



Shunra VE 5.0: Simulation tool for today's IT

Last August we were introduced to and discussed¹ Shunra VE 4.0 in a commentary. Shunra VE provides comprehensive simulation capabilities to build a test bed for pre-deployment performance analysis of networked applications and the infrastructure configurations they run on. At that time we discussed the challenges facing development and operations staff as they tried to predict the performance of applications and services operating in a widely distributed environment. We discussed how they addressed the challenge of making it easy to simulate an operational environment in development and QA labs to perform comprehensive performance analysis as they use a range of real-life workloads and simulated configurations to identify potential application and network problems. Shunra's VE 5.0 is now coming to market with enhancements in analysis, simulation, and reporting as well as increased functionality.



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Simulations that address two enterprise problems

Shunra VE 5.0 is being positioned to address two enterprise problems. First, it has been designed to allow enterprise IT operational and development groups to easily simulate in the datacenter the conditions needed to test the real-life behavior of today's dynamic, distributed applications. These applications end up being deployed and accessed by users operating across vast, distributed and dynamic networks. These networks display operational idiosyncrasies and characteristics that do not normally appear in the typical pre-deployment performance test environments that can be constructed in the development lab. Shunra VE resolves that problem by simulating any production network environment for testing. The simulated environment allows testers to see exactly how the application will perform once deployed. It can even create virtual locations to simulate and report on exactly what the remote end user experiences. Shunra's VE 5.0

¹ Shunra: Assuring Performance before Deployment. August, 2006. www.ptaknoelassociates.com

Second, Shunra VE provides an invaluable tool for the challenge, increasingly being faced by IT, of data center and server consolidation and/or relocation. More and more IT organizations are facing the complex problems associated with not simply the move but determining and dealing with attendant performance problems. An IT service or business application can experience problems of slow response, timeouts, and outright failure. These problems result when applications which were designed and ran with no problems with the servers, databases, and storage facilities were adjacent to one another. Significant and unforeseen problems arise when the distances separating individual infrastructure architecture and the users change, with, for example, the consolidation of support centers from regional to continental configurations. Similar problems appear when user-facing front-end servers are consolidated into centers that are geographically remote from back-end support systems. Shunra VE provides both the simulation tool and project planning methodology for use in the early stage of planning. The combination tool and methodology allows the enterprise to identify, analyze, and create a plan to mitigate or resolve the potential problems.

Shunra Virtual Enterprise 5.0 Extended Functionality

Shunra VE 5.0 is designed to answer the questions such as: Why did the transaction take so long? Why did it go wrong? It does this by simulating any networked environment and using either simulated or real-life workloads through the simulation. Shunra VE's new VE Analyzer application uses automated data collection and detailed analysis of transactions accessible with enhanced reports and views to provide the information needed to identify and resolve problems in the simulation lab rather than in the production environment. Detailed click-through reports allow the user to drill down on a transaction by transaction basis to perform additional analysis to find out what caused the transaction delay. You can identify where the most time was spent whether it was on the client, network or the server and narrow the analysis to the component where the delay is occurring. Out-of-the-box reports provide the opportunity to view transaction performance in progressively more detail. The structured sequence of data presentation is set up to help the analyst proceed through the analytics and drill down in a natural progression. This means scarce resources spend their time more efficiently and effectively on problem resolution rather than searching through multiple tiers of operations. The reports are modifiable to use and present any data you can feed to it.

In addition, Shunra has extended functionality in a number of different areas to make analysis easier and more efficient. They include new packet filtering capabilities and automated data views to make it easier to identify and isolate transaction data for further analysis. Shunra provides models, analysis, and reporting that make it easier to simulate performance of dynamic

rerouting strategies and disaster recovery plans. Alternative recovery and routing strategies can be simulated to test the performance of various fail-over paths at different traffic levels and congestions. To make the analyzer even more flexible and powerful, Shunra now supports the use of 3rd party Codexes to analyze a wider range of protocols and applications.

