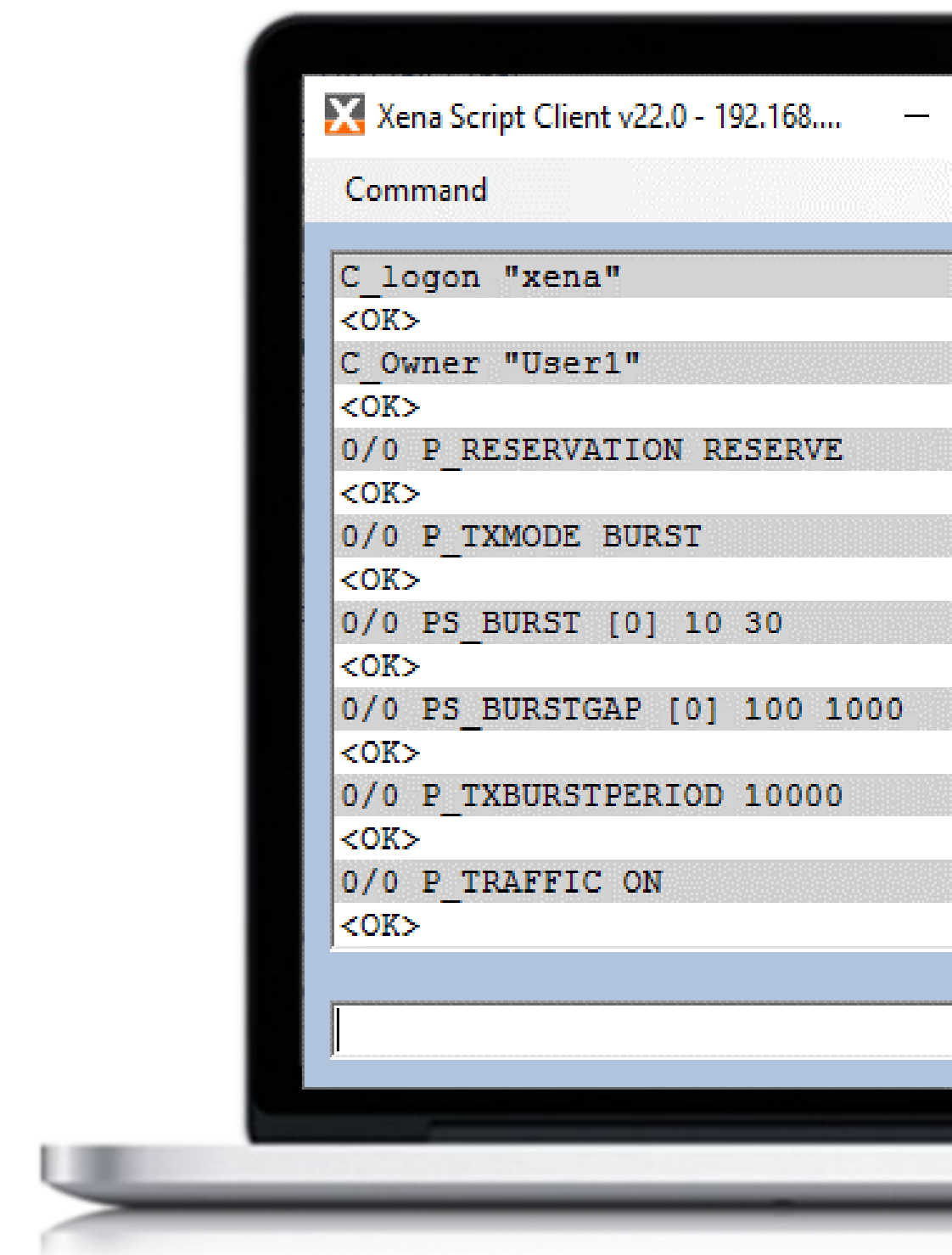
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SOFTWARE

