

SOLUTION BRIEF

Optimizing Oracle E-Business Suite 11i with F5 Solutions



ORACLE® Optimizing Oracle E-Business Suite 11*i* with F5 Solutions

Executive Summary With F5 Networks' solutions and the Oracle® E-Business Suite 11*i*, organizations can achieve high availability, scalability, optimal performance and enhanced security for enterprise applications and services. With the multi-tiered architecture of Oracle E-Business Suite, F5 Networks BIG-IP product adds a critical element to the deployment: Application Traffic Management. With version 9 features such as Fast Cache, Intelligent Compression and TCP Express, the BIG-IP device further accelerates and optimizes the performance of Oracle's enterprise applications, while F5's FirePass SSL VPN controller provides the remote workforce with intuitive, secure access to Oracle E-Business Suite 11*i* applications and business information from any device, in any location. These solutions enable customers to achieve higher uptime and better performance of their Oracle-based applications, while increasing the return on investment of their e-business infrastructures.

F5 Networks has teamed with Oracle to enhance application robustness through their Maximum Availability Architecture (MAA), Oracle's complete High Availability (HA) blueprint. MAA is a validated technical architecture that incorporates Oracle's leading HA technologies and best practice guidelines. And as a Member Partner of the Oracle PartnerNetwork, F5 is working with Oracle to help ensure reliable and scalable enterprise applications and Web services. Specific to the development of MAA, F5 supplies Oracle with proven expertise in Application Traffic Management along with F5's market-leading solutions.

Challenge Oracle's E-Business Suite 11*i* is a comprehensive business system solution that provides customers flexible deployment scenarios to allow for unlimited scale and reduced administration. By allowing customers to break out application functions and distribute them among clustered systems, organizations can quickly and easily model their infrastructure to their needs. However, to get the most out of this flexible solution, integrating an application traffic management device is essential for directing client requests, thereby enhancing the availability, scalability, reliability, and performance of these multi-tiered, business-critical deployments.

Many organizations face the additional challenge of enabling their mobile employees and partners to access enterprise applications easily and securely from a variety of devices and locations. These organizations seek a remote access solution that will enhance business processes without burdening network administrators and resources.

Solution F5 Networks' BIG-IP product is a perfect solution for Oracle E-Business Suite 11*i* deployments, providing high availability, enhanced security, scalability and performance, while helping to reduce costs and increase ROI. In a typical multi-tiered Oracle E-Business Suite deployment (see [Figure 1](#)), the Application tier allows for different types of application services to be started or shutdown, so specific application functions can be assigned to a particular server. This is an ideal scenario for the BIG-IP solution's Pools and Rules functionality. Each cluster of servers can reside in an application-specific pool, and a rule can be created to send requests to specific pools, based on the data that resides in the header or content of a request. This feature allows requests for specific application services to be directed to the most appropriate and available resources.

For Oracle E-Business Suite applications requiring secure traffic, the BIG-IP solution provides integrated SSL acceleration, encryption, and decryption capabilities. By offloading these processor-intensive SSL transactions from the servers, organizations greatly improve the performance of the Oracle E-Business Suite deployments, allowing the applications to focus on the business functions they provide. The BIG-IP solution also provides a number of different options for persistent connections. For example, the BIG-IP

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cookie persistence feature guarantees session persistence for Oracle application functions that require client requests to be routed to the same application server to support middle tier processing. And with the Universal Inspection Engine and iRules™, the BIG-IP product is the first completely adaptable application management solution that can switch and persist on all types of IP applications and their payloads, allowing the product to support the complex security and high availability requirements of today's Web services, enterprise and mobile applications -- making them simpler to implement and maintain. The result is a dramatic gain in operational efficiencies and cost-savings.

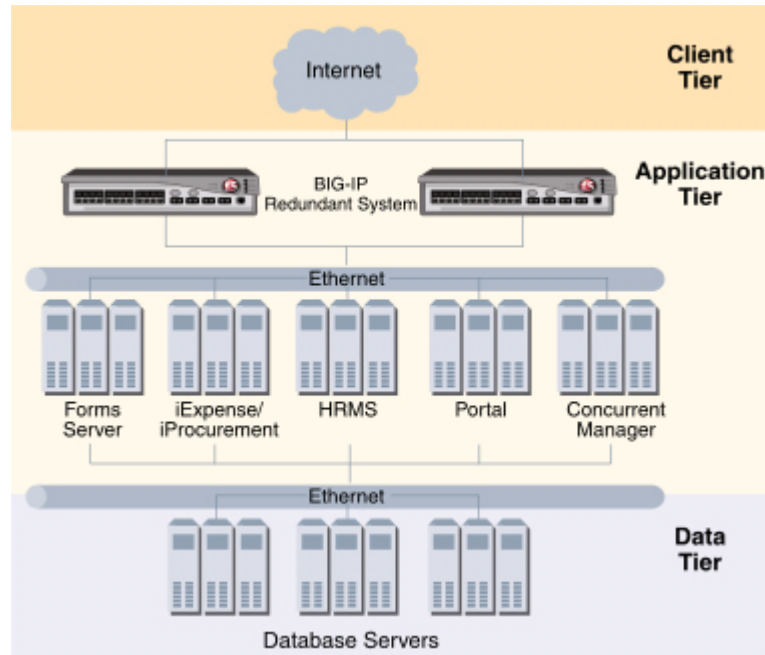


Figure 1: A multi-tiered Oracle E-Business Suite deployment

Version 9 of the BIG-IP system introduces a suite of optimization and accelerations features designed to give organizations an incredibly powerful platform that is changing the way they conduct business with Oracle E-Business Suite applications. At the heart of version 9 of the BIG-IP system lies the unique Traffic Management Operating System (TM/OS) architecture, providing the enterprise with a unified system for optimal application delivery. TM/OS, acting as a full server proxy, offloads and manages traffic control, freeing server resources and increasing server capacity for any application running through the BIG-IP device.

