

# IBM Informix portfolio: Future directions



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#### Introduction

The purpose of this document is to provide information regarding the IBM Informix® portfolio, part of the IBM DB2® Information Management Software family of products. Since acquiring Informix Software, the database division of Informix Corporation, IBM has periodically issued updates to this document to provide current information regarding the Informix and UniVerse®/UniData® (U2) products. This, the fourth version of the product portfolio white paper, is again intended for IBM customers and business partners using IBM Informix and U2 products.

The objectives of this white paper are to:

- Update you on the actions we have taken for our Informix and U2 customers and business partners, emphasizing our continued commitment to protecting and enhancing your ability to leverage your Informix investment
- Present details regarding the anticipated direction and evolution of the Informix and U2 products
- Present the IBM Information Management vision and strategy, focusing on how Informix technology supports and integrates into that strategy.

We begin with some words from Janet Perna, General Manager, IBM Information Management Solutions.

## An overview of the IBM Informix portfolio of products

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Dear IBM Informix customers and business partners,

The May 2002 edition of the Informix product portfolio white paper included a note in which I described the progress we had made in integrating Informix into the IBM Information Management business. In that note, I indicated that we needed to provide more information, more frequently. I'm pleased to report that we've seen significant progress during the past several months.

We've updated the monthly electronic newsletter and added Webcasts, a targeted telemarketing campaign and a multitouch e-mail campaign—all designed to keep you informed about how IBM is increasing the value of your Informix investment, and to suggest ways in which you can further leverage that investment.

We've also enjoyed meeting many of you face to face through more than 30 road shows, where our team walked attendees through the Informix product roadmap, the convergence plan, and the overall IBM Software Group strategy. We've received positive feedback on all these programs, particularly the Info-Bahn Road Shows, and are planning more.

In this white paper, we refreshed the product roadmap information to reflect its current status. You can see that our commitment remains what it was from the beginning: We will continue to invest in quality and feature enhancements in key Informix and U2 database products for as long as customers require. At the same time, we will continue working to combine the unique Informix features with those of IBM DB2 Information Management Software to produce a DB2 that provides even broader market leadership.

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Will we force Informix customers to migrate to DB2? Absolutely not! We are confident in our strategy and our ability to achieve this vision. We trust that the merged product, which will represent our next-generation DB2, will present the next logical step for Informix users on a natural upgrade path—if and when they desire to take that journey.

I encourage you to familiarize yourself with the content of this portfolio update. In particular, the Information Management vision and strategy section has been refreshed to reflect our recent releases and acquisitions. The customer support and services section also reflects a number of new training and professional services offerings.

I have enjoyed meeting all of the Informix and U2 customers and business partners during our visits and conferences. Your business is highly valued by all of us. We appreciate you thinking of us when you face information management challenges—helping you overcome them is what we do best—and we look forward to many more opportunities to serve you in 2003.

Sincerely,

Janet Perna

General Manager, IBM Information Management Solutions



More than 30 new updates have been delivered to customers and business partners leveraging Informix and U2 solutions.

#### IBM Informix team update and contacts

Since IBM and Informix came together, we have been focused on commitment to our customers and business partners. We understand the value that you place on your existing investments in database technology, and the applications built on it, as well as its importance to your success. We realize that your company has mission-critical applications deployed on Informix products. We trust you will find that the detailed product plans that follow confirm our unchanging strategy to support Informix and U2 customers and business partners with ongoing quality and feature improvements. In addition to these plans and the more detailed DB2 Information Management vision and strategy, we first want to provide you with an overall update.

#### New product deliveries

Informix and U2 customers and business partners have been delivered over 30 new updates to Informix and U2 products since the acquisition. So far in 2003, we have shipped a major new release of Informix Dynamic Server (IDS), Version 9.40; as well as commensurate releases of Informix 4GL (fourthgeneration language), Version 7.32; Informix SQL (Structured Query Language), Version 7.32; and Informix Client Software Developer's Kit (CSDK), Version 2.81. This is in addition to Extended Parallel Server (XPS), Red Brick™, Dynamic 4GL (now Four J's Business Development Suite), OnLine 5, UniData 6, and Tools, updated in 2002. Later this year, we also plan to ship new releases of Office Connect, Cloudscape™, UniVerse, and others. In 2004, look for Red Brick and XPS releases that keep these servers' high standards of quality, adding feature enhancements as required by customers.

More details on each of these releases are provided among the product roadmaps in later sections.



Knowledgeable Informix support engineers offer high-quality assistance to customers, many of whom also benefit from the advantages of IBM Passport Advantage.

Premier services programs are available if your support needs reach beyond those of software maintenance.

### Customer support and services

Even before the IBM acquisition of Informix, both companies shared a common philosophy regarding the importance of customer support and services, as well as an unwavering focus on customer satisfaction. With our Customer Support and Services organizations working as one team, we are able to take advantage of the best practices of both IBM and Informix and to leverage a greater pool of database expertise in meeting the needs of our customers and business partners across the product lines.

Our support centers around the world continue to focus on delivering timely, responsive, high-quality assistance to customers. The combination of the strong Informix support model and the added advantages of the breadth and depth of our acknowledged leadership in providing customer support is proving to be a winning one. Our customers continue to be supported by Informix knowledgeable support engineers while benefiting from the advantages of IBM Passport Advantage® maintenance including voice and Web support, around the clock, worldwide.

With the addition of Informix products into IBM Passport Advantage, Informix product users will gain access to our comprehensive software licensing and software maintenance program, which rewards customers with better pricing based on the volume of their software acquisition and the type of their organization.

If your support needs reach beyond those of software maintenance, you can also take advantage of the premier services programs that are available to help you proactively plan and manage your information management environment.



We have extended the reach of our Informix and DB2 offerings by leveraging strong partnerships with IBM Global Services and IBM Learning Services.

By supplying additional educational offerings, IBM Business Partners allow us to continue developing and expanding the Informix curriculum to better serve your educational needs.

Services consultants who are highly skilled across the product lines can help you with expert database installation, performance tuning, replication implementation, system administration, migrations, and ad hoc database administration tasks.

Our professional services and education teams also continue to provide offerings across both the Informix and DB2 product sets. We have extended the reach of these offerings and skills via strong partnerships with IBM Global Services and IBM Learning Services. The Information Management services and education team—now about 500 personnel worldwide—is available to help ensure that customers and business partners have access to the skills they need to deploy and effectively leverage the technologies and solutions we build.

In addition to the highly qualified training staff around the world that you have come to know, the new Education Centers for IBM Software are expanding the delivery of IBM Information Management education offerings (including offerings focusing on Informix) globally through IBM Business Partners. We continue to develop and expand the Informix curriculum to better serve your educational needs, whether onsite, in the classroom or through e-learning.

The Professional Certification Program from IBM provides you with a structured program leading to an internationally recognized qualification as an IBM Certified Solution Expert in Informix software.



Partner investment

IBM places significant value on retaining and growing Informix and U2 partnerships. As a result of the IBM acquisition of Informix, thousands of Informix and U2 business partners worldwide are continuing their business model of bundling IDS, SE and U2, among other Informix products, with their high-value applications. One indicator of partner retention is that year-to-year revenue associated with these independent software vendors (ISVs) is up. The primary message IBM wants to convey is that it remains committed to continuing and strengthening these alliances with a steady stream of Informix and U2 product enhancements, backed by the resources of IBM.

