



NE-ONE Enterprise

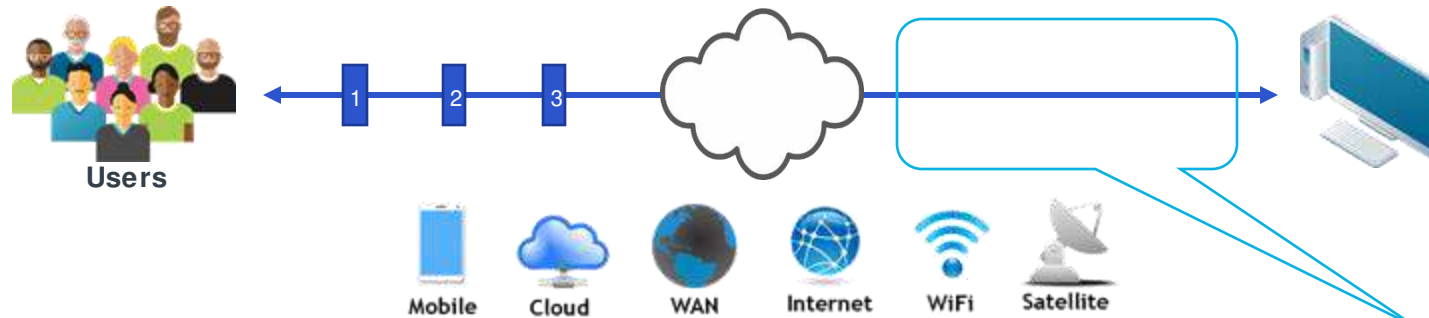
Customer Presentation

September 2023

Proprietary and Confidential

What is a Software-Defined Test Network (SDTN)?

Real Network



- Delayed (Latency & Jitter)
- Re-ordered/Duplicated
- Lost/Corrupt
- Queued & Congestion

Software Defined Test Network

Mimicking the effects of real-world networks



Accurate, Controllable and Repeatable Networks and Conditions

NE-ONE Enterprise – Highlights

Accelerate application readiness with an accurate, controllable and repeatable test network!

- Fast, flexible and easy deployment
- Ease of use
- Rapid analysis
- Powerful integration



Hardware Appliances



Virtual Appliances

NE-ONE Enterprise 1Gbps 1U Rack Models

NE-ONE Enterprise Model-2



2 x 1Gbps Emulation Ports; 16 Soft Ports; 20 Network Objects

NE-ONE Enterprise Model-4 1G



4 x 1Gbps Emulation Ports; 32 Soft Ports; 30 Network Objects

NE-ONE Enterprise Model-6 1G



6 x 1Gbps Emulation Ports; 48 Soft Ports; 40 Network Objects

NE-ONE Enterprise Model-8 1G



8 x 1Gbps Emulation Ports; 64 Soft Ports; 50 Network Objects

NE-ONE Enterprise 10Gbps 1U Rack Models

NE-ONE Enterprise Model-2 10G



2 x 10Gbps & 2 x 1Gbps Emulation Ports; 64 Soft Ports; 30 Network Objects

NE-ONE Enterprise Model-4 1G



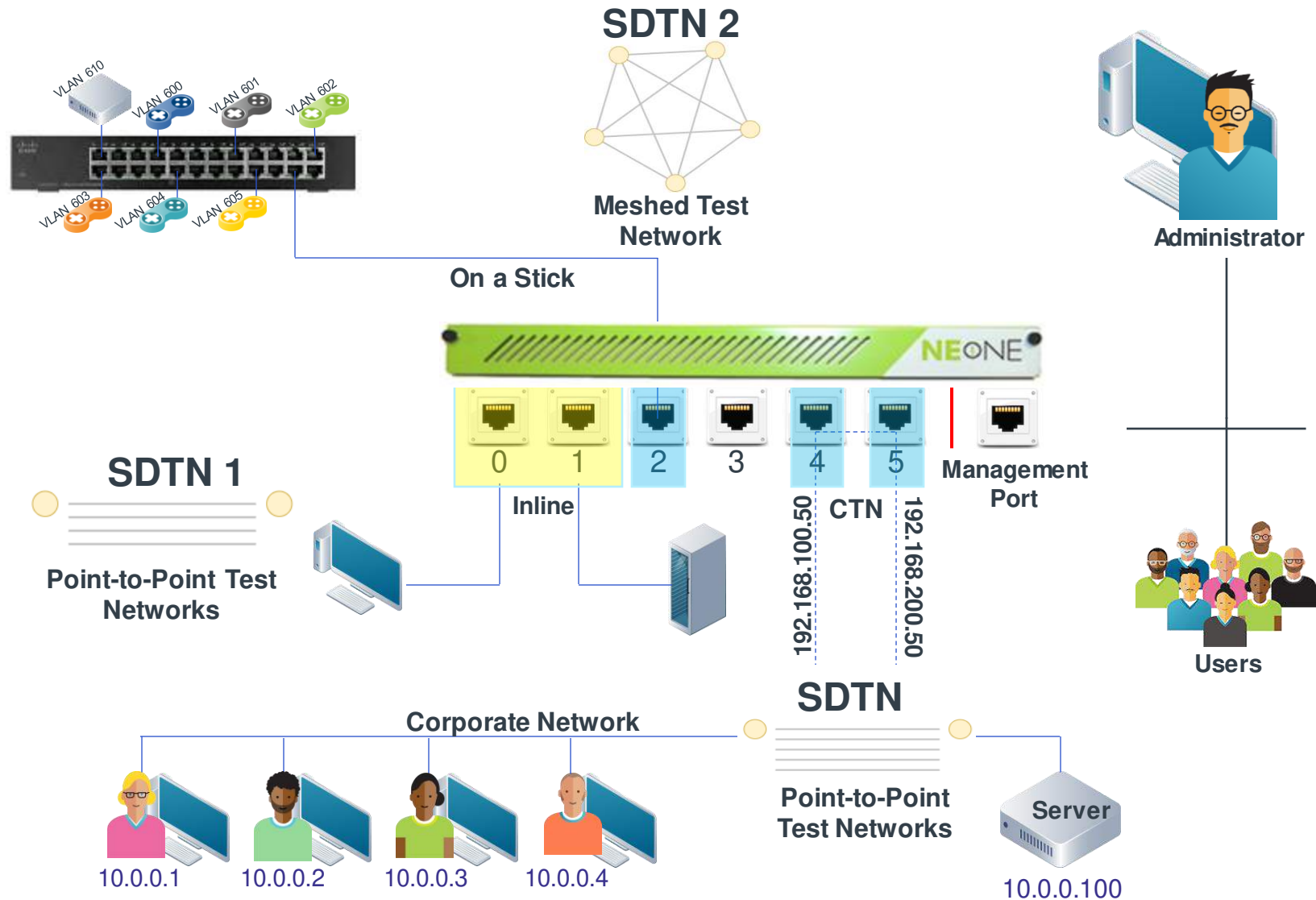
4 x 10Gbps & 2 x 1Gbps Emulation Ports; 128 Soft Ports; 50 Network Objects

