

IBM Informix Dynamic Server v10.0

Highlights

- ***Provides solid, secure and reliable support for information on demand environments***
- ***Improves performance, availability, and database administrator and programmer productivity***
- ***Reduces deployment and management costs***
- ***Enhances security for compliance with government regulations***
- ***Offers choice of integrated development environments (IDEs) such as Eclipse, Java™ and .NET.***

Turning data assets into competitive advantage

IBM Informix® Dynamic Server (IDS) v10.0 is designed to help businesses better leverage their existing information assets to thrive in today's on demand business environment. Many administrative functions that were formerly manual are now automatic, thus reducing maintenance requirements and increasing database availability.

Application developers will appreciate the highly embeddable aspects of IDS plus its support of the latest open standards, platforms and integration options with other industry-leading technology from IBM. By providing the ability to scale up or down, both in terms of cost and capability, IBM IDS v10.0 is designed to help developers redirect their focus from data management to gaining business differentiation and competitive advantage.

IBM's release of IDS v10.0 contains many significant enhancements. This underscores IBM's commitment to continue improving the innovative and leading-edge database server technology that IBM IDS customers and business partners expect.

An on demand world

Responsiveness can be the key to your ability to act on new opportunities in the marketplace even as external events occur. The reliability, flexibility and ease of maintenance of IBM IDS v10.0 give you the freedom to adapt to new customers' needs while providing the outstanding service that keeps your existing customers loyal.

Among the new features that help you succeed in an on demand world are:

- *Dbospace-level configuration of page sizes brings tremendous space and access efficiencies that can significantly enhance performance. Larger page sizes also make Unicode support much easier for multi-language support.*
- *The IBM IDS v10.0 database server can now allocate a configurable amount of memory for non-parallel data query (PDQ) queries. This can dramatically improve performance of non-PDQ queries and ease the configuration of larger environments to bring performance benefits to both PDQ and non-PDQ queries.*
- *Optimizer directives applied to previously unalterable queries allow DBAs to greatly improve performance without modifying the application source.*

Take advantage of new opportunities in the marketplace

- *Customers utilizing IBM IDS fragmentation now have the ability to store multiple fragments in a single db space. This will ease the administration of many fragments, as well as provide potential performance improvements for fragmented tables/indexes.*
- *For customers running both data warehousing and OLTP applications in mixed workload environments, the dynamic setting of OPTCOMPIND significantly enhances the behavior and performance of a query.*

Reliability and availability

With IBM IDS v10.0, you know your database software has been thoroughly tested to meet IBM's high level of quality control. The rigorous

testing and certification that began with IBM IDS 9.4 continues in IBM IDS v10.0, thus ensuring outstanding product stability from the first release. Client surveys bear out the reliability of IBM IDS in demanding and mission-critical applications.

- *With Table Level Restore, DBAs can restore an entire table or a subset of the data from a specific table without affecting the availability of the whole database. The restore is SQL-based, powerful and easy to use. Table Level Restore is valuable in cases of loss or damage to a single table. The feature also provides the ability to restore tables to a different database server, regardless of platform or operating system.*

- *For increased availability, IBM IDS v10.0 speeds up fast recovery after a database server failure for environments that are utilizing fuzzy checkpoints.*
- *For DBAs, IDS v10.0 can now create and drop indexes without locking tables. This greatly increases availability and enables DBAs to manage indexes without interfering with normal operations.*
- *A new "true single user mode" allows DBAs to connect to the database server and perform administrative tasks while preventing other users from connecting. The result is the ability to facilitate configuration or SQL-based changes to the databases.*
- *Seamless online resynchronization of Enterprise Replication (ER) nodes at startup or after ER failure. The result can be a significant increase in the availability and reliability of the replicated data.*
- *High-availability disaster recovery (HDR) customers can now resend primary server indexes to HDR secondary servers without requiring a rebuild of the index on the primary server. This greatly increases the availability of the data for both HDR servers in the pair.*

"We used to have to restore a whole instance of a database just to restore a table or a set of tables. Plus we would have to set up a separate server identical to the production server. Now with the Table Level Restore of IBM IDS v10.0, we can restore one table only or a specific set of tables, and send it to any server. In the same fashion, the new IDS v10.0 ALTER TABLE function lets us change information in a table without interrupting Enterprise Replication, which used to put our servers out of sync. In these ways, IDS v10.0 helps us enhance both availability and business continuity."

—David A. Link, IS Manager, West Corporation

Security for today's business realities

IBM IDS has always supported a set of open, industry-standard security mechanisms such as roles, UNIX® password-based authentication and relational database management system (RDBMS) schema authorizations. These open standards ensure flexibility and maximum security with easier validation and verification. IBM IDS v10.0 extends this support with the following features:

- *Column-level encryption allows customers to implement SQL-based encryption at the column level (the same column can have both encrypted and unencrypted data), improving the confidentiality of sensitive data.*
- *In IBM IDS v10.0, Pluggable Authentication Modules (PAM)-like authentication is now available on Microsoft® Windows®. This complements the UNIX-based PAM support introduced in IDS 9.4.*
- *File and configuration permissions can be checked prior to starting the database server.*

Redefining the role of the DBA

The race for database software vendors to continually add features and functionality to database management servers often results in complexity that increases the burden placed on DBAs. IBM IDS v10.0 helps DBAs spend less time maintaining and upgrading existing databases and more time designing and implementing next-generation business solutions by taking advantage of the following features:

