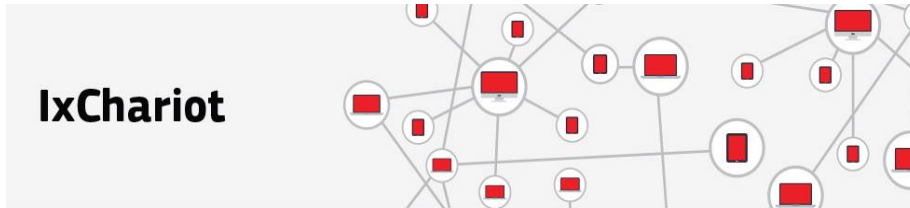


## IxChariot® 8.1

### Validate Pre-Deployment and Live Networks and Applications



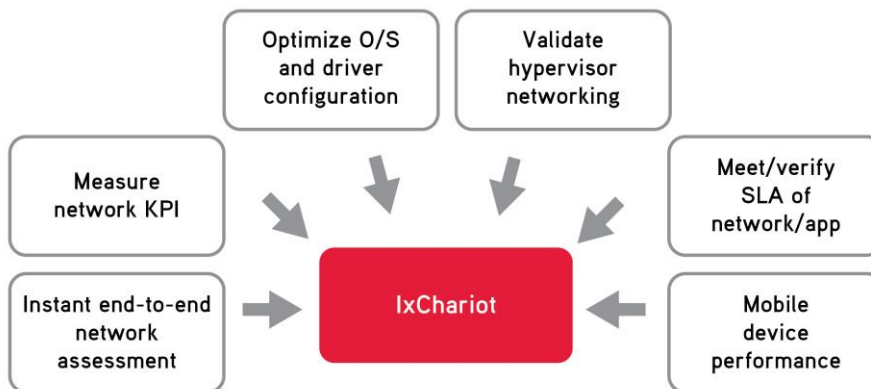
IxChariot 8.1 is a new version of the industry's leading test tool for simulating real-world applications to predict device, system, and network performance under realistic load conditions. Comprised of the IxChariot Server and Performance Endpoints, the IxChariot product family features a new web interface accessible from most platforms that support HTML5-aware browsers.

The product is suitable for enterprise teams looking to simulate various protocols and applications in a distributed network across thousands of endpoints.

IxChariot provides the ability to confidently assess the performance characteristics of any application running on wired and wireless networks.

#### Key Features

- **New HTML5-based web interface** – zero client installation; browser-based
- **AppLibrary support** – more than 100 popular TCP-based apps
- **100% software endpoints** – runs on several O/S; deploy on-premises or in the cloud
- **Measures throughput, jitter, packet loss, end-to-end delay** – per-user metrics
- **Create sophisticated traffic patterns** – for **TCP, UDP, and RTP over IPv4 and IPv6**
- **Voice quality (MOS)** – for true voice over IP calls end-to-end
- **Multi-user system** – create and run tests simultaneously
- **Manage test resources** – built-in resource manager to re-use test scripts
- **IxChariot Server is available as an open virtual appliance (OVA)** – for simple deployment to VMware ESXi 5.x or VMware Player 6.x, Fusion 6.x, and Workstation 10