Informix's experience with mediumsized businesses helps IBM in its effort to increase the value of its solutions for these customers. Informix built much of its success on strong relationships with thousands of business partners that have developed solutions and distributed products in areas where IBM had little presence. This earned Informix a very strong share in the small-to-medium business (SMB) area, for customers with fewer than 1,000 employees. In recent years, IBM, and the IBM Software Group in particular, had been focused on increasing the value of our solutions to these types of customers. We therefore have a strong mutual interest in and a common rallying point around which to focus our energies to market and sell joint solutions in this segment.

IBM offers an attractive value proposition to business partners. First is a fast time-to-market and revenue achievement. By simply joining IBM PartnerWorld®, IBM Business Partners can immediately start utilizing the numerous marketing benefits, including sales and technical education, product enablement, technical support and ongoing communications. Second, with the help of PartnerWorld, IBM Business Partners can achieve accelerated revenue growth.



The highest levels of support and financial rewards are performance-driven, going to the IBM Business Partners that drive the highest revenue and value to IBM and IBM customers.

Another of the many benefits of joining PartnerWorld are "Business Partner Connections." Members of PartnerWorld who enter their solutions in either PartnerWorld for Developers (Global Solution Directory) or PartnerWorld for Software (Business Partner Directory), can use Business Partner Connections to find and team with IBM Business Partners worldwide, as well as to promote their solutions, products and services to customer prospects. This online resource is also utilized by IBM sales and service representatives to locate solutions for their customers.

While the basic partner strategy remains the same (i.e., IBM Business Partners can purchase and resell IBM products and maintenance to any customer), future channel incentives will be more performance-driven, providing the highest levels of support and financial rewards to the IBM Business Partners that drive the highest revenue and value to IBM and their common customers. We understand the concerns that Informix business partners have in moving from their current agreements and support to new IBM contracts. We recognize their concerns regarding margins, and that is why the IBM Entry Original Equipment Manufacturer (OEM) Agreement for Software has been developed taking these concerns into account. The Entry OEM Agreement is modeled after the Informix ISV value-added reseller (VAR) agreement and is a specific example of how the best of the Informix programs was used to build a brandnew program within IBM. For more information and details regarding the Entry OEM Agreement, contact your IBM representative or visit:

ibm.com/partnerworld/software



On the left navigation bar, select "Software membership," and then "Initiatives for additional benefits." Then click on the last link in the body of the Web page: "IBM Entry OEM Agreement for Software—Is it for you?"

For more information about IBM Business Partner programs and Informix ISV relationships, please see the section in this document entitled "IBM Informix Partnerships: Other business partners" on page 58.

IBM is committed to our Informix and U2 customer and partner base, and we appreciate your ongoing commitment to us. IBM commitment to Informix customers and business partners

IBM remains committed to the Informix and U2 customer and partner base, and we appreciate your ongoing commitment to us. Many thousands of customers have recommitted to the Informix and U2 product line since the acquisition. Examples of some customers and business partners are Merrill Lynch, Sears, Home Depot, Qwest Information Systems, Mercy Ships, ROI Systems, Inc., Prelude Systems, Inc., Shutterfly, Epicor, ONLINE Computing, Klinikum der University Munchen, AF Informatica Aplicada S.A., International Decision Systems, Inc., Storis, Reynolds & Reynolds, Hubbell Canada, Datatel, Lincoln Life, TECHSYS Inc., and Geac Public Safety, a division of Geac Computers, Inc., to name just a few.

We thank the International Informix Users Group and its Board of Directors for their support, encouragement and feedback. We also want to acknowledge the exhaustive efforts of the International Informix Users Group Board of Directors and its membership in their support, encouragement and feedback.

#### Come visit us

We invite you to visit the following Web sites for up-to-date information on our product lines and programs, and to register for newsletters and upcoming conferences.

# An overview of the IBM Informix portfolio of products





Informational Web sites:

Informix-specific Web site: ibm.com/informix

U2-specific Web site: ibm.com/software/data/u2

Insight Exchange: **ibm.com**/software/insightexchange

PartnerWorld for Developers: ibm.com/partnerworld/developer

PartnerWorld for Software: ibm.com/partnerworld/software

Success stories: ibm.com/informix (click on "Success Stories")

Informix product lifecycle: ibm.com/informix/support/plc/

Information Management Technical Conference (and Informix Users Group

Conference 2003): **ibm.com**/services/learning/conf/us/dm/



advanced capabilities, which

must be met or exceeded.

#### Information Management vision and strategy

Vision

The Information Management team at IBM envisions that the IT world of the future will be challenged in five primary problem dimensions:

- Unpredictable workloads with less and less problem tolerance
- Business partners of all types building applications with evolving language standards
- An increased need for realtime decision-making
- Continuous growth in the size and forms of the data requiring management
- Skyrocketing systems complexity.

Evolving Internet technology drives increases complexity. Technology success, however, demands that the core requirements of database security, reliability and serviceability

As the Internet evolves, it is continuously and dramatically changing how applications are being written, as well as providing data access to vast numbers of users. This pushes the limits of the scalability and availability of today's databases. The Internet also results in very unpredictable workloads for many applications that must be available around the clock. The languages being used to write applications and their associated standards continue to evolve, and customers keep pushing for more tightly integrated solutions from industryvertical or cross-industry experts. Compounding the problem, data that has been digitized into forms other than numbers and strings needs to be stored, retrieved, analyzed and transformed into usable information. And the data that is needed for intelligent decision-making is typically located all over the enterprise. In fact, it's likely that such data may not even all reside in a database, since the client-server era of computing put data in departments all over the place. Finally, with advanced capabilities comes complexity. Of course, amidst all this, the core requirements of security, reliability and serviceability have not changed-they remain as must-haves for any technology hoping for a chance to succeed, while the flashier features compete for headlines.



All of the Informix and DB2 products are designed to optimize for near-linear scalability and high availability while managing massive amounts of structured and unstructured data.

#### Information Management strategy

Rooted firmly in its vision of the future of IT, the strategy of IBM Information Management is to continue providing the world's leading software infrastructure that is best suited to meet all of these challenges. Not incidentally, unique Informix technology and best practices will play critical roles in our success.

#### Unpredictable workloads

Optimizing for near-linear scalability and high availability while managing huge amounts of structured and unstructured data remain high priorities for all of the DB2 and Informix products. As data proliferates and the need to store and access more data for longer periods increases, database administrators will need to be able to add disks, memory and processors without having to stop the systems, and will expect throughput increases proportional to the resource increases. Onsite databases will play the leading role in satisfying these demands; however, IBM as a whole is tooling itself to offer ubiquitous computing resources through its grid computing and e-business on demand initiatives. A time will come when many users will be able to plug their work appliance into the wall outlet, tap into online application resources hosted by IBM and business partners, and pay only for what they use. In preparing for this shift in model, Information Management has resources working closely with IBM Research to ensure that as this trend evolves, our databases can offer all of these advantages.



Open standards like XML are an important part of Informix and DB2 development, along with helping to create new standards such as Xquery.