# ValkyrieCLI



- The best test automation tool in the industry
- Based on the tool for Valkyrie
- ValkyrieCLI supports multiple concurrent scripting sessions by different users in different locations.
- ValkyrieCLI is a command-line-interface (CLI) scripting API with hundreds of scriptable parameters. Any client platform can be used (e.g. Python, Tcl, Bash). [View samples on GitHub](#)





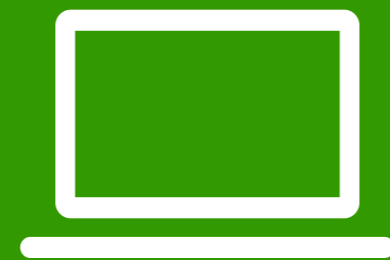
SOFTWARE

## Xena Automation Resources



### DOCUMENTATION

Step-by-step guides on how to automate Xena test suites and explore scripting for stateless platforms.



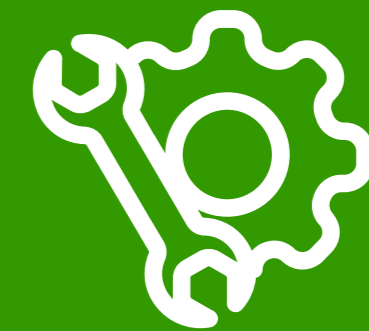
### DRIVERS & SCRIPTS

Find and download drivers and scripting examples in scripting languages.



### PLATFORMS

Learn about commercial and open source platforms and frameworks that support Xena's Ethernet test solutions.



### PROJECTS

Read about Xena's work with Open Platform for NFV (OPNFV) community on the vSwitch Performance (VSPerf) project.

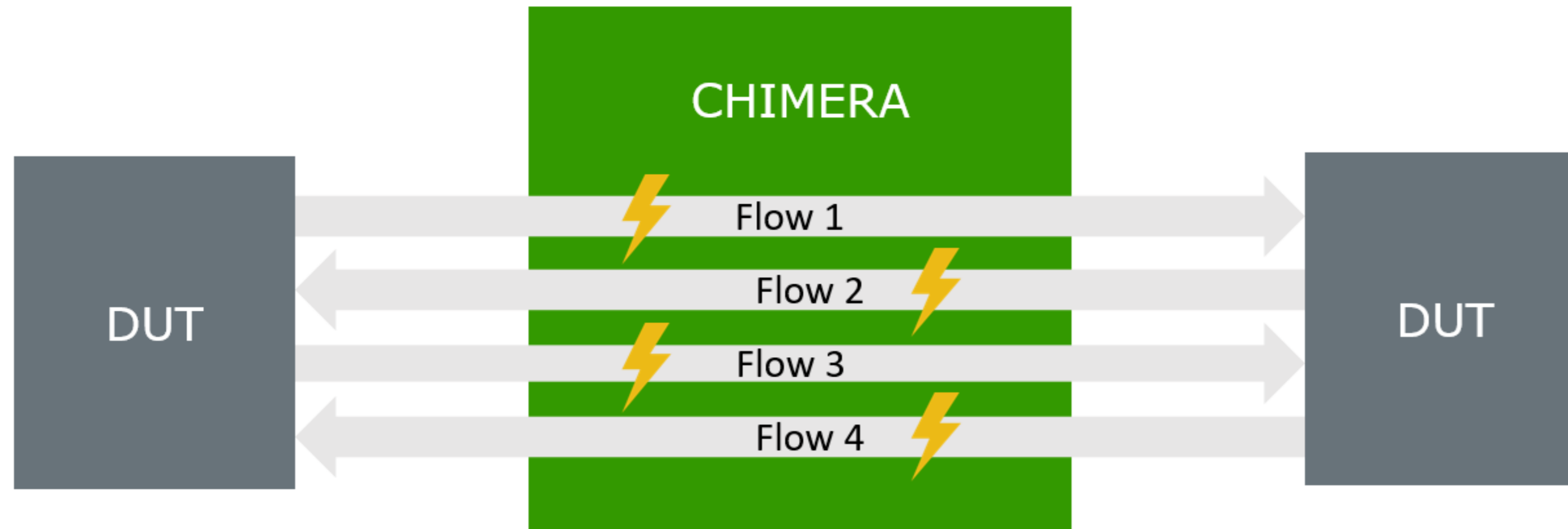
# Key Features

These are Chimera's most powerful technical features.



