



a PrismTech Product Line

Securing Internet eCommerce Systems with Domain Boundary Controllers



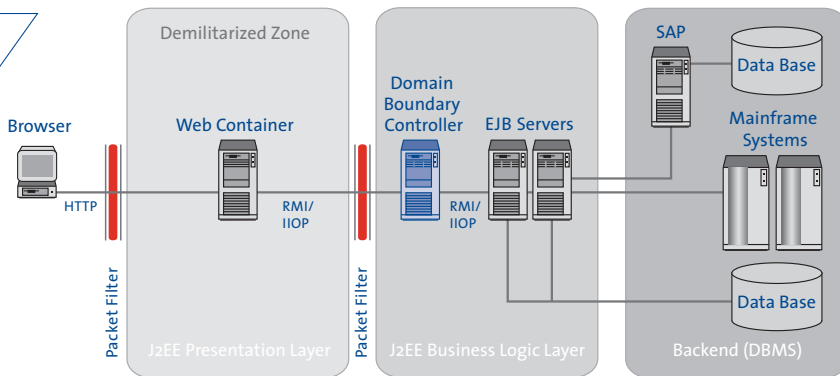
The major function and challenge of eCommerce Systems is to not only present information derived from backend systems to individuals or companies over the Internet, but also to allow interaction with those backend systems. This means data can be accessed and modified from outside the corporate network. These backend systems could contain account information and start financial transactions in the case of a bank, represent billions of dollars worth of new model data in automobile manufacture or billing data for millions of customers in telecommunications. Since the corporate backend systems, which can be mainframe based systems, Unix based applications, databases and ERP systems such as SAP, are the lifeblood of that corporation, absolute security is of overwhelming importance. Hackers must be kept out at all costs!

J2EE APPLICATIONS REQUIRE SECURITY FORTIFICATION

Most modern eCommerce Systems are built using a multi-tier architecture with a web server presenting HTML/XML information to the Internet and an application server based on J2EE technology running the eCommerce application which in turn is connected to internal or backend systems. The web server and sometimes also the application server will be placed in a Demilitarized Zone (DMZ) which is a sub network protecting the internal network by means of packet filter firewalls. The critical point in this scenario is the traversal point from the DMZ to the internal network.

DBC SECURITY CHECKS THE ACCESS TO THE CORPORATE NETWORK

It is at the access point to the internal network that a Domain Boundary Controller (DBC) or RMI-SOAP is placed to provide access control and RMI-IIOP protocol message filtering of the incoming communications traffic. The Domain Boundary Controller's leading edge RMI-IIOP proxy technology has been optimized for highly secure and blazingly fast secure firewall traversal, even when Network Address Translation is in place. Now, a single, statically configured port at the internal firewall can be assigned to handle the complete RMI-traffic across the DMZ towards the Domain Boundary Controller, which analyzes the traffic before delivering it in a secure and controlled way to the application servers in the intranet.



As shown above, DBC-protection leads to a clear and efficient strategy for the firewall deployment of J2EE platforms. Obviously, the presentation layer components, including servlet engines, have to reside in the DMZ. Due to the secure firewall traversal capabilities provided by a Domain Boundary Controller the more complex business logic layer components with EJB containers can be deployed behind the DMZ inside the highly protected enclave of the intranet. Before passing the communications traffic on from the Internet to the intranet, protocol translation from HTTP to RMI/IIOP or RMI-SOAP takes place. This relieves the need to pass external HTTP traffic from the Internet via the DMZ directly into the intranet.

POWERFUL SECURITY FEATURES

The Domain Boundary Controller can be used as a simple RMI-Proxy, or the powerful AAA (Authentication, Authorization, and Auditing) security capabilities can be used to provide comprehensive protection for the internal systems. Interfaces to existing corporate directories mean that additional administration is kept to a minimum.

PLUGGABLE SECURITY APPLIANCE

Xtradyne's product philosophy is to create security appliances, which can be plugged into an existing system requiring no modifications of application code and providing complete transparency to the applications. In security simple is safe!

STATE OF THE ART SECURITY

The design and test principles used in the creation of the Domain Boundary Controller (DBC) are state of the art. Its internal architecture has been specially structured to present only a minimum amount of rigorously tested high quality code to the outside world.



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24 X 7 RELIABILITY

Of course, high availability is a must in eCommerce applications that have to be on-line 24 hours a day, 7 days a week. That is why you will find sophisticated fault tolerance, fail over and load-balancing features built in to the DBC.

With Xtradyne's Domain Boundary Controller protecting your eCommerce solution, you can beat the competition to the market and sleep well knowing that you have cutting edge security protection in place.