IBM doesn't compete with best-ofbreed, cross-industry application vendors. Rather, we try to make it easier for them to build and deploy their applications on IBM infrastructure. Business partners and languages of all types

IBM is committed to open standards. As Java<sup>™</sup>, .NET and Extensible Markup Language (XML) mature and replace legacy environments, IBM will not only serve up industry standards, but also help define them. Researchers who originally designed SQL (and who still work at IBM), are now crafting the Xquery standard, the goal of which is to define a language optimized for managing XML documents. We are pouring substantial investments into adding XML support to DB2, so that completed applications can talk to DB2 with either SQL or XML, and data can be stored traditionally as rows and columns or in optimized XML form.

We are extremely confident that we know and have what it takes to build the world's best information management software infrastructure. However, we are not so arrogant as to assume that we therefore know more about customer relationship management, supply chain management, human resource management or the rest of the array of cross-industry applications than the companies who have spent years studying these disciplines. We believe that experts who specialize in those areas best build these and the multitude of other vertical market applications. So, unlike our primary database competitors, IBM declines to compete with the best-of-breed business partners who specialize in applications, and commits instead to making it easier to build and deploy those applications on IBM Information Management Software.

In addition, small and medium-sized businesses typically look for solutions from regional suppliers. Informix and U2 experts have led numerous changes to make IBM an easier partner with which to work, providing greater flexibility in terms and conditions, and margins that grow with the number of shipments.



Our databases support simultaneous analysis on operational systems to enable realtime decision-making.

IBM intends to tame the increase in data and the many forms it takes by investing in content and e-records management products and services.

#### Realtime decision-making

Time is money. Realtime data analysis can produce (or save) real money. Ask the broker how long he can afford to wait to notice trend changes in his portfolio holdings. Or, how long is the pricer at a large retailer willing to wait to see the results of a test promotion before rolling it out nationwide? Increasingly, realtime decision-making will separate the best from the also-rans; it is necessary that our databases be able to support simultaneous analysis on operational systems.

Tight relationships with the market leaders in business intelligence tools including extraction, transformation and loading (ETL); data mining; online analytical processing (OLAP); and warehouse management help ensure that the latest capabilities and innovations are available immediately for data marts and data warehouses built on IBM databases.

#### Data growth

Enterprise data is no longer in neat numbers and strings on a single database. System diagrams rival ASICS designs, with ETL moving data everywhere to prepare for analysis. Two major investment areas signal the IBM intent to tame the massive increase in data and the many forms it takes.

Content management provides application infrastructure designed to catalog and index digital assets. In 2002, IBM acquired Tarian Software, and added exceptional e-records management capabilities to offer help to corporations seeking to meet increasingly stringent data preservation legislation.



We are well on the road to virtualizing database access through SQL interface technology.

Customers testify to lower total cost of ownership via Informix and DB2 databases.

To dramatically ease the complexity of accessing data stored outside the data-base, we are well on the road to "virtualizing" this access through a standard, well-known interface—SQL. With the federation capabilities of DB2, access wrappers to a variety of data sources can be given a table interface, and data can be queried in much the way local data in standard rows and columns is accessed. Hiding the complexity inside the wrappers, application developers can concentrate on using the language they already know to include data outside DB2, whether it is in a competitor's database, in a spreadsheet or behind an enterprise resource planning (ERP) application API.

#### Increasing systems complexity

IBM is serious about having computers help solve the complexity that this proliferation has caused. Using the human body as the perfect example, IBM has launched initiatives, known as autonomic computing, across all hardware and software product sets to ensure that each successive product release provides more ability to self-configure, self-manage, self-diagnose and self-heal.

DB2 and Informix databases have been making tremendous progress in all of these areas for several years, and that has led several studies and countless customers to testify to the lower total cost of ownership for both. Future releases promise more in these areas to allow database administrators to concentrate more of their time on value-added activities and less on the drudgery of keeping the system tuned.

Other Software Group business units at IBM are working hand-in-hand with Information Management to ensure the most tightly integrated set of e-business application development and runtime components (IBM WebSphere®), collaboration solutions (IBM Lotus®) and security and systems management infrastructure (IBM Tivoli®).



IBM will combine the best of Informix with DB2 in subsequent DB2 releases as part of an ongoing Information Management strategy.

Informix and DB2 development teams work together to bring enhanced products to market more quickly than if either was operating independently.

#### Informix strategy

While pursuing the challenges of the evolving IT market, IBM remains committed to its installed customers and business partners. For this reason, while we are taking on the competition head-to-head with DB2 innovations, we recognize the investment our customers and business partners have already made in data and applications on Informix databases. We recognize that customers picked Informix because it did the job better than any product at the time. Our plan is to converge the Informix strategy with the rest of the Information Management strategy by combining the best of Informix with DB2. This will occur in phases, with each subsequent DB2 release containing additional Informix capability. Different applications will be ready for transition depending on what Informix-unique dependencies they contain.

From the day of its decision to acquire Informix Software, IBM has stated that the best technology from the Informix servers would be converged with DB2. IBM remains committed to broadening the Informix "Arrowhead" vision and integrating the best of IDS, XPS, Red Brick, DB2 and future technology into a single database management system to solve the challenges of e-business on demand. DB2 is the base for this functionality convergence. The decision to utilize DB2 Universal Database™ (UDB) as the target for this merge was based on technology. IBM has already completed the development needed for online transaction processing (OLTP), extensibility and data warehousing in the DB2 UDB product. Informix's development team still confronted the task of combining these capabilities from three different code bases into one. The combination of development teams will enable the Arrowhead vision to be delivered sooner than Informix would have been capable of doing.



A number of features that make DB2 more compatible with Informix appear in DB2 UDB Version 8.1, and will continue in subsequent releases. Accomplishing the broadened Arrowhead vision will be a multiyear effort, and the emphasis over these years will be on much more than Informix compatibility. A substantial investment is being made on the fronts of information integration, XML, Web services and autonomic computing. Beyond this, each release of DB2 will contain features that make it more familiar and appealing to Informix users. There will come a time in the future when most Informix users will choose a DB2-branded product as their next database upgrade—not because IBM has offered no alternative, but because the product demonstrates a number of benefits and an easy upgrade path for Informix users.

The first step was achieved with the general availability of DB2 UDB Version 8.1 in November of 2002. This is the most significant release of DB2 since it was introduced in 1997, with over 400 features advancements. A number of features that make DB2 more compatible with Informix appear in Version 8.1, and development of features for even more Informix application portability in Version 8.2 is well underway.

Subsequent releases will resolve a number of issues regarding portability, data type and SQL extension parity, as well as direct 4GL connectivity. Other features that provide more Informix-like operational characteristics will arrive. These types of enhancements will make a vast number of Informix applications transition easily to DB2. A "transition toolkit" will be updated at each release; this will be a wizard-based software tool to help users easily overcome any remaining portability issues that were not built into the appropriate target DB2-branded product.



U2 databases are evolving to support XML- and SQL-based interfaces to enable U2 applications to access, store and retrieve data directly from DB2. back this up by pointing out that there are more engineers working on IDS today than there were prior to the IBM acquisition of Informix.

Finally, a word about the U2 product family: IBM UniVerse and IBM UniData. The unique characteristics of the IBM U2 extended-relational database family do not lend themselves to native integration into DB2. To best leverage the

The unique characteristics of the IBM U2 extended-relational database family do not lend themselves to native integration into DB2. To best leverage the combination of U2 and DB2, the U2 databases are evolving to support tightly bound XML- and SQL-based interfaces to enable U2 applications to access, store and retrieve data directly from DB2.