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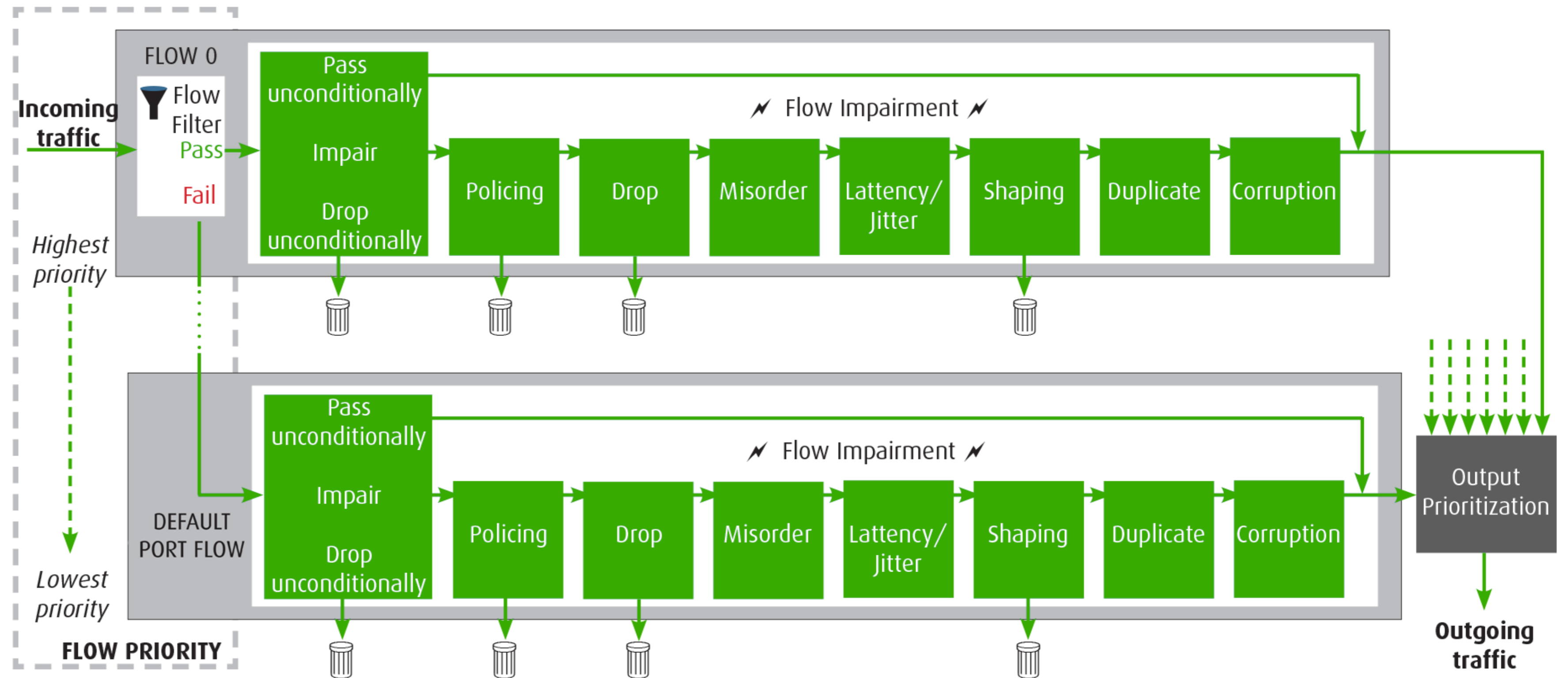
SOFTWARE  
**Flows**



