

## BreakingPoint FireStorm ONE™

ONE Appliance, ONE Interface, ONE Ultra-Compact and Ultra-Fast Device for Massive-Scale Performance and Security Testing Anywhere, Anytime.

The BreakingPoint FireStorm ONE creates the recreational and malicious behavior of millions of users to harden the resiliency of network devices and end-to-end IT infrastructures under operationally relevant conditions and malicious attack.

The BreakingPoint FireStorm ONE offers the highest rack unit performance density available, with an ultra-compact design, providing unprecedented insight into the performance and security of network and data center equipment by producing the same high-stress conditions and user behaviors that organizations face in the real world.

### BreakingPoint Application and Threat Intelligence (ATI)™: Designed to Adapt Rapidly to Ensure Ongoing Resiliency

The BreakingPoint FireStorm ONE ships with the latest applications, security attacks, and performance upgrades and is updated biweekly through the BreakingPoint Application and Threat Intelligence program. Backed by a team of security and application experts, this service ensures that the most popular Web and network application protocols and security threats are always up to date.

Using one appliance, one interface, and only one rack unit, the FireStorm ONE can create:

- 40 Gigabits per second (Gbps) of blended stateful application traffic and live attacks
- 30 million concurrent TCP sessions
- 1 million TCP sessions per second
- 8 Gbps of SSL encryption with any cipher
- 12 million concurrent GTP tunnels and 8,000 eNodeBs

The FireStorm ONE is a portable device in both size and function, with built-in handles for easy transportability and an optional travel enclosure to conduct on-site testing and evaluations. The FireStorm ONE also scales to unlimited performance levels with multiple devices using a single user interface, one configuration, and integrated reporting.

### The BreakingPoint FireStorm ONE allows your organization to:

- Establish scalable and transportable proof of concept labs for customer evaluations using their unique traffic scenarios
- Reduce your time-to-test to minimize costs and accelerate development of network and data center devices
- Optimize and harden mobility network equipment to deliver next-generation devices
- Evaluate network equipment to choose the right device for your unique network
- Right-size data centers and virtualized infrastructures for peak performance and capacity use
- Continuously validate performance and security to avoid IT risk as your network changes
- Train and certify cyber warriors to predict and prevent attack
- Perform on-the-go cyber security research and simulations to keep ahead of the latest threats
- Deploy global compact cyber ranges in order to harden critical communication infrastructures



BreakingPoint ASI creates and controls global threat and application intelligence at Internet-scale, to transform technologies, people, and processes.

## BreakingPoint FireStorm ONE Features

### Transportable Performance and Security Test Lab: Create and Control Global Threat and Application Intelligence at Internet-scale, to Battle-Test and Harden IT Infrastructures

The rack-efficient BreakingPoint FireStorm ONE provides organizations with the ability to:

- Battle-test the world's largest network and data center infrastructures
- Establish scalable and transportable proof-of-concept labs for customer evaluations, using their unique traffic scenarios
- Reduce your time-to-test to minimize costs and accelerate development of network and data center devices
- Optimize and harden mobility network equipment to deliver next-generation devices
- Evaluate network equipment to choose the right device for your unique network
- Right-size data centers and virtualized infrastructures for peak performance and capacity use
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#### Actionable Security Intelligence

Bridge the gap between IT testing, monitoring, and operations with the ability to:

##### Create Application and Threat Intelligence

- Exclusive visibility
- Threat discovery
- Application trends
- Custom conditions

##### Control Massive-Scale Simulation and Testing

- Patented product line
- Easy to use

##### Transform IT Lifecycle Solutions

- Battle-test infrastructure
- Train cyber warriors
- Standardize processes

ahead of the latest threats

- Deploy global compact cyber ranges in order to harden critical communication infrastructures

### Live Security Attacks: Malware, Mobile Malware, and More

The BreakingPoint FireStorm ONE has an extensive and always-current threat library of more than 34,000 attacks, with frequent updates published by our dedicated team of in-house security researchers. The BreakingPoint FireStorm ONE also provides live malware and mobile malware for testing of anti-virus gateways and other behavioral analysis and contextual security devices. Capabilities include:

- More than 34,000 new live malware attacks, including 100+ new mobile malware attacks
- All attacks running over SSL and GTP, as well as multiple supported transports, including HTTP, SMTP, POP, and IMAP
- Encoding for live malware strikes, available via evasion options
- Support for file types for live malware, including .doc, .pdf, .ppt
- Support for a compression option for live malware, including ZIP, gzip, tar, and tar+gzip
- Uploading and transmission of user-supplied malware samples

### Real-World Data: 160+ Dynamic Applications with Granular Application Control

Select, blend, and manipulate stateful application data traffic from a library of more than 160 stateful protocols.