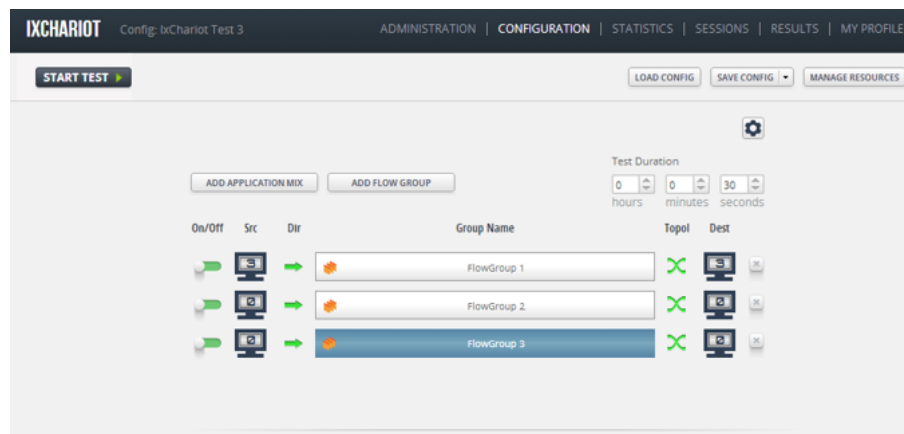
## IxChariot 8.1 Key Benefits

- Designed for IT teams – Leading pre-deployment assessment tool; access and run tests; multi-user out of box
- Assess your network with realistic apps – Create realistic applications to validate network performance
- Verify SLA for networks – Instant end-to-end assessment
- Measure device performance over Wi-Fi and understand performance of access points under load
- Validate hypervisor performance – 100% software endpoints can be deployed anywhere

## IxChariot 8.1 Quick Feature Overview

### *Securely Access and Run Tests from Any Browser*

- Web-based platform, uses HTML5 for access from any modern browser; multi-user access



### *Application Emulation*

- Configure mixes of applications based on number of users or based on generated throughput
- Ready to run popular applications (~100) – see detailed list later in this datasheet

AppMix 1				ADD APPLICATION	
Distribute Percentage:		<input checked="" type="radio"/> Throughput <input type="radio"/> No. of Users		Total No. of Users: 10	
Application	% Distribution	Lock	Users		
Facebook	20		10		
Gnutella	13.4		10		
Google Search	13.4		10		
Bandwidth HTTP	13.3		10		
Google Mail	13.3		10		
MS-SQL Server	13.3		10		
Outlook Web Access	13.3		10		

## Voice over IP Call Emulation and Quality Assessment

- Create real bi-directional peer-to-peer call flows across the network
- Select from codec G711, G729, AMR codec, and others
- Assess true voice quality with MOS, R-value, and impact of delay, jitter, and packet loss on calls flows
- Scale to hundreds of real-time conversations without effort

**FLOW LIBRARY**


NetShowu  
Realaud  
Realmed  
☒ VoIP  

G.711a (64 kbps)  
G.711u (64 kbps)  
G.723.1-ACELP (5.3 kbps)  
G.723.1-MPMLQ (6.3 kbps)  
G.729 (8 kbps)  
G.726 (32 kbps)  
AMR-NB (4.75 kbps)  
AMR-NB (5.15 kbps)

Parameter	Current Value	Default Value	Comment
Codec	G711a	G711a	Codec used
Packet Loss Conceal...	Disabled	Disabled	Enable or disable the ...
Voice Activity Rate	100	100	Specifies a voice acti...
Delay Between Voice ...	20	20	Delay between voice ...
Initial Delay (ms)	0	0	Delay before starting ...
Additional Fixed Dela...	0	0	Delay from a known, ...
Jitter Buffer Size (ms)	40	40	Size of the jitter buffer...
Source Port	Auto	Auto	What port to use for ...
Destination Port	Auto	Auto	What port to use for ...

SELECT

SAVE AS NEW

CLOSE

## Interactive Real-Time Statistics

- Inject real traffic into the network to measure the impact of new applications
- View test results in real-time; measure all critical network metrics including up/down bitrate, loss, jitter, delay

**IXCHARIOT STATS**
Config: IxChariot Test 1
ADMINISTRATION | CONFIGURATION | **STATISTICS** | SESSIONS | RESULTS | MY PROFILE | HELP

STOP TEST
00:00:33 - 00:01:00
GENERATE REPORT

View by: total

**THROUGHPUT 6.374 Gbps**
MIN: 3.08 Gbps MAX: 6.836 Gbps AVG: 6.361 Gbps

**Bytes sent** 6,142,536,235  
Sent by source 15,461,842  
Sent by destination 6,127,074,393  
**Bytes received** 23,854,735,765  
Received by source 6,127,074,393  
Received by destination 17,727,661,372  
**Measured time (sec)** 30

