

# DTCC Deploys Riverbed Cascade for End-to-End Application Performance and Availability



**“Riverbed Cascade™ has given us the end-to-end application visibility not found in our existing tools. I use Cascade frequently to identify and resolve performance and availability issues for infrastructure management and business-critical applications.”**

– Neil Wasserman, VP of Information Technology, DTCC

# Challenges

Expanding virtualization, optimization, and Web services technologies across multiple operating locations had increased the complexity of DTCC's IT infrastructures, changing the relationships between components, applications, and users. DTCC's infrastructure management team needed greater insight into how the different systems were working together, and needed to be alerted to information vital to effective management of business service delivery. DTCC had two distinct challenges:

- **Ensure service availability by obtaining end-to-end application visibility.** In order to ensure acceptable availability and performance of applications, DTCC needed end-to-end visibility into the infrastructure supporting business-critical applications. DTCC's architecture, which uses encrypted communications to maintain a secure environment for safe execution of clients' transactions, especially created visibility challenges.
- **Lower mean time to repair (MTTR) by understanding the impact of change on business services.** DTCC needed to be able to identify which service disruption might have the highest impact on the business by mapping users to applications and the underlying support infrastructure. This critical troubleshooting information would help determine how many users might be affected by a problem, and what the business impact could be.

# Solution

DTCC deployed Cascade with sensors at several strategic locations. They now forward flow data from the existing LAN and WAN infrastructure, enabling them to analyze application and network activity without requiring probes on every WAN link.

Cascade is used across DTCC's information technology operations, network engineering, application support and security operations groups to broadly identify and resolve network, security, system, and application issues.

# Results

**End-to-end application visibility.** Cascade enhanced DTCC's ability to view application data, host data, and network component flows with usage profiles, dependency maps, anomaly detection, and behavioral analysis. It has enabled DTCC to visualize a complex and intricate application architecture. DTCC can see the interdependencies of data sources, servers, transactional tiers and client connections. They can get this rich data even though a significant percentage of traffic to their production application is encrypted. They can even obtain dependencies for internally developed applications using custom code.

DTCC can understand which parts of their server infrastructure supports which production applications. This includes the discovery and mapping of the complex, multi-tier architectures that support their high volume transactional environment, as well as multiple internal and external data sources, complex clustered and redundant data repositories, mid-tier transaction and application servers, and a myriad of front-end connections over both internet and dedicated line into customer environments.

**Reduce costs.** Costs were reduced because they now know who uses which applications, how often, and how much, as well as the intricate server-to-server and application-to-server dependencies. They created application-focused host groups, identified application port usage, created meaningful port groups, and used customized rule-based events. These capabilities enable them to understand utilization by host and application of all their WAN interfaces which serve applications to their customers. DTCC's IT personnel now have historical data about typical activity, can identify the root cause, and have a better understanding of the impact to the business.



*The Depository Trust & Clearing Corporation*

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