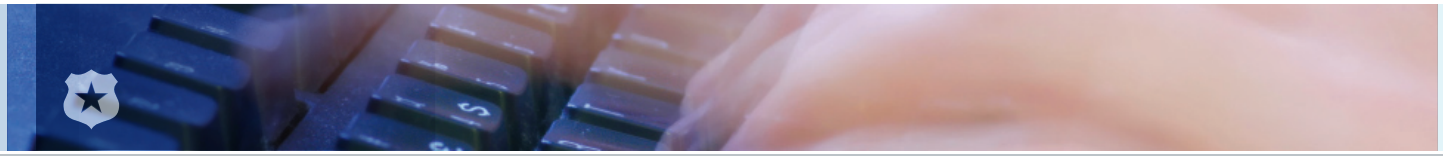


Performance Summary

- Achieve 109 times or more improvement for operations using MS Office
- Reduce bandwidth utilization by 99 percent or more for CIFS
- Improve user productivity, offload file servers, and allow users to work directly over the WAN accessing centralized filer

Test Scenario

These tests were performed using a Windows XP client installed with MS Office 2003 accessing a Windows 2003 server. The test included typical operations to open, edit and save files. The tests were run on a simulated WAN at 256Kbps and a T1 link, both with 110ms latency.

- For the cold test, the starting condition is no traffic has passed through the Blue Coat yet.
- For the warm test, the starting condition is same or similar traffic has already passed through the Blue Coat once.

Blue Coat Accelerates and Optimizes MS Office

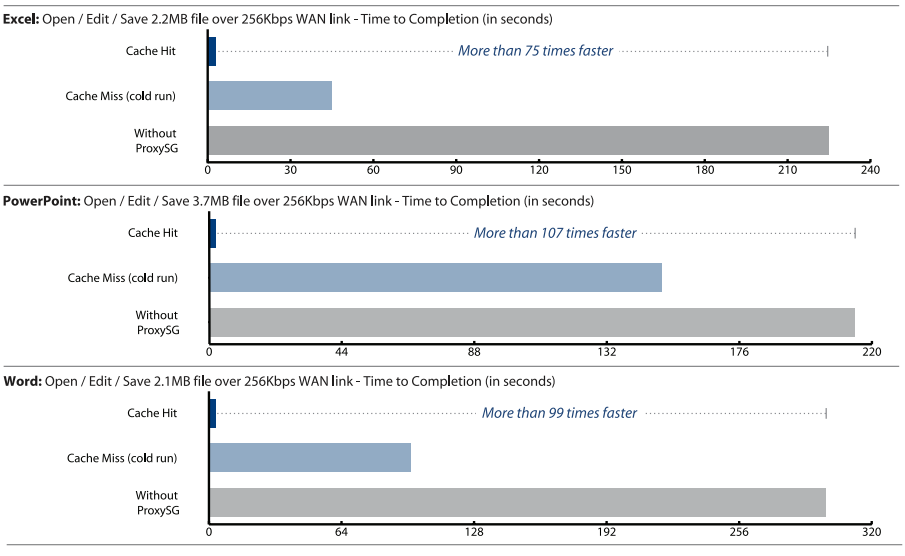
Microsoft Office is a suite of common applications to author, edit and produce documents, spreadsheets, and presentations. These files are typically stored on a centrally located file server available to groups of users to facilitate collaboration. To open, save and manage documents between the user's computer and the server, Microsoft uses the Common Internet File System protocol (CIFS.) Blue Coat can accelerate and optimize all MS Office applications, and more generally, any application that relies on the CIFS protocol by reducing latency while increasing WAN throughput.