NE-ONE Enterprise Model-6 1G



6 x 10Gbps & 2 x 1Gbps Emulation Ports; 192 Soft Ports; 70 Network Objects

Fast, Flexible and Easy Deployment



EASE-OF-USE: Web GUI

NEONE
By Calnex

Home
Networks
Statistics
Reports & Graphs
Management
Help
Log Out

+ NEW NETWORK UPLOAD FROM PC

Active 0 Recent 10 Examples 16

Recent Networks

NAME	FULL PATH	NETWORK TYPE	OWNER	LAST ACCESSED
Scen.its	/Private/networks/Scen.its	Scenario	admin	11 days ago
Satellite_Slow_PoorQuality.itn	/Library/networks/Examples/Satel...	Point to Point (Single)	admin	11 days ago
Demo.itn	/Private/networks/Demo.itn	Point to Point (Single)	admin	11 days ago
4G_Slow_PoorQuality.itn	/Library/networks/Examples/4C_Sl...	Point to Point (Single)	admin	12 days ago
3G_Slow_PoorQuality.itn	/Library/networks/Examples/3G_Sl...	Point to Point (Single)	admin	12 days ago
workingIPR.itn	/Library/networks/Examples/worki...	Multi-Point	admin	161 days ago
ptpIPR.itn	/Library/networks/Examples/ptpIP...	Point to Point (Single)	admin	161 days ago
WiFi_56Mbps_PoorQuality.itn	/Library/networks/Examples/WiFiL...	Point to Point (Single)	admin	161 days ago
WAN_10Mbps_PoorQuality.itn	/Library/networks/Examples/WAN_1...	Point to Point (Single)	admin	161 days ago
Satellite_MEO_O3b.itn	/Library/networks/Examples/Satel...	Point to Point (Single)	admin	161 days ago

PRODUCT TOUR

Model Information

Customer Name: Calnex
License Expiry Date: 2099-10-14
Maintenance Renewal Date: 2099-10-14

Product:
Product Code: NE1-ENTP-4-1G
Licensed Hardware Ports: 4
Licensed Bandwidth: 1G
Licensed Soft Ports: 32
Licensed Network Objects: 30

Topologies
Point To Point:
✓ Point To Point (Single)
✓ Point To Point (Dual)
Multi-Point:
✓ Fully Meshed
✓ Hub and Spoke
✓ Cloud
✓ Free-Form

Licensed Features:
Scenario Builder:
✓ Automatic
✓ Manual
Port Manager: ✓
Service Manager: ✓

Product Version: 2023.07.1367
Build Date: 2023-07-11 08:26
[More...](#)

