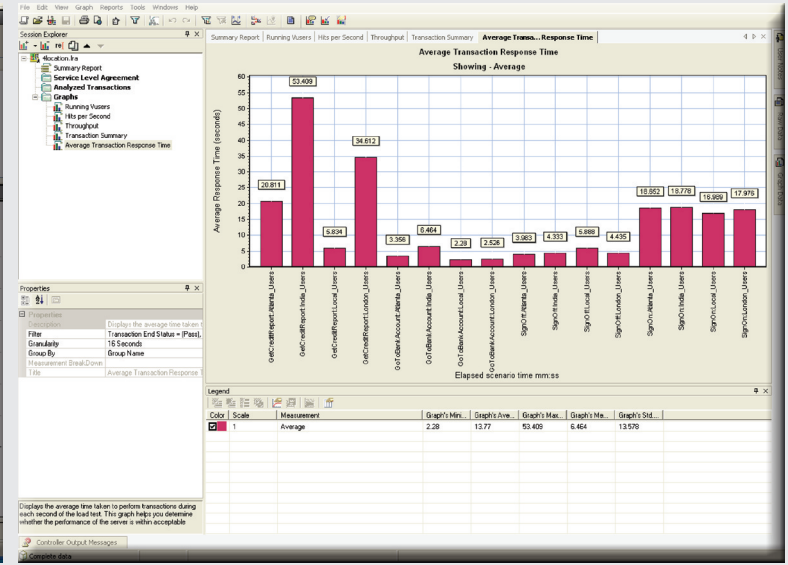
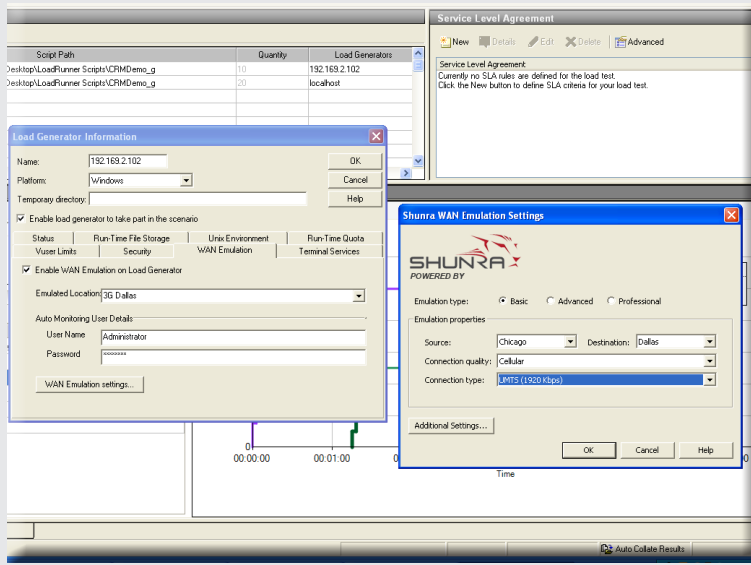


# Shunra Network Virtualization for HP Software



Shunra Network Virtualization users report a 25% average reduction in performance issues and a return on investment of less than 90 days.

Shunra Customer Survey  
July 2011

Shunra Network Virtualization for HP Software integrates seamlessly into HP LoadRunner and HP Performance Center, enhancing the accuracy of testing by incorporating real-world network conditions into the load and performance test environment. Shunra Network Virtualization enables an effective application performance engineering methodology, providing the capabilities to virtualize real-world network conditions in the test environment, analyze test results in order to isolate potential bottlenecks, and automatically deliver custom performance optimization recommendations.

The combination of HP LoadRunner or Performance Center and Shunra Network Virtualization is the path to robust, reliable and accurate mobile performance testing.

"Reliable Performance Testing for Mobile Applications"  
HP Software

Shunra Network Virtualization is the only HP-certified solution specifically designed to accelerate and optimize application performance testing across WAN, web, mobile and cloud networks. Shunra Network Virtualization improves an organization's ability to detect and remediate performance bottlenecks prior to deployment and accurately predict application behavior under real-world network conditions.

