Why Cloud is the Future of Data Warehousing

Enterprise data warehouses remain as relevant as ever in today’s business environment. However, the traditional data warehouse is not up to the task with a flood of new data pouring in at an increasingly rapid pace. To maintain their competitive advantage, organizations must take action now to modernize the traditional data warehouse.

The key to modernizing is flexibility, as business requirements are changing at a faster pace than technologies. Historically, building a data warehouse has been a painstaking endeavor. You had to decide on specific data warehousing software and then determine and secure the proper balance of hardware and storage to allocate for it. When you needed to expand the data warehouse, you would then need to purchase new allocations of processing power, storage and software. At any point in the growth process, you were opening yourself up to a host of issues that could occur. Add to this, you had to pay for capacity, even if you were not yet using it.

Enter the Data Warehouse Appliance

Data warehouse appliances helped alleviate much of the pain of building your own data warehouse. These systems came pre-configured and integrated the data warehouse for analytical performance. All you really had to do was pick out your model and size, and once plugged in and turned on, you loaded your data into the warehouse.

The allocations of hardware and software were already done for you, yet the appliance still required you to buy a new system when you hit your resource limits. Additionally, with the growth of new applications that capture information about customers, employees, products, and suppliers, maintaining the data warehouse appliance could get expensive as you dynamically scale and build the integration needed to support specific data types, data-processing and analytic needs.

The Future is Cloud Data Warehousing

Why not combine the power of a data warehouse appliance with the flexibility of the cloud? You can meet the demands of growing data volumes and unpredictable analytic workloads with ease through a pay-as-you-go, on-demand, and elastic scalability model that provides significant benefits for both the business and IT.

As a fully managed cloud service or software-defined edition (currently in early access preview), IBM dashDB™ transforms the traditional data warehouse with a hybrid architecture that is designed to provide all the flexibility and scalability of the cloud, yet ensures the proper security policies are enforced when needed. The value of a hybrid data warehouse is realized through a common analytics engine that can run advanced analytics against any data source, at any deployment location, without compromising data quality and IT budgets.
A CLOUD DATA WAREHOUSE THAT IS ALSO FAST AND OPEN

The speed in gaining business outcomes from analytics is critical. What makes dashDB different from other cloud-based data warehouses to enable that fastest time to value? A lot. First and foremost, it includes IBM technologies that have been proven in enterprises to meet high performance analytic demands across petabytes of data so users get lightning-fast answers. Second, dashDB includes a range of support for tools and technologies to enable users to quickly gain insight for their unique analytical needs. Click here to read how dashDB provides competitive advantage to Avnet.

UNIQUE IN-MEMORY DATA PROCESSING

At the core of dashDB is BLU Acceleration®, IBM’s in-memory processing technology. BLU Acceleration provides cutting-edge data processing features, removing the typical constraints of in-memory solutions, with:
• Advanced processing that does not require the entire dataset to fit in-memory
• Prefetching of data to keep necessary data in or close to the CPU
• No decompression required because it preserves the order of data
• Data skipping intelligently determines which data would not qualify for analysis within a particular query and skips it for efficiency.

WIDE RANGE OF IN-DATABASE ANALYTICS FOR FAST MODEL DEVELOPMENT AND DEPLOYMENT

Building upon the performance of BLU Acceleration, dashDB also integrates IBM Netezza® analytics for fully integrated advanced in-database analytics. The same technology has its roots in IBM PureData™ for Analytics systems. What this means is that with dashDB, you get a myriad of predictive modeling algorithms built directly into the database. These algorithms are available whenever you want to use them.

An example of the algorithms included with dashDB are:
• Linear regression
• Decision tree clustering
• K-means clustering
• Esri-compatible geospatial extensions

UTILIZE FAMILIAR BUSINESS INTELLIGENCE AND OPEN SOURCE TOOLS TO SPEED UP THE ANALYTICAL PROCESS

dashDB was developed with the open source and business intelligence ecosystem in mind. The dashDB service works natively with core IBM technologies like IBM Watson™ Analytics, IBM Cognos®, IBM DataWorks and others, yet it definitely does not stop there. dashDB was built to work with IBM’s myriad of business partners and BI tool sets including Looker, Aginity Workbench, Tableau and many others.

For more information visit dashdb.com

IBM www.ibm.com

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