

National Bank of Greece



NATIONAL BANK
OF GREECE

Riverbed Transforms Bank's Ability to Monitor Applications and Resolve Issues

National Bank of Greece is leading one of the largest financial groups in Greece, with a strong presence in Southeast Europe and Eastern Mediterranean. The NBG Group operates in 12 countries worldwide, where it also controls 9 banks and 64 companies providing financial and other services. It has a domestic network of 530 branches and a total international workforce of over 35,000 employees.

The complex nature of the bank's IT architecture made it challenging to pinpoint the root causes of application issues, such as slow speed or delayed response. End-users were often frustrated and complaints grew. The diagnostic tools available were limited in their ability to detect, collect and analyse data needed to resolve issues. As a result, troubleshooting was a time-consuming process that could tie up the IT support team for days.

Riverbed® SteelCentral™ AppResponse has enabled National Bank of Greece to detect, analyze and resolve application issues quickly and efficiently—often in minutes, and usually before end-users are even aware of an issue. It has also helped application developers improve product performance. Substantial time savings have enabled National Bank of Greece to achieve a fast ROI.

In Brief

Challenges

- Complex IT architecture made it challenging to detect root cause of application issues
- Available diagnostic tools offer limited detection and analysis
- Troubleshooting could tie up IT support team for days
- End-users complaining of poor application performance

Solution

- Riverbed® SteelCentral™
- AppResponse

Benefits

- Application issues detected, analysed and resolved quickly—often within minutes
- Issues can be resolved before end-users are even aware of problem
- Fast ROI—less than six months
- Application developers receive valuable data to make improvements

Challenge: Effective application monitoring required for complex IT system

National Bank of Greece has a complex IT infrastructure. The wide area network (WAN) utilizes an MPLS VPN architecture, covering domestic and international branches, and carries both internal and external traffic. Two data centers—in Athens, Greece—host storage and business-critical applications, including those for email, core banking and card transactions.

“The complexity of the IT architecture made it challenging to monitor application performance,” explains John Theodorakakos, senior network engineer at National Bank of Greece. “We couldn’t monitor our application performance over the WAN circuits or even some critical apps inside the data center—we didn’t have the tools. We were unable to perform day-to-day capacity management for our MPLS WAN links, because we didn’t have the historical network data.”

There was no alert system for potential application performance degradation, adds Theodorakakos. “We spent a lot of time troubleshooting application performance issues. We couldn’t prove whether an issue was related to network infrastructure or something else. It was a big problem for us.”

The diagnostic tools available consisted of portable packet analyzers and NetFlow data from routers.

“It took a long time to analyze data—in some cases, it could take a week to find the cause of a problem,” notes Theodorakakos, “We were frequently getting complaints about slow corporate applications and internet access speeds from employees in our branches. We didn’t have enough data to solve these problems.”

“SteelCentral AppResponse is awesome. The Packet Download Manager gives us the flexibility, accuracy and the speed we need. Now, we can monitor network traffic from one single point. Just a few mouse clicks gives us all the information we need. Issues that used to take hours or days to resolve can now be solved in minutes.”

John Theodorakakos
Senior Network Engineer
National Bank of Greece

Solution: A global view of application performance

In order to achieve greater visibility, National Bank of Greece deployed SteelCentral AppResponse at its main data center. This solution provides network-based application performance monitoring into end-user experience and application performance. “The deployment was a piece of cake—the initial configuration was very simple. Also, SteelCentral AppResponse integrated well with our deployment of EMC Service Assurance Suite and this was a significant factor when choosing this solution,” adds Theodorakakos.

The AppResponse Packet Download Manager is invaluable, says Theodorakakos. “It’s awesome—it’s priceless for me. Before SteelCentral AppResponse, we had to connect packet analyzers to several points in the network to solve any issues.

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Riverbed has enabled National Bank of Greece to resolve issues that had previously been difficult or impossible to rectify “We often had complaints from our network users about slow response on some heavy applications or internet access, but we didn’t have enough information to solve such problems,” says Theodorakakos, “but with SteelCentral AppResponse, we could easily track the source of the delays and fix the problems with the appropriate changes.”

Results: Fast, efficient and effective application monitoring and problem resolution

Deploying SteelCentral AppResponse has transformed the way National Bank of Greece resolves application issues. “It’s greatly improved our capability to monitor our network over-utilization and track the root cause almost immediately. We are no longer waiting to hear from end-users about application problems they are experiencing. Now, we know what’s happening before we receive any complaints,” notes Theodorakakos.

Troubleshooting network-related issues and application slow—downs is much faster. “Problems that used to take us hours to resolve can be resolved in a couple of minutes, and that includes complex issues,” says Theodorakakos. A branch with a slow MPLS WAN access link (less than 1 Mbps), often had end-users complaining about email slow response time. SteelCentral AppResponse revealed that noncritical traffic was over-utilizing the WAN link.

The historical data provided by SteelCentral AppResponse has made it easier to manage network capacity, and the solution has also detected issues that have helped improve application development.

“The reports and dashboards we get with SteelCentral AppResponse proved very useful for our developers,” says Theodorakakos. A client/server application—operating inside a VPN tunnel—was exhibiting delays and severe interactions.

By using the Packet Download Manager to analyze the clear text traffic between the server and data center, a timing error was revealed. This information was fed back to the app developers, who reset the timer. “During the course of our investigation, we also checked the VPN gateway and the server, but the whole process only took about ten minutes to complete,” adds Theodorakakos.

SteelCentral AppResponse has saved National Bank of Greece substantial time when resolving application issues, enabling the bank to achieve a fast ROI—less than six months. “We now have the tool to respond to any network issues that cause applications to slow down,” says Theodorakakos, “I can’t imagine a day in my office without using my SteelCentral AppResponse console—it’s that invaluable.”

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 26,000+ customers include 97% of the *Fortune* 100 and 98% of the *Forbes* Global 100. Learn more at riverbed.com.

