Shorten IBM Notes replication and improve the Notes experience with Silver Peak

IBM Notes and Domino (formerly Lotus Notes and Domino) are client and server components, respectively, to the popular business collaboration system. While Notes and Domino may perform well within the office, performance may suffer across distance. Notes and Domino databases may fail to open and files may take too long to transfer. Notes clients may be unresponsive and connection failures may occur as the network is occupied by other applications. Adding more bandwidth alone will not solve these problems as they may also stem from the latency and congestion of the WAN.

Silver Peak Accelerates IBM Notes and Domino

Silver Peak enables IBM Notes and Domino to perform as well across long distances as within the office. Document-based transactions gain from Silver Peak's ability to overcome latency by optimizing TCP and selecting the optimum path across the network using Dynamic Path Control. Large file transfers are improved by Silver Peak's byte-level, deduplication and compression algorithms that reduce the amount of data Note and Domino send across the wide area network (WAN). Network congestion problems, which limit throughput, are also eliminated or reduced with Adaptive Forward Error Correction (FEC) and Packet Order Correction (POC). Organizations can secure Notes end-to-end with SSL or site-to-site with an Accelerated IPSec VPN.

Performance Results

Customer testing shows that Silver Peak eliminates 80 percent of IBM Notes data from the WAN (see Figure 1). All results were gathered with Silver Peak software out-of-the box without any protocol adjustments or special add-ons. Silver Peak strongly encourages organizations to test IBM Notes and Domino performance themselves as numerous factors may impact individual results.

Summary

- Eliminated up to 90 percent of IBM Notes traffic from WAN.
- Improved traffic by as much as 34x.

Testing Details

Testing results for IBM Notes and Domino were compiled from two customers – an electronics company and an automobile supplier.

The electronics company measured IBM Notes server replication over a 3 Mbps Internet virtual private network (VPN) between Mexico and California. Latency spiked to 500-800ms and packet loss reached three percent.

The automobile supplier measured IBM Notes operations across a 2 Mbps, MPLS connection with 39ms latency and 1 percent packet loss.

Architectural Benefits

- 50 percent lower TCO
- 20 minutes to download and deploy
- No forced upgrades
- Improve every application
- Minimize support costs
- Eliminate import and duties charges
- Minimize purchase expenses
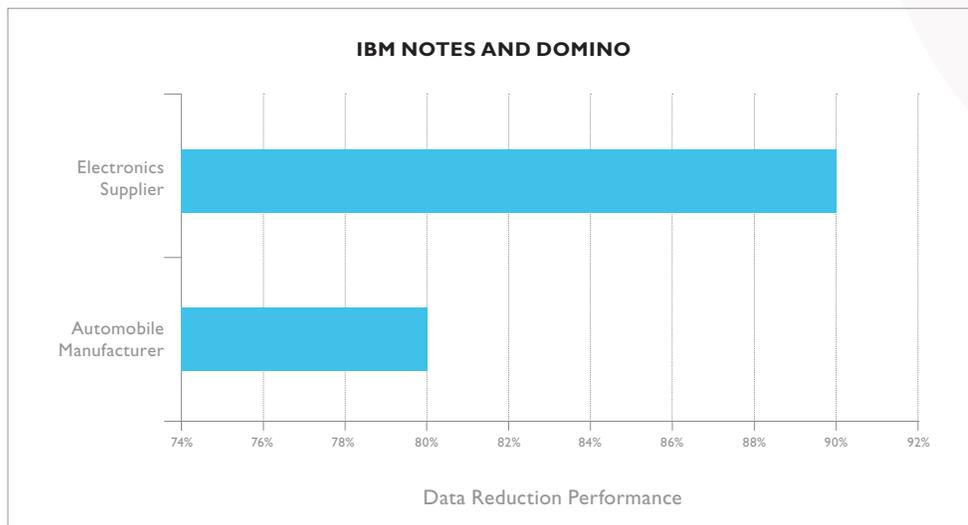- Go virtual when ready

IBM NOTES AND DOMINO

(Bar chart: Electronics Supplier ≈ 90%, Automobile Manufacturer ≈ 80%; x-axis: 74% 76% 78% 80% 82% 84% 86% 88% 90% 92%; x-axis label: Data Reduction Performance)

Figure 1: Silver Peak shortened Notes replication, reducing the amount of data transferred across the WAN by as much as 90 percent.

