

Shunra™ vCat Client v7.0

Shunra vCat™ is a Windows-based client/server network emulation software solution, which enables users to test applications under a variety of current and potential network conditions directly from the desktop. This solution transforms a LAN-based, testing environment into a real-world Wide Area Network (WAN) environment to test the quality of network performance for remote end users.

vCat™ includes a pre-configured with a library of typical network topologies, and allows peer collaboration for creating and sharing additional conditions. Version 7.0 has been enhanced to include more reporting tools, increased analysis capabilities, and the ability to roll out networked applications more effectively.

For a compressive review of the new capabilities with detailed explanations, please visit the Shunra website at www.Shunra.com

Supported Operating Systems

(English versions only)

Windows XP Professional SP3 (32 bit)

Windows XP Professional SP2 (64 bit)

Windows Server 2003 Standard /Enterprise Edition SP2 (32/64 bit)

Windows Server 2008 Standard /Enterprise Edition SP2 (32/64 bit)

Windows 7 (32/64 bit/32-bit or 64 bit)

Installation and Removal

Open the vCatSuiteInstaller.exe, and select the vCat Client component. Follow the directions in the wizard. For configuration with the vCat Test Management Server, refer to the vCat Client manual.

To remove a vCat component, open the vCatSuiteInstaller.exe. In the wizard select the component and click Change\Remove. Reboot may be required for some components.

Licensing

vCat client comes with a 2 day unlimited license. After this period has ended, contact sales@shunra.com for an extended license.

Conducting a Test

1. Open the vCat Client (Start > Shunra PerformanceSuite > Shunra vCat Client > vCat Client), select a tab and configure the settings (see below).
2. Click **Begin Test**; vCat client applies emulation to all traffic entering and leaving the local host.
3. Conduct transactions and see how they react under impairment (see below).
4. View statistics regarding how the application is performing (from the View menu, choose Statistics & Reports).
5. Click **End Test**; offline reports are displayed and analysis can be conducted. For information about Analysis and Deep Analysis, see Shunra Analytics below.

Note: These sections describe the settings for each mode:

Basic mode enables the selection of the virtual origin and destination of traffic, connection quality, and connection type. To conduct tests in Basic Mode:

1. In the Basic tab, from the **Define Test** pane configure the following:
 - **Source and Destination:** select a source and destination that represent the two points between which you want to emulate WAN conditions
 - **Connection Quality:** select the time of day that best reflects what conditions you want to test, such as Satellite
 - **Connection Type:** select the type of connection you want to emulate; such as Unrestricted

Mobile mode enables the selection of mobile impairments and optionally, virtual origin and destination

of traffic. To use a mobile phone with this mode, connect the phone to an internet connection passing through the vCat host computer and impair the network traffic to the phone. The internet packets used by the phone can then be captured and analyzed. Refer to the “Shunra Mobile Hotspot” document for further information about configuring Hotspots.

1. In the Mobile tab > Define Test pane, configure the following:
 - **Mobile technology:** select a wireless or broadband access communications protocol
 - **Select Internet backbone** to include this part of the network in the emulation
 - Select the **Source** and **Destination** location
2. Click **Begin Test**.
3. Connect your mobile device to the Internet using the PC network sharing (hotspot) and perform the needed transactions.

Advanced mode enables the manual configuration of impairments that include latency, bandwidth and packet loss. To conduct tests in Advanced Mode:

1. Select the Advanced tab; configure the Latency, Packet Loss Bandwidth Limitations.

Professional mode utilizes tests based on network test scenarios created by the vCat Network Editor or captured from the production network using the Shunra NetworkCatcher. In addition, these scenarios as well as Test Plans can be downloaded from the vCat Test Management Server or from a shared network drive.

1. In the Shunra WAN Emulation Setting window, select the Professional tab. Click Download to import an .ntx or .vet file from the vCat Test Management Server, or from a shared network drive select the file from the Browse window.
2. Click OK; in the Shunra WAN Emulation Setting window click OK.



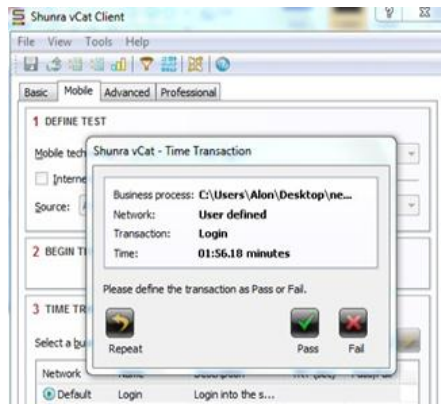
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Including Transaction Timing

For more in-depth information and analysis, time transactions typical to those made by the application's end-users while the emulation is running:

1. From the Start > Programs > Shunra PerformanceSuite, open the **Shunra Network Editor** and click **New/New Business Process**. Add few transactions and save the Business process file (*.ves).
2. Close the Network Editor.
3. In the vCat > Define Test area 'Time Transactions' click the arrow to open the Transactions panel. Select the new business process, it should look similar to this:



Note: Enable Packet Capture.

4. Click the Timing icon to start the network emulation.
5. For each transaction in the business process:
 - a. Click **Start Transaction**
 - b. Perform the actual transaction
 - c. Click **Stop Transaction**
6. Click the End Test icon to complete the test.

Shunra Analytics

Shunra Analytics display both runtime data regarding current tests, and data accumulated from previous tests that have been stored offline. Reports can be generated in both Microsoft Word and HTML format. For further information, refer to the Shunra Reporter manual.

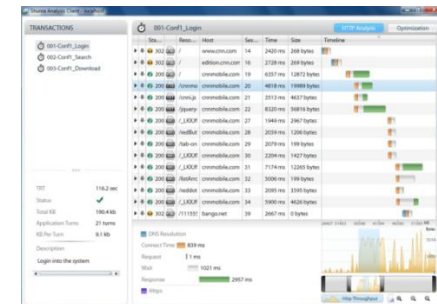
A more powerful component includes analysis capabilities, which assist in pinpointing factors that negatively impact an application's operation across a network, and identifying and diagnosing the source of poor performance (may require additional licensing). In addition, the Deep Analysis Report displays the breakdown the original captured packet list to packet lists files specific for each transaction and then uses the new Shunra Analysis capabilities to analyze each transaction. To view the results:

1. Open the Shunra Reporter to see the transaction details that were captured in vCat.
2. For in-depth results, if the Shunra Analyzer is installed, click the **Create Analysis** button.
3. In the Analysis Parameters window:
 - In the Analysis Type select **HTTP**
 - Select Deep Analysis
 - Select Export packet lists of individual transactions
4. Click **OK** and wait for the analysis to finish, and then view the results.
5. To view the Deep HTTP Analysis results, wait until the Deep Analysis button is enabled.
6. Click the **Deep Analysis** button, which opens the results window. The left side displays the list of the transactions. The right side displays detailed analysis of a selected transaction.

Waterfall Report

Shows all HTTP requests and responses that were sent and received by the transaction. For each request the request, wait and response times are shown.

Select a request and see the request/response headers and the content that was sent. In the request below, it took nearly a full second to reply. The exact request parameters are provided in the report to be able to easily pinpoint the reason for this delay.



Optimization Report

Provides data about how the transaction compares to best practice rules common in the industry, as well as mobile specific best practice rules developed by Shunra. Each rule provides a score and an explanation of the rating, and recommendations regarding how to improve the score. Following these optimization guidelines can significantly lower the transaction response time.

