Highlights

- Reduces database administration effort with custom DB2 for z/OS analysis, management and reporting tools

- Exploits advanced performance monitoring and tuning functions unique to DB2 for z/OS

- Schedules and executes automated DB2 administration tasks, enabling IT staff to focus on higher-value work

- Provides database and system management for SAP NetWeaver, from a complete landscape overview down to single objects or parameters

- Enables system management without deep z/OS skills

- Supports easy management of large DB2 landscapes

Efficient end-to-end SAP database management from a single point

Reduce complexity with the DBA Cockpit for DB2 on z/OS

Many companies manage their business-critical processes on SAP software, which supports everything from finance to human resources. SAP solutions provide an integrated view of business operations that can offer significant competitive advantage. If the applications are unavailable, the business may be severely impacted and the financial consequences can be devastating.

SAP software requires the support of robust hardware and a reliable underlying database to enable excellent business continuity. In particular, the database must deliver the functionality, performance and capacity required to achieve the maximum benefit from the SAP applications. Ensuring that the database is tuned as closely as possible to the SAP application can require significant effort and specialist knowledge.

Database choice can have a significant impact on the cost, capability and continuity of operations. Techniques and tools that reduce expenses, increase database performance and ensure continuity can similarly produce large operational benefits.

Centralized monitoring and management

IBM® and SAP have worked together to develop the DBA Cockpit for DB2® for z/OS®, a component of the SAP NetWeaver platform, offered without any extra licensing costs.

DBA Cockpit provides easy access to the industry-leading power, reliability and functionality of the IBM DB2 for z/OS database using an intuitive graphical interface. The global partnership between the two companies ensures that software release cycles are synchronized, advanced technical functionality is shared and long-term strategies are aligned.

The result is a sophisticated database monitoring and administration environment that enables SAP administrators to reach into, understand and tune IBM DB2 databases – all from within the SAP NetWeaver environment, without having to log in to z/OS.

Simplifying database administration

DB2 has a strong reputation for state-of-the-art power, functionality, reliability and stability. The DBA Cockpit for DB2 for z/OS offers direct access to all the DB2 capabilities essential for SAP applications. Providing everything from detailed table-by-table scrutiny to views of entire system landscapes, the DBA Cockpit for DB2 for z/OS enhances administration, operations and control at every level.

The DBA Cockpit for DB2 for z/OS allows administrators to check compliance with the current SAP recommendations, tune performance, ensure business continuity and manage maintenance processes from within the SAP NetWeaver environment, delivering intuitive, powerful reports, analysis and controls.

The solution enables enterprises to easily administer the databases of their SAP systems, greatly decreasing the need for specialist training, and helping to reduce the time and money spent on system administration.
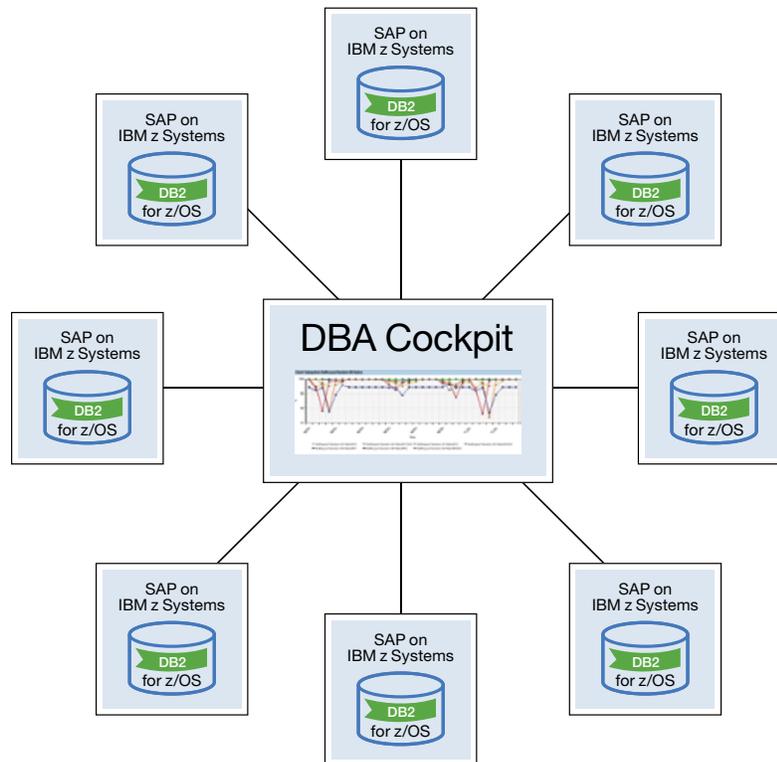

