

SteelCentral Transaction Analyzer Plus

Deep packet-based transaction analysis enabling rapid root cause and “what if” analysis

The Business Challenge

In today's complex application architectures, a single transaction can involve many server tiers and the exchange of thousands of messages between them. Finding the sources of delay for an individual transaction in such multi-tiered environments can be like finding a needle in a haystack. As a result, IT operations staff spend significant time analyzing packet traces and performance metrics, often arriving at different and conflicting conclusions on the cause of performance problems that further delay problem resolution.

SteelCentral Transaction Analyzer Plus

Riverbed® SteelCentral™ Transaction Analyzer Plus provides powerful, detailed analysis of a single (user-level) transaction through powerful visualization and advanced analytical techniques to help you quickly and conclusively determine the root cause of a performance problem.

You can use it to collate packet traces between multiple tiers of servers involved in individual user transactions to build a single multi-tier view of application and network message exchanges. Then you can visualize

how each pair of communicating systems contributed to the overall behavior and performance of that transaction, and easily communicate key findings to application stakeholders. This multi-tier view lets you picture application performance, including application message exchanges and turns and system performance statistics and accurately identify the primary sources of transaction delay.

In pre-deployment environments, SteelCentral Transaction Analyzer Plus is the industry-leading solution for network readiness testing.

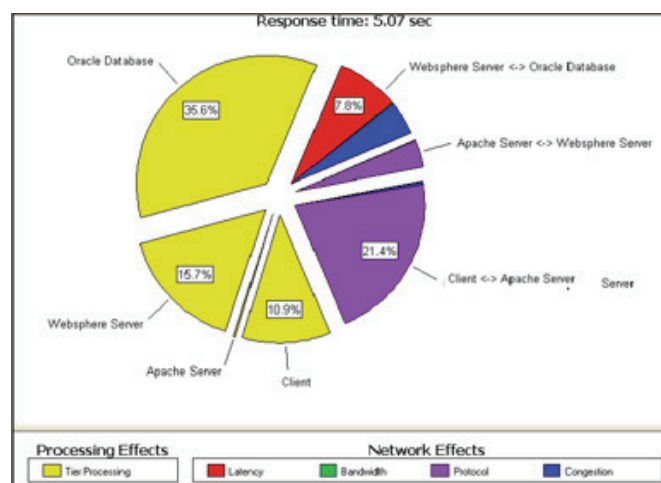


Figure 1

SteelCentral Transaction Analyzer's AppDoctor feature automatically diagnoses performance bottlenecks.

You can use it to conduct “what if” analyses to predict the impact of making application behavior changes on response times and validate proposed solutions to performance problems before deployment.

You can study the impact of many simultaneous transactions (multiple clients, servers & applications) on performance, and even quantify the effects of WAN optimization, increased bandwidth provisioning and other network investments on your applications’ performance.

SteelCentral Transaction Analyzer Plus includes a license of SteelCentral™ Packet Analyzer Plus. Packet Analyzer Plus rapidly isolates the specific packets needed by Transaction Analyzer to diagnose and troubleshoot complex performance issues. It enables users to quickly analyze multi-terabyte packet recordings from SteelCentral AppResponse 11 or other packet capture engines. Because SteelCentral Packet Analyzer uses indexing to speed analysis, it can quickly dissect large trace files to focus on specific transactions for detailed analysis.