From within the familiar HP Software interface, organizations worldwide leverage Shunra Network Virtualization to:

- Enable each load generator to emulate a different network location's transaction response time, and reduce or eliminate reliance on remote load generators
- Aggregate test results into a single database for ease and completeness of analysis
- Extend testing scripts with a single click
- Automate reporting and analysis for Performance Engineers, Line of Business Owners, and other business constituents

**Shunra Network Virtualization supports:**

- Windows 7/2008 operating systems and 64-bit for all platforms
- Bandwidth emulation up to 100 Mbps or unlimited
- Granular IP filtering (by protocol, port)
- Expanded packet capture (up to 1GB)
- Shunra NetworkCatcher and Shunra's Global Library of mobile and broadband network conditions

Shunra Network Virtualization features easy configuration and use. It requires no script editing and places no limits on test scheduling. In addition, test results and data are automatically stored within HP results files and segregated by emulated location for precise and actionable analysis.

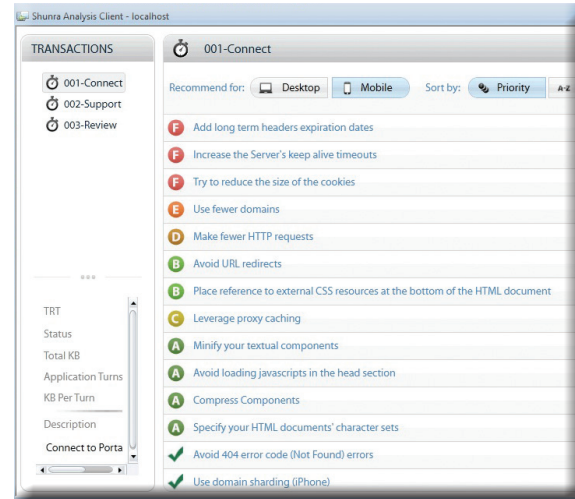


## Why Shunra Network Virtualization?

Demand for anywhere, anytime access to information has given rise to mobile, Cloud and highly-distributed application infrastructure. As composite applications continue to evolve into significant competitive differentiators and create new communications channels, businesses are challenged to continually evolve and deploy applications that meet, or exceed, end user expectations.

This challenge is most evident in the shift to mobility. In the rush to create and release mobile apps, for example, organizations must not overlook the effect of dynamic mobile network conditions on user experience.

Deploying applications without testing against real-world network conditions cannot be an option – end users should not be real-world testers, otherwise revenue, productivity and brand image is put at risk.



**Key Features:** Because performance is the number one factor influencing application use and adoption, and ultimately business success, accurate and reliably predictive pre-production testing is a requirement. Shunra Network Virtualization for HP Software provides the capabilities needed to achieve this level of confidence with performance testing.

- **Native integration with HP LoadRunner and HP Performance Center** – Shunra Network Virtualization is available in two editions: Shunra Network Virtualization for HP LoadRunner and Shunra Network Virtualization for HP Performance Center. The solution's unique interface, integrated within the familiar HP LoadRunner and Performance Center GUI, means no additional scripting requirements are needed to enable performance testing, saving development costs and time while also reducing support requirements.
- **Robust network virtualization** – Because web, mobile and Cloud network conditions are dynamic and vary by provider, location and time of day, it is essential for testing environments to accurately recreate multiple network scenarios in order to analyze application performance and the affect of network conditions on different user populations. Shunra Network Virtualization is uniquely capable of virtualizing real-world network conditions including bandwidth, latency, jitter and packet loss. With Shunra Network Virtualization, each load generator can

emulate a different location with a unique set of network conditions, allowing users to simultaneously emulate multiple user populations and more accurately recreate the real-world conditions affecting end user experience.

- **Location-aware analytics** – Shunra Network Virtualization for HP Software integrates with the HP load test results, providing deep-dive analytic capabilities and location-specific performance information, including identification of poorly performing business transactions and the root cause of performance issues, along with service level and performance compliance reporting.
- **Automatic optimization recommendations** – Shunra Network Virtualization features a proprietary performance scorecard that automatically grades application performance and offers custom performance suggestions for web-based, mobile web-based or native mobile applications. These recommendations have been shown to improve application performance by over 40%.

*Performance counts. Know before you deploy.*



## Shunra Network Virtualization

Visit [www.shunra.com](http://www.shunra.com) and request to be contacted. Or contact Shunra directly at **1.877.474.8672** or **1.215.564.4046**.