Figure 1: SAP NetWeaver DBA Cockpit for DB2 for z/OS: The SAP NetWeaver DBA Cockpit for DB2 for z/OS enables landscape-wide database and system management from one central point.
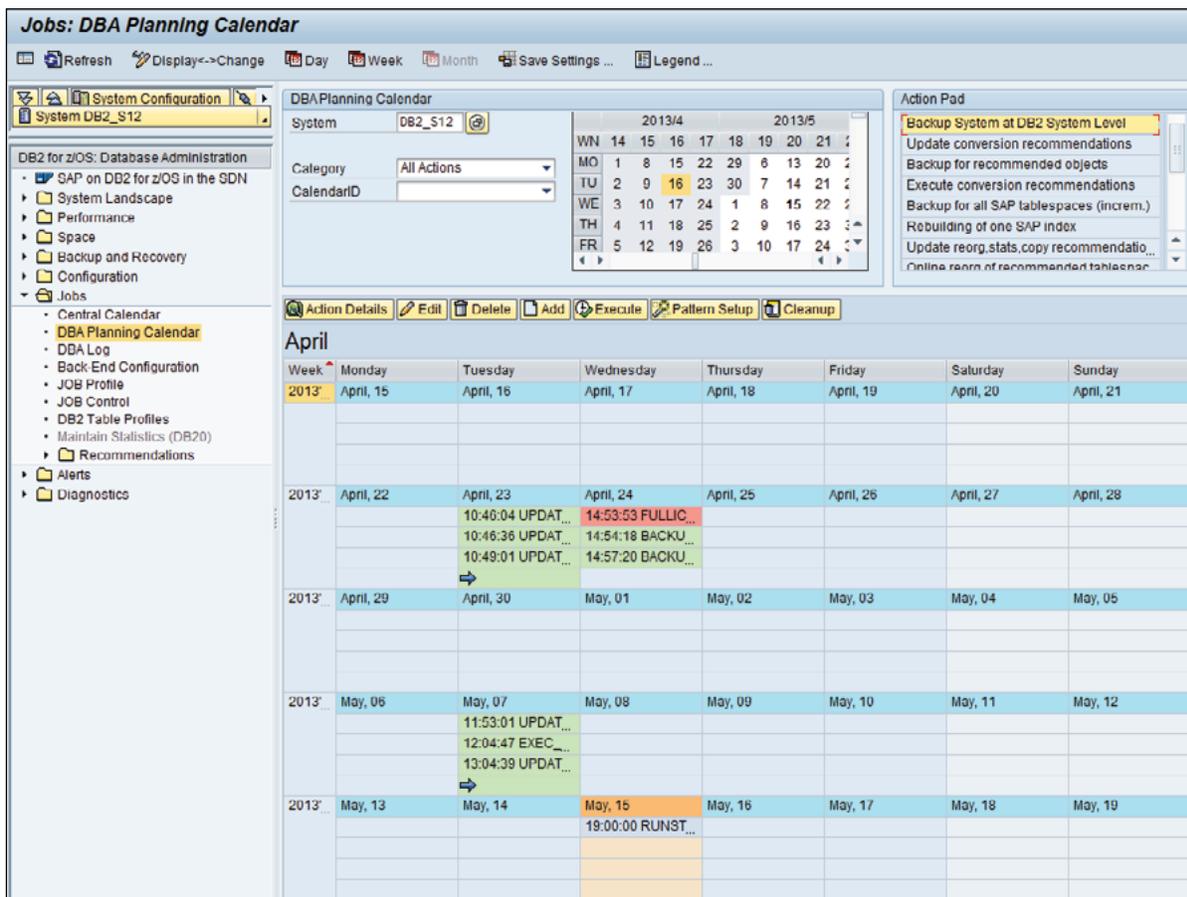
Figure 2: DBA Planning Calendar: The DBA Cockpit for DB2 for z/OS includes comprehensive automatic scheduling and execution of standard database administrative tasks such as REORG, RUNSTATS, BACKUP and more. Reports and alerts generated by DB2 are displayed in the DBA Cockpit, which enables drilling down to underlying details for deeper analysis, greatly reducing database administration workload.

Automated task scheduling

The DBA Cockpit includes the DBA Planning Calendar which automates typical administrative tasks, such as creating backups, online reorganizations of tables and updating database statistics.

The automation is based on real-time monitoring of the workload in DB2, which results in executing DB2 utilities on demand to optimize these workloads. Powerful monitoring and analysis tools included in the solution cover every aspect of SAP-related database management.

Additionally, the DBA Planning Calendar provides an external interface to enterprise workload schedulers, such as IBM Tivoli Workload Scheduler and a huge range of other vendors' automation tools.

This capability enables scheduling of SAP database administration tasks together with non-SAP tasks (for example file system backups) in one job chain. The DBA Planning Calendar provides an enterprise-wide overview of all executed tasks and makes problem analysis and response easy and effective.

Integrated database and operating system monitoring

The DBA Cockpit also focuses on managing database performance to enable maximum exploitation of and benefit from SAP solutions.

For example, two of the most critical database performance indicators – runtime statistics of SQL statements and a global breakdown of DB2 elapsed time across all SAP transactions – often account for more than 80 percent of typical performance tuning activities.

These two functions, known as Statement Cache and Global Times, in the DBA Cockpit for DB2 for z/OS offer specific advanced monitoring, analysis and reporting, and deliver unique benefits for enterprises running their SAP applications on the DB2 on z/OS platform.

