



IBM DB2 Universal Database on Linux for zSeries

Positioning Paper
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IBM Internal Use Only

DB2 UDB on Linux for zSeries

Why IBM DB2 Universal Database (UDB) on Linux for zSeries?

The DB2 UDB family of products runs across multiple platforms today. Deploying DB2 UDB on Linux for zSeries is a natural extension of the product family. In fact, DB2 UDB on Linux for zSeries is a great marriage of the technologies, each working to provide the robustness, scalability and reliability customers want.

VSE and VM Users

By deploying Linux on their existing hardware, VSE and VM users can leverage and extend their current investment in zSeries hardware and data. By using the facilities of VM, customers can deploy Linux as a guest in a Virtual Machine (VM). With IBM DB2 Connect, customers can access their DB2 data in VSE and VM but deploy new applications in the Linux environment.

With the availability of DB2 Universal Database on Linux for zSeries customers can take advantage of features unique to DB2 Universal Database such as:

- Large Object Support
- User Defined Types and Functions
- Triggers
- Advanced SQL and ROLAP (Relational OLAP) capabilities such as Recursive SQL, CUBE, ROLLUP, Automatic Summary Tables, and Aggregate OLAP functions
- Rich application development environment through support for Declared Temporary Tables, Identity Columns, and Application Savepoints

z/OS Users

DB2 Connect products running on Linux for zSeries will allow customers to deploy applications that access their local data residing on Linux for zSeries or any other DB2 database in the enterprise. In addition, IBM DB2 Connect on Linux for zSeries can also be used to consolidate all gateway connectivity processing at the host eliminating the need for a middle tier of hardware.

IBM also provides access to IMS from the Linux for zSeries operating system through the IMS Connect feature. IMS Connect can be used by an application running on Linux for zSeries, to access local applications and data residing in IMS, running under that or any other zSeries system in the enterprise.

UNIX/Linux Users

DB2 Universal Database running on Linux for zSeries gives customers the flexibility of a two-tier architecture and allows customers to access the functionality of DB2 UDB specific to UNIX environments. Customers now have the flexibility to consolidate multiple environments onto one platform. With DB2 Connect, customers can access existing legacy databases, while deploying new applications on Linux.

By making DB2 UDB and DB2 Connect available on Linux for zSeries it is now possible for vendors to make applications that are currently available for UNIX customers (that are not yet ported to z/OS) available to customers on the zSeries platform without major rework. Also, e-business and WebSphere applications can benefit from a local DB2 database close to the Webserver, yet leverage zSeries hypersockets to get at data stored in DB2 UDB for z/OS.

Why Linux for zSeries?

Linux offers zSeries a truly portable application environment. By using the identical source code on all platforms, a simple recompile is generally all that is required to rehost an application. Linux also runs native on zSeries. Like other zSeries operating systems, customers have the flexibility of running on one machine, or they can run multiple images of Linux on a single zSeries as virtual servers, using either logical partitions (LPARs), VM/ESA[®] or the Integrated Facility for Linux (IFL). No other hardware platform can offer customers the flexibility of deploying hundreds of Linux images on a single machine. With this flexibility, customers benefit from reduced operational costs through centralization of backup and recovery and other administrative tasks.

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zSeries is well positioned to take advantage of growth in the Linux market. zSeries is the industry's most reliable hardware platform. Its self-configuring and self-healing attributes such as CPU and memory sparing, fault-tolerant cache structure, and transient error recovery have made zSeries reliability legendary. While the reliability of Linux may be similar across server platforms, zSeries architecture will put applications running on Linux one step higher in availability.

The value zSeries brings to Linux is twofold:

- To provide high-speed transactions to Web serving applications.
- To consolidate Web servers, file and print servers, and DNS servers onto a single machine taking full advantage of zSeries — the flexible server.

For more information on Linux and zSeries please visit:

http://www.ibm.com/servers/eserver/zseries/faq/linux_faq.html

Sales Tactics

DB2 Universal Database

- **Identifying Opportunities**
zSeries customers with zLinux Customer Profile include:
 - Customers with excess capacity available
 - Experiencing difficulties in managing multiple distributed data marts
 - Need BI capabilities not available on native DB2 on zSeries
- **Position DB2 UDB for DataMarts**
 - Multiple Datamarts managed from one server
 - Recommend datamarts under 30GB
 - Not recommended for data warehouses or OLTP workloads at this time

DB2 Connect

- **Identifying Opportunities**
zSeries customers with client-server and web applications:
 - WebSphere (Linux, UNIX, Windows, zLinux)
 - zSeries customers deploying PeopleSoft and Siebel (certification still required)
 - WebSphere Commerce Suite for zLinux customers
 - Competitive conversions (MDI Gtw, Sybase DirectConnect, Neon ShadowDirect, StarSQL, Oracle Gtw, MS Host Integration Server)
 - DB2 Connect customers that need additional licenses
- **Position DB2 Connect as a way to consolidate servers and launch new applications**
 - DB2 Connect can run on Linux for zSeries and eliminate the need for multiple hardware. The traditional approach was to have a mid-tier server such as Windows NT, to connect to the host. With zLinux and DB2 connect you eliminate that need for a 2-tier hardware environment
 - With DB2 Connect, it is now possible to launch new applications from zLinux, while connecting to legacy data on z/OS

Summary

Linux® has made an impact on the computer industry in more ways and on a broader scale than just about anyone ever expected. Considered by mainstream computer users as a hacker's operating system and inadequate for

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mainstream deployment only two years ago, Linux has emerged as the number two operating system just behind Microsoft Windows NT.

The benefit Linux brings to the table is openness, choice and vendor-independence. Imagine if the UNIX vendors would have embraced the same model a decade ago -- Linux might not exist today.

However, Linux is still a maturing operating system and while promising it will take some time to mature. Customers with requirements in the area of high OLTP scalability and performance, high availability, reliability, and serviceability and those with large databases/warehouses should consider DB2 for z/OS.

Having said that, the combination of DB2 Connect to gain access to legacy information while deploying new applications on Linux for zSeries is a powerful combination. In addition, applications that take advantage of UNIX specific features now have that capability with DB2 Universal Database on Linux for zSeries.

