Looking for a few good software tools? Consider the essential tools for zSeries

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It began, curiously enough, with a plea.

When technology professionals needed to upgrade their zSeries® or S/390® mainframe, they were being blindsided by the costs of software tools—costs that often far exceeded that of the hardware. (One recent study cited that a typical $500,000 hardware upgrade required three times that budget in third-party software upgrades.)

So these IT professionals approached IBM® and asked the company to get in the software tools business. Level the playing field. Bring the costs of tools in line. Responding to customers' requests, IBM began developing tools with advanced features and functions offered at an affordable price.

That was in 2000. And it marked the genesis of the zSeries software tools business. More than 600 full-time developers were assembled to focus on the development of mainframe tooling products, synchronized with the IBM middleware products that form the foundation of much of the world's computing: WebSphere®, Tivoli®, DB2®, IMSTM and CICS® software.

Today, four years, $400 million and more than 2,000 customers later, IBM offers the most powerful portfolio of software tools in the industry—nearly 150 zSeries tools and utilities. For WebSphere e-business application development and deployment. For Tivoli systems management. For CICS transaction management. And for DB2 and IMS® databases. (In fact, IBM is now the #1 provider of data management tools in the industry.)

Mission accomplished

In developing such a broad tools portfolio, IBM is meeting its commitment to free mainframe users from high software tool costs. And that has never been a more critical need than it is

today. Corporate margins are shrinking. Budgets are tightening. And companies must provide for increased processing power and leverage the latest middleware capabilities, while lowering the cost of their mainframe environment.

In creating a cost-effective portfolio of zSeries software tools, IBM is making it easier for businesses to keep pace with market and customer demands. Now, organizations can develop e-business capabilities without having to break the bank.

Good places to start

A choice of nearly 150 software tools is certainly a positive thing. But might you find it a little daunting? Here again, IBM lends a hand. Experience has shown that businesses and organizations that run on zSeries overwhelmingly use a core set of software tools from the IBM portfolio.

A key benefit of these "essential tools" is their pricing. Regardless of the platform and environment on which you're running, you can purchase the bundle you need—the same software tools, with the same functionality—for a single, fixed price.

Essential WebSphere tools

Tools that support the run-time deployment, management, optimization, and lifecycle support of enterprise applications and integration software, including key run-time infrastructure engines such as WebSphere Application Server and WebSphere MQ.

WebSphere Application Server for z/OSTM and OS/390® is a high-performing, extremely scalable application server. Its open-standards environment enables developers to create new or existing J2EE™ applications, with the ability to integrate existing host data or applications, or both, through the latest technologies, such as Web services.

Using WebSphere Application Server, you can get to market faster by applying the latest component-based development tools and reusing existing skills and processes. Couple these technologies with the robustness of the zSeries platform, and you gain the flexibility and stability that are essential for mission-critical Web applications.

Fault Analyzer for z/OS® helps developers analyze and fix application and system failures. Encapsulating the debugging experience of leading IBM software architects, developers and testers, this indispensable tool gathers information about an application and the surrounding environment at the time of the abend. Fault Analyzer for z/OS provides valuable information for developing and testing new and existing applications, by:

– Analyzing the cause of an abend at the application level

– Expanding abend code and message descriptions

– Including an online (ISPF) fault history log facility

– Translating low-level "dump" data into application-level information

There's no need to recompile applications, no need to change JCL, and no need to worry about performance overhead. And Fault Analyzer for z/OS supports a multitude of environments, including OS/390 2.6 and above, COBOL, PL/I Assembler, C/ C++, Unix System Services, CICS, IMS, DB2 and MQ Series®.

File Manager for z/OS is a powerful development and testing tool that displays, copies, maintains, repairs and recovers data. This enables developers to test and debug programs by browsing and updating VSAM or sequential data and tape files. It provides comprehensive, user-friendly tools for working with OS/390 data sets, DB2 data or IMS data. These tools include the familiar OS/390 browse/edit/copy/print utilities, enhanced to meet the needs of application developers. File Manager for z/OS:

– Searches data sets and records for specific data

– Migrates data to a different data organization

– Transfers data to a different storage medium

– Manages test and production data

– Enables system operators and administrators to manipulate tape

Essential Tivoli tools

Designed to help you manage the complexity of an integrated, on-demand e-business environment, Tivoli® software from IBM extends the boundaries of traditional network and systems management from the data center across the Internet.

Tivoli software can help you reduce the cost and complexity of managing the networks, systems, databases and applications that power your e-business. For example, our system management tools help you better understand how various IT events affect the availability of critical business processes.

Tivoli Monitoring for Network Performance for z/OS tracks and manages SNA and TCP/IP network performance. By monitoring, recording and interactively reporting SNA network performance and utilization, it:

– Provides timely analysis of traffic flow, transit times and component use for SNA network tuning and problem determination

– Automates the management of TCP/IP zSeries system and connected IP network

– Helps identify and reduce network resource congestion

– Assists in optimizing IP networks, minimizing downtime, and increasing application performance, availability and service

– Monitors resources like TCP/IP stack, network adapters (OSA, OSA Express), applications, ftp sessions and telnet sessions

– Integrates with multiple automation products

Essential DB2 tools

Your database takes center stage in your e-business, and it must perform at top levels. IBM Data Management Tools for DB2® and IMS™ are specially designed to enhance the performance of IBM DB2 Universal Database (UDB) and IBM IMS for z/OS™ and OS/390®.