EASE-OF-USE: Network Topology Wizard

NEONE
By Calnex

- Home
- Networks
- Statistics
- Reports & Graphs
- Management
- Help
- Log Out

admin

Point to Point (Single)
1 links

Point to Point (Dual)
1 links

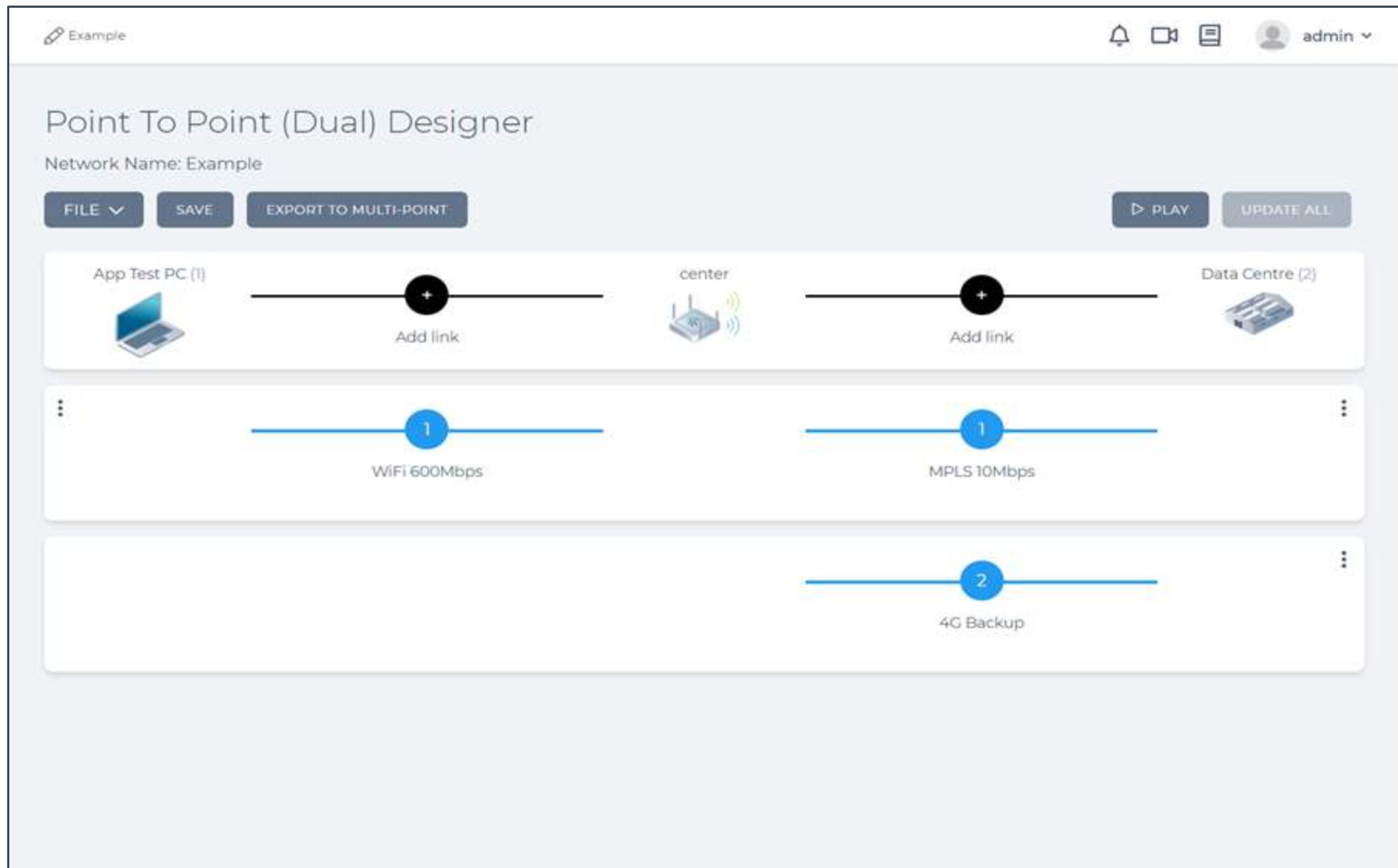
Fully Meshed
5 nodes

Hub and Spoke
5 nodes

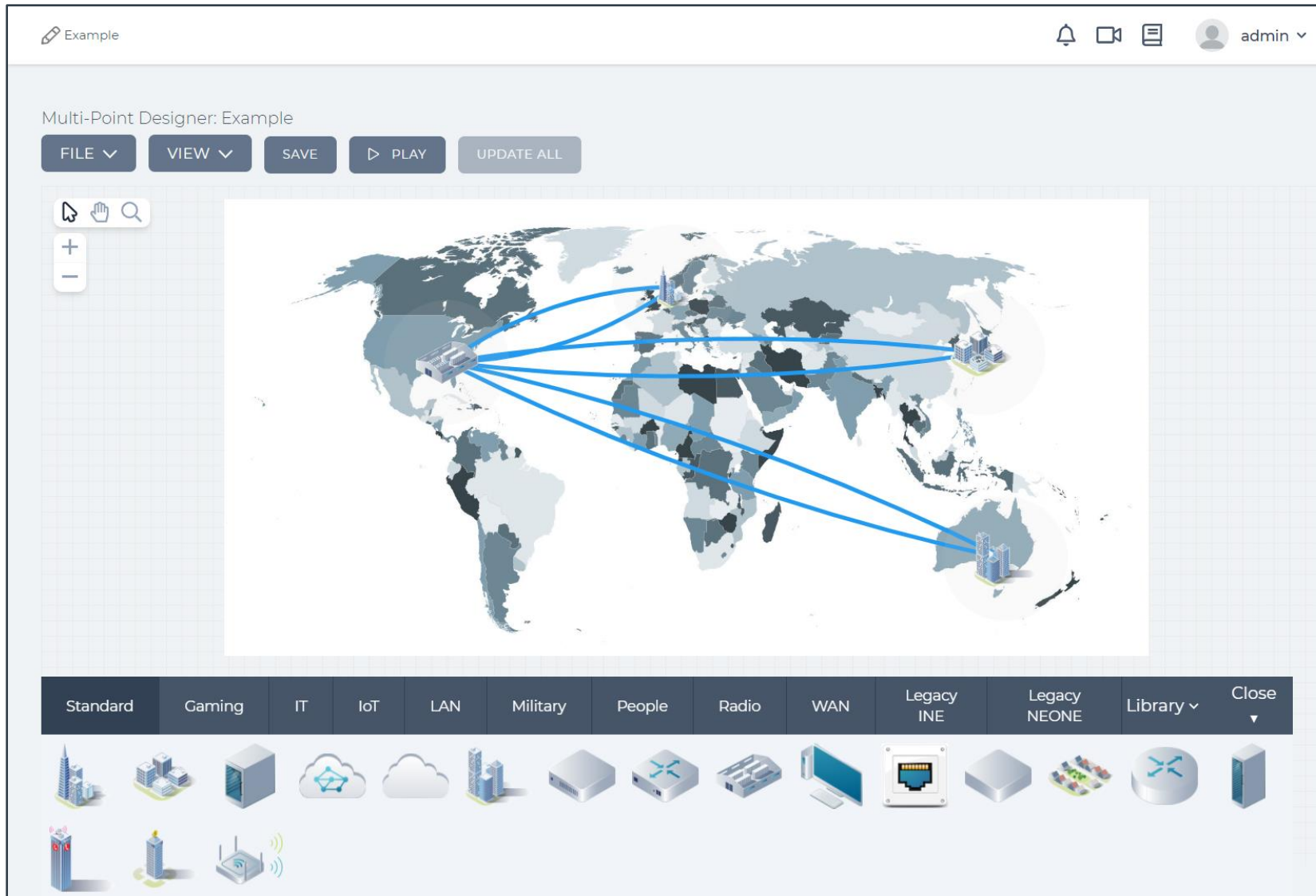
Cloud
6 nodes

Free Form

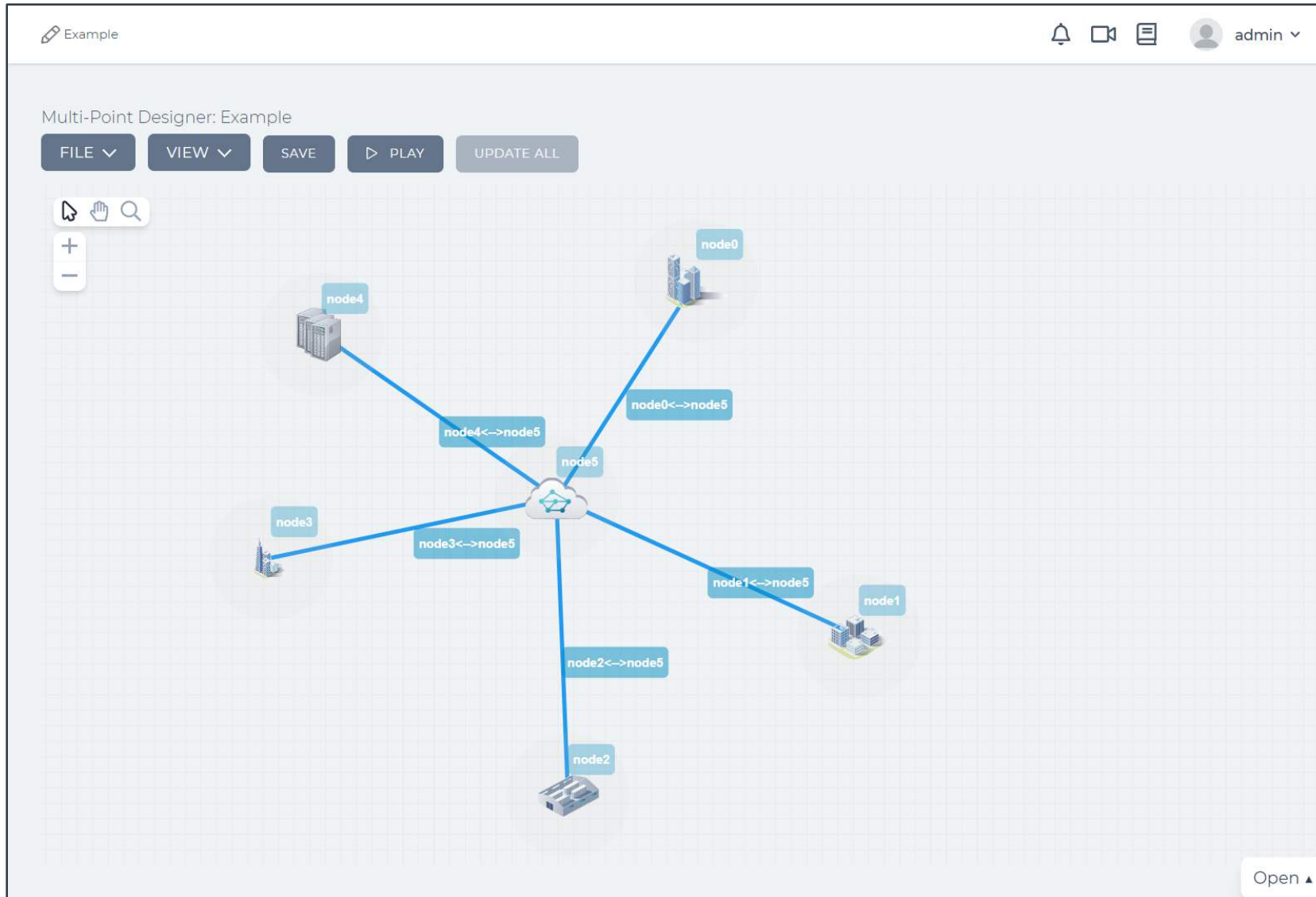
EASE-OF-USE: Point To Point Networks



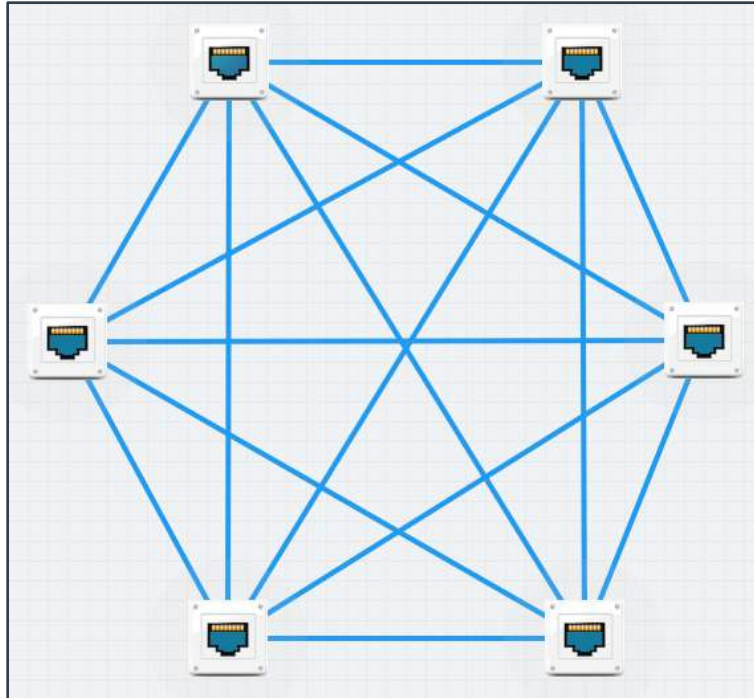
EASE-OF-USE: Multi-Point Designer



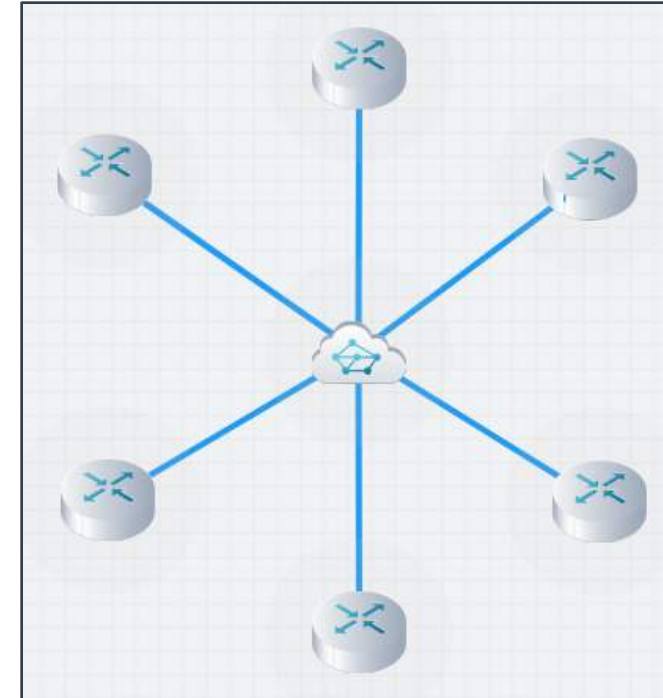
EASE-OF-USE: Multi-Point Designer



EASE-OF-USE: Cloud Networks



6 Nodes - Without Cloud Feature



6 Nodes - With Cloud Feature