For ad-hoc analysis, the Thread Activity function shows the status of all threads within DB2 and includes navigation to the underlying SQL statements, the SAP ABAP code and the statement cache details. This enables rapid problem analysis for the entire technology stack from within the DBA Cockpit environment.

Furthermore, DBA Cockpit features the Space Monitor, which enables detailed analysis of the structure, size and growth of database objects, including table spaces, tables and indexes. Key performance indicators (KPIs) like "Tablespace Limits" or "Fastest Growing Tables" point to those database objects which need attention instead of having the DBA check thousands of database objects manually.

In addition, the DBA Cockpit provides integrated access to performance indicators concerning hardware configuration and operating systems. Based on robust, powerful IBM z/OS Resource Management Facility technology, the DBA Cockpit offers monitoring of the complete IBM z Systems® landscape from a single point.
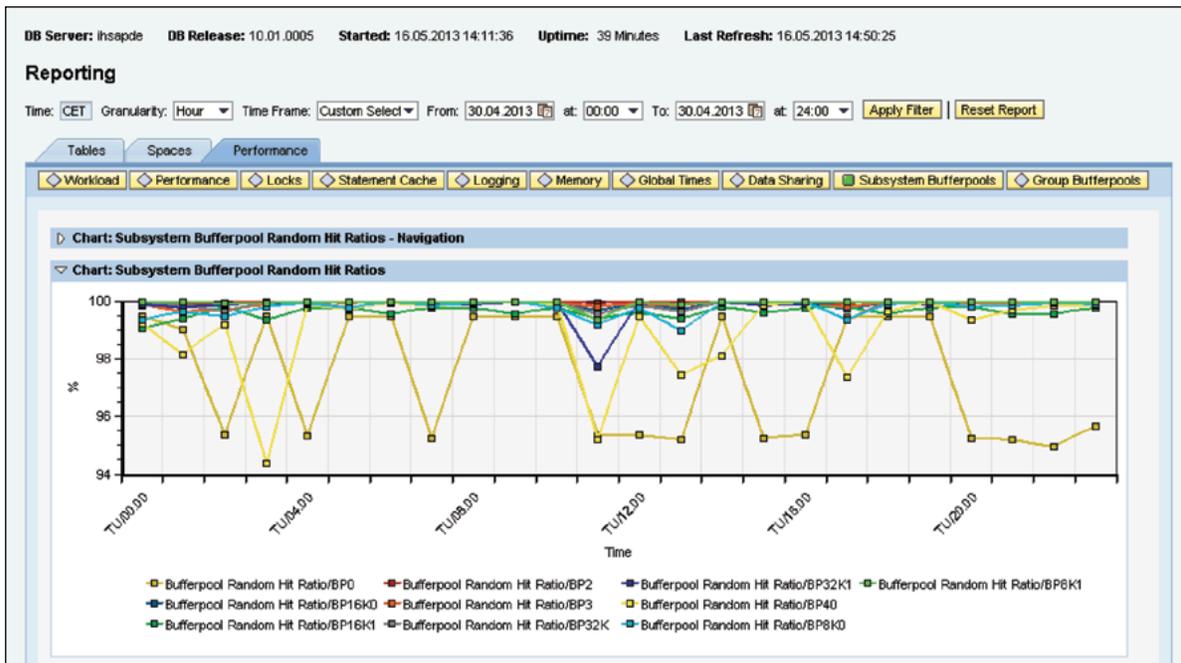

Figure 3: Database Performance Warehouse: Advanced reporting and analysis includes a detailed and highly configurable graphical analysis of database performance data, complete with histories. The visualizations enable operators to understand performance and its relationship to workload peak times, and help ensure that DB2 is optimized for the best possible SAP application performance.

Strong partnership, tight integration

The long-standing collaboration between SAP and IBM has played a key part in developing a cockpit that offers greater control over enhanced functionality and at finer granularity. The IBM database team works continuously with SAP developers to ensure that the SAP NetWeaver DBA Cockpit for DB2 for z/OS takes advantage of the full range of DB2 functionality, in particular concerning the exploitation of new DB2 and z Systems features.

The range, power and functionality of the DBA Cockpit for DB2 for z/OS ensures that SAP solution operators can fine-tune DB2-specific capabilities from inside the NetWeaver environment, providing a cost-efficient environment that is easy to understand, use and exploit.

Supporting better business operations

The IBM z Systems platform allows even very large SAP solution landscapes to run within a single logical environment, controlled from a single point. The complexity of multiple servers with different management solutions can be replaced with comprehensive, integrated solutions running on mature, reliable and scalable IBM z Systems architecture.

The DBA Cockpit for DB2 for z/OS offers one such way to address these complexity challenges, enabling SAP administrators to control the unique IBM z Systems functions from within the SAP NetWeaver environment.

The IBM z Systems platform and its optimized software solutions provide enterprises with a powerful foundation for operating mission-critical SAP solutions. By drawing on the combined strengths of IBM and SAP, companies can benefit from tighter integration, easier management and stronger performance—helping build a better business that can outpace competition.

For more information

To learn more about running SAP applications on IBM z Systems, contact your IBM sales representative or IBM Business Partner, or visit us at:
ibm.com/systems/z/solutions/editions/sap-applications.html
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