COMMONWEALTH OFFICE OF TECHNOLOGY

Enterprise Server

SYSTEM z

36 years of hosting

Kentucky's mission critical

applications

and counting...

Commonwealth Data Center

www.technology.ky.gov

SYSTEM z

Like most activities in IT, the use of computers and data processing evolved through many stages and continues to change rapidly. The mainframe is no exception but one thing that will always hold true is the reliability and the value of its security. For decades, organizations have relied on the mainframe to run critical business applications, and most still do. All 50 of the world's top global banks depend on IBM mainframes to run some of the most sophisticated transactions on the planet.

IBM's mainframe operating system, z/OS, has a long and successful history. It combines the classic functions of MVS: multitasking, virtual memory, and UNIX System Services, a UNIX implementation optimized for mainframe architecture. USS allows UNIX applications from other platforms to run on IBM mainframes. z/OS supports Java and easily communicates with TCP/IP and the web.

The mainframe has taken its rightful place in the world's financial transactions, transportation management, health care and industry management. Most of that code was written in COBOL and VSAM and ran on systems from CICS and IMS to DB2. Today it still fulfills those venerated roles but it has evolved into the most powerful, flexible, reliable server in the industry, running new workloads from Java to Linux. This is the machine that supports tens of thousands of users working with hundreds of terabytes of data, with response times still in subseconds. This is not your father's mainframe.

Key Benefits of the System z

Security

♦Mainframes are the most secure Servers on the market

♦The System Z's approach to security is integrated and multi-layered

♦RACF – Resource Access Control Facility provides user authentication and access control for z/OS resources and data. RACF contains comprehensive administration, auditing, and logging capabilities

♦So far, no virus has ever successfully attacked Mainframes

Reliability

♦Professional, competent technical staff with overlap of coverage and a combined total of over 200 years of experience

♦Operations staff monitoring 24/7/365

♦Minimal scheduled outages for maintenance and upgrades

♦The mainframe has effectively become invisible because it works so well

Risk Management

♦Disaster recovery plan in place and tested annually

According to IBM, 70% of the world's business data resides on mainframe systems.

The mainframe delivers Reliability, Availability and Serviceability to today's enterprise environment.

Where it is impossible to replace legacy systems it is still possible to enhance them. The most prominent technique is a Web-based interface to a terminal-based mainframe application such as IMS and CICS. This allows access to legacy data through a modern, user-friendly interface.

To modernize your legacy application, contact COT.

VIRTUALIZATION

Virtualization has become the buzz word for organizations wanting to lower their total costs of ownership and improve reliability and flexibility. Virtualization offers a way to help consolidate a large number of individual small machines on one larger server, easing manageability and more efficiently using system resources by allowing them to be prioritized and allocated to the workloads needing them most at any given point in time. The system z supports virtualization via WLM, VMRM, Multiple LPARs, and UNIX System Services. It also has a wealth of tools for managing, monitoring, debugging and tuning.

♦IMS

Information Management System (IMS) is IBM's premier transaction & hierarchical database management system. The latest capabilities enable Service Oriented Architecture (SOA) exploitation, secure your investment and enable new application development. No other solution offers the combination of extremely high performance, scalability, rock-solid reliability, and runtime efficiency. When it comes to running core applications that are at the heart of business processing, most large corporations worldwide continue to depend on IMS.

♦CICS Transaction Server

CICS is a transactional application server that enables execution of a complex and demanding mixed-language application workload while efficiently integrating with SOA enterprise solutions. With new Web services capabilities including support for recent standards, interoperability profiles, and the ability to send large amounts of binary data efficiently. CICS provides a complete systems management solution to enable management of resources through a single point of control that is consistent throughout the enterprise. CICS provides a runtime environment for applications written in COBOL, PL/I, Assembler, C, C++, and Java, thus delivering a language-neutral approach. This ensures existing skills can be used to build and deploy new applications.

♦DB2

DB2 is the proven market leader in availability, scalability and reliability. It is optimized for SOA, Customer Relationship Management (CRM) and data warehousing to drive your mission critical business requirements. Legendary mainframe security and enhanced data encryption mean that DB2 for z/OS is ready to protect your data and comply with growing compliance and audit requirements. Whether you develop on Windows, UNIX, or Linux, the move to z/OS has become easier. DB2 for z/OS provides a secure, available, and efficient environment for SAP applications.

♦WebSphere Application Server

The WebSphere Application Server drives business agility by providing millions of developers and IT Architects with an innovative, performance-based foundation to build, reuse, run, integrate and manage Service Oriented Architecture (SOA) applications and services. From business critical and key enterprise-wide applications to the smallest departmental level applications, WebSphere Application Server offers the highest levels of reliability, availability, security and scalability while reducing application infrastructure costs.

♦WebSphere MQ

IBM WebSphere MQ helps untangle costly and debilitating IT complexity associated with point-to-point connectivity and integration. As the leading ESB Messaging backbone, WebSphere MQ improves the flow of information across an organization and positions it to adjust to dynamic business requirements, reduce maintenance, integration costs, and seamlessly bridge to new technologies.

♦WebSphere Message Broker

IBM WebSphere Message Broker helps enable fast and flexible application integration with reduced cost and bridging to next-generation interconnectivity. Eliminate complex, point-to-point connectivity and integration programming so that business applications can easily and rapidly connect. Simplify integration with intelligent routing, pre-built mediation and transformation regardless of the platform, network, or device.

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