

# Quarri™ Protect On Q™ and Citrix NetScaler®

## *True end-to-end security of web sessions*

Anytime, anywhere access has driven explosive growth in online services, from electronic banking and insurance to enterprise collaboration and healthcare portals. The rapid adoption of web versions of enterprise applications, as well as cloud and SaaS applications, has driven the volume of private and sensitive data delivered to browsers higher than ever. Unfortunately, while becoming the primary information delivery platform, the browser has also become the primary vulnerability point for data leakage and malware attacks.

While SSL-protected packets (HTTPS) and data center security solutions such as Citrix NetScaler significantly increase protections against compromise on the server side, or for in-transit data, they do not address protection of data once it has been delivered to the endpoint. Whether due to installed malware, or malicious or careless end users, endpoints create significant risks to information compromise. Today, high assurance web applications have little, if any, visibility or control over this vital link in the security chain. Through this partnership, Quarri Protect On Q browser security solution can be easily combined with Citrix NetScaler to deliver true end-to-end data protection of sensitive web applications.

### **Quarri Protect On Q**

Quarri Protect On Q is the only on demand web browser security solution to enable web sites to control and protect users' browser session content from theft or data leakage by malware or users. Utilizing a web-delivered, transient agent, Protect On Q is ideally suited to protecting high value web content wherever users may be. The Citrix Ready Certified Protect On Q integrates with Citrix NetScaler, the market-leading Application Delivery Controller, to enable web sites to gain secure control over the browsers accessing their applications.

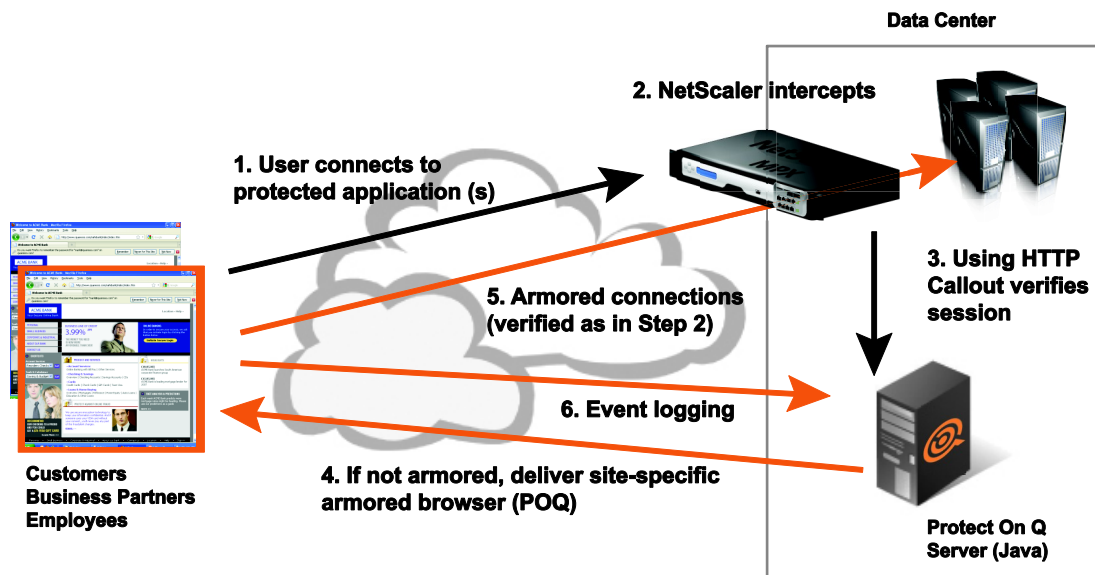
### **Citrix NetScaler**

Citrix NetScaler is an all-in-one web application delivery appliance. Deployed in front of web servers, NetScaler is a single, purpose-built hardware platform that includes high-speed traffic management via load balancer and content

switching with application acceleration, content caching, SSL acceleration, web application firewall, network optimization, and application performance monitoring. NetScaler helps an organization quickly deploy web applications while reducing total cost of ownership (TCO), optimizing the user experience, providing security, and ensuring the availability of applications.