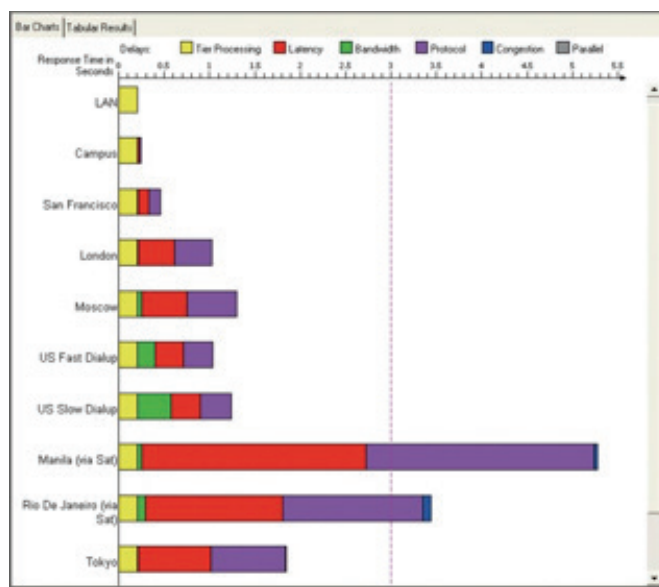


Figure 2

SteelCentral Transaction Analyzer’s QuickPredict feature predicts response times in numerous what-if scenarios.

Key Benefits

- Faster diagnosis of multi-tier application problems
- Quantify the effects of changes on your network and application performance before deployment
- Gain ubiquitous visibility across servers, desktops, even the cloud using light-weight capture agents

Transaction Analyzer Agents

SteelCentral Transaction Analyzer Agents (also called “capture agents”), are installed on existing user workstations and servers. They are used to collect packet traces from one or more of those vantage points. These packet traces are imported into SteelCentral Transaction Analyzer to create a transaction analyzer model for analysis and troubleshooting. Typically, capture agents are managed through SteelCentral Transaction Analyzer Packet Trace Warehouse (see next page).

With capture agents, you can perform the following types of captures:

- **On-Demand Capture:** If you can reproduce the transaction or problem of interest, you can do an on-demand or real-time capture that consists of the following steps: start capture, run transaction, stop capture.
- **Continuous Capture:** If the transaction or problem of interest occurs intermittently but you cannot predict when it will occur, you can perform a continuous capture in which you start the capture and keep it running until the problem of interest occurs. While running, the capture data is saved in a configurable rolling buffer. After the transaction occurs, you can stop the capture, extract the transaction of interest, and import it into SteelCentral Transaction Analyzer.
- **Scheduled Capture:** If a problem occurs intermittently, but you know that it occurs within a specific time window, you can perform a scheduled capture in which the capture agent runs according to a specified schedule (for example, daily from 2:00 to 2:05 am).

Transaction Analyzer Packet Trace Warehouse

SteelCentral Transaction Analyzer Packet Trace Warehouse (PTW) enables centralized management of enterprise-wide capture agents and secure web-based packet captures from end-user workstations and servers. Sophisticated security and administrative controls enable IT staff to deploy light-weight capture agents across thousands of servers, desktops, even the cloud. When end-users have an issue with an application, they can securely log on to the Transaction Analyzer Packet Trace Warehouse web portal to identify and submit the necessary packet captures for troubleshooting. Troubleshooting staff can then diagnose the problem quickly and access packet captures via the web portal—typically downloading the captures to SteelCentral Transaction Analyzer for detailed analysis.

Packet Analyzer Plus

SteelCentral™ Packet Analyzer Plus is a network analysis and reporting solution that has an intuitive graphical user interface that streamlines packet analysis. Simply drag and drop preconfigured “Views” onto a group of interfaces (MIFG) or a packet trace file and see the results immediately.

By rapidly isolating the specific packets needed to diagnose and troubleshoot complex performance issues, it enables you to quickly analyze multi-terabyte packet recordings without having to transfer large packet captures files across the network. For more information on Packet Analyzer Plus, [click here](#).

