# **IBM Informix powers OLTP and analytics for data-driven businesses**

A single database platform delivers maximal performance for multiple workloads



### IBM

#### **Highlights**

- Deliver fast, always-on access to data in a platform-independent environment
- Perform speed-of-thought analytics for rapid business decisions
- Leverage easy-to-use management features to help reduce complexity
- · Enable fast and flexible cloud deployments

IBM® Informix® is one of the world's most widely used database servers, present in organizations ranging from the largest corporations to start-ups. Informix incorporates design concepts that are significantly different from traditional relational platforms, resulting in extremely high levels of performance and availability, distinctive capabilities in data replication and scalability, and minimal administrative overhead.

For application developers, Informix offers a variety of options and tools to accelerate a new generation of mobile and cloudbased applications, allowing developers to choose their favorite language or integrated development environment (IDE) with support for PHP, Ruby and Microsoft .NET, plus other compatibility features that make it easy to port applications to Informix. Informix is available in a variety of editions and supports a wide range of operating systems to power online transaction processing (OLTP) and online analytical processing (OLAP) workloads.

# Deliver fast, always-on access to data in a platform-independent environment

Informix was built from the ground up for performance. Its multi-threaded architecture optimizes the use of hardware to achieve very high throughput levels and outstanding transaction performance, and it has the ability to run on various platforms (including low-cost commodity servers). Of course, fast access to data requires available data. In today's hyper-connected world, it is important not only to ensure that data is available when and where it is needed, but also that enough resources are available to process it. This kind of continuous access to data can rarely be achieved with a "one-size-fits-all" solution. Informix accommodates businesses of all sizes by providing a wide set of options at varying price points for keeping data available at all times, including zero downtime for routine maintenance. Informix also has the ability to keep data available even if the network is down. As a result, Informix customers regularly achieve up to 99.999 percent data availability.

Informix customers benefit even further because the database enables the use of different hardware and operating systems even different versions of Informix—from cluster to cluster throughout a grid. This lets users leverage existing investments and avoid vendor lock-in.

Informix makes it easy to manage clustered grid environments, regardless of how widely distributed a deployment may be. Whether servers are located down the hall or all over the world, Informix can be managed from a single "cockpit" location that allows users to scale capacity when and where needed, bring data online or offline, change the data schema or automatically update database schemas throughout the grid—all without downtime.

Informix also offers compression technology that helps produce up to 80 percent savings on disk space and I/O improvements of up to 20 percent.<sup>1</sup> With less data volume to process, businesses can achieve faster response times, more efficient use of their hardware resources, and reduced backup and recovery times.

# Perform speed-of-thought analytics for rapid business decisions

All for-purchase editions of Informix contain an integrated set of tools to help build, deploy, operate and maintain a robust data warehousing infrastructure that can deliver data to business decision makers. These sets include an extract-load-transform (ELT) tool in an easy-to-use GUI environment that simplifies design and deployment of an Informix warehouse. In contrast to an extract-transform-load (ETL) tool, the ELT tool performs the data transformation in the data warehousing environment rather than on a separate server before data is loaded. This approach leverages the inherent parallelism and power of today's processors to perform the bulk of the transformation after the data is actually loaded into the database. The continuous loading of data allows faster availability of more data in the warehouse.

The integrated tooling also includes IBM Design Studio and the Warehouse Administration Console. Design Studio is an Eclipse-based design environment for connecting to source and target databases. This tool enables data modeling whether the databases are built from beginning to end, from templates or by using reverse engineering. The Warehouse Administration Console is a web-based application for administering database and system resources associated with the data warehouse, and also for deploying, scheduling and monitoring the control flows created in Design Studio.



For businesses seeking speed-of-thought analysis of warehouse data or operational data, two editions of Informix complement the integrated tooling with additional, patent-pending software technology that exponentially accelerates even the most complex queries. This technology, Informix Warehouse Accelerator, is available for both the Informix Advanced Enterprise Edition and the Informix Advanced Workgroup Edition. Informix Warehouse Accelerator loads data completely into system memory in a compressed form, using a special columnar scheme developed by IBM. As queries come in, the Informix database passes them to Informix Warehouse Accelerator, which can scan billions of rows of data in seconds to return immediate results.