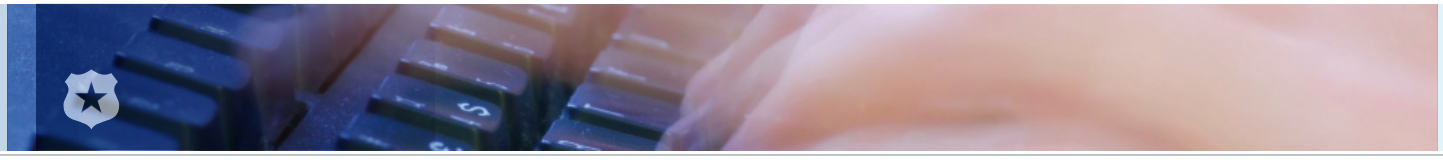
MS Office over the WAN

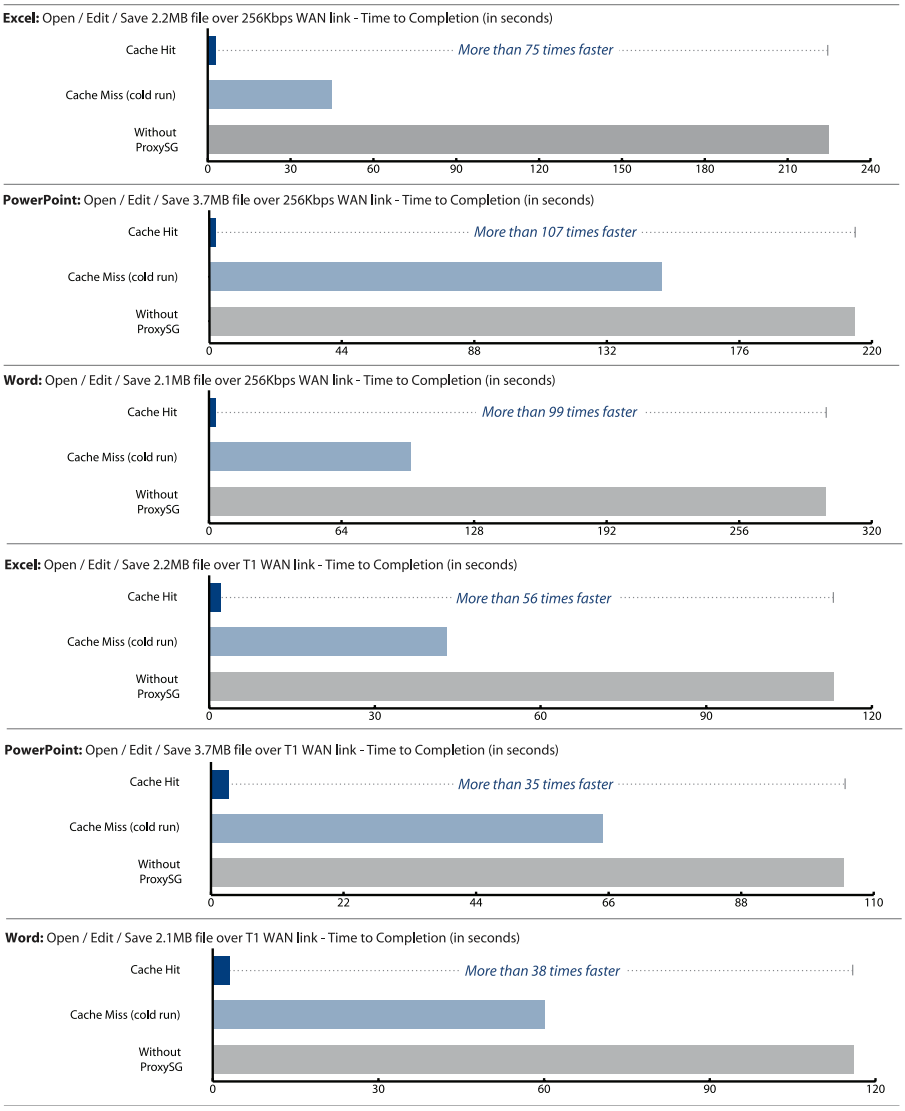
With branch office file server functionality moving from a local server to a consolidated datacenter across the WAN, network latency quickly becomes a critical issue. When Microsoft Office attempts to interact with files on a server across a WAN, the performance and user experience suffer considerably; WAN links consistently have more latency and less bandwidth. Throwing bandwidth at this problem is not only costly but ineffective. CIFS, by design, makes hundreds or thousands of round-trips between the client and server and therefore is particularly sensitive to latency. Worse, Microsoft Office applications expect files will be accessible quickly and respond poorly to latency induced delay. If remote or branch office employees cannot access their files in a timely and reliable manner, organizations will face stiff user resistance to needed server consolidation and outsourcing initiatives.

Performance Results

Tests conducted in production customer environments and Blue Coat labs show that Blue Coat SG appliances with MACH5 significantly improve the performance of Microsoft Office in real world scenarios. Using Blue Coat MACH5, the time needed to open, edit, and save a file in Microsoft Word, PowerPoint, and Excel over a 256Kbit/second WAN link with 110 milliseconds of latency improved by an average of 59%, while the same test over a T1 WAN link with the same latency still showed improvement of 50% during the first (cold) pass of the data set. Subsequent operations on the same files consistently showed 99% improvement in response time for both links. Blue Coat MACH5 managed to reduce the overall time taken to Open/Edit/Save Microsoft Office documents by 70x, a critical performance improvement needed to make these applications usable over a WAN link