Since this is a multirelease plan, ongoing Informix enhancements are mapped

out for many years. More details are presented in later sections of this paper, but at a high level, our commitment is to produce new quality and feature releases of the major Informix databases for as long as customers require. We

For specific product lifecycle information, such as general availability dates, end of support/marketing dates, etc. for all IBM Informix products, please visit:

#### ibm.com/informix/support/plc/

DB2 or Informix for new applications?

As noted above, IBM is working to build the best features of Informix into the DB2 product line. That having been said, IBM recommends that Informix customers and business partners implementing new applications consider DB2. This is a broad statement; as always, customers and business partners should speak with their IBM representative about what might be right for their situation.

Informix and U2 will live on in DB2-branded products through the "Arrowhead" initiative.

It is important to note that the technology from Informix and U2 will live on in the DB2-branded products. Informix is part of the DB2 Information Management Software family, and IBM will market the merged technology in the "Arrowhead" initiative under the DB2 Information Management Software brand.



Informix and U2 customers transitioning to the DB2 family of products will find it a straightforward process, since the underlying technologies and visions are so similar.

The interoperability between IDS and WebSphere will be enhanced with each successive release.

Either way, customers will benefit from investigating the investment protection options available through the "Gold Program," which IBM representatives can explain further. These Gold Program offerings are intended for Informix customers (IDS, XPS and Red Brick) who want the flexibility to install or maintain either Informix or DB2 products in whatever combination is required to meet their business needs over time. These offerings allow the customer to purchase licenses to cover the entire business need, even if the exact mix of Informix and IBM database licenses is unknown or will change over time.

For those customers looking to transition to DB2, we can provide tools and assistance to make this as smooth as possible. Because the underlying technologies and visions are so similar, the transition within the IBM Information Management family of products can be very straightforward.

#### **IBM Informix Dynamic Server**

IDS is a mission-critical, general-purpose, OLTP database for the enterprise and workgroup. IDS is deployed today at enterprises large and small that need a transactional database that can help solve real-world business problems.

#### Enterprise businesses

IDS is used for OLTP, decision support, customer relationship management, enterprise resource planning, and many other mission-critical enterprise applications. Many of these applications were built using IBM WebSphere Studio and are deployed on IBM WebSphere Application Server. With successive IDS and WebSphere releases, the interoperability of these highly compatible technologies will continue to be enhanced.



IDS continues to be a predominant player in the small- to medium-sized business and Linux marketplaces.

IDS is known for core technology leadership, bringing to market new database technologies before the competition.

IBM is planning new IDS releases approximately every 18 months.

#### Small to medium-sized businesses

In addition to the scalability of IDS at the enterprise level, IDS continues to be a predominant player in the small- to medium-sized business marketplace, with installations at well over 20,000 companies across the globe, and with a very strong focus in the Linux market. Many of these installations are due to our strong network of Informix heritage value-added resellers, integrators and ISVs. The additional benefits of our extensive PartnerWorld for Software and PartnerWorld for Developers offerings greatly enhance the opportunities available to these business partners.

#### **Embedded applications**

Because it is easily embeddable, IDS is often integrated into OEM solutions, such as those from Intrado (9-1-1 emergency systems), Telelogic (software configuration management), and many others.

#### Technology leadership

Since its inception, IDS has been focused on core technology leadership. IDS was the first database to bring to market key technologies such as range (expression) partitioning, multi-threaded architecture—the dynamically scalable architecture (DSA) first developed in IDS 7, parallel data queries, high-availability data replication, enterprise replication, the world's leading extensible architecture, R-tree and GIS (spatial) integration, TimeSeries data, Java in the database, and much more.

## IDS product roadmap

IBM intends to continue to enhance and support IDS on customer-, market- and technology-driven requirements for as long as they require. IBM is planning new releases of IDS approximately every 18 months for as long as customers require (described in the sections below). Releases of IDS benefit from the merged development organizations from Informix and IBM Information Management.



Internal benchmark tests indicate that IDS 9.40 is 8 to 15 percent faster than the fastest previous release.

Industry-leading software vendors are porting their applications to IDS 9.40.

IDS Version 9.40

Released in March of 2003, the latest release of IDS, Version 9.40, has successfully passed rigorous customer testing by an equal number of IDS 7 and IDS 9 users. IBM is confident that existing IDS workloads and environments will benefit from the improvements in performance, scalability and ease-of-use that Version 9.40 provides. In internal benchmark testing, IDS 9.4 has been 8 to 15 percent faster than our fastest previous release. IDS 9.40 also contains significant improvements in scalability, security, reliability and administration.

The list of new features in 9.4 goes on and on. In speaking with many of our most loyal users and customers, the advances in 9.4 are of the kind that they've been requesting for a long time. Version 9.4 focuses on the things that made many customers come to Informix products in the first place: performance, reliability and scalability.

SAP, PeopleSoft and Business Objects, among others, have committed their support for IDS 9.40—all have ported, or intend to port, their applications to IDS 9.4 over the next few months. Baan has been certified on 9.40, and SAP has been working with the Informix Development Lab in Lenexa, intending to certify soon.

For an in-depth technical discussion on IDS 9.40, please see the IBM white paper entitled "IBM Informix Dynamic Server 9.4: Unequalled performance, scalability and availability," which is available at *ibm.com/informix/ids94*.

IDS Version 7.31

IDS 7.31 is the last of the IDS 7 product line and will continue to be supported through April of 2006. Customers still on IDS 7 are encouraged to upgrade to IDS 9.40, as this is the platform for future enhancements of the IDS product line.



IDS Version 9.21

IDS 9.21 was removed from marketing in April of 2002, with IDS 9.40 taking its place in the Informix lineup as the recommended IDS 9 version for new deployments. Existing IDS 9.2x customers and IBM Business Partners can continue to purchase additional license entitlements and will receive patchlevel support for IDS 9.2x. Customers desiring regular fixpacks will now receive them through the new IDS 9.40, or IDS 9.30 if they have deployed on that platform. IDS 9.21 will end support on June 30, 2004.

IDS Version 9.30

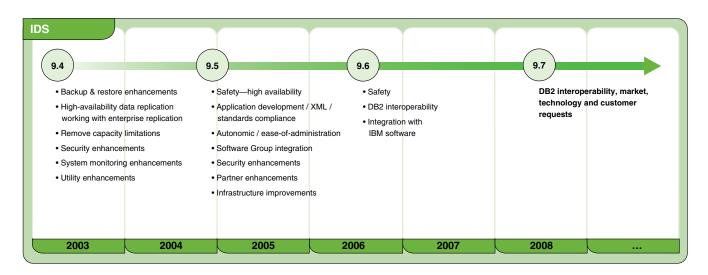
IBM delivered on its promise to the market with the announcement of IDS 9.30 in October 2001. Existing IDS 9.3x customers and IBM Business Partners can continue to purchase additional license entitlements and will receive regular fixpacks for IDS 9.3x. We encourage all of our IDS customers to look at the benefits of upgrading to our latest release, Version 9.40.

IDS Version 9.50 and IDS Version 9.60

The future of IDS products depends on building products that meet specific customer needs.

The IDS team is hard at work on product futures beyond IDS 9.40. Your input is always desired. The future of IDS depends on building products that our customers require. If you wish to provide input regarding future IDS functionality, contact your sales team or your local technical support office. They will then forward your feature requests to product management and to the development team.





