



WHITE PAPER

Citrix Optimizes the Performance, Scalability and Security of Siebel CRM Applications with the Citrix NetScaler Application Delivery System

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Application Needs

The decision to purchase and implement Siebel is typically an initiative designed to improve an organization's operational procedures. Take for instance the requirements for a CRM application at an outsourcing company focused on providing global technical support for emerging high-tech vendors. For such an organization, Siebel CRM implementations are critical to the overall success of the business.

Identified Challenges

The deployment of any CRM application can pose multiple challenges. In addition to the logistics associated with a corporate-wide deployment of Siebel, the challenge of ensuring reasonable connectivity and performance for all user communities is also paramount. With any large-scale application deployment come significant issues, but these issues can be compounded if the user community is geographically distributed, and can even be potentially disastrous for the overall deployment and success of the application. It is essential that all users, irrespective of location, are able to access the Siebel application, and that they have guaranteed performance to remain productive.

Network infrastructure provisioning for an application has now become a sub-set of the overall implementation process, with performance assurance quickly becoming a major determining factor in successfully deploying technologies that can be extremely customizable and complex. Intangible issues relating to application performance and connectivity can plague an application deployment. Traditional remedies such as increasing network bandwidth, upgrading server hardware, "tweaking" the application or deploying additional load balance servers will only provide temporary relief. A new approach to applications and network infrastructure must be taken to address the needs of application communications across existing network infrastructures. Citrix Systems delivers a solution, called the NetScaler® Application Delivery System, which meets these application performance requirements.

Citrix NetScaler Application Delivery System

The Citrix® NetScaler® Application Delivery System is purpose-built from the ground up to ensure optimized application delivery and to accelerate all Web applications. By optimizing communications between Siebel clients and servers, application administrators can drive the most out of their application and infrastructure resources.

Improving Siebel Performance with the Citrix NetScaler Application Delivery System

The NetScaler Application Delivery System combines the capabilities of conventional traffic management systems with security and acceleration features that enable optimal application efficiency with heightened security. The following diagram illustrates the integration of such key features provided by the NetScaler Application Delivery System.

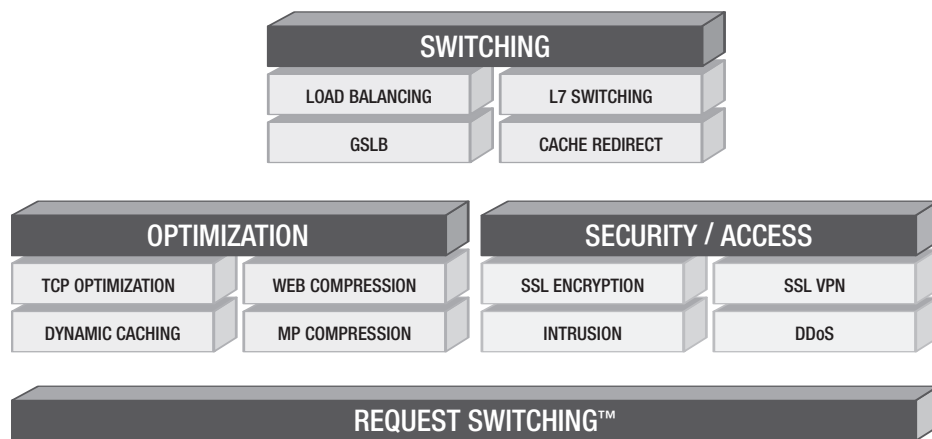
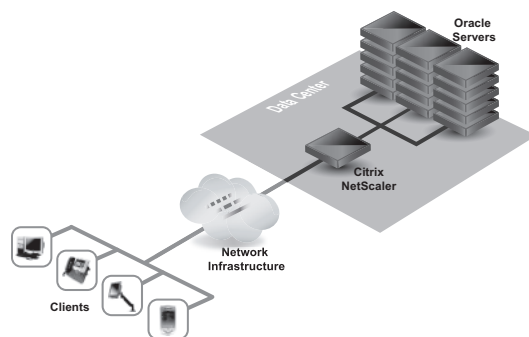
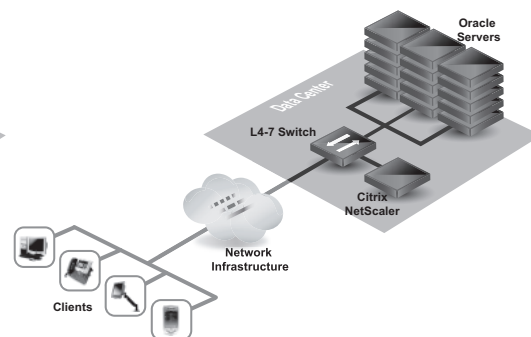


Figure 1. The NetScaler Application Delivery System Feature Set

The NetScaler Application Delivery System is a network-attached system deployed in the data center to front-end Siebel servers. The system is completely transparent to both end users and application servers.



