Performance Summary

> Enhanced end-user experience improves user productivity and adoption

> Securely accelerates Oracle Applications regardless of encryption

> Reduce Oracle Applications server utilization by 50% or more

Test Scenario

These tests were performed using a Windows XP client accessing an Oracle 11i server over HTTPS. These tests were run on two simulated WANs: one with 768 Kbps with 30ms latency and a T3 link with 150ms latency and 0.1% packet loss.

> 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.

Blue Coat Accelerates and Optimizes Oracle Applications

Oracle Applications (including the Oracle E-Business Suite) are a collection of enterprise business applications, including enterprise resource planning (ERP), supply chain management (SCM), and customer relationship management (CRM) applications, all utilizing Oracle's core relational database management system (RDBMS) technologies. The Oracle Applications set of products, including Financials, Hyperion, Siebel, PeopleSoft, and the E-Business Suite are delivered to end-users via a set of services from Oracle's "technology stack". This may use Oracle Forms Server, Reports Server, Discoverer, JInitiator, Apache Web Server or some other application server. These full featured clients with rich functionality tend to operate well in local area networks (LAN) environments, but become user unfriendly when access over the wide area networks (WAN) at branch locations. The effects of WAN latency, congestion, and limited bandwidth all combine to cause severely degraded performance at branch/remote locations, reducing productivity and increasing user frustration. Faced with a slow application, user adoption of Oracle enhanced business processes can stall, increasing application roll-out costs and reduce overall productivity. Blue Coat appliances can optimize and accelerate all Oracle Applications traffic - reducing latency and increasing WAN throughput for users, while maintaining control, visibility, and security for network administrators.

Oracle Applications over the WAN

Oracle Applications over the WAN are usually delivered via a set of web services, as part of an overall enterprise service-oriented architecture (enterprise SOA). Oracle Application traffic over the WAN is usually secured with SSL encryption to provide a secure end-to-end communication channel between user and server. Commonly, this encryption thwarts attempts at optimization.

Applications using the Oracle Forms client make use of Oracle's JInitiator, which enables the Oracle Forms client to be run inside a web browser using a Java Virtual Machine with an ActiveX control or plug-in. While newer releases of Oracle Forms will support java development kit (JDK), many existing deployments continue to have a direct need to accelerate the current version of Oracle Forms that relies on JInitiator.

Performance Results

In a test of an Oracle Application login over an ADSL 768 Kbps link with 30ms latency, Blue Coat SG appliances improved login times by 25 times or more while reducing bandwidth usage by 95% or more.

In a test of an Oracle Application file retrieval over a T3 45Mbps link with 150ms latency and 0.1% packet loss, Blue Coat SG appliances improved file retrieval times by 97 times or more while reducing bandwidth usage by more than 98%.

ADLS 768Kbps WAN link with 30ms latency HTTPS Login time: (no device=45 sec, cold=12.4 sec, warm=1.8sec)

More than 25 times faster
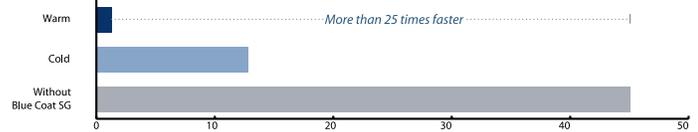
T3 45Mbps WAN link with 150ms latency, 0.1 % packet loss Transfer time: (no device=136.3 sec, cold=4.7, warm=1.4 sec)

More than 97 times faster
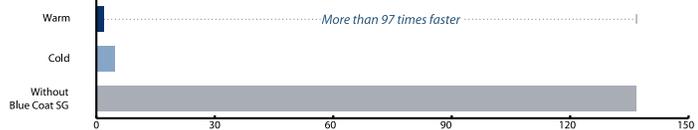
How Blue Coat Accelerates and Optimizes Oracle Applications

Blue Coat's MACH5 (Multiprotocol Accelerated Caching Hierarchy) protocol enhancements and caching optimizations improve and accelerate the delivery of Oracle Applications over the WAN, reducing the effects of latency and problems associated with limited bandwidth. Through the use of object and byte caching, the bandwidth required to serve Oracle application traffic is minimized, and combined with protocol optimization, mitigates the impact of latency over the WAN. Additionally, the Blue Coat solution also provides the ability to employ bandwidth management/quality of service (QoS) techniques, allowing for any class of traffic to be prioritized, ensuring that Oracle Application traffic does not compete for WAN bandwidth with non-business critical usage.

Blue Coat Benefits

Improve user productivity, reduce bandwidth usage

Object and byte caching significantly improve Oracle Application response times while conserving bandwidth

Secure and Simple Deployment

Deploy and manage SSL acceleration without exposing Oracle Application server private certificates unlike other SSL solutions.

Server Offload

Deploy Blue Coat for Oracle Applications to offload and reduce CPU/connection utilization on servers (or increase server capacity). Competing WAN optimization products that operate at the transport layer do not provide any server offload.

QoS and Bandwidth Management

Intelligently prioritize and bandwidth-shape key application traffic, ensuring key business applications do not compete for bandwidth with non-critical traffic.

About Blue Coat Acceleration Technology

Blue Coat acceleration technology is a patent-pending combination of data reduction and application acceleration techniques that provide measurable improvements in performance and reduction of bandwidth. Whether at the edge of your network, or right in the heart of it, Blue Coat acceleration technology provides a powerful toolkit to optimize performance for distributed applications.

These technologies include:

Protocol Optimization

Improves the performance of protocols that are inefficient over the WAN by eliminating the impact of latency native to their design. Blue Coat has been optimizing network protocols for over a decade, and offers multiple improvements for TCP, CIFS, HTTP, HTTPS, MAPI and streaming video and IM protocols.

Byte Caching and Compression

Dictionary-based gigabyte caching combines high performance disk storage for large byte patterns with innovative indexing and referencing techniques to drastically reduce bandwidth from large, repetitive data transmission. Inline compression reduces predictable patterns even on the first pass, making it an ideal complement to byte caching technology.

Asymmetric Pipelining and Object Caching for Web and SSL

Blue Coat's pipelining parallelizes multiple connections within compound web pages, moving data and objects much more quickly to the user. Object caching, with patented adaptive refresh, assures that the freshest content is served immediately to the users – without the network wait. Blue Coat delivers this acceleration in an asymmetric architecture, requiring only a single box at the branch to accelerate internal and external HTTP and SSL traffic – with no appliance required on the other side of the transaction.

Video Split Streaming, Object Caching & CDN

Large video files – whether static or streamed live – are difficult to deliver in distributed environments due to large bandwidth requirements. Blue Coat's live split streaming takes a single stream from the WAN and splits it into multiple streams at the remote site, enabling all employees to view live streams at the bandwidth cost of just one stream. Video caching makes on-demand video instantly available to employees, while CDN capabilities enable you to pre-position content at non-peak times.

Recreational traffic control & SaaS Acceleration

Classify each external website access with Blue Coat WebFilter and our real time WebPulse service in order to prioritize business, minimize recreation and prevent malware infections. Unique internet caching capabilities let you reduce bandwidth for allowed Web sites – and accelerates Software as a Service (SaaS) applications important to your business. Note, Web filtering and WebPulse are only available with the ProxySG Proxy Edition.

Bandwidth Management

Prioritize 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.

About Blue Coat ProxyClient

ProxyClient builds on Blue Coat's Secure Web Gateway and WAN Optimization technologies to secure and accelerate application delivery for roaming and small branch users. Combining Blue Coat's acceleration technologies with Blue Coat WebFilter and WebPulse service, ProxyClient delivers LAN-like user experience, policy enforcement and malware protection at the PC-level.