- **Application Profiles** – Dozens of application traffic profiles, including those geared for enterprises, service providers, mobile carriers, and more.
- **Custom Toolkits** – Optional BreakingPoint Custom Toolkits to accelerate attacks and unique/proprietary protocols.
- **Markov Text Generation** – BreakingPoint's Markov text generator analyzes input text and generates new text based on statistical probabilities.
- **Client Simulator** – Client-side application implementations connect to real application servers, validating and stressing application-aware DPI devices.
- **Multi-Language Capabilities** – Simulate applications and corresponding text in dozens of languages including English, French, German, Italian, Spanish, Japanese, Chinese, and Farsi.

#### Real-World Applications

160+ of the world's most popular protocols, including:

BitTorrent	HTTP	Skype
BGP	HTTP Live Streaming (HLS)	SMBv2
DIAMETER	MS Exchange	SMTP
DNS	Netflix Streaming	SSL
Facebook	Oracle	Windows Live Mail
FIX	RIP	Yahoo Mail
Google Mail	RTSP	YouTube
Google Search	S1AP	
Hotmail	SIP	

### Physical Specifications:

Rack Units:

1

Dimensions (exclusive of rack mount kit):

17.5 in. W x 2 in. H x 25.5 in. D

Power Requirements:

100-240VAC

50/60Hz

7A max

Wattage:

640W

BTU:

2200

Maximum Ambient Temperature = 40°C

- RFC2544 Validation Lab
- Session Sender Lab
- Lawful Intercept/Data Loss Prevention Lab
- BreakingPoint Resiliency Score™ Lab
- BreakingPoint Data Center Resiliency Score™ Lab

### Extensive Reporting: Performance Characterization and Root Cause Determination for Problem Isolation

The BreakingPoint FireStorm ONE provides granular reporting and analysis, offering the industry's quickest performance characterization and root-cause determination for problem isolation. Live HTML reports display comprehensive, detailed reporting at all layers—from the industry's highest-resolution application packet latency measurement to customizable application-specific transaction details—make it simple to analyze and understand test results.

- Ability to export into CSV, XLS, PDF, HTML, ZIP, and RTF formats
- Configurable test criteria for automated "success/failure" determination
- Ethernet, TCP, and Super Flow detailed and aggregate reporting
- Per-user byte- and packet-level accounting for mobility application

### About BreakingPoint

BreakingPoint Actionable Security Intelligence protects enterprises, service providers, and government agencies by providing global visibility into emerging threats and actionable insight to harden and maintain resilient defenses. With the exclusive ability to create and control global threat intelligence at Internet-scale, BreakingPoint delivers the only products capable of battle-testing IT infrastructures, training cyber warriors, tuning systems and policies, and transforming security processes to be proactive and effective. BreakingPoint bridges the gap between IT testing, monitoring, and operations, delivering the advance insight to harden highly dynamic converged and mobile networks, virtualized data centers, and applications.

### Comprehensive Solution: All-in-One Security and Performance Testing

The BreakingPoint FireStorm ONE is an ultra-compact all-in-one security and performance testing solution allowing organizations to test all network and data center devices and systems using a variety of functionality including:

- **Network Profiles** – Preconfigured traffic profiles built to represent a range of network scenarios—wireless, global service provider, enterprise, government, DHCP, IPv4 and IPv6, and others.
- **Application Simulator** – Create a variety of realistic application traffic flows.
- **Client Simulator** – Simulate the behavior of millions of concurrent users.
- **Security Component** – Thousands of unique, randomized security attacks and evasion techniques.
- **Session Sender** – Create and maintain large numbers of valid TCP sessions with contrived data.
- **Stack Scrambler** – Fuzz protocols via configurable, randomized errors into IP, UDP, and TCP packets.
- **Recreate Component** – Capture and re-create traffic flows that are independent of network topology, including removal of GTP encapsulation
- **Routing Robot** – Produce high-rate IP packets with a UDP payload.

### Easy to Use, Scale, and Update: Extensive Automation, Preconfigured Labs, and Intuitive User Interface

BreakingPoint's advanced user interface separates application simulation components from specific network topologies, making it simple to scale and reconfigure simulations. The intuitive user interface is unique within the industry, providing organizations with:

- **Device Control and Automation** – Connect directly to a network or data center device. This automation gathers performance and security measurements without the need for a separate switch.
- **Test Import/Export** – Share and reuse simulations with easy import/export functionality.
- **Simulation Labs** – Preconfigured labs automatically combine all the elements needed for many common assessments including:
  - Mobility Test Lab
  - Multicast Test Lab