The BIG-IP system's TCP Express feature provides a number of enhancements and optimizations to TCP handling. Utilizing independent client and server side TCP stacks, the TCP Express features bridge the gap between client and backend servers, optimizing each connection independently. This functionality also enables the BIG-IP device to shield and transparently optimize non-compliant TCP stacks running across servers within the corporate data center, thus providing dramatic performance improvements for Oracle E-Business Suite 11i deployments. TCP Express also ensures that both client and server are transmitting data at the optimal rate, thus reducing user download times, improving bandwidth link utilization for a site, and minimizing errors associated with lost and reordered packets. The BIG-IP Intelligent Compression module proficiently compresses a broad variety of content types including HTTP, XML, JavaScript, and J2EE applications using industry-standard GZIP & Deflate compression algorithms.

This integrated solution also allows an organization to use lower cost hardware to easily scale their deployments as network traffic increases. With the BIG-IP system, scaling is as easy as adding another server where resource demand is greatest. Once the resource is added to the BIG-IP configuration, traffic is directed to that resource. This allows organizations to save money by purchasing lower cost servers and deploying them where they are needed, as opposed to using a larger, more expensive server running all of the Application tier functions.

When organizations want to extend access to Oracle E-Business Suite 11i resources to remote users, F5 Networks' FirePass SSL VPN provides secure access to application as easily as from inside the corporate LAN. Once authenticated by FirePass, users pass through the corporate firewall and are able to access applications and data from any device in any location without having to re-authenticate when accessing multiple resources. The FirePass controller not only delivers and secures access to Oracle E-Business Suite applications, but also allows for granular control of access to intranet resources on a group basis. For example, employees can be provided access to all intranet sites while partners are restricted to a special web host. And the FirePass controller's compression capabilities provide additional performance enhancement and server offload while securely delivering business-critical content.

Benefits **Optimized Application Performance** - Compressing a variety of file types, including HTML, XML, JavaScript, and J2EE applications, Intelligent Compression features provide bandwidth savings for Oracle E-Business Suite application deployment, dramatically improving ROI for the enterprise. Utilizing TCP Express features, the BIG-IP system provides the highest level of optimization, packet loss recovery and intermediation between suboptimal servers and clients. Thus the solution helps reduce inefficiencies in the network while dramatically improving overall performance, decreasing the cost and complexity of Oracle E-Business Suite deployment, and reducing the need to update servers. For Oracle E-Business Suite 11i deployment, the BIG-IP system reduces server processing load, minimizes bandwidth consumption, optimizes and accelerates application delivery, and improves end-user performance.

Maximum Availability - Since every minute an application is down or not responding properly can cost an organization thousands of dollars, deploying the BIG-IP system with the Oracle E-Business Suite is essential for providing organizations with business-critical application availability. Through the use of its advanced health checking capabilities, the BIG-IP device can recognize when a resource is unavailable or under-performing and direct traffic to an available resource. With the BIG-IP product, all of your applications can achieve 99.999% uptime, while reducing operational complexity and costs.

Enhanced Security - The BIG-IP device comes standard with numerous security features that enforce, fortify, and accelerate the secure delivery of applications and web services. It's the first solution that can automatically respond to, act upon, and prevent changing security threats - providing a coordinated and unified line of defense, while improving the performance of other security products in the network. It enables stringent access control, secure administration, and helps resist common attacks such as Denial of Service, Syn Floods and many others.

Simple Scalability - The BIG-IP system provides a highly scalable solution that allows enterprises to meet growing organizational demands on web and application resources. If one service is nearing capacity, scaling it is as simple as adding another instance of the service to your network and then to the BIG-IP load balancing pool. The BIG-IP solution allows organizations to scale their applications horizontally, as opposed to buying large, expensive servers to vertically scale, providing considerable cost savings.

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About F5 Networks F5 enables organizations to successfully deliver business-critical applications and gives them the greatest level of agility to stay ahead of growing business demands. As the pioneer and global leader in Application Traffic Management, F5 continues to lead the industry by driving more intelligence into the network to deliver advanced application agility. F5 products ensure the secure and optimized delivery of applications to any user - anywhere. Through its flexible and cohesive architecture, F5 delivers unmatched value by dramatically improving the way organizations serve their employees, customers and constituents, while lowering operational costs. Over 9,000 organizations and service providers worldwide trust F5 to keep their businesses running. The company is headquartered in Seattle, Washington with offices worldwide.

About Oracle Oracle Corporation is the world's largest enterprise software company, providing enterprise software to the world's largest and most successful businesses. Oracle is the first software company to develop and deploy 100 percent Internet-enabled enterprise software across its entire product line: database, server, enterprise business applications, and application development, and decision support tools.