Deployment Figure 1. In-line

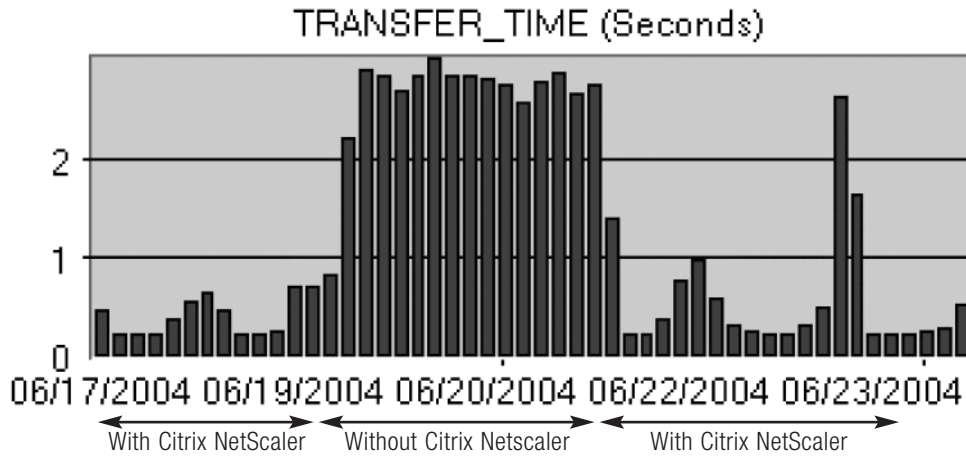


Deployment Figure 2. One-arm

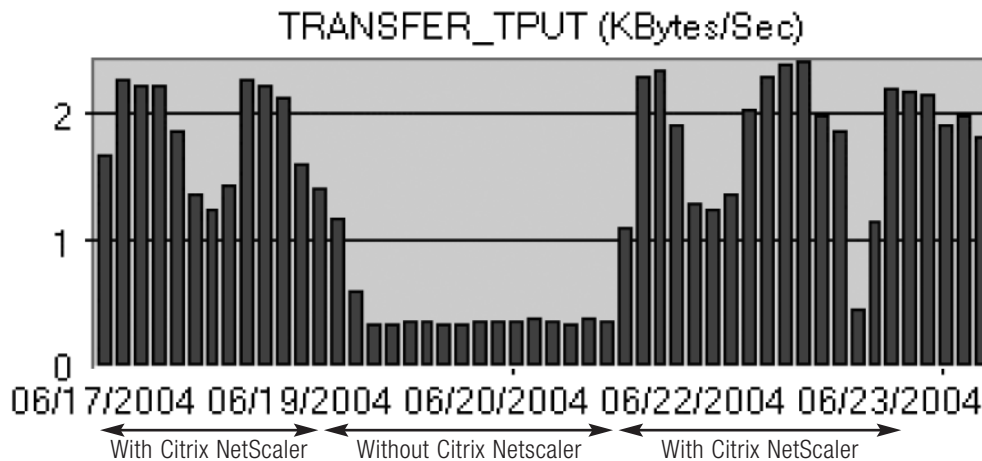
The unique feature set incorporated in the NetScaler Application Delivery System provides significant application benefits without the addition of any client or server software, or network or application infrastructure changes. These features include superior traffic compression, TCP optimizations and connection management, and application content switching techniques that ensure performance improvements.

- TCP/IP multiplexing and connection management (Citrix® Request Switching®)** — The NetScaler Application Delivery System dramatically reduces the number of TCP connections each Siebel server is required to manage, allowing organizations to reduce their server infrastructure or serve a significantly larger number of clients, depending on need. This is accomplished with Citrix Request Switching technology, which serves as the cornerstone of the NetScaler architecture, as depicted in Figure 1. Request Switching technology optimizes the use of standard Internet protocols by multiplexing requests from millions of users to a few servers via persistent connections between clients and servers. It also provides the foundation for a number of TCP optimizations that improve the performance of any Web application. (See response time results below)
- HTTP compression (Citrix® AppCompress™)** — Citrix AppCompress is a suite of data compression technologies that reduces the amount of data sent to application users to improve response times and lower

Transfer Time (measured in seconds)



Transfer Throughput (measured in Kilobytes per second)



Tangible Business Results

After deploying the NetScaler Application Delivery System within their Siebel environment, the customer discussed above was able to reduce operational costs immediately. The following tables depict monthly cost savings in terms of time and WAN bandwidth charges. Additional cost savings were realized in user productivity. While it can be difficult to measure employee productivity against business costs, this organization was able to do so, given that it provides outsourced IT support. Each support call can be measured in time (minutes), and cost per agent to complete the call. By reducing application delay when an agent is engaged with a customer, the time saved in providing support was identified as a cost saving. The following tables identify the advantages observed after deploying the NetScaler Application Delivery System within the customer's Siebel environment, and how these advantages relate to tangible business and direct cost savings.

Saved Bandwidth	Cost (USD)
Cost of 1MB IPLC per month	\$10,500
Cost of IPLC per day	\$350
Cost of IPLC per hour	\$14
IPLC bandwidth (Kbps)	\$1,024
Data served by the NetScaler Application Delivery System per hour (Kbps), without consuming bandwidth	\$375
Cost of 375kbps (served by the NetScaler Application Delivery System) per hour	\$5
Cost of 375kbps (served by the NetScaler Application Delivery System) per month	\$3.845

Figure 2. Bandwidth Cost Savings

Saved Time	Time	(Minutes)
Time saved while updating/querying Tickets for each call	2	Min
Total Time saved per day, per tech.	14	Each Tech handles 7 Calls
CTC of each tech per minute	0.04	USD
Time saved translated into cost	0.56	USD
Total cost saved	43.68	USD, For 78 Techs

Figure 3. Increased Employee Productivity

Result	Observation	Average Savings	Cost Saving per month
Faster application response	The latency time was reduced to 1.5 sec from 4.1 sec.	2 min per call	43.68
Reduced bandwidth consumption	With 58% hit ratio, traffic to application server is reduced by half	375 Kbps of bandwidth per hour	3845.21
		Total	3888.89

Figure 4. Total Cost Savings Summary

Summary

The Citrix NetScaler Application Delivery System delivers improved application performance and increased scalability for Siebel deployments without the need for additional software or configuration changes for servers or clients. By deploying the NetScaler Application Delivery System within a Siebel-based environment, administrators can expect an immediate improvement in client performance and longevity of existing server equipment, with a significant increase in the number of clients that can be served by the existing equipment. The net result is a more efficient application delivery infrastructure and a highly productive workforce.



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