DB2 Web Query for i

Turning information into insight and insight into business outcomes

Highlights

- Simple-to-deploy business intelligence and analytics

- Shield end users and report authors from complexity

- Modernize legacy database queries and reports

- Improve performance with advanced query optimization

- Lower costs by utilizing existing IBM i database skills

- Manage risk by leveraging existing IBM i security

- Speed time to value with packaged solutions

Our planet is becoming smarter, and with this change comes an explosion of information. To leverage insights from that information, 83 percent of CIOs have plans that include business intelligence and analytics to increase company competitiveness. Today, analytics has evolved from a business initiative to a business imperative, and from advancing single organizations to transforming entire industries. And, firms that embrace analytics are gaining a competitive advantage and outperforming their peers.

Business Intelligence (BI) is a broad term relating to applications designed to analyze data for purposes of understanding and acting on the key metrics that drive profitability in an enterprise. Key to analyzing that data is providing fast, easy access to it while delivering it in formats or tools that best fit the needs of the end user. At the core of any business intelligence solution are analytics, end user query and reporting tools that provide intuitive access to data supporting a spectrum of end users from executives to "power users," from spreadsheet aficionados to the external Internet consumer.

DB2 Web Query for i is a business intelligence and analytics platform for companies using IBM i systems that helps turn information into insight and insight into business outcomes. DB2 Web Query for i provides reporting, dashboards and ad hoc query capability through simple-to-use user interfaces. DB2 Web Query can help ensure every decision maker across the organization can easily find, analyze and share the information they need to make better, faster decisions.

DB2 Web Query for i offers a modern, robust, and extensible reporting solution for the DB2 for IBM i database. It provides significant enhancements over the popular Query for iSeries® (also known as Query/400) tool. With DB2 Web Query it is easier than ever to design new reports with an intuitive web based InfoAssist authoring tool. DB2 Web Query is specifically designed to preserve investments in the reports developed with Query/400 by offering a choice of importing definitions into the new DB2 Web Query tool or by continuing to run existing Query/400 reports unchanged.
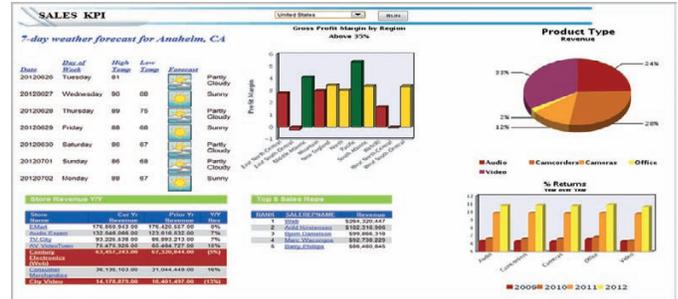
For companies that want to add business intelligence and reporting software to an existing system running IBM i, DB2 Web Query offers two simple to order software bundles. IBM's Express Edition represents a bundle of software packaged for a small number of users, while Standard Edition combines the most popular features and product options that can potentially support thousands of users. In addition to the two DB2 Web Query software bundles, the IBM i for Business Intelligence solution combines Power Systems hardware, software (including IBM i and DB2 Web Query), and deployment services. It is designed for companies looking for the shortest time to value in deploying an integrated and optimized business intelligence solution.

From Information to Insights

The primary capability of DB2 Web Query is provide simple-to-use but advanced tools to create formatted and interactive reports. Its advanced capability for parameter driven reports simplifies report management by significantly reducing the number of report definitions required.

DB2 Web Query makes it very easy to extend enterprise-wide reporting, with scheduled report execution and automatic distribution. Reports and analysis can be delivered in multiple formats, including directly into spreadsheets, in high-quality PDF format, or viewed in a browser. It's also easy to integrate DB2 Web Query reporting functions into IBM i line of business or customized applications, whether they are run in a browser or on traditional 'green screens'.

To provide business users a better understanding of their data through interactive data visualization capabilities, DB2 Web Query provides capabilities such as matrix reporting, ranking, color coding, and drill-down. And for the growing number of users with smart mobile devices, DB2 Web Query's active technologies enable reporting without having to be connected to the server while providing ability to filter, chart, and visualize data relationships.