EASE-OF-USE: Network Scenario Builder

NEONE
By Calnex

Home
Networks
Statistics
Reports & Graphs
Management
Help
Log Out

Scen | Mobile Journey

admin

FILE | IMPORT | STOP | CLEAR

Scenario Builder

Mobile Journey

Workspace

WiFi_56Mbps_PoorQ... | 3G_Slow_PoorQuali... | 4G_Slow_PoorQuali... | WiFi Good

Timeline

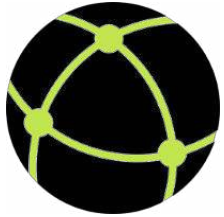
0s 10s 20s 30s 40s 50s 60s 70s Max Seconds 80

WiFi_56Mbps... | 3G_Slow_PoorQuality | 4G_S... | WiFi Good

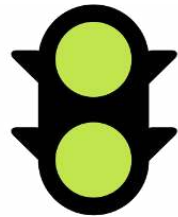
EASE-OF-USE: Port Manager

The screenshot displays the NEONE Port Manager interface. On the left is a dark sidebar with navigation options: Home, Networks, Statistics, Reports & Graphs, Management, Help, and Log Out. The main area is titled 'Port Manager' and shows a network diagram on a grid background. A central switch icon is connected to five nodes: '0', '1', '2', '3', and 'Victoria'. Node '1' is further connected to five other nodes: 'Dave*', 'Bob*', 'Mark*', 'Shree*', and 'Victo...*'. Nodes '2' and '3' are green, while the others are light blue. On the right, an 'Edit Port: Victoria' panel is open, showing configuration fields for Name, Function, Address, Netmask, Gateway, and various checkboxes like 'Use Ethernet Address of Hardware Port', 'Use DHCP Relay', 'Accept Multicast Traffic', and 'NAT Outbound'. An 'EDIT' button is at the bottom of the panel.