Key Features

- Offline, in-depth analysis leveraging packet traces obtained from a wide variety of sources, including SteelCentral appliances, tcpdump, windump, Cisco NAM and other solutions that support .pcap, pcap-ng, or .enc file formats
- Joins packet traces from multiple vantage points to form a single transaction view
- Coordinated, multi-tier packet capture and automatic trace synchronization
- Continuous capture capability for troubleshooting intermittent problems
- Integrates with Packet Analyzer Plus, which streamlines the identification of the packets of interest and speeds analysis of large, multi-terabyte trace files
- Powerful, graphical diagrams for visualizing application behavior
- Hundreds of application and network protocol decodes, including Citrix, DB2, FTP, HTTP, MS SQL, NFS, Oracle, SMB/CIFS, SOAP, SSL, and VoIP
- Unique Citrix ICA protocol analysis for visibility into Citrix virtual channels.
- Integrate with SteelCentral™ ApplInternals for in-depth analysis of server-based delays
- Assembles packet traces and code-level traces (from ApplInternals) into a single view
- Synchronizes transaction with performance metrics from agent collection of OS-level CPU, disk, and memory metrics
- Actionable performance recommendations for web transactions with page intelligence
- Automated diagnostic reports that pinpoint performance bottlenecks and summarize sources of delay
- Support for applications hosted in virtual environments
- Visualize traffic flows between tiers
- Understand application messages and dependencies impacting performance
- Powerful “whiteboard” environment for “what-if” assessments of application modifications
- Simulate the effect of WAN optimization on user transactions
- Out-of-the-box and customizable reports for key stakeholders, including application developers, network engineers, and management

Capture Agents

- Unlimited, free, lightweight and secure packet-capture agents
- Supports a wide range of platforms, including servers, desktops and cloud

Packet Trace Warehouse

- Centralized management and control of thousands of Transaction Analyzer agents, including web-based capture and preview, authentication, and audit trail
- Automatic discovery of all installed Transaction Analyzer agents
- Centralized inventory of installed agents
- Augment appliance-based captures with agent-based capture for complete visibility
- End-user driven captures empower users to capture traces when reporting problems
- Secure access to agents via LDAP/AD, TACACS+, Radius, etc.

System Requirements

SteelCentral Transaction Analyzer requires, at a minimum, the following:

SteelCentral Transaction Analyzer	
Operating Systems	Windows 7 (32-bit and 64-bit) Windows Server 2008 (32-bit and 64-bit), Service Pack 2 Windows Vista (32-bit and 64-bit), Service Pack 1 Windows Server 2003 (32-bit and 64-bit) Windows XP (32-bit and 64-bit), Service Pack 1
Suggested Hardware Platform	2.0 GHz CPU or better
Memory	Minimum: 2 GB; Recommended: 4 GB
System File Space	1 GB; Up to an additional 2 GB of free disk space may be required during installation
Working File Space	100 MB or more for temporary and log files
Graphics Support	Graphics card with minimum resolution of 1024 x 768

Table 1 System requirement for running SteelCentral Transaction Analyzer Plus.

SteelCentral Transaction Analyzer Packet Trace Warehouse requires, at a minimum, the following:

SteelCentral Transaction Analyzer Packet Trace Warehouse	
Operating Systems	Windows 2000 Professional Windows XP Professional (32-bit and 64-bit), Service Pack 1 Windows 2000 Server (32-bit and 64-bit) Windows Server 2003 (32-bit and 64-bit) Windows Vista (32-bit and 64-bit), Service Pack 1 Windows Server 2008 (32-bit and 64-bit)
Suggested Hardware Platform	1.5 GHz CPU or better
Memory	Minimum: 512 MB; Recommended: 1-2 GB
System File Space	10 GB; Recommended 20 GB
Graphics Support	Graphics card with minimum resolution of 1024 x 768; Strongly Recommended: 1280 x 1024 or higher

Table 2 System requirement for running SteelCentral Transaction Analyzer Packet Trace Warehouse.

Gartner Magic Quadrant Recognition

Riverbed is a three-time leader in the Gartner Network Performance Monitoring and Diagnostics (NPMD) **magic quadrant**.*

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About Riverbed

Riverbed, at more than \$1 billion in annual revenue, is the leader in application performance infrastructure, delivering the most complete platform for the hybrid enterprise to ensure applications perform as expected, data is always available when needed, and performance issues can be proactively detected and resolved before impacting business performance. Riverbed enables hybrid enterprises to transform application performance into a competitive advantage by maximizing employee productivity and leveraging IT to create new forms of operational agility. Riverbed's 27,000+ customers include 97% of the *Fortune* 100 and 98% of the *Forbes* Global 100. Learn more at riverbed.com/SteelCentral.