DB2 Web Query enables executives to monitor the business by build simple dashboards or compound reports to provide Key Performance Indicator (KPI) views. It also provides the foundation for high performance analysis through OLAP (On-Line Analytical Processing), with interactive analytics for slicing and dicing and drill-down.

Modernize Query/400 reports

DB2 Web Query offers the ability to import Query/400 definitions and enhance the look and feel of the traditional green screen reports, enabling them to be used from a modern web browser or simplifying the process of getting data into formats, such as a spreadsheet, desired by end users. DB2 Web Query enables you to create more advanced reports with additional charting, parameterization, or OLAP-like slicing and dicing. In addition, you can support users on the go with report output options that leverage mobile devices. By modernizing Query/400 reports, you can reduce redundancy of reports, improve performance, and remove the dependency on I/T for delivering new reports to end users.

Hide complexity of data from end users

One of the most important features of DB2 Web Query is the ability to extend the number of people who can create reports by shielding them from the complexities of the database design. Through DB2 Web Query's meta data layer, authors don't have to worry about how to join files, or decompose dates through complex date conversion functions. Multi-dimensional relationships can be built into the meta data so OLAP reports can easily drill down based on how the business views its dimensions. Calculated fields can also be defined once into the meta data, rather than having to do this in every single report, assuring consistency and a "single version of the truth" for those definitions agreed to by the business.

Take advantage of DB2 for i optimized query processing

Key to any business intelligence application is ensuring acceptable performance of queries generated by the reporting tools. DB2 Web Query leverages optimization technology in the DB2 for IBM i database and POWER7 processors, ensuring optimal performance for reports, significantly improving performance for those reports written with the previous Query/400 tool. Many business intelligence reports require complex querying of the database and often generate output that shows the data at a summary level. DB2 for i has many built-in techniques specifically to optimize performance of those database processes.

- Materialized Query Tables (MQTs), which are "optimizer aware" summary tables that contain the results of a query with the query definition and can be read automatically by the optimizer to provide a powerful way to improve response times for complex SQL queries
- IBM's patented Encoded Vector Indexing (EVI) query acceleration technology that combines the ability to leverage in memory processing of column indexes with aggregates (summary data) included in the index.
- For companies building data marts or data warehouses using common data models such as star schemas or snow-flake designs can leverage the DB2 for i Look-ahead Predicate Generation (LPG) technology. This IBM-patented DB2 for i optimization technique re-writes the query internally to process large complex queries more efficiently by "looking ahead" and pre-applying reduced, composite join conditions to drastically minimize random I/O against the largest tables
- With built in automatic data indexing, the DB2 query engine can automatically create indexes on the fly to not only improve the performance of the currently executing query, but also to share the index with other jobs that may benefit.
- Adaptive Query Processing (AQP) provides the ability for DB2 to recognize a poor performing query plan and automatically restructure the query to improve performance.

Integrate with DB2 and IBM i

Many enterprise reporting tools on the market force you to move your data out of DB2 or require multiple servers to support various reporting functions, despite the fact that you have your current administration and operational infrastructure around this platform! DB2 Web Query is an IBM i server-based

and thin client implementation, simplifying the whole reporting infrastructure for iSeries, System i® and IBM i clients. Software upgrades are simplified, reliability can be increased, network traffic is reduced, and security and auditing may be simplified.

DB2 Web Query provides integration points that make it simpler to manage through leveraging your current skills and procedures. CL (operating system command language) commands are provided to integrate into existing applications or job schedulers. DB2 Web Query is installed into its own subsystem and all objects are stored in IBM i making it easier to make the administration of the BI application part of your current day to day operational tasks. DB2 Web Query recognizes and integrates with current IBM i security modules, including sign on authentication, object level security and group profiles.

DB2 Web Query Express and Standard Editions

DB2 Web Query Editions are simple to order bundles of software, that provide a foundation for core DB2 Web Query functions for either getting started (Express) or rolling out the business intelligence application across your enterprise (Standard).

DB2 Web Query Express Edition provides an entry level software bundle that includes report authoring tools, Query/400 import function, and analytic reporting options for a small number of users. With the Express Edition you can generate high quality PDF reports for external consumption, or provide OLAP reports for analysts interested in understanding trends or finding exceptions in the data to uncover what's driving results. In addition, you can leverage the spreadsheet pivot table support and ability to integrate ad-hoc reporting directly into Microsoft Excel spreadsheets. For those with smartphones who need to analyze data while on the road, the Active Technologies provide analytics for the users disconnected from the server.