Future releases of IDS will focus on ease-of-administration features and further leverage DB2 technologies. What are our early thoughts on IDS 9.50? We will continue to collaborate within IBM to improve IDS security, to add more SQL compatibility features, to further raise the performance bar, and, of course, to take advantage of industry-leading WebSphere and Tivoli information management tools and other technologies from IBM. IDS excels in ease-of-administration features. By working to bring the IBM "SMART" self-managing concepts to the IDS roadmap as well as to the DB2 roadmap, we will make IDS even easier to administer. And by bringing key features such as IDS style replication for high availability to DB2, we will make it easier for customers and business partners to take advantage of DB2 for new applications.



IBM Informix Internet Foundation

The IBM Informix Internet Foundation product bundle is no longer being offered. Existing customers and business partners may purchase additional license entitlements and receive support for each product in the bundle.

The J/Foundation Java capability is now available as part of the default IDS 9.40 offering on the platforms that support Java.

Existing Internet Foundation bundle customers can upgrade any or all of the components of Internet Foundation as long as they remain on maintenance, per the support plans for each product in the bundle.

# DataBlade Modules

DataBlade™ Modules are application and business logic that reside in the database. DataBlade Modules allow IDS to integrate new data types, integrate operations that process the data, and access methods that retrieve the data. The server provides the same level of support for these new data types, operations and access methods that it provides for built-in data types. DataBlade Modules add greater capability to the database server and enable you to easily manage any kind of information to meet the needs of your specific business domain.

IBM will continue to offer enhancements and support for the DataBlade technology products for existing customers and business partners for as long as they require, while integrating key technologies such as R-tree and Time-Series technology into future releases of DB2. IBM maintains the skilled staff to install, configure and support the use of these technologies in your environment. More details are described below.

DataBlade Modules help increase database capabilities to meet the needs of your business.



IBM offers a variety of DataBlade Modules. Today, IBM offers the following DataBlade Modules:

- IBM Informix Spatial DataBlade Module—enables users to manage geospatial data and features a specialized R-tree index, which provides extremely high-performance SQL access to spatial data
- Excalibur Image DataBlade Module—provides for image retrieval based on image similarity
- IBM Informix Image Foundation DataBlade module—provides for image translation, retrieval of images and metadata, and image format conversion
- Excalibur Text Search DataBlade Module—supports full-text searching of documents stored in IDS
- IBM Informix Geodetic DataBlade Module—stores and manipulates geographic information on the whole Earth without use of projections; it is particularly useful for managing data spanning large areas of the Earth
- IBM Informix NAG DataBlade Module-provides numerical analysis functions and formulas
- IBM Informix C-ISAM DataBlade Module—provides two main features: storage of C-ISAM data in the database for use by C-ISAM clients; and access to C-ISAM files outside the database from SQL within the database
- IBM Informix TimeSeries DataBlade Module—supports management and analysis of time-series data
- IBM Informix Video Foundation DataBlade Module—provides an open architecture for video-cataloging technologies
- IBM Informix Web DataBlade module—eases the development and management of Web-based database management system (DBMS) applications.



The Finance Foundation for Capital Markets bundle incorporates the benefits of several IBM Informix technologies, bringing many new features and advantages to finance professionals.

The newest version of the Spatial DataBlade Module, Version 8.20 (which has been generally available since December 2002), includes a new client application programming interface (API) for Java applications. The TimeSeries Real-Time Data Loader Version 1.10 was released in January 2003, and added support for "regular" TimeSeries, templates and new configuration options for data feeds, support for 64-bit platforms, and ease-of use features such as simplified tick handling and command line utility simplification. The team is also working on fixpack releases for other DataBlade Modules in 2003, including Web, TimeSeries, Spatial and Excalibur Text.

#### **New Foundation bundles**

Finance Foundation for Capital Markets

Three different flavors of the Finance Foundation for Capital Markets bundle (Enterprise, Analytics and Real-Time Editions) were introduced in Passport Advantage in the first quarter of 2003. This unique product is designed to help securities traders store and analyze market data in realtime as well as in historical settings. The bundle incorporates the benefits of the IBM Informix TimeSeries DataBlade Module, IBM Informix TimeSeries Real-Time Data Loader, IBM Informix NAG DataBlade Module, IBM Office Connect, and IBM Informix Dynamic Server into a targeted solution that is ideal for finance professionals. Finance Foundation will be updated to include the latest versions of Informix products, with the many new features and advantages they bring to customers.



Recently launched, the Informix Law Enforcement Foundation bundle extends the database access methods available to law enforcement and police science professionals.

The IBM Information Management Web site will broadcast announcements as new, industry-specific Foundation bundles for various customer segments are launched.

IBM will continue to support and enhance IBM Red Brick Warehouse.

#### Law Enforcement Foundation

IBM has recently launched the Informix Law Enforcement Foundation, which is designed to help in the exacting field of law enforcement and police science. This product bundle uses the Informix DataBlade technology to extend the IDS database, adding the ability to handle voice, iris, face and fingerprint recognition. The unique ability to extend the access methods (index types) of the database allows these multidimensional data types to be handled with ease and speed. This provides huge productivity gains for organizations that adopt it. While only recently launched, this product has already been selected by law enforcement agencies on four continents. IBM is enthusiastic about the new market opportunities that this product provides and its ability to demonstrate excellent customer value and technological innovation.

#### Other Foundation bundles

IBM is investigating other industry-specific Foundation bundles for various customer segments for the future. Stay tuned to the IBM Information Management Web site for continuing announcements of these products. As with the Internet Foundation bundle, IBM intends to continue to enhance and provide support for the underlying products that make up these offerings to existing customers and business partners for as long as they require, while integrating the products' key technologies into DB2.

#### Business intelligence servers (Red Brick and XPS)

IBM Red Brick Warehouse

IBM will continue to offer enhancements and support for Red Brick to existing customers and business partners for as long as they require. IBM also intends to integrate key Red Brick features such as loader enhancements and STARJoin optimizations into DB2, making it easier to take advantage of DB2 for new applications.



Among several improvements under consideration for the next release of IBM Red Brick Warehouse, targeted for late 2003, are TARGETJoin processing and expression rewrites.

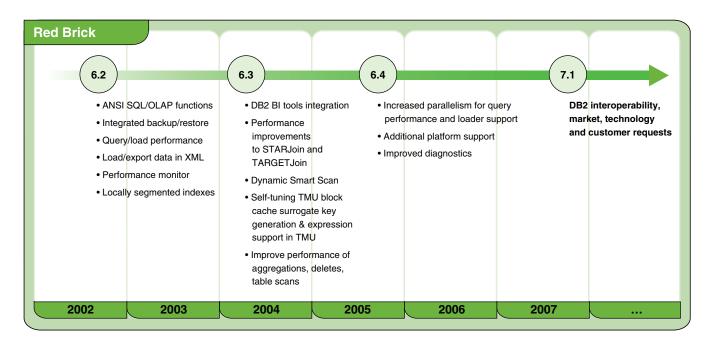
For Red Brick 6 users, a tool that speeds up queries—Vista—is available at no extra charge.

Red Brick Warehouse v6.2 was released according to plan in October 2002. The themes for v6.2 were integrated analytics, enhanced performance, and continued ease-of-use improvements. By including support for ANSI-standard SQL/OLAP extensions, we have added to Red Brick's strong analytic capabilities. Performance and usability were also enhanced with features such as built-in performance monitoring, locally segmented indexes, remote loads, integrated backup and restore, and support for XML.

