ENTERPRISE LINUX SERVER.

DELIVERING WEB APPLICATIONS IN A HIGHLY AVAILABLE AND VIRTUALISED ENVIRONMENT.

SMART, COOL, AFFORDABLE.

The Problem

Your organisation has a multiplicity of disparate systems used for web servers, firewalls and application integration.

With soaring energy and management costs and a shortage of data centre space, it is crucial to provide a simplified set of infrastructure components within a smaller and greener footprint.

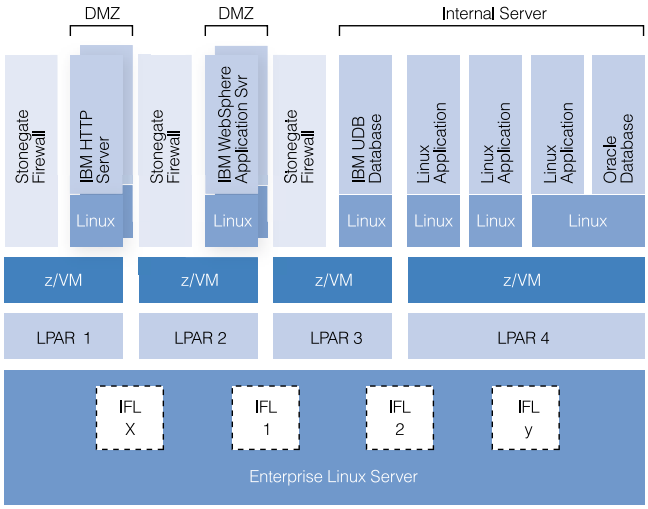
The Solution

Introducing the Enterprise Linux Server (ELS)

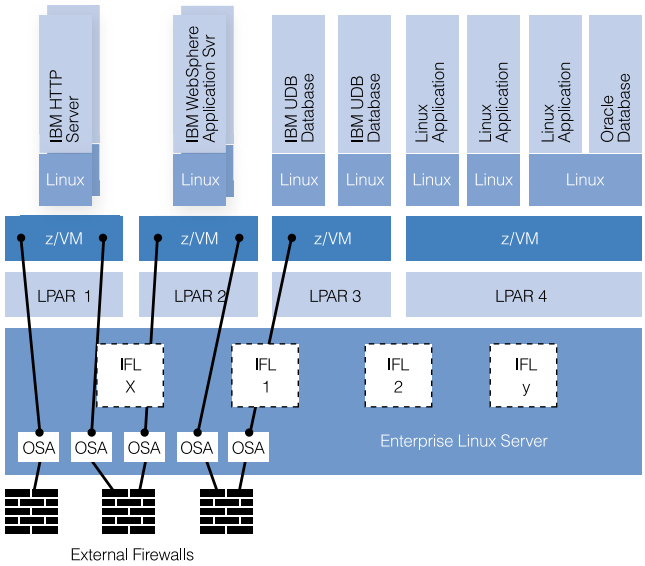
IBM's leading virtualisation technology platform provides the solution to this problem. By using z/VM, Linux and WebSphere on System z, IBM offers the ultimate virtualised solution for organisations looking to have their own secure web presence whilst reducing their IT footprint and complexity. Using the built-in networking and connectivity between virtual servers, security risks from data interception are removed and the overall performance is exceptional.

Security

By using the unrivalled virtualisation capabilities of z/VM IBM is able to offer a highly secure web server and application integration environment in a single box. Virtualised networks are segmented to minimise the risk of a compromise affecting all systems, and trusted networks are separated from un-trusted ones to isolate systems in the event of a service attack. This is accomplished by creating separate partitions, called LPARS, for each layer of the networks as can be seen from the diagram below.



If your security department insists on having separate external firewalls, this can be accomplished very simply by connecting to the ELS using standard NIC adapters as shown in the diagram below.



Web Serving

The IBM HTTP Server based on Apache 2.0 provides a rich set of IBM enhancements to complement the Apache features. These include fully integrated support for secure HTTPS transactions which is provided using FIPS and the Common Criterion certified Secure Sockets Layer (SSL) toolkit. A graphical utility for the management of crypto keys (ikeyman) is also provided. The ability to authenticate web requests against an LDAP server over secure connections using a custom module coupled with the IBM Tivoli Directory Services LDAP client is provided. Other features include FastCGI and control of the IBM HTTP Server from the WebSphere administration console.

Web 2.0, Web Services and Java application serving

WebSphere Application Server V7 offers enhanced support for open standards, emerging technologies and a choice of development frameworks.

Simplified programming models for building reusable persistent objects are provided by WebSphere, the industry leading Java EE 5 application server, with EJB 3.0 support, Java Persistence API (JPA) and Java SE 6.0.

Interoperability in mixed environments includes JMS and Web Services support, including JAX-WS, SOAP 1.2, MTOM, XOP, WS-ReliableMessaging, WS-Trust, WS-SecureConversation, WS-Policy, and the WS-I Kerberos Token Profile.

Mash-ups can extend Service Oriented Architecture (SOA) via the Feature Pack for Web 2.0, by connecting Web services, SOA services, and Java Enterprise Edition (JEE) objects into highly interactive Web applications.

The IBM Rational Application Developer toolkit provides visual development that enables Java developers to rapidly design, develop, assemble, test, profile and deploy high quality Java, JEE, Portal, Web/Web 2.0 (AJAX/REST via DOJO), Web services and SOA applications.

Benefits

The Enterprise Linux Server provides advanced capabilities, security and performance at an affordable cost, with the ability to grow with your business and take on additional workloads using the same system and the same support people.

For further information, please send an e-mail to:
dco@uk.ibm.com quoting WEB as the subject.

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ibm.com*/systems/z/os/linux/*