DB2 Web Query Standard Edition combines all of the Express features plus more, providing a robust offering that can support up to thousands of users. With Standard Edition, ample user licenses are included to support a typical roll out of developers and administrators, report authors, and a virtually unlimited number of run-time users and report consumers.

With Standard Edition, you can build more sophisticated dashboards for executives monitoring key performance indicators. Use Standard Edition to create an enterprise report distribution model with abilities to schedule report execution and distribution through e-mail or save the reports for later viewing. Optionally leverage the data adapter for Microsoft SQLServer included in Standard Edition to be able to build reports including data from any of those databases in your network.

Business Intelligence is becoming part of many end user's daily activities. Integrating analytical function into line of business applications provides the end user with the experience that makes it simpler for them to turn data into information as part of their normal activities allowing for real time decision making. The facilities required to execute DB2 Web Query functions from a customized application are included in Standard Edition. Many clients will value the ability to create a URL interface to execute parameterized reports and surface that URL in an existing or new web-based application.

IBM i for Business Intelligence

IBM i for Business Intelligence is an integrated solution that is designed to accelerate delivery of insights for faster, smarter action. Designed for operational reporting or building a data warehouse, the IBM i for Business Intelligence solution allows companies to start small and grow as their analytics requirements evolve. This packaged solution includes server hardware, software and installation services and is easy to order, deploy, and implement. Companies would order the IBM i for Business Intelligence to add business intelligence capability on a server separate to their server running IBM i business applications. IBM i for Business Intelligence can help ensure every decision maker across the organization can easily find, analyze and share the information they need to make better, faster decisions. It helps line of business executives demonstrate immediate results with improved operational reporting, with a smooth transition into a robust Data Warehouse based on business demands.

The IBM i for Business Intelligence solution combines the strengths of Power Systems, IBM i, DB2 for i, DB2 Web Query for i, and data transportation software to deliver a ready to use BI server that houses the extracted and transported data sourced directly from a company's primary business applications and databases.

Based on the IBM POWER7 servers running IBM i 7.1 and the latest in DB2 for i query optimization technology, this appliance-like offering also features the flexibility to be used for other purposes. So companies can expand the initial implementation into a full data warehouse, or even leverage the additional capacity as a high availability or backup to an existing production server.

The IBM i for Business Intelligence solution is specifically designed for midsized companies, which typically want to avoid the cost and complexity of enterprise data warehouse solutions. It helps midsized companies rapidly and cost effectively achieve their business intelligence goals by leveraging their existing IBM i operations and database administration skills. By using the same security model and implementation as existing IBM i applications, it helps midsized companies protect and secure key data and keep the same processes for audit and compliance.

Help getting started

DB2 Web Query is designed to be very easy to learn, enabling proficiency in building or running reports in a matter of hours. A full set of tutorials is included in the IBM DB2 Web Query Redbook, for details see
http://www.redbooks.ibm.com/abstracts/sg247214.html

Companies can also take advantage of IBM Quick Start services – available from IBM or IBM Business Partners– that provide for installation, setup and simple report development. For more information on using Services Vouchers for these Quick Start services, see **ibm.com**/systems/i/editions/services.html

For more structured training, several IBM classroom offerings are available for end users or power report authors.

Feature	Benefits
Business reports in a Web browser	• Easy-to-create formatted and interactive reports • Deliver data in spreadsheets, PDF, HTML and more
Parameter driven reports	• Simplify report management • Reduce report definitions and maintenance
Extends Query/ 400 reports	• Import existing Query/400 definitions • Leverage investment, transition to latest technology.
Automated data relationship recognition	• Easier for end users to understand their data • No need for database administration skills
One copy of code installed on server	• No client software to install and maintain • Lower maintenance costs for upgrades & patches
Leverages DB2 for i database features	• Optimize reporting and ad hoc query performance • Implement single security model for all data
Meta Data Layer	• Increase productivity of report authors • Standardize data across the business

For more information

Contact your IBM representative or IBM Business Partner or visit:

• DB2 Web Query for i at:
  ibm.com/systems/i/software/db2/webquery/index.html
• DB2 for i at: **ibm.com**/systems/i/db2

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