

Shardul Amarchand Mangaldas



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CENTURY of EXCELLENCE

Branch employees and mobile users at Indian law firm Shardul Amarchand Mangaldas were facing protracted delays in the performance of virtualized applications resulting in a loss of productivity and end-user complaints.

Using Riverbed® SteelHead® to optimize the firm's hybrid WAN network traffic and accelerate applications dramatically improved the end-user experience, boosting the firm's overall productivity.

Shardul Amarchand Mangaldas is a full service Indian law firm headquartered in New Delhi. It currently has 450 lawyers out of 630 employees and seven offices across the country located in New Delhi, Mumbai, Kolkata, Ahmedabad, Gurgaon, Bengaluru and Chennai.

In Brief

Challenges

- Surge in bandwidth consumption due to office expansion at headquarters
- Slow branch and mobile end user performance accessing Citrix XenApp

Solution

- SteelHead for Data Center-to-Branch optimization
- SteelHead Mobile for network and application optimization for remote/mobile users

Benefits

- Overall improved Citrix XenApp performance by an average of 20–30%
- 70%–80% faster data-replication performance between DC and DR
- Improved, stable app performance that increases end user satisfaction and productivity
- Significantly reduced bandwidth consumption, resulting in cost-savings

Slow connectivity impacted user productivity and experience at branch offices

All major business applications at law firm Shardul Amarchand Mangaldas, from the document management system (DMS) to time billing, are virtualized on Citrix XenApp. Citrix virtualization allows staff the flexibility to log in to the system on any device to do their work, while still maintaining security since apps are centrally managed instead of residing on local endpoints.

The firm's increasing user-base and simultaneous login/logout timings meant greater bandwidth consumption of the multiple applications over Citrix. As a result, application performance began slowing down, with the adverse effects felt most by staff working outside headquarters (where the DC is hosted).

The branch offices operate on MPLS connections, rather than broadband Internet links. For the 15 to 30 staff members at each branch, speed delays lasting a few seconds were unpleasant but tolerated. When another office in Mumbai opened in 2015 that rapidly expanded from 60 to 150 employees however, bandwidth consumption at headquarters spiked, and application performance at the branch sites took a toll.

"At times, performance issues and latency piled up so much that branch employees could not work effectively because the connection was just slow— particularly in printing and scrolling PDFs or image files," said Shams Khan, Head, IT Infrastructure and Information Security at Shardul Amarchand Mangaldas. Unsurprisingly, as tasks stalled, work inefficiencies and user frustration mounted. For instance, typing emails on Outlook needed more time than usual because it took five seconds before the words would appear on the screen.

Khan, who is based in New Delhi, said the firm's management recognized it was time to implement a solution that could optimize WAN traffic flows across the hybrid network. This would help speed up app performance for all employees, regardless of their location when accessing the Citrix system. In addition, specifically for remote or roaming individuals, the company wanted to stabilize their user experience because telco-supplied 3G and 2G mobile connectivity could sometimes be spotty or drop unexpectedly.

After evaluating different vendors, the decision came down to Riverbed and Silver Peak. According to Khan, a major factor for the choice of Riverbed SteelHead was the solution's ability to also optimize the Citrix Independent Computing Architecture (ICA) protocol and not just hybrid WAN connections. Additionally, SteelHead provides visibility into application and network performance from the end user's perspective. As a result, issues such as bottlenecks can be quickly identified and resolved, minimizing any impact on productivity or user satisfaction.

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In July 2015, SteelHead was deployed at the firm's primary data center in New Delhi for data center-to-branch optimization as well as branch-to-branch optimization. For roaming users, SteelHead Mobile provides similar application optimization and acceleration through a simple software package installed transparently on laptops. SteelHead Mobile extends the functionality of Riverbed SteelHead and provides the firm's remote and mobile workers with accelerated access to corporate files and applications no matter where they work.

App performance stays consistently up with network traffic under control

The improvements were obvious. According to Khan, Riverbed SteelHead consistently optimizes connections between 20–30% for the Citrix app and 80–90% for DR data-replication, reducing bandwidth consumption by 25%. User experience and productivity is now positive. Khan estimates that productivity gains resulting from eliminating employee wait time for key applications and services such as ERP, DMS, file sharing, email, Internet browsing, and printing equate to 12 minutes per day per each of its 630 employees.

This benefit can be attributed to SteelHead's application-aware approach and path selection features, as well as fine-tuning to the Citrix architecture. This provides the team with more control in assigning apps and traffic types to specific network paths, so they can ensure service delivery is always consistent for end users. In addition to accelerated app performance, these capabilities have also helped optimize the bandwidth requirements and, in turn, helped maintain the bandwidth costs consistently.

Khan noted that, after a series of stress tests where he saw app performance deteriorate and user productivity grind to a halt when the solution was removed temporarily, SteelHead is now viewed as a necessity in the firm's network infrastructure, especially as headcount grows. "Without SteelHead's optimization technology, it is impossible to work from the branch offices."

"End-user complaints have been drastically reduced at branch offices because all applications are behaving as expected," he said. "In fact, branch users do not notice any difference or delays in app delivery, even during occasions when bandwidth consumption by users logging in from headquarters goes up."

Shams Khan
Head, IT Infrastructure and Information Security
Shardul Amarchand Mangaldas

About Riverbed

Riverbed enables organizations to modernize their networks and applications with industry-leading SD-WAN, application acceleration, and visibility solutions. Riverbed's platform allows enterprises to transform application and cloud performance into a competitive advantage by maximizing employee productivity and leveraging IT to create new forms of operational agility. At more than \$1 billion in annual revenue, Riverbed's 28,000+ customers include 97% of the *Fortune* 100 and 98% of the *Forbes* Global 100. Learn more at riverbed.com.

The Riverbed logo consists of the word "riverbed" in a lowercase, sans-serif font. The letters "river" are in a dark orange color, and the letters "bed" are in a lighter orange color.