- Traffic is divided in up to 8 flows that are impaired individually
- Flows are defined by protocol contents in packet header
- May also be defined by Xena Valkyrie test packet ID

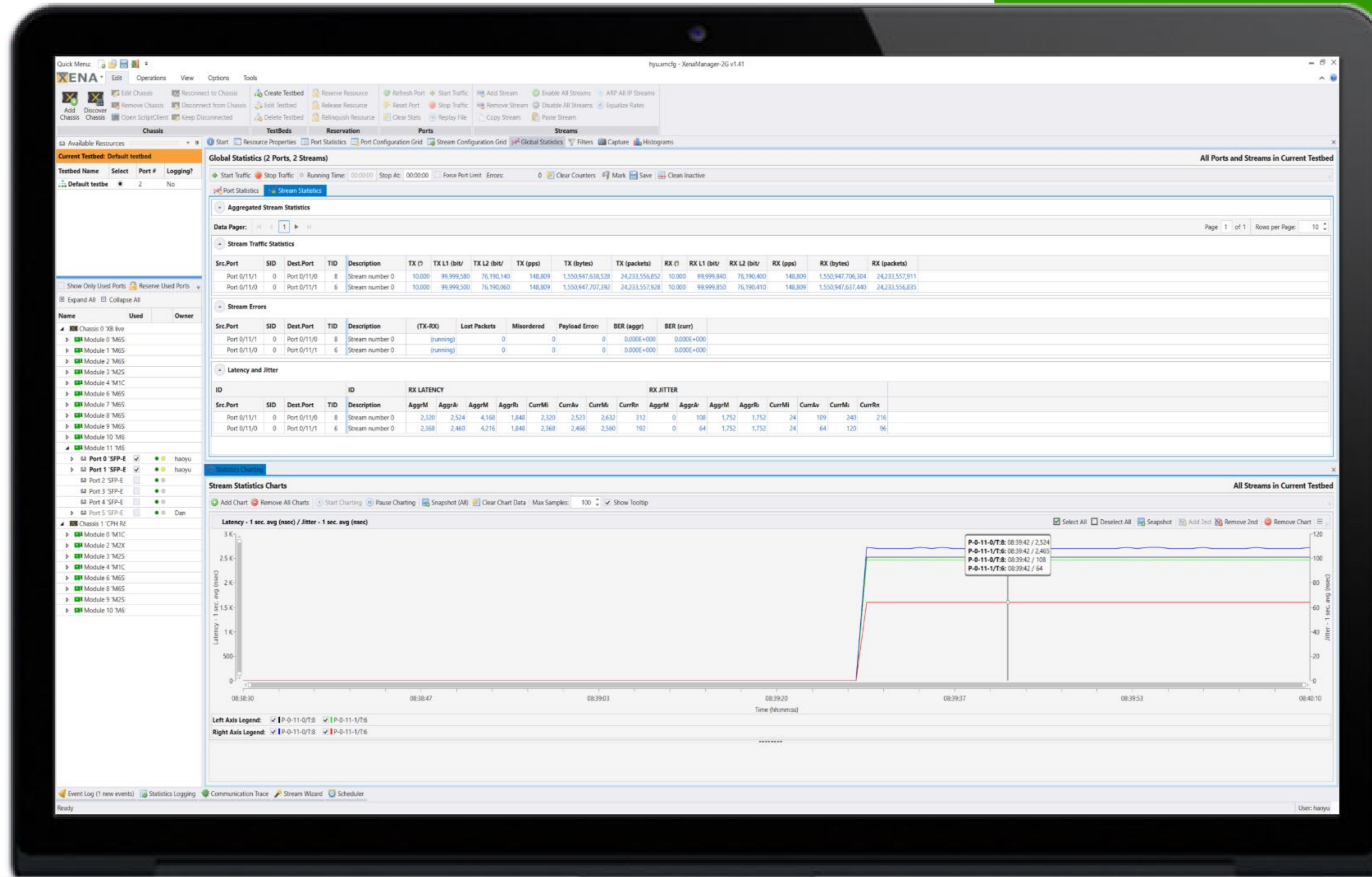
# Impairments

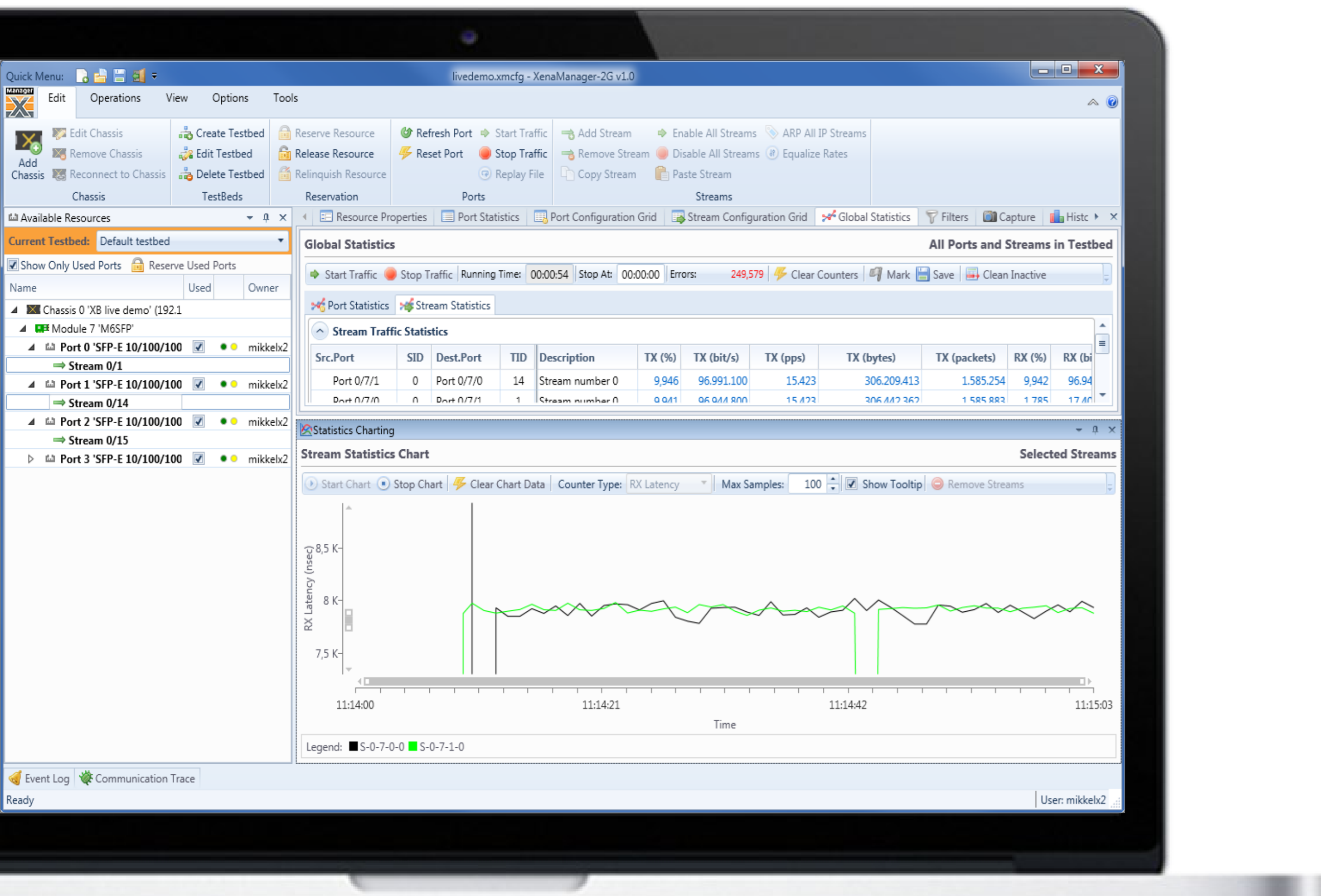
This diagram illustrates how the Chimera test module emulates impairment. Incoming traffic enters a flow filter and different types of impairment are then added (as defined in the GUI), with each traffic flow being processed in a prioritized order.