### End to End Web Data Protection

The combined solution of Protect On Q and NetScaler enables web security protections to be extended from the NetScalers to the browser. NetScalers can integrate with Protect On Q's infrastructure to deliver and enforce the use of armored browsers when users access certain web applications. As shown in the diagram below, when a website or application request is made, NetScaler intercepts it and determines if the browser is armored. If not, the user is notified of the policy and an armored browser is launched to create a temporary security wrapper to protect sensitive sessions.



The protected browser complements the NetScaler web security features by shielding sensitive web application data from sophisticated multi-function malware such as banking Trojans. In addition to its anti-malware capabilities, Protect On Q enables browser data leakage prevention by allowing web applications to place strict controls over the saving, copying, or printing of browser-delivered information. All of the armored browser's security features are controlled by a policy defined by the Protect On Q administrator. When the web session is over, the armored browser dissolves. There are never any signature downloads, or client installation or maintenance costs.

Protect On Q's hardened browser security features include:

- **Data leakage prevention** — Controls operations such as copy, save, clipboard, print and print screen within the browser to ensure information is not leaked via user actions. The controls extend to browser-launched applications such as Adobe Acrobat and Microsoft Office
- **Key logger and frame grabber defenses** — Zero-hour detection and suppression of applications that can compromise keyboard inputs and display outputs
- **Browser data privacy** — Real time defense against data mining malware or other users by encrypting all disk-based session data such as cache, cookies, password store and history
- **Browser process integrity** — A site-specified whitelist of browser extensions allows sites to avoid hostile or unnecessary plug-ins.
- **URL destination controls** — All browser connections controlled by a site-specified white list, mitigating some types of session hijacking, XSS, and CSRF attacks
- **SSL Certificate Protections** — Mitigates MITM / hostile SSL proxying of secured connections by specifying a white list of allowed SSL certificates.
- **SSL User Override** — To control social engineering of users by hostile HTTPS proxies, web sites can specify whether users can override certificate errors (expired, mismatched etc.).
- **Secure hostname resolving** - Provides site-specified hostname resolution, enabling the bypass of local host file or DNS resolution, mitigating name resolution-based attacks
- **Session Time Limits** — Administrators can define and enforce an idle timeout, forcing a protected session to close if no activity within the session occurs in the specified period.

### Customer Benefits

Quarri Protect On Q and Citrix NetScaler provide significant benefits to customers, including:

- **Mitigate risk and maintain compliance** — Together, POQ and NetScaler deliver and enforce the use of armored browsers when accessing certain web applications, protecting web sessions and content from data loss due to malware and malicious or inadvertent user actions.
- **Reduced Total Cost of Ownership** — POQ's integration with NetScaler allows you to maximize your current investment while enhancing your security all the way to the end point, wherever your users are, with easy customer deployment and no software installation or maintenance.
- **Optimized user experience** — A seamless user experience means users benefit from an easy-to-use, automatically secured browser session. Everything to protect your data is delivered on the fly when customers log in and cleaned up, along with any residual data, when they log out.

Together, Citrix and Quarri enable web sites to extend security to the end point, enabling sites to protect sensitive web sessions and content, without the need to deploy and manage client software. For more details on Protect On Q and the Citrix NetScaler integration please visit the [Quarri](#) and [Citrix](#) web-sites.

### About Quarri

Quarri is a leading provider of on demand web browser security solutions that secure information and content at the endpoint. Our products give enterprises the ability to extend security controls temporarily to web browser sessions, providing information protection and data leakage prevention wherever your users are. Quarri is a privately held, investor-backed corporation based in Austin, Texas. For more information, visit [www.quarri.com](http://www.quarri.com).

### About Citrix

Citrix Systems, Inc. (NASDAQ:CTXS) is a leading provider of virtual computing solutions that help companies deliver IT as an on-demand service. Founded in 1989, Citrix combines virtualization, networking, and cloud computing technologies into a full portfolio of products that enable virtual workstyles for users and virtual datacenters for IT. More than 230,000 organizations worldwide rely on Citrix to help them build simpler and more cost-effective IT environments. Citrix partners with over 10,000 companies in more than 100 countries. Annual revenue in 2009 was \$1.61 billion.

Quarri Technologies, Inc.  
7500 Rialto Blvd.  
Building 2, Suite 210  
Austin, TX 78735

1.866.248.3990 US  
+1.512.590.7731  
+1.512.777.5005 Fax

info@quarri.com  
www.quarri.com