**Lost data**
Bytes lost N/A  
Max consecutive DG lost N/A

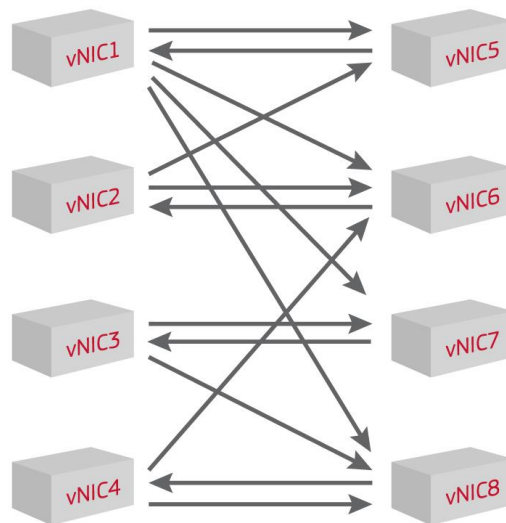
**Datagrams**
Datagrams sent N/A  
Datagrams received 541,161

**Datagram Errors**
Duplicate DG sent N/A  
DG out of order N/A

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## 100% Software Performance Endpoints

- 100% software Performance Endpoints run on any hypervisor that supports Linux or Windows guest O/S
- Validate the performance of VM-to-VM traffic; throughput, latency, and loss for a various TCP and UDP apps
- Create ad-hoc traffic topologies between different servers in the VM infrastructure



## Detailed Product Specifications

Specifications	
<b>Scalability</b>	Supports up to 100,000 connections (endpoint pairs) representing hundreds of thousands of end-users
<b>Protocols</b>	TCP, UDP, RTP, IPv4, IPv6
<b>System Requirements (Server)</b>	<ul style="list-style-type: none"> <li>• OVA deployment: VMware ESXi 5.x or newer, VMWare Player 6.x or newer</li> <li>• Minimal VM provisioning: 1Gb RAM, 1 VCPU</li> <li>• Support for multiple simultaneous tests and user sessions</li> </ul>
<b>Performance Endpoints</b>	<ul style="list-style-type: none"> <li>• Requires IxChariot 8.1 version of performance endpoints – not compatible with older endpoint versions</li> <li>• Microsoft Windows: 2008 R2, 2012, 7, 8</li> <li>• Linux (x86, x86_64)</li> <li>• Other endpoint platforms are coming out soon</li> </ul>