## KEY FEATURES

# User Friendly and intuitive UI



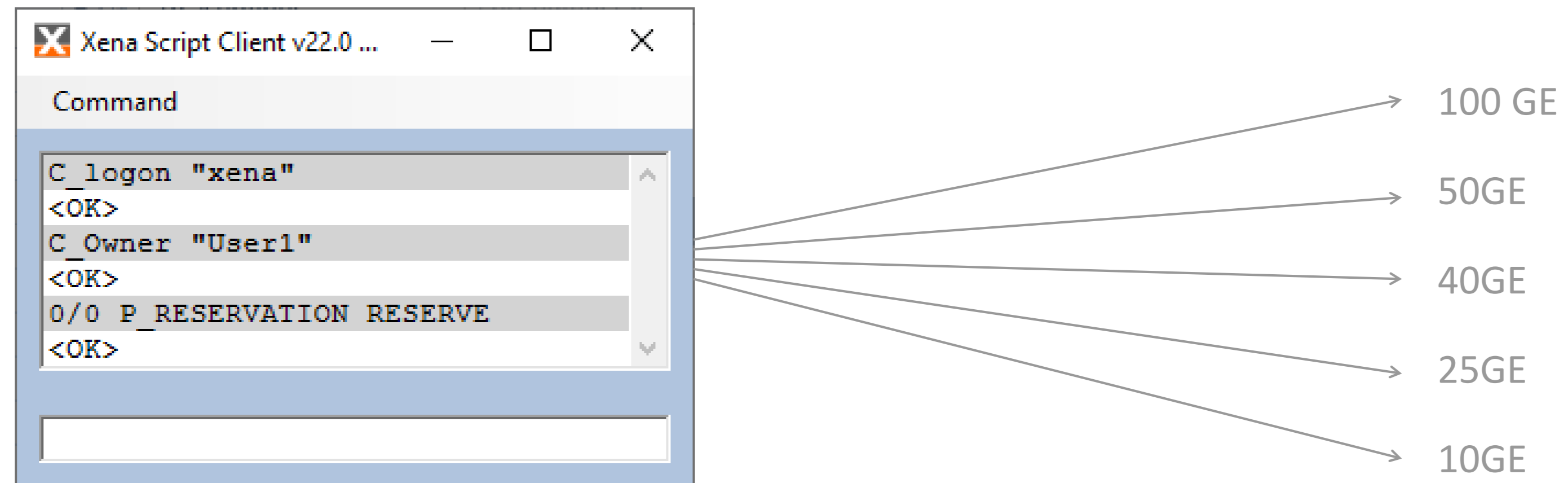


## KEY FEATURES

# Statistics Charting, Reporting and Logging

- Real-time charts of monitored parameters. Displays multiple charts at once
- Choose two different parameters where each parameter is associated with its own Y-axis
- Periodically poll counters for all ports in a testbed and log to a CSV or XML file
- Generate reports as PDF or HTML files of counters for all ports in a testbed