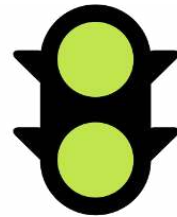
EASE-OF-USE: Realism



**Superior
Real-world
Impairments**



Congestion



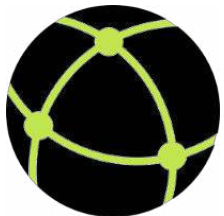
**Traffic
Generation**



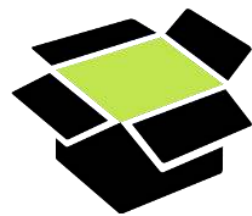
Packet Replay



**Intelligent
Packet Replay**



**Geolocation Network
Latency Calculator**



**Out-of-the-Box
Test Networks**



**User Defined
Protocols**

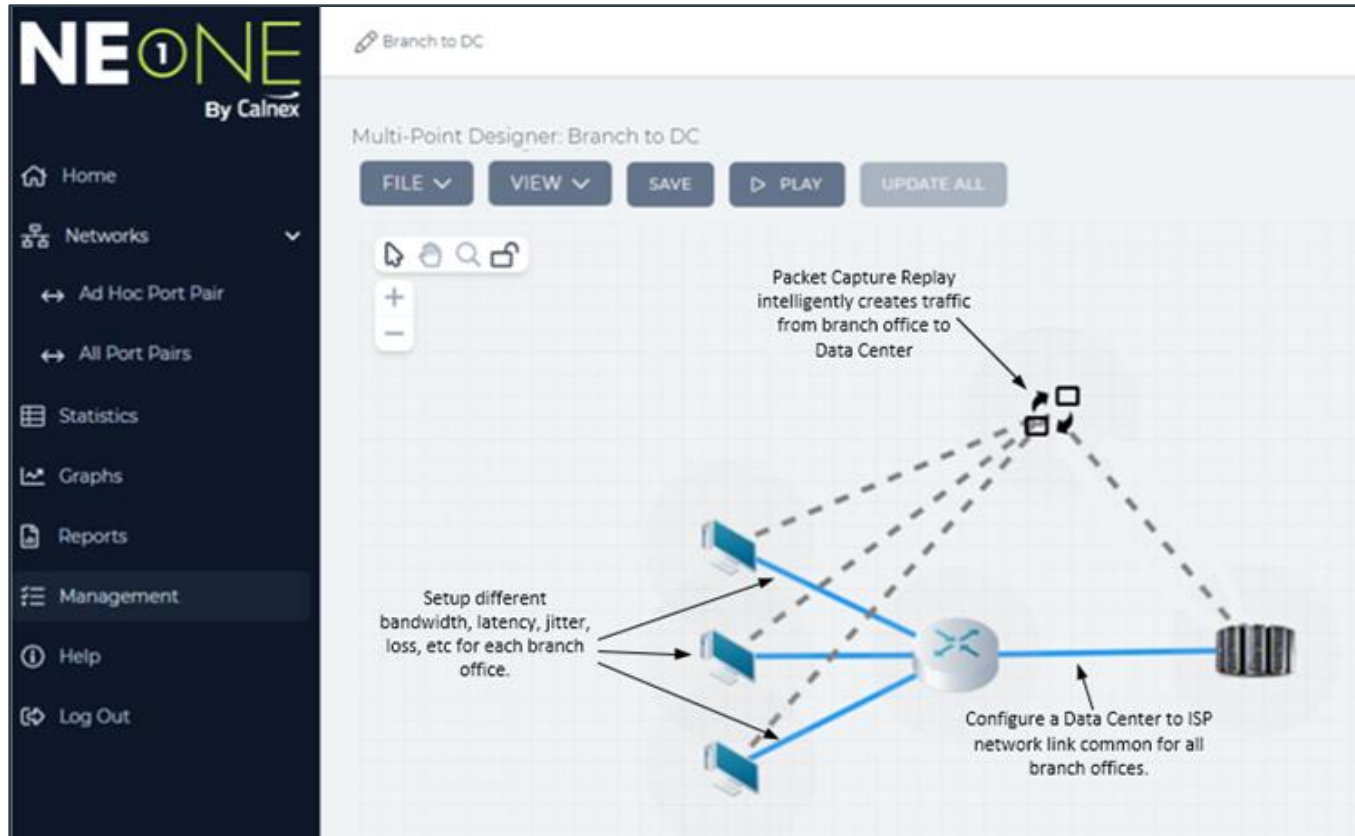


**Advanced Packet
Handling**



**Cisco QoS Class of
Service Handling &
Traffic Shaping**

Intelligent Packet Replay



- ✓ Replay traffic from PCAP file
- ✓ Takes into consideration the test network characteristics
- ✓ Run What-If scenarios

Rapid Analysis: Reports

The screenshot shows the NEONE interface with a sidebar on the left containing 'Home', 'Networks', 'Statistics', 'Reports & Graphs', 'Management', 'Help', and 'Log Out'. The main content area is titled 'left<->right-0' and displays three tables of impairment parameters:

IMPAIRMENT PARAMETER	VALUE
Random_Drop	0

IMPAIRMENT PARAMETER	VALUE
Min_Delay	12
Max_Delay	17

IMPAIRMENT PARAMETER	VALUE
Link_Type	Manual
Link_Speed	100000000
Queue_Length	64000
Overhead	18
Congestion_PCT	0.0
TTL_Cost	0

The screenshot shows the NEONE interface displaying a 'Demo Test Report'. The report title is 'Demo Test Report' and it includes a summary and a table of nodes and links.