<b>Simulated Applications</b>	<ul style="list-style-type: none"> <li>• AOL Instant Messenger</li> <li>• AOL Webmail</li> <li>• Bandwidth HTTP</li> <li>• Bandwidth Raw</li> <li>• BitTorrent Cisco EMIX</li> <li>• BitTorrent Enterprise</li> <li>• BitTorrent File Download</li> <li>• BitTorrent RMIX 5M</li> <li>• BitTorrent Service Provider</li> <li>• Facebook</li> <li>• Facebook Android</li> <li>• Facebook Android Chat Session</li> <li>• HTTPS Simulated Financial</li> <li>• IMAPv4-Advanced Financial</li> <li>• POP3-Advanced Financial</li> <li>• SMB Client File Download Financial</li> <li>• SMBv2 Auth Session Financial</li> <li>• SMBv2 File Download Financial</li> <li>• SMTP Email Financial</li> <li>• Flash Enterprise</li> <li>• FTP Small download</li> <li>• FTP Active mode</li> <li>• FTP Cisco EMIX</li> <li>• FTP Enterprise</li> <li>• Gnutella</li> <li>• Google Mail</li> <li>• Google Play LTE Mix</li> <li>• Google Play Search View and Download</li> <li>• Google Search</li> <li>• Google GTalk Chat</li> <li>• HTTP Audio</li> <li>• HTTP Cisco EMIX</li> <li>• HTTP Compressed</li> <li>• HTTP Enterprise</li> </ul>	<ul style="list-style-type: none"> <li>• HTTP Flash Video</li> <li>• HTTP Flash Video Service Provider</li> <li>• HTTP GET - Android42 to Apache Server</li> <li>• HTTP GET - BlackBerry10 to Apache Server</li> <li>• HTTP GET - Chrome25 (Windows 7) to Apache Server</li> <li>• HTTP GET - Firefox19 (Windows 7) to Apache Server</li> <li>• HTTP GET - IE9 (Windows 7) to Apache Server</li> <li>• HTTP GET - Opera11 (Linux) to Apache Server</li> <li>• HTTP GET - Opera12 (OS X) to Apache Server</li> <li>• HTTP GET - Safari6 (OS X) to Apache Server</li> <li>• HTTP LTE Mix</li> <li>• HTTP Mobile Europe</li> <li>• HTTP Mobile North America</li> <li>• HTTP RMIX 30K</li> <li>• HTTP RMIX 130K</li> <li>• HTTP RMIX 25K</li> <li>• HTTP Service Provider</li> <li>• HTTP Text</li> <li>• HTTP Video</li> <li>• HTTP Video Enterprise</li> <li>• HTTPS LTE Mix</li> <li>• HTTPS Simulated</li> <li>• HTTPS Simulated Enterprise</li> <li>• HTTPS Simulated Service Provider</li> <li>• ICQ</li> <li>• IMAP Cisco EMIX</li> <li>• IMAP LTE Mix</li> <li>• IMAP RMIX 4K</li> </ul>	<ul style="list-style-type: none"> <li>• IMAP RMIX 16K</li> <li>• IMAP RMIX 90K</li> <li>• iTunes Desktop App Store</li> <li>• Jabber Chat</li> <li>• MS-SQL Server</li> <li>• MySQL Database Update</li> <li>• Netflix Service Provider</li> <li>• Oracle Database</li> <li>• Oracle Enterprise</li> <li>• Outlook Web Access</li> <li>• Pandora LTE Mix</li> <li>• Pandora</li> <li>• POP3 LTE Mix</li> <li>• POP3 RMIX 4K</li> <li>• POP3 RMIX 16K</li> <li>• POP3 RMIX 90K</li> <li>• PostgreSQL</li> <li>• Raw Enterprise</li> <li>• Raw LTE mix</li> <li>• Raw Service Provider</li> <li>• Raw Wireless</li> <li>• RTMP</li> <li>• SMB Client File Download</li> <li>• SMB Enterprise</li> <li>• SMTP Cisco EMIX</li> <li>• SMTP Email</li> <li>• SMTP Enterprise</li> <li>• SMTP RMIX 4K</li> <li>• SMTP RMIX 16K</li> <li>• SMTP RMIX 90K</li> <li>• SSH</li> <li>• Twitter Json</li> <li>• Webex</li> <li>• Windows Live (MSN) Messenger v15</li> <li>• Yahoo IM Chat v10</li> <li>• Yahoo Mail</li> <li>• YouTube Enterprise</li> <li>• YouTube LTE Mix</li> <li>• YouTube Service Provider</li> </ul>
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## Product Ordering Information\*

### *License Bundles*

920-0056	IxChariot Software, Floating Bundle 50; includes Floating License Server for 50 pairs/virtual users and single user console seat license
920-0057	IxChariot Software, Floating Bundle 200; includes Floating License Server for 200 pairs/virtual users and single user console seat license
920-0058	IxChariot Software, Floating Bundle 500; includes Floating License Server for 500 pairs/virtual users and single user console seat license
920-0059	IxChariot Software, Floating Bundle 1250; includes Floating License Server for 1250 pairs/virtual users and single user console seat license
920-0060	IxChariot Software, Floating Bundle 2500; includes Floating License Server for 2500 pairs/virtual users and single user console seat license
920-0061	IxChariot Software, Floating Bundle 5000; includes Floating License Server for 5000 pairs/virtual users and single user console seat license
920-0021	IxChariot Console Seat for License Server, five concurrent users
920-0043	IxChariot Optional Software, AppLibrary support for single user; <b>REQUIRES</b> previous or adjunct purchase of Console Seat licenses
920-0044	IxChariot Optional Software, AppLibrary support for 5 users; <b>REQUIRES</b> previous or adjunct purchase of Console Seat licenses

\*Most popular options shown – see current price list for more information