IBM DB2 Analytics Accelerator for z/OS V2.1 is building upon the System z platform strength and extends the value of the OLTP data for the customer by enabling highly efficient and performing reports and analytics on this data.

- It enables decision makers to perform business analysis they had never considered in the past to analyze trends, predict outcomes, and produce better business results.

**Key competitive strength are:**

- **Performance:** Unprecedented response times to enable ‘train of thought’ analysis that were frequently blocked before by poor query performance.
- **Analytical Enrichment:** IBM DB2 Analytics Accelerator is extending System z beyond OLTP data: By hosting data on System z the traditional QoS values such as security, integrity, reliability and availability are applied to data warehouses as well.
- **Reduced TCO:** By hosting Data Warehouses. Combined effect of consolidating DW/DM workload onto a single platform (use of skills, tools, operating procedures) and executing very resource intensive queries on a price/performance optimized platform.

**NOTE:** TeraData installations are the prime target for applying this competitive strength.

Integration: Connecting to DB2 through deep integration is providing transparency to all apps. Implemented as a formal, internal DB2 component this is resulting in consolidated database administration and transparency to database applications, despite heterogeneous platform nature. Stressed application workloads: Queries are executed in the most efficient way.

**Transparency:** Applications connected to DB2 are entirely unaware of the Accelerator. This enables the use of existing applications without any change as well as developing new applications that connect to DB2 as the one database management system for all.

IBM DB2 Analytics Accelerator for z/OS will allow the customer:

- To extend the use of operational platform data to perform business analysis and daily reporting.
- To run fast and cost effective business reporting on a single platform (e.g. by integrating OLTP data into business analytics and reporting).
- To substantially reduced operational costs through - removing the need for complex query tuning, load balancing complex and long running queries to a specialized subsystem, to make room for additional workloads due to off-loading capabilities.
- To simplify administration: appliance hands-free operations, eliminating few database tuning tasks.
- To provide a single accelerator that can be shared by multiple subsystems.

**NOTE:** A single DB2 for z/OS subsystem can also be connected to more than one accelerator.

IBM DB2 Analytics Accelerator for z/OS supports the following subsystem configurations:

- Multiple subsystems, each of which in a separate logical partition (LPAR)
- Multiple subsystems in a common LPAR
- Multiple subsystems that make up a data sharing group (subsystems in different LPARs, on different Central Processing Complexes (CPCs))

This shows that DB2 subsystems can share a single accelerator as well as connect to more than just one accelerator. The leftmost box in the figure, which represents a single subsystem in a separate LPAR, is connected to two accelerators. All DB2 subsystems (including the one in the leftmost box) share one accelerator on the left.

IBM DB2 Analytics Accelerator for z/OS system tables in the DB2 for z/OS catalog of the connected subsystem. Each entry (system table row) serves as a link between DB2 and the table on the accelerator. Any entry, contains, among other information, the table name.

**Important:** Queries that are routed to an accelerator are not cached in the DB2 Dynamic Statement Cache.

Connecting to a data server: IBM DB2 Analytics Accelerator for z/OS needs access to your data servers to read the database catalogs and invoke the DB2 stored procedures for the accelerators.

**Creating a database connection profile:** IBM DB2 Analytics Accelerator Studio - the user interface for administering Accelerators and it connects to your DB2 for z/OS data server using Java Database Connectivity (JDBC), like other database clients.

**The configuration parameters for accessing a DB2 for z/OS data server are stored in database connection profiles.**

- **Create a database connection profile for each DB2 for z/OS data server with an accelerator.**

**NOTE:** When a connection to a database has been established through one of your database connection profiles, you can see all currently deployed accelerators in the Object List Editor.

**Setting up the Accelerator from the Accelerator Perspective in IBM DB2 Analytics Accelerator Studio.**

**Defining the data to load into an accelerator:** Defining the data to load into an accelerator basically means selecting the proper tables and choosing favorable distribution keys and organizing keys.

**Checking the table size:** When you select a table in the Add Table wizard, IBM DB2 Analytics Accelerator Studio displays the table size.

**NOTE:** The size of a DB2 table might differ from the size of the same table on the accelerator.

**Loading data into selected tables:** To enable users to run accelerated queries against selected database tables, you must load the table data into the empty tables whose layout or definition has been copied to an accelerator therefore, you can create a snapshot copy of your existing DB2 for z/OS data on the accelerator.

**The optimizer of your database management system calculates the expected response times for incoming queries.**

- If an accelerator can process a query against the selected tables faster than the database management system, the query is routed to the accelerator and evaluated against the populated tables.

**NOTE:** Successful queries against tables on an accelerator are possible only if the tables contain data. If a query cannot be executed on an accelerator, the execution is initiated on the database management system itself.

**Dynamic Statement Cache.**

IBM DB2 Analytics Accelerator Studio is the graphical administration interface for the product and is delivered on the DB2 product DVD. It consists of a set of Eclipse plug-ins to be added to IBM Data Studio.

Instead of installing IBM DB2 Analytics Accelerator Studio from the product DVD, you can also add the plug-ins to an existing IBM Data Studio 2.2.1.0 or 2.2.1.1 installation. Both IBM Data Studio products are free of charge.

**To assist you in determining if you have the recommended service for IBM DB2 Analytics Accelerator for z/OS, v2.1 installed on your system, you can use the SMP/E REPORT MISSINGFIX command in conjunction with FIXCAT HOLD DATA;**

**NOTE:** Plans for query processing use packages - rather than database request modules (DBRMs).