Planning, design and development are well underway for the follow-on release of IBM Red Brick Warehouse. We've been hearing from many of our customers and business partners that continued improvements in the areas of ease-of-use, query performance and data loading are critical, as they continue the push to handle larger workloads with minimal capital outlay. Under consideration for the next release are the following: easier management of physical storage units (PSUs), improvements to basic STARJoin, TARGETJoin processing, and expression rewrites to allow more index use. This release is targeted for late 2003, consistent with our commitment to release new Red Brick updates to existing customers approximately every 18 months.

Since the release of Red Brick Version 6.0, customers who purchased Red Brick have received at no additional charge a tool called Vista, which can significantly speed up many types of queries. The IBM services team can provide hands-on mentoring in the use of Vista and can assist your team in implementing it for your user community. They will extend the value of your Red Brick investment by helping you take full advantage of features that you have today but may not be using.





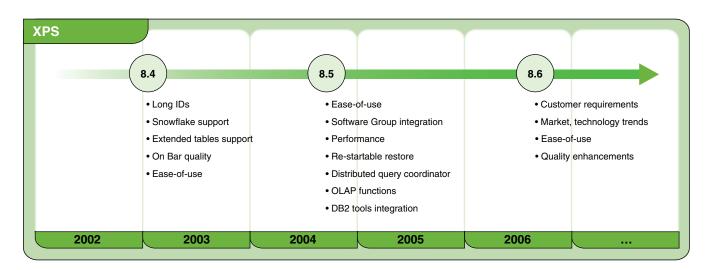
Customers and business partners can continue to enjoy IBM support for XPS, including performance optimization and DB2 business intelligence tools integration.

Extended Parallel Server (XPS)

IBM will continue to offer enhancements and support for XPS to existing customers and business partners for as long as they require. IBM also intends to integrate key XPS features such as range/hybrid partitioning (fragmentation) into DB2, making it easier to take advantage of DB2 for new applications, if customers intend to do so.

XPS Version 8.40 was released according to plan in September 2002. The major benefits of Version 8.40 are continued ease-of-use, additional tool support and performance optimization. This release includes critical customer-requested features, such as support for long identifiers (long IDs), distributed support via I-STAR (participant only), roles and snowflake schema enhancements. In addition, several RAS (reliability, availability, serviceability) features have been incorporated to improve the overall ease-of-management necessary for running enterprise data warehouse environments.





A subsequent release, Version 8.50, is already being developed and will support major themes such as performance optimization and DB2 business intelligence tools integration. XPS Version 8.50 will continue to provide ease of use features that make large warehouse administration require even less effort. This release is currently targeted for the second half of 2004.

Future versions of IBM XPS will aim to include tighter integration and support for IBM business intelligence products such as DB2 Warehouse Manager and Query Management Facility (QMF).

## Low-admin "Classic" servers

as they become available.

These traditional database servers have earned a reputation for solid reliability, robustness, simplicity and ease-of-use, and are fondly called "The Classics."

IBM will offer enhancements and support for these servers to existing customers and business partners for as long as they require. We plan to do this by not disturbing the fundamental stability that makes them so attractive, and will be primarily focused on porting them to new and updated operating systems

IBM will offer enhancements and support for the Low-admin "Classic" database servers to customers and business partners for as long as they require.



IBM Informix OnLine 5 and OnLine Extended Edition

OnLine 5 will periodically be enhanced for the new generation of lightweight "Internet appliance"-style servers of one or two CPUs, as well as continuing to do duty in the thousands of customer and VAR applications that rely on it today. Evidence of the IBM commitment to this family of products, Version 5.2 OnLine Extended Edition includes support for all the latest UNIX® and Linux operating systems.

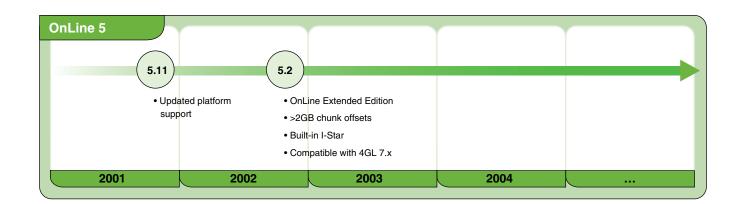
OnLine Extended Edition Version 5.2 has been generally available since November of 2002, and includes enhanced 4GL Tools support and capacity enhancements, and bundles the Informix STAR (I-STAR) product. This allows customers to manipulate multiple OnLine databases in different locations as if they were one common database.

Online Extended marks the beginning of a new era for the Informix Classic server family.

Online Extended, a new product name for two popular Informix products, Informix OnLine and I-STAR, marks the beginning of a new era for the Informix Classic server family. With this release, IBM adds distributed computing to a proven database server at no extra cost.

Additional benefits can be viewed at:

ibm.com/informix/online5/extended.





IBM Informix SE

Valued by the VAR community for its ease-of-use and silent install, SE is embedded in thousands of partner applications throughout the world. Version 7.25, released in 2001, includes support for files larger than 2GB and is available on UNIX, Linux and Microsoft® Windows®. Future releases will primarily be to support operating system updates only.

IBM Informix C-ISAM

As the industry-standard C-language Indexed Sequential Access Method (ISAM) for UNIX worldwide for nearly two decades, C-ISAM is currently available for Linux on IBM 390 Systems as well as a wide variety of UNIX systems, Windows and Linux. No future feature releases are planned at this time. Bugfixes and OS updates will be added as necessary.

## Development tools, APIs, gateways and specialty tools

Application development tools

IBM Informix 4GL (4GL) family

The IBM Informix 4GL family provides a character-based, fourth-generation application development environment that includes the Rapid Development System, Interactive Debugger, and 4GL Compiler. A large number of Informix database customers and business partners have deployed their mission-critical business applications using 4GL technology. IBM recognizes the value that 4GL has provided as a Rapid Application Development (RAD) tool for Informix databases and is fully committed to continued enhancement and support of the 4GL product family.

Backed by IBM, the Informix 4GL product family supplies valuable tools for Informix database users.

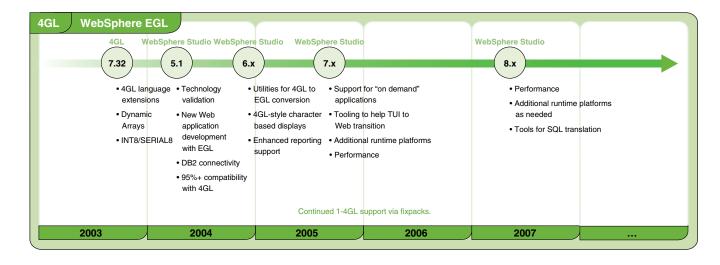


IBM is committed to continually upgrading its 4GL technology.

The 4GL language is being modernized and 4GL constructs will be incorporated in the Enhanced Generation Language (EGL) to provide sophisticated Internet-based Rapid Application Development (IRAD) capabilities. EGL is a fourth-generation language and customers can leverage their existing Informix 4GL language skills with the power of industry-leading WebSphere Studio Integrated Development Environment (IDE) to develop data-driven Web applications. By virtue of integration with EGL and WebSphere Studio, customers will be able to deploy their legacy and modern 4GL applications with both Informix and DB2 databases.

