



Performance Summary

- › Download or install packages in minutes instead of hours, even without distribution points in each branch office
- › Reduce bandwidth utilization to near-zero through object caching – effectively a 7800 times or 99% improvement
- › Prioritize traffic so that SMS packages do not interfere with business applications

Test Scenario

These tests were performed on a Windows XP SP2 client with SMS 2003 installed on a server running Windows 2003 SP2. The tests were run on a simulated 1.544Mbps (T1) WAN link with 100ms latency.

- › Full download (CIFS): A package is created that contains source files located in a directory. The entire source directory must be downloaded before starting installation.
- › Patch download (BITS): A package consisting of one file is created and the client downloads the file before starting installation.
- › Cold test starting condition: no traffic has passed through the Blue Coat appliances.
- › Warm test starting condition: the same or similar traffic has already passed through the Blue Coat appliances once.

Blue Coat Accelerates and Optimizes Microsoft SMS 2003

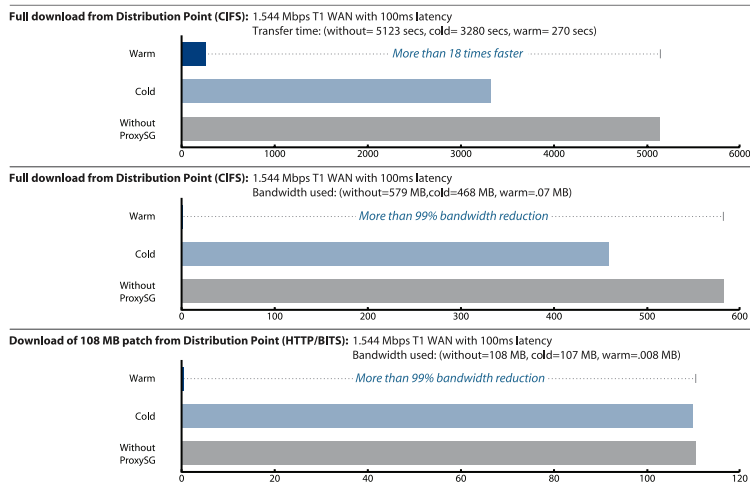
Microsoft Systems Management Server (SMS) 2003 has been a popular choice for IT professionals to manage Windows laptops, workstations, and servers for many years. SMS 2003 is designed to operate in a distributed network with multiple sites and offices, requiring distribution points at each remote site and branch office to offset performance issues caused by WAN links with limited bandwidth and increased latency. However, consolidation has compelled IT administrators to reduce the amount of distribution points, forcing clients to traverse the WAN and download from remote distribution points, or in some cases, even from the central data center. Blue Coat Systems provides an end-to-end solution based on MACH5 technology to reduce the complexity of the SMS network, simplifying management, maintenance, and package distribution. The Blue Coat solution is also able to minimize and prioritize bandwidth usage, and can significantly reduce the time to complete distributions, upgrades, and installations.

Microsoft SMS 2003 over the WAN

SMS packages are created from installation CDs, source directories, or patches on an SMS 2003 site, and transferred to distribution point(s) via CIFS. Advertisements are then created to notify clients of the new software package, and force them to install it directly from the distribution point (via CIFS) or download it completely (via CIFS or BITS) before installation. Clients will use Kerberos and LDAP and attempt to locate and download from a local distribution point, if one exists, or fall back to a remote distribution point across the WAN. Because software packages can consist of large data sets, they are normally scheduled during off-peak hours to prevent SMS 2003 traffic from competing with business-critical applications. However, even with these schedules in place, there is still potential for these tasks to run longer than expected and result in WAN congestion during business hours.

Performance Results

In tests using a Windows XP client, Blue Coat ProxySG appliances reduced the transfer time of SMS packages by over 15 times, while simultaneously decreasing bandwidth usage to near-zero, effectively a 7800 times or 99% improvement. The tests included downloading an entire directory and an individual installation file, where the WAN link from the client to the distribution point had a bandwidth of 1.544 Mbps (T1 link) and 100ms latency.



How Blue Coat Accelerates and Optimizes Microsoft SMS 2003

Blue Coat's MACH5 TCP optimizations, along with CIFS and HTTP protocol optimizations, improve and accelerate the distribution and download of all types of SMS packages. Since installation packages are static, Blue Coat's object cache helps eliminate costly round-trips to verify data, and is able to deliver software packages to the client at LAN speed. The Blue Coat solution also provides IT administrators with a flexible deployment, allowing for the removal of all distribution points and offloading any distribution points that are still needed on the



Blue Coat Benefits

Keep all computers up to date

Accelerated transfer times leads to quicker updates, ensuring that laptops, workstations, and servers have current software and patches.

Reduce bandwidth usage

Object caching and compression reduces the amount of data that needs to traverse the WAN.

QoS and Bandwidth Management

Deploy Blue Coat to intelligently prioritize and bandwidth shape SMS 2003 traffic relative to other business critical traffic.

network. Most importantly, the Blue Coat solution allows for the ability to employ bandwidth management and QoS, giving administrators the freedom to schedule updates anytime and the confidence that SMS traffic will not interfere with business-critical traffic.

About Blue Coat MACH5 Acceleration Technology

sBlue 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.