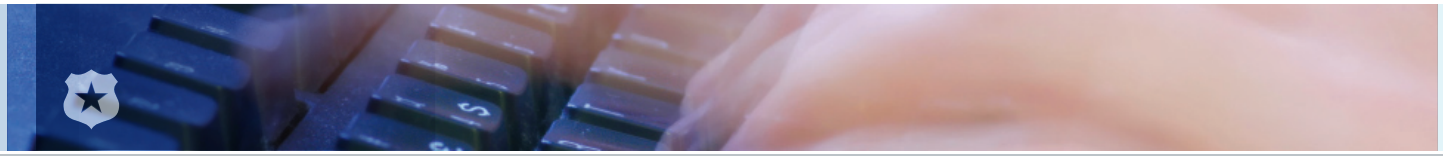






How Blue Coat Accelerates and Optimizes MS Office

Blue Coat accelerates all CIFS traffic using protocol optimization. Protocol optimization encompasses many specific techniques, such as read ahead, write back, and directory meta-caching. Each technique is designed to overcome the performance shortcomings of using the CIFS protocol over the WAN. In addition to protocol optimization and object caching, Blue Coat's MACH5 byte caching and compression technologies, in combination with TCP enhancements and bandwidth management, further improve and accelerate any CIFS application. Most MS Office files, whether it is Word, Excel, or PowerPoint contain compressible and repetitive elements which respond extremely well to MACH5 byte caching and compression technologies. Finally, the Blue Coat solution also provides the ability to employ bandwidth management/QoS for any class of CIFS application to be appropriately prioritized in alignment with the needs of the organization.



Blue Coat Benefits

Improve user productivity, reduce bandwidth usage CIFS protocol optimization, Object and Byte caching significantly improve MS Office/CIFS application responsiveness while conserving bandwidth.

Consolidate File Servers, Eliminate Data Silos

Deploy Blue Coat to consolidate file servers and lower IT administration costs, while promoting file sharing with LAN like responsiveness to users.

Server Offload

Deploying Blue Coat for CIFS acceleration offloads file servers, unlike competing products which operate at the transport layer and may create server overload.

Remove Unwanted Traffic

Deploy Blue Coat to unclog your networks by removing business irrelevant and malicious web traffic.

Secure the Web

Blue Coat provides granular and flexible policy to enforce your company's security requirements and protect your users.

About Blue Coat MACH5 Acceleration Technology

Blue Coat MACH5 technology is a patent-pending combination of five separate application management and tuning technologies that provide unrivaled improvements in application performance and bandwidth utilization. Whether at the edge of your network, or right in the heart of it, MACH5 technology provides a powerful toolkit for meeting any application delivery challenge. These technologies include:

Bandwidth Management

Assign priority and network resources based not only on port or device, but on users, applications and content to more accurately reflect your corporate policies on the network. Works by itself, or integrates with your infrastructure QoS to provide application intelligence to the packet switching network.

Protocol Optimization

Improves the performance of protocols that are inefficient over the WAN through specific enhancements that make them more tolerant to the higher latencies typically found there. Blue Coat has been optimizing network protocols for over a decade, and offers multiple improvements for TCP, CIFS, HTTP, HTTPS, MAPI and most streaming video and IM protocols.

Byte Caching

Cache repetitive traffic found in the byte stream and serve it locally to reduce the amount of traffic that actually uses the WAN at all. Works like a customized compression algorithm for your network traffic, and leads to dramatic bandwidth savings.

Object Caching

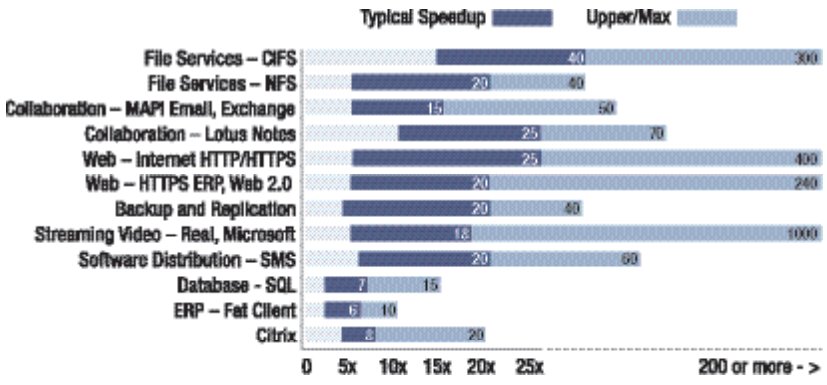
Store files, videos and web content locally, providing LAN-like performance for WAN users, without the overhead and risk of traditional wide area file services. For content delivery, no technology does more to reduce latency and bandwidth to improve the end user experience.

Compression

Inline compression can reduce predictable patterns even on the first pass, making it an ideal complement to byte caching technology.

About the Blue Coat ProxyClient

ProxyClient builds on Blue Coat's secure web gateway and acceleration technologies to extend application delivery to the desktop. Using MACH5 technology, including caching, compression and protocol optimization, ProxyClient accelerates web and office applications for roaming and small branch users. ProxyClient delivers LAN-like user experience and Blue Coat web filtering with a simple and easy footprint for installation, configuration, deployment and ongoing maintenance.



Blue Coat Systems, Inc. 1.866.30.BCOAT // 408.220.2200 *Direct* // 408.220.2250 *Fax* // **www.bluecoat.com**