Silver Peak Features

Silver Peak addresses the major performance challenges facing IBM Notes and Domino across the WAN without adding hardware, software tuning, or application-specific plug-ins:

Bandwidth – Silver Peak data deduplication conserves bandwidth by eliminating redundant IBM Notes and Domino data from the WAN. The first time data is sent from the WAN, it is fingerprinted and compressed by Silver Peak. Subsequent requests are fulfilled from the local Silver Peak instance.

Latency – Silver Peak mitigates latency, making IBM Notes and Domino more efficient over distance, improving the user experience. TCP Acceleration includes window scaling, selective acknowledgements, and HighSpeed TCP. CIFS optimization techniques include CIFS read-ahead, CIFS write-behind, and CIFS metadata optimizations. Packet coalescing re-packages smaller packets into a larger one and Dynamic Path Control selects the fastest path to a remote location.

Congestion – Silver Peak makes IBM Notes and Domino more predictable across congested WANs, such as Internet VPNs. Applications can be directed down the least-congested path. Lost or out-of-order packets are recovered and resequenced in real time, avoiding retransmission delays. Traffic shaping and QoS mechanisms ensure notes receives the necessary bandwidth.

Secure – Silver Peak establishes an IPSec virtual private network (VPN) between locations, securing all data with AES-256, the enterprise standard for data encryption. Data-at-rest is also encrypted with AES. Silver Peak also supports SSL/TLS end-to-end encryption. Access to Silver Peak software is protected with TACACS+ and RADIUS.

Silver Peak does all of this to any scale, improving application performance from small offices to large data centers, making Silver Peak the most scalable data acceleration platform in the industry.

Deployment Benefits

Improve Productivity

Enable Notes users to share and transfer files faster and with less frustration.

Replicate Faster

Reduce the amount of data transferred across the WAN, dramatically improve replication of Notes and Domino databases over distance.

Secure Data

Secure IBM Notes and Domino with SSL and Accelerated IPSec without impacting optimization performance.

Lower Bandwidth Charges

Eliminate redundant data from the WAN, dramatically reducing recurring bandwidth charges.

For More Information

Visit www.Silver-Peak.com and

Learn how Silver Peak improves file sharing by more than 20x.

Read why AutoDesk, ASA and others selected Silver Peak WAN optimization.

Watch the IT director at Schuff Steel explain how his company improved collaboration with Silver Peak optimization.

Calculate your theoretical benefit with Silver Peak software using our throughput calculator.

Test the Silver Peak software for free. It takes about 20 minutes to download and deploy.

Silver Peak Optimizes Any Enterprise Application
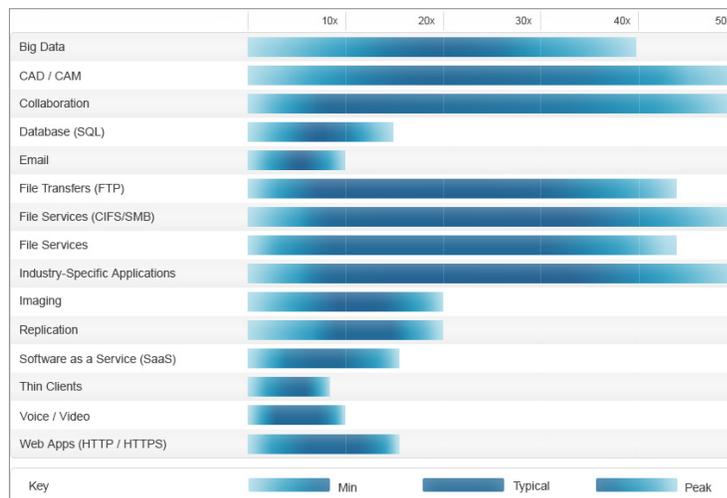
Silver Peak optimizes every application. Actual performance will vary based on many factors.

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