Summary
This Test report was created by user admin on 2023-07-27 15:31:35 for the Network started on 2023-07-27 at 15:23 by user admin
The Network was started and ran successfully
The largest amount of data was processed by Node Node right which also had the highest data peak at 7677808bps

Nodes and Links

NAME	TYPE	DESCRIPTION	NOTES
left	Node		
right	Node		
left<->right-0	Link	left	
left<->right-0	Link	right	
[left] -> [PPPort Pair L_L]	Link		
[left] -> [Port Output]	Link		
[right] -> [PPPort Pair L_R]	Link		
[right] -> [Port Output]	Link		

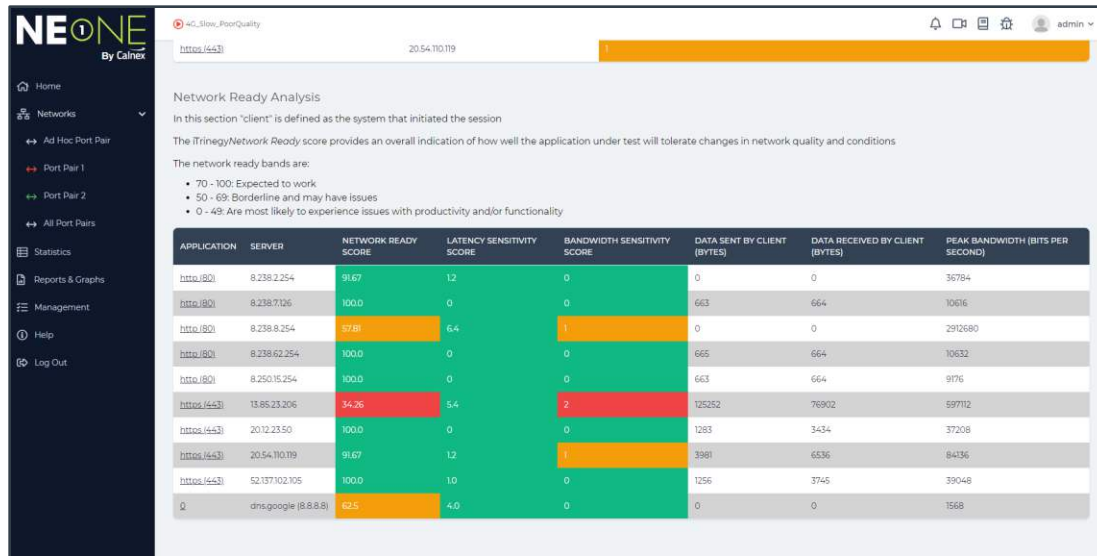
Node and Link Configuration

left

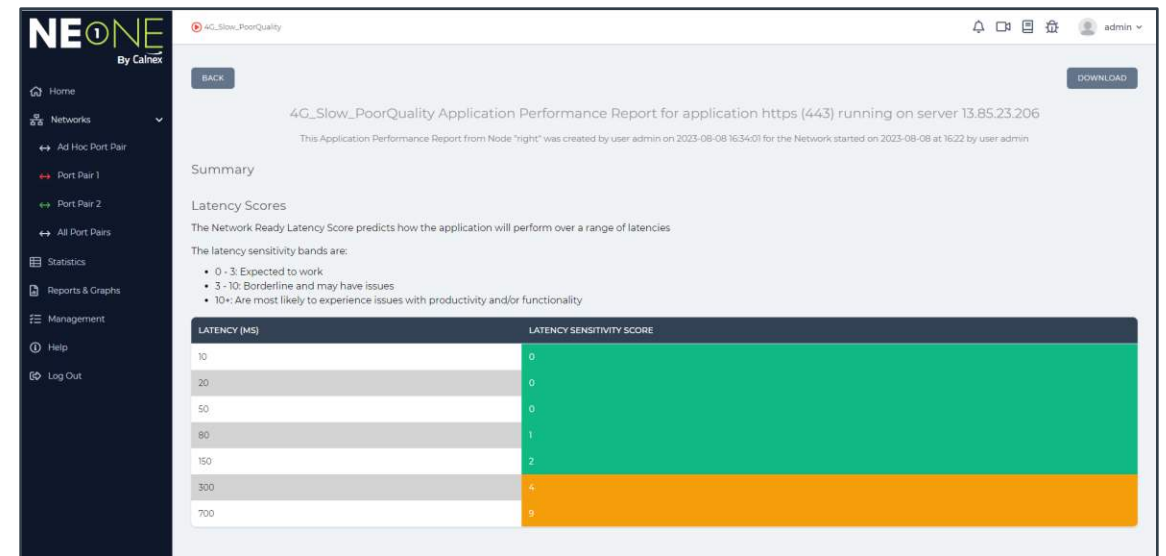
How was the test network configured?

What happened during the test?