- *DBAs can now direct output to use standard I/O. This will dramatically increase backup and restore speed. Standard I/O examples could include pipes or shell utilities such as compress, or site-specific programs.*
- *Database-level permissions can now be applied via default roles. This feature enables easier enforcement of security and permissions.*
- *Dbspaces can now be renamed. This feature is a significant time saving as DBAs will no longer have to drop the dspace and recreate them.*
- *IBM IDS v10.0 contains a new, optional install program based on the Install Shield Multi-Platform (ISMP) framework, which can significantly reduce installation time. The new feature also provides a smaller installation footprint, has a silent install option and an automated uninstall plus a simple GUI interface.*

How IBM IDS v10.0 helps ease the pain of government security regulations

Column-level encryption, combined with an existing feature in IDS 9.40 called "Trigger on Views," allows customers and partners to insert or update encrypted column-level data in the database, such as personal medical information or salary data, as well as query encrypted column-level data without application changes to meet government regulator requirements. Encryption can be implemented through a DBA-controlled server implementation, rather than through the applications. The encrypted column-level data is stored in an encrypted mode on disk and can be archived and retrieved in the encrypted mode.

Satisfy customers with performance and availability improvements

For customers who use the industry-leading replication capabilities of IBM IDS, both ER and HDR are now significantly easier to set up and support. ER setup is facilitated through the use of the replication templates feature. HDR customers can now set up HDR with External Backup and Restore, which significantly reduces the time required to establish an HDR server.

In the maintenance of IDS 10.0 ER, DBAs can now alter replicated tables in ER. This adds rolling user application upgrades to the rolling system upgrades, which IDS has always supported and improves both availability and ease of administration.

Automatic switchover of HDR servers in case of failure via the DRAUTO feature is very useful in administering HDR. When the primary server is recovered from the failure, the two servers will resynchronize and continue to operate as a Data Replication (DR) pair.

Improving the efficiency of database development

IBM seeks to provide programmers with an experience that both minimizes the time required to integrate data into their applications and delivers a natural integration into the development environment—helping avoid the need to learn new tools or proprietary SQL languages to fully

exploit the advanced capabilities provided by the database. IDS v10.0 provides a number of new enhancements for programmers who want a choice of Eclipse, Java or Microsoft .NET.

Robust platform support

IDS now extends its existing support for 64-bit Linux on IBM OpenPower™ @server® pSeries® and iSeries™ systems and z/Architecture™ in the @server zSeries® mainframes. IDS's Linux leadership is based on its exploitation of the Linux 2.6 kernel and the new I/O and memory management features.

Highly embeddable

ISVs want to be able to develop applications easily. They want an embeddable database that can be installed easily with a relatively small footprint, and that will run with minimal management. IBM IDS has always had those strengths, and IBM IDS v10.0 further simplifies administration to meet the needs of the embedded segment. IBM IDS allows you to implement an application for 20 users and implement the same application for 200, 2,000 or even 20,000 users. This capability, along with a wide range of hardware platform support, enable ISVs to market their IDS applications to a broad range of end-user customers.

“Companies that need their data and transaction resources to be available 24x7 will be pleased with the release of IBM IDS v10.0. With this new release, organizations can tune their database and manage index issues online, without interrupting service. Other new features make IBM IDS v10.0 available round-the-clock for Enterprise Replication [ER] customers. The main restriction that prevented the use of ALTER TABLE on replication tables has been removed. In addition, IBM has added the ability to repair tables included in ER, which avoids long, manual data transfers between servers. Since IBM IDS v10.0 is such a time saver for database administrators, I predict a large number of them will migrate to it.”

—Gerd Kaluzinski, Senior Systems Engineer, BYTEC GmbH

Leveraging your existing Informix investment

IDS and IBM are a powerful combination. IBM offers complementary data management and software products that integrate with and support IDS, including IBM Tivoli® Storage Manager, IBM WebSphere® MQ offerings and a variety of IBM tools. IBM IDS v10.0 reflects IBM's ongoing commitment to open standards and leading-edge technology support.

Easier integration with Tivoli Storage Manager

The XBSA API is now included in IBM IDS v10.0, allowing customers to access Tivoli Storage Manager via ON-Bar without having to purchase a separate connection component. This functionality was previously provided by Tivoli Data Protector for Informix. Now, the component is bundled with IDS and is installed automatically when IDS is installed. This significantly eases the installation of ON-Bar and Tivoli Storage Manager.

Upgrading to IDS v10.0 – free for 9.x customers, special pricing for 7.x customers

For customers with IDS 9.x maintenance contracts, the upgrade to IDS v10.0 is covered under this maintenance. For IDS 7.x customers, IBM has special trade-up pricing to encourage upgrading.

Available on

Platform	10.0 Platforms
IBM 32-bit and 64-bit	AIX® 5.2, 5.3
HP 32-bit and 64-bit	HP-UX 11i (11.11-11.31)
HP-IPF (Intel, McKinley)	HP-UX 11.23
Sun SPARC 32-bit and 64-bit	Solaris 8, 9, (10 1st Fix Pack)
Linux Kernel 2.4.21, glibc 2.3.2 or higher, Kernel 2.6.5, glibc 2.3.3	Available for Intel, Itanium, zSeries, pSeries, iSeries
AMD Linux	Opteron, Red Hat Adv. Server
Windows	2000, XP, Server 2003, 2003 64-bit

Find out more

For more information about IBM IDS v10.0 and the full spectrum of innovative IBM information management products and services, contact your local IBM representative or go to: **ibm.com/informix/ids10**



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