# Same CLI commands across all port speeds

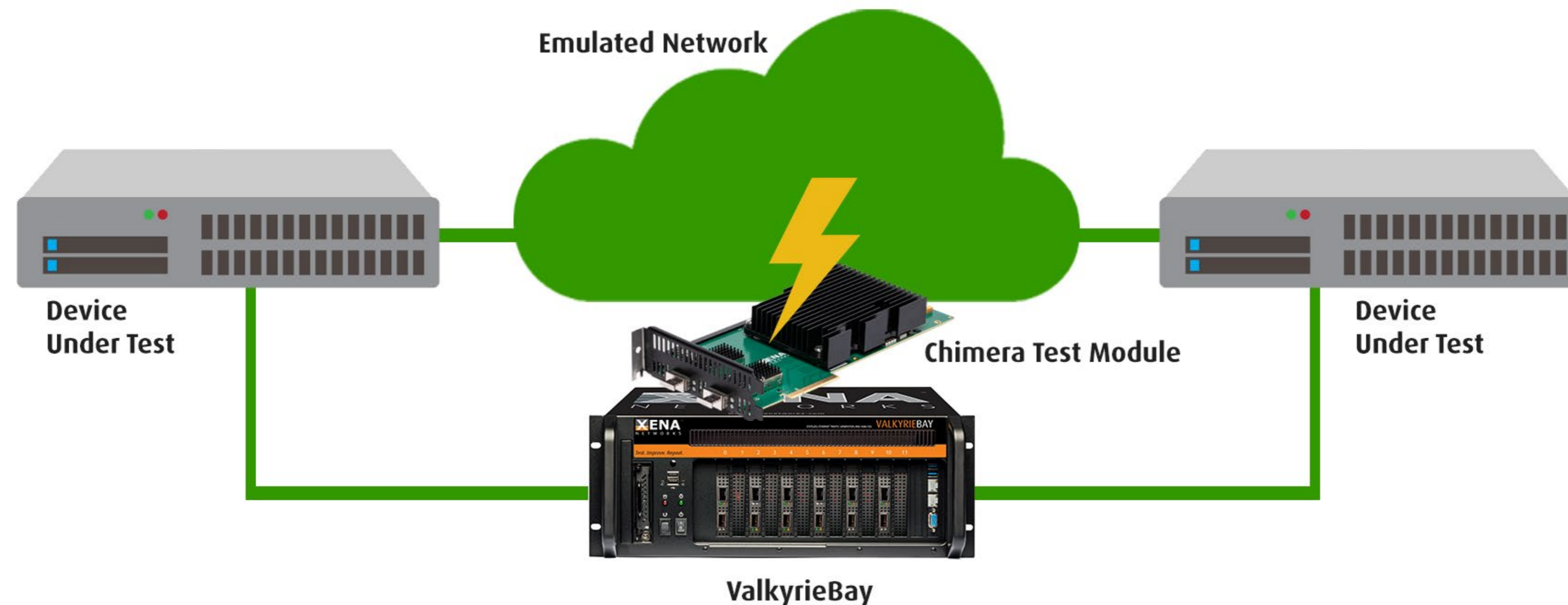


## KEY FEATURES

# Industry's only UI integrated Traffic Generation & Impairment solution (Valkyrie & Chimera)

Chimera lets you introduce consistent, accurate, well-defined and repeatable impairments to traffic between DUTs in the lab. Valkyrie Traffic Generator modules generate test traffic to pass through the DUTs.

Chimera and Valkyrie modules can be installed in the same chassis and operated using the same software (ValkyrieManager).





# Chimera – making test engineers lives easier 😊



- ✓ Industry's only UI integrated Traffic Generation & Impairment solution (Valkyrie & Chimera)
- ✓ High-speed Impairment, 10/25/40/50/100GE
- ✓ Compact ChimeraCompact 1U chassis covers 10, 25, 40, 50, 100GE

Test. Improve. Repeat.

**THANK YOU**



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in linkedin.com/company/xena-networks  
@XenaNetworks

A man in boxing gear, including gloves and a dark shirt, is shown from the chest up. He has a determined, shouting expression with his mouth wide open and eyes squinted. The background is dark and smoky.

Want more?

CHECK TECHNICAL  
DOCUMENTATION

SEE PRICING  
EXAMPLES

TRY OUR LIVE  
DEMO SYSTEM

BOOK A GUIDED  
SW TOUR