Rapid Analysis: Predictive Analytics



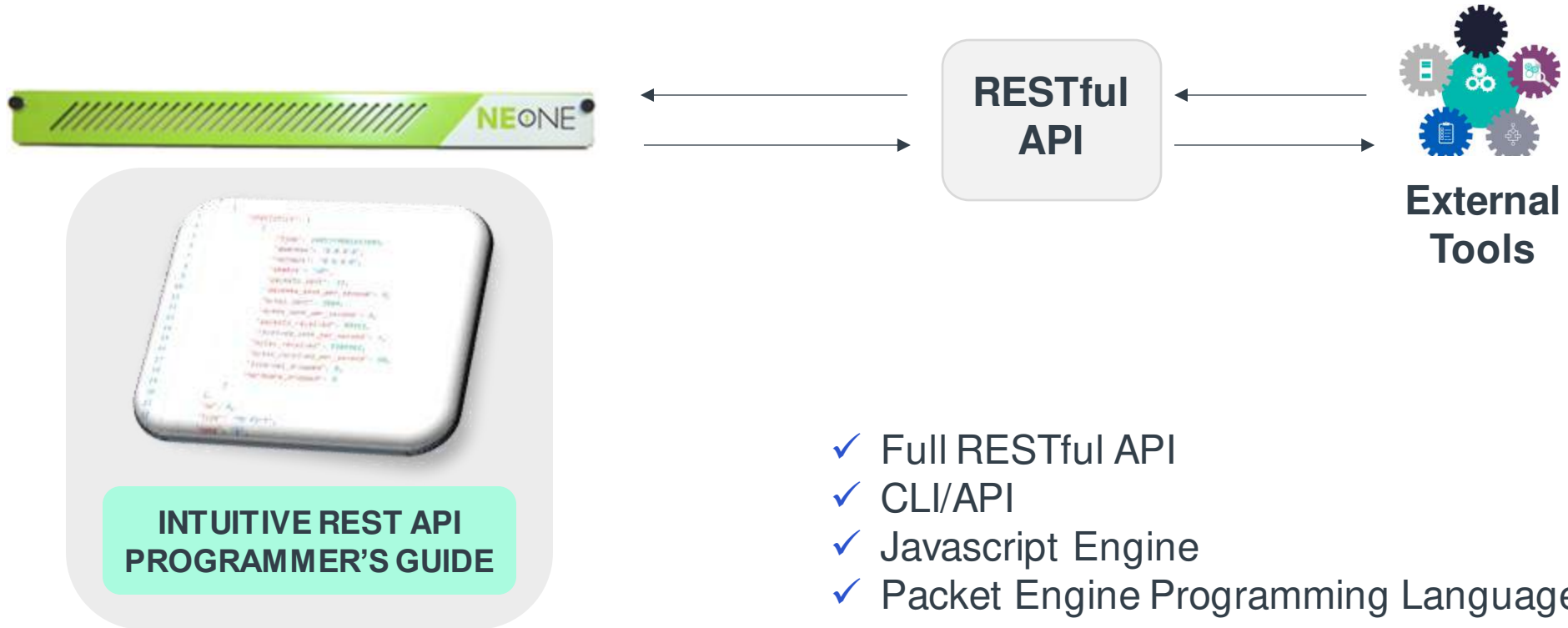
Applications Report



Application Performance Report

Powerful Integration

Optional Feature



- ✓ Full RESTful API
- ✓ CLI/API
- ✓ Javascript Engine
- ✓ Packet Engine Programming Language

- **Web:** [Network Impairment and Emulation Testing](#)
- **Datasheet:** [NE-ONE Enterprise](#)



Real-World Applications

- Predictable Performance**
Validate high-precision network product performance with real-world network...
- 5G Fronthaul Testing**
Determine how real-world network conditions affect your products and services.
- Broadcast Networks**
Testing broadcast applications with impairments.
- Power Networks**
Ensure power network stability when migrating networks.
- Assuring SD-WAN**
DATASHEET

Predictable Infrastructure Performance

Get predictable infrastructure performance with the industry's highest port density network emulator. This flexible network emulation and simulation solution allows you to build your network in seconds via multi-user, multi-port environments, to troubleshoot, design networks, test application performance, and optimize performance.



[Learn more](#) →

Spirent NE-ONE Enterprise: Software Defined Test Networks

Accelerate Application Readiness With An Accurate, Controllable And Repeatable Test Network

Test applications in controllable test networks
Whether you're rolling out an enterprise business critical application like SAP or SharePoint, consolidating data centers, evaluating SD-WAN, VDI or WAN Optimization products, moving to the Cloud, or testing a new mobile app, NE-ONE Enterprise provides organizations with a way to create real-world network conditions in which to analyze, predict and verify application performance before deploying into potentially challenging network environments.

NE-ONE Enterprise allows businesses to effectively manage their digital products and brand, reducing deployment costs and risk, mitigating remediation expense and the impact on resources at the same time as improving quality.



Key Features

- Choose from hardware or virtual appliances
- Certified for VMware, OpenStack, and KVM
- Preloaded Networks: LAN, WAN, Cloud, Satellite and many other example profiles
- Inline and sophisticated routing options
- No limits on port-to-port or port-to-multi-port traffic
- Mimic real-world devices post-network impairment
- Soft Parts: Create hundreds of parts for independent or large scale testing
- Topology Wizard: Ready-made network templates and free-form network designer
- Geo-location network latency calculator
- Impair traffic by any packet field and easily add your own protocols
- Apply 100+ parameters for realistic network impairments



Virtual Appliances



Hardware Appliances

The logo features a circular icon on the left composed of three curved arrows forming a clockwise cycle. To the right of this icon is the word "spirent" in a lowercase, rounded, sans-serif font. A small "TM" trademark symbol is positioned at the top right of the letter "t".

spirent™

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