DB2 Utilities Suite addresses the common tasks required to service and support database operations. It's a cost-effective way to obtain all the functions of DB2 Operational Utilities, which addresses common tasks required to service and support database operations, and DB2 Diagnostic and Recovery Utilities, which provide a wide variety of functions to handle common backup and recovery operations.

DB2 Performance Expert integrates performance monitoring, reporting, buffer pool analysis, and a performance warehouse function into one tool. Combining DB2 Performance Monitor and DB2 Buffer Pool Analysis tools, it provides additional expert performance analysis for DB2 applications. It also provides a single system overview that monitors all subsystems and instances across many different platforms, including z/OS, Microsoft® Windows®, HP-UX, Sun Solaris™, IBM AIX® and Linux.

DB2 Administration Tool simplifies DB2 systems administration in a z/OS environment. Its comprehensive set of functions lets you manage the tasks that keep DB2 performing at peak levels, without draining your IT budget.

DB2 Object Comparison Tool for z/OS maximizes your system's availability by keeping production and testing database environments running in parallel. It enables you to compare objects—and dependent objects—from two sources, so your test and development database system can be a mirror image of the production system.

DB2 SQL Performance Analyzer offers an extensive analysis of SQL queries without executing them. This analysis helps you tune queries to achieve maximum performance. DB2 SQL Performance Analyzer makes it easier to reduce the escalating costs of database queries by estimating their costs before execution.

DB2 Log Analysis Tool for z/OS lets you quickly isolate inadvertent or undesired changes to your database tables, then selectively reverse those changes from an easy-to-use, menu-driven interface. Because you can undo data changes by performing a restore procedure without taking the database offline, you minimize downtime from conventional recovery sessions. DB2 Log Analysis Tool for z/OS:

- Simplifies viewing of data changes through customizable reports
- Locates changes made to one database
- Copies those changes to another database

Essential IMS Database tools

IMS Tools are specifically designed to enhance the performance of IMS and DB2 in an affordable and easy-to-use manner.

IMS High Performance Pointer Checker helps you quickly analyze, diagnose and repair corrupt databases. It generates numerous reports that facilitate system tuning. And, when it's used in conjunction with IMS Database Repair Facility, IMS High Performance Pointer Checker helps detect and correct database errors and repair them with a minimum of downtime.

IMS Library Management Utilities helps you manage IMS libraries more efficiently, by using easy-to-read reports and maps. It includes DBD/PSB/ACB Compare, a reporting tool; DBD/PSB/ACB Mapper, a pictorial tool; and DBD/PSB/ACB Reversal, a conversion tool.

IMS High Performance Unload provides an application programming interface (API) that enables application programs to efficiently leverage the tool's high-performance retrieval techniques. It works with IMS HP Load (see below) to help you load compressed data that was previously unloaded in a compressed format.

IMS High Performance Load performs physical sequence sorts and initializes empty databases at high speed. It works with IMS HP Unload (see above) to help you load compressed data that was previously unloaded in a compressed format.

IMS Database Control Suite helps you perform important, day-to-day activities faster, more easily and with fewer errors. It enables you to manage database backup, recovery, reorganization and monitoring for full-function databases (including indexes), Fast Path areas and high-availability large databases.

IMS Performance Analyzer improves your IMS system performance by providing a wide range of reports that analyze performance, usage and availability. It has improved monitor reporting, enhanced log reporting with a new CD Trace Report option, and an extract capability extended

to include CPU usage and database update activity. Among the reports produced by IMS

Performance Analyzer are:

– Monitor report

– Fast Path Log report

– New Transaction Transit report

– Transaction Statistics report, including scheduling information

– System Checkpoint report, to list IMS resources

– Deadlock report, which lists and summarizes deadlock events

Essential CICS tools

Many CICS software-based applications run 24 hours a day, 7 days a week, handling thousands

of interactive users and millions of transactions per day. IBM CICS software tools enable you to

maintain the high level of performance and availability that you expect from your CICS Transaction

Server systems.

IBM CICS tools are designed to help you improve resource utilization and enhance the

functionality and efficiency of your CICS systems.

CICS Performance Analyzer is an off-line tool that provides detailed reports on all aspects

of CICS system management and measurement. Tailoring reports to your specific analysis

requirements via an easy-to-use interface, it can help you:

– Improve transaction response time and CICS resource usage

– Analyze CICS application performance

– Increase availability of resources

– Increase the productivity of system and application programmers

– Evaluate whether CICS system tuning efforts produce the desired results

– Provide awareness of usage trends, assisting in future growth estimates

CICS Performance Analyzer can complement another CICS tool, CICS Performance Monitor, as

well as the system management functions of CICS Transaction Server. The result is an effective

solution for monitoring and improving the productivity of your CICS systems, and for helping you plan capacity for future requirements.

Essentially all you need

With these core software tools for zSeries mainframes, you can optimize the productivity of key expensive IT professional staff time in managing zSeries environments. You can help reduce planned and unplanned downtime. You can enhance overall application availability in today's 24/7/365 operations environment. And you can help ensure optimum application performance, to efficiently handle business workloads and optimize hardware investments.

In addition, we offer packaged assessment, installation and customization services and education, along with training services to help you reduce your risk and ensure a smooth migration. IBM has completed over 9,000 successful tools migrations, and more than 2,000 customers now use IBM mainframe software tools.

That's essentially all you need to make a smart purchase decision.