IBM has taken the first step in the direction of fulfilling 4GL customers' and business partners' needs by delivering enhancements to the 4GL language that offer enhanced support for IDS 9.x datatypes like INT8/SERIAL8 and the Dynamic Arrays functionality, as well as merging the previous code streams of 4GL such that OnLine 5, XPS and IDS customers can all use the latest release, IBM Informix 4GL, Version 7.32, delivered in March of 2003.

IBM is committed to continually upgrading its 4GL technology, providing ongoing value to its loyal 4GL customers and business partners.





IBM intends to stay current with the latest releases of Four J's BDS— a product formerly known as Informix Dynamic 4GL.

Four J's Business Development Suite (formerly Informix Dynamic 4GL)

In December 2001, IBM signed a Software Remarketing Agreement with Four J's Development Tools for the rights of IBM to remarket Four J's Business Development Suite (BDS). Under Informix, this product was known as Informix Dynamic 4GL. It was a means of quickly and easily recompiling 4GL applications to a variety of graphical application development environments, including those that are Windows-, HTML- and Java-based. IBM is currently selling and supporting Version 3.50, which was released into the market in the summer of 2002.

IBM intends to stay current with the latest releases of Four J's products, and is expecting a newer release of the Four J's product—Genero—to be available in Q3 2003. Four J's Genero is a revolutionary, object-based Unified Development Environment for the rapid development of client, database and server-independent applications destined for high-performance data-driven environments.

IBM Informix SQL (I-SQL)

IBM Informix SQL consists of five application development tools: a schema editor, menu builder, SQL editor, forms builder and report writer. IBM will continue to sell and support this product. The IBM commitment to I-SQL is evidenced by a recent maintenance release, Version 7.32 in March of 2003, which was released concurrently with IDS 9.40.

IBM intends to support I-SQL for existing customers and business partners for as long as they require. I-SQL customers are encouraged to explore the IBM DB2 Web Query Tool, which offers sophisticated Web SQL functionality.



IBM DB2 Web Query Tool connects all your users directly to multiple enterprise databases, securely and simultaneously, regardless of database size, hardware, operating system or location, and now includes support for the Informix Dynamic Server 9.x. It also enables complex querying, data comparisons and customized presentations. DB2 Web Query Tool provides rapid global access to business information over e-mail clients, including wireless access protocol (WAP)-enabled devices such as personal digital assistants (PDAs), wireless phones and text pagers.

For more information, please visit:

ibm.com/software/data/db2imstools/db2tools/db2webguery.html.

Client development tools and APIs

IBM offers a suite of products to enable clients to connect to its Informix databases, access data spanning multiple data sources, and work with a variety of specialized data types.

IBM will support existing CSDK customers and business partners for as long as they require. New enhancement releases are planned to keep pace with new server releases and to address performance and standards compliance.

This section describes the components making up the Informix Connectivity suite:

- IBM Informix Client SDK packages several APIs for servers into a single offering. Support is included for Java Database Connectivity (JDBC), C, C++, ESQL/C, Open Database Connectivity (ODBC) and OLE DB clientside providers.
- IBM Informix Connect is the set of runtime libraries required by the non-Java components of Informix Client SDK. This software is required for deploying client applications to access Informix servers.

CSDK releases are planned to keep pace with new server releases to address performance and standards compliance.



IBM will enhance and support a range of applications designed to provide fast, easy and reliable data access to Informix database servers.

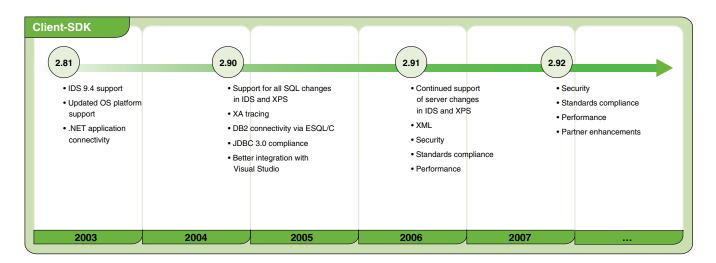
- IBM Informix JDBC Driver is a pure Java type-4 driver based on the latest 1.x and 2.x JDBC specifications. Embedded SQL/J is part of the Informix JDBC driver.
- IBM Informix ESQL/COBOL is for supporting SQL statements embedded into COBOL language applications. The current plans for ESQL/COBOL are to continue to support the product, and enhance it in response to market demand.

The key theme for connectivity products is fast, easy and reliable data access to Informix database servers. In March of 2003, IBM delivered Client SDK and I-Connect, both in Version 2.81. They include performance enhancements, additional platform support (XPS 8.4 and IDS 9.4), support for .NET application connectivity via the ODBC and OLE DB bridge, and updated OS platform support. Other Client SDK features under consideration for future releases include support for .NET application connectivity to IDS via the ODBC and OLE DB bridge.

In a future SDK 2.81 fixpack, we will certify the ODBC component to work with an open-source ODBC driver manager. Other Client SDK features under consideration include the ability to connect ESQL/C applications natively to DB2 databases and .NET Managed Provider support.

The next release of JDBC, v2.21.JC4, shipped in early 2003, with a focus on our ongoing commitment to open-standards compliance, supporting the latest servers, integration with WebSphere Application Server, and ongoing attention to product quality. New features include Setting Lock Mode and Isolation Level for Connections, improved SQL Protocol Handshaking mechanism, and support for Multiple User Defined procedures/functions and stored procedures. Planning for v2.21.JC5 and v3.0 is in progress.





Informix Gateway products provide programmers with transparent access to data spanning multiple data sources.

#### Gateways

To enable IBM customers and business partners to access data spanning multiple data sources, IBM offers the Informix Enterprise Gateway Manager and the Informix Gateway with DRDA (Distributed Relational Database Architecture). The Enterprise Gateway Manager provides programmers with transparent access to a number of non-Informix DBMS, including those offered by IBM, Sybase, Microsoft and Oracle. The Gateway with DRDA also provides programmers with access to the IBM DB2 family, using native and faster connectivity protocols defined by IBM.

IBM intends to support existing Gateway customers and business partners for as long as they require. New features under consideration include full two-phase commit, long-ID support as well as multiple result sets returned from stored procedures in Enterprise Gateway Manager with DRDA. The next Enterprise Gateway Manager release (Version 7.31.UD1) with long-ID support is scheduled for mid-2003.



From system administration to performance and management to specialty tools, IBM is working to bring the strongest toolset to the Informix portfolio.

A new release of Server Studio JE for IDS servers is expected.

While no new I-Spy releases are planned, IBM intends to support existing customers and business partners.

System administration tools

IBM Informix System Administrator (ISA)

ISA is a browser-based, cross-platform database server administration tool. It provides an easy-to-use interface for the Informix Dynamic Server command line, thus eliminating the need to memorize commands and options. The latest ISA, Version 1.50, ships with IDS 9.40 and includes support for the new features of this engine as well as enabling customers to work with the storage management module of IDS. Features and functions for future versions are currently under consideration for follow-on IDS and XPS servers.

#### AGS Server Studio Java Edition

Server Studio JE, developed by AGS Ltd, is a set of integrated tools that enables database administrators and developers to exploit the contents of their databases from a single graphical console. It can be extended through add-on modules, which can be obtained directly from AGS, into a complete administrative console for Informix database engines. IBM is currently working together with AGS to include a new release of the product with IDS servers.