As more and more enterprise move to networked based services such as VoIP, Shunra VE has expanded ability to simulate VoIP implementation solutions through integration with call and traffic generators. Shunra added more data collection capability as well as the ability to isolate and track an individual call. This includes the ability to track and listen to the actual voice recording which helps to isolate problems affecting call quality. The reports available have been enhanced both the data available and its presentation. This is available as a product or service, and allows the enterprise to understand the service levels and performance they can expect prior to deployment.

In response to customer request, Shunra added the VE Multi User feature to allow multiple test teams to operate and run their different tests in parallel using a single VE Network Appliance. Using a web-based graphical interface, different teams can test an application to see the impact of the network impact on its performance. Basic tests can be run through a web browser, without installing Shunra VE's console or any advanced applications.

Finally, Shunra has added to and expanded its simulation recordings library to include over 150 internet recordings. This allows the enterprise to test a wide-range of global internet operational configurations without needing real, physical network connections.

One of the hallmarks of Shunra's success has been its ability to anticipate enterprise problems, and quickly to come to market with the product and supporting reporting and analytics to address the problem. They did this with earlier versions of Shunra VE; they continue to do this with the enhancements to follow-on versions. In this new version, Shunra has chosen to concentrate on extending the usability of their solution with detailed reports and drill-down analysis that pays off for the user in the ease with which they can drill through the data to pro-actively analyze and assess the effect that the various changes modeled in the simulation will impact performance. Shunra's structured approach helps the user step through the analysis in an ordered way. Providing plenty of opportunity and options to identify and analyze potential problems and their cause.

The Market needs this because....

Networked services and applications have emerged as the most popular solutions architecture in the enterprise today. Distributed solutions, Service Oriented Architectures, IP based services with their striking cost advantage, global partnerships and collaboration place enormous stress on the underlying network infrastructure. Taking all of these together and you have an operational network environment that can play havoc with networked application performance because of dependencies, interactions, and behavior that cannot possibly be replicated in a development environment. To meet the high expectations and rigorous demands of today's global competition, networked services must be rigorously tested under a range of conditions to assure performance. Accurate physical reproduction of global network conditions is prohibitively expensive in terms of resources and time for even the largest enterprise. Yet, testing must be done.

Virtually no enterprise has escaped the experience of data center relocation and/or consolidation. As noted above, these can cause tremendous disruption in services even when done in planned stages and even with provision made for extra resources in terms of processor power and bandwidth during transitional periods.

Shunra provides the enterprise with a solution to the testing dilemma with its Shunra VE network simulation product which includes a rich library of operational models in a comprehensive, integrated, easy-to-use automated modeling, analysis and performance evaluation tool. With Shunra's VE 5.0, enterprise IT professionals can use simulations to create, test, and evaluate changes in application architectures, network configurations, and data center setup and locations under wide range of operational conditions.

The Final Word

Shunra has invested significant effort to provide useful analysis and reports that allow their customers to gain maximum benefit from their simulations of the real-world operational environment. This new release includes new interfaces, analytic capabilities, integration, and reporting that reveal an understanding of their customers and the problems they face. In our opinion, Shunra's VE 5.0 delivers excellent value for money providing insight into potential problems while avoiding the resource intensive modeling required by more detailed and expensive solutions. Check it out.

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About the Author

Richard Ptak has over 30 years experience in systems product management working closely with Fortune 50 companies in developing product direction and strategies at a global level. Previously Ptak held positions as senior vice president at Hurwitz Group and D.H. Brown Associates. Earlier in his career he held engineering and marketing management positions with Western Electric's Electronic Switch Manufacturing Division and Digital Equipment Corporation. He is frequently quoted in major business and trade press such as Investor's Business Daily, The New York Times, The Wall Street Journal, Business Week, Computerworld eWeek, and InformationWeek. He is the author of "Manager's Guide to Distributed Environments," (John Wiley & Sons, 1998). In addition, Ptak was technical editor of "Cisco Internet Architecture Essentials Study Guide: Cisco Internet Solutions Specialist" by Mathew Recore, Jeremy Laursen, and Scott Herrmann (Cisco Press, 2002). Ptak holds a master's in business administration from the University of Chicago and a master of science in engineering from Kansas State University.

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