Informix offers tremendous cost savings because it runs on commodity hardware and can simultaneously meet or surpass service-level agreements for both transactional and analytical workloads, eliminating the need for separate OLAP systems. Informix Warehouse Accelerator was designed to be completely transparent to business applications, so no application changes are needed to take advantage of accelerated query performance. Users can utilize front-end analysis and reporting tools such as IBM Cognos®, or develop mash-ups and other dashboards.

Combining multi-core parallelism, in-memory processing, deep compression and columnar data representation, Informix achieves exceptionally high levels of performance for both OLTP and OLAP workloads. Outstanding performance for all types of workloads means faster business decisions; fewer servers; and less space, power and cooling requirements.

# Leverage easy-to-use management features to help reduce complexity

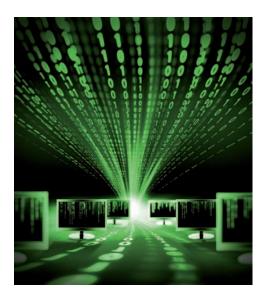
In addition to reducing operational complexity by using a single database server for both operational and warehouse data, Informix runs virtually unattended with self-configuring, self-managing and self-healing capabilities. Informix Warehouse Accelerator can run on the same computer as the Informix database server, or on a separate computer if desired. In either case, Informix Warehouse Accelerator eliminates the tuning demanded by traditional data warehouses; no partitioning, indexes, cubes or summary tables are required.

A single, no-cost dashboard is available for easy administration of multiple Informix servers. It provides heat maps and graphical usage information for fast and easy tuning. Authorized users can even monitor Informix servers while on the go, using an iOS or Android device.

Informix is available on multiple versions of Windows, Linux, UNIX and Mac operating systems—which means OEMs, ISVs and VARs are not locked into a single platform and can pursue more market opportunities. Informix is standards-based and supports a wide variety of IDEs and application development languages. The same installer can be used on all platforms and can be easily customized and hidden within an embedded solution. The software's small footprint and self-managing capabilities make it an ideal choice for embedded data management solutions. In addition, Informix can be up and running in minutes, not days, and requires virtually zero administration.

# Enable flexible cloud deployments with always-on data availability

As a software-only solution that does not require expensive hardware components, Informix is an excellent option for private cloud deployments. These deployments can be even more powerful when combined with other Informix technologies such as Informix Flexible Grid, allowing heterogeneous hardware and operating systems to work together in a single clustered grid for always-on data availability and on-demand scalability.



The Informix profile and feature set lends itself to virtualization and is widely deployed in virtualized environments. With Informix Flexible Grid, organizations can achieve even greater efficiencies and economies of scale that help reduce costs while enabling true cloud computing. Organizations that want to take advantage of query acceleration will benefit from the software-only nature of Informix Warehouse Accelerator.

Cloud-based, data-intensive applications will also benefit from the database sharding capability inherent in Informix. Since database shards can be placed on separate hardware, and multiple shards can be placed on multiple machines, database performance can be greatly improved. Additionally, database sharding reduces deployment risks by allowing IT departments to maintain some data in the cloud and other data on premise.

## A single database platform for transactional and analytical applications

Informix is simple yet powerful data management software that provides a single platform to achieve optimal performance for transactional and analytical applications. It enables organizations to lower costs and consolidate environments for OLTP and OLAP workloads. Using the most current technologies, Informix keeps data always available for real-time transactions and speed-of-thought analytics—helping organizations gain greater business insights for competitive advantage.

#### For more information

To learn more about how Informix can help your company, please contact your IBM representative or IBM Business Partner, or visit: ibm.com/software/data/informix

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IBM Corporation Software Group Route 100 Somers, NY 10589

Produced in the United States of America March 2013

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<sup>1</sup> ibm.com/software/data/informix/compression



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