### I-DBA

I-DBA, a collection of four Microsoft Windows-based administrative tools, was replaced with Server Studio JE in the second half of 2001. I-DBA will continue to be supported for existing customers and business partners for as long as they require.

### Performance tools

I-Spv

I-Spy helps IDS and XPS data warehouse architects monitor client usage patterns and adjust resources accordingly. By using I-Spy, database administrators can tune systems for optimum performance. I-Spy can also be used as a troubleshooting tool in transaction-processing environments.

IBM intends to support existing I-Spy customers and business partners for as long as they require. No new feature releases are planned at this time.



Compatibility tools significantly improve the performance of IDS servers without the need for costly hardware upgrades.

#### MaxConnect

MaxConnect helps improve the scalability and performance of IDS 7, IDS 9 and XPS servers by separating the physical connection management tasks from the session management tasks and off-loading certain work to a middle tier. In real-world benchmarks, MaxConnect has significantly improved the performance of IDS systems without the need for costly hardware upgrades. Customers with more than 200 simultaneous user connections may benefit from MaxConnect. IBM intends to support existing MaxConnect customers and business partners for as long as they require. No new feature releases are planned at this time.

#### **IBM Information Management Tools**

IBM is working to bring the strong set of Information Management tools to the Informix portfolio. The first example of this toolset is "DB2 Relational Connect," which today supports IDS 7 and 9. DB2 Relational Connect allows IDS to participate in a federated data query initiated from a DB2 database. The Informix Enterprise Gateway products allow a DB2 database to be queried from an IDS database. For more information on DB2 Relational Connect, see <code>ibm.com/software/data/db2/relconnect/</code>.

In the coming months, additional compatibility tools will be announced. Informix customers and business partners will benefit from these expansions to the Informix portfolio.

Other specialty tools

IBM DB2 Office Connect

Office Connect increases the utilization of data warehouses and operational databases by making it extremely easy for end users to access, understand and even update their data using their existing investment in office automation technology. This solution works not only transparently with IBM and Informix database servers but also against any ODBC/OLE DB/JDBC-compliant database and any HTML data sources over the Internet.

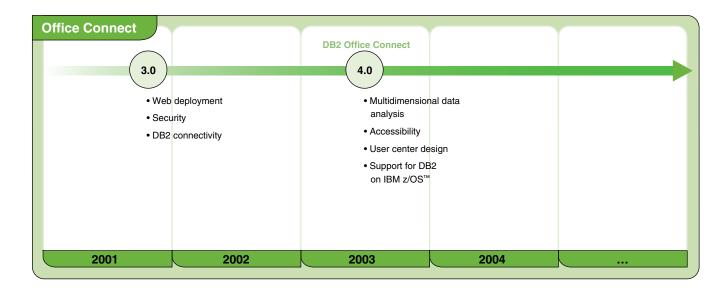


DB2 Office Connect is an excellent solution for business users who need a simple way to extract, visualize and update data in any JDBC database.

IBM is actively seeking new Office Connect customers. We believe that this tool's ability to work with any JDBC-compliant data source (including any competitor's products) makes it an excellent solution for customers who need a simple way to extract, visualize and update data for the business user.

IBM intends to continue offering enhancements and support to existing Office Connect customers and business partners for as long as they require, and has just announced the 4.0 release of the product as IBM DB2 Office Connect. This version is scheduled to be generally available on July 25, 2003.

This latest Office Connect, Version 4.0, enhances business productivity with IBM databases by leveraging Microsoft Excel and providing easy, distributed and secure data visualization, reporting and database update capabilities in both intranet/Internet (Web Edition) and client/server environments. IBM Office Connect Version 4.0 is also now tested and certified to seamlessly support DB2 on both distributed and IBM OS/390® platforms in addition to supporting the Informix databases.





MetaCube

MetaCube provides OLAP support for Informix customers and business partners. MetaCube is positioned as an entry-level product that is capable of providing quick deployment for multidimensional OLAP applications. IBM intends to support existing MetaCube customers and business partners for as long as they require. No future enhancements are planned at this time.

### Object Translator

IBM intends to continue to offer support for existing Object Translator customers and business partners for as long as they require. No enhancements are planned at this time, and the product has been withdrawn from marketing. Key features of Object Translator have been included in the IBM WebSphere Studio product family.

### Visionary

In July 2002, Rocket Software, an IBM Business Partner, purchased the rights and intellectual property to IBM Visionary. Customers who have existing support contracts with IBM will be supported until their contracts expire. Customers may also opt out of IBM support and contact Rocket Software to assume the support contract (fee-based). On December 31, 2003, all Visionary contracts will expire and IBM will no longer offer support. For more information about Rocket Visionary, call 1 508 655-4321, or visit www.rocketsoftware.com.

### Cloudscape

IBM Cloudscape is best suited for use in desktop-to-server applications where a zero-admin, small-footprint, J2EE/JDBC-compliant, embeddable Java database with full SQL support is desired.

IBM intends to continue support for a variety of Informix specialty tools for as long as is required.

IBM Informix Visionary has been sold to Rocket Software, who offers support for it.



Cloudscape is used internally by over 40 IBM products that need an embeddable, zero-admin 100 percent Java DBMS. New sales are available via special inquiry. IBM intends to enhance, maintain and support the Cloudscape database product for channel business partners and existing customers and for use by a growing number of IBM products, including WebSphere Application Server v5. While IBM is not actively marketing Cloudscape to end-user customers at this time, IBM will respond to interested inquiries on a case-by-case basis.

The latest Cloudscape release for v5.1 includes JDBC 3.0 support, holdable cursor, dirty reads, referential constraints, performance enhancements in table scan, single statement caching and outer join optimization, and a new component called the Cloudscape Network Server, which provides client/server JDBC access over standard DRDA protocol as a replacement for RmiJdbc network.

IBM intends to continue to support Cloudsync customers and business partners in line with the Informix product lifecyle. The unique data synchronization technology provided by the Cloudsync product is being considered for integration into DB2 Everyplace Enterprise Edition.

The Cloudconnector product has been discontinued in line with the IBM/Informix product lifecycle.

Check the Web site (ibm.com/software/data/cloudscape) for the latest information regarding Cloudscape Version 5.1 availability and distribution.

### U2 product family (UniVerse/UniData)

UniVerse

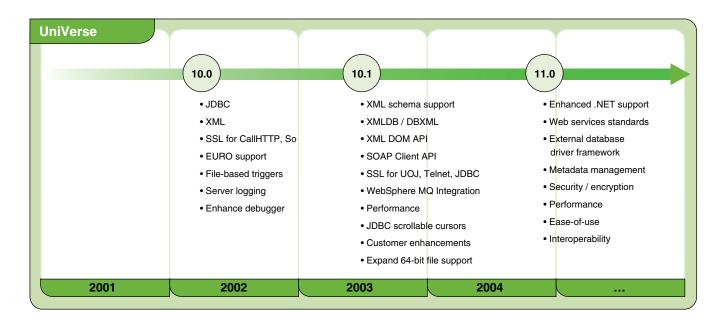
UniVerse is an extended-relational DBMS that supports both direct record I/O as well as standard SQL, and offers Microsoft ActiveX®, ODBC, OLE DB, JDBC and Java interfaces.



IBM offers a variety of enhancements and support for UniVerse products. IBM intends to offer enhancements and support UniVerse customers and business partners for as long as they require. More details are included in this section below.

UniVerse 10, released in 2002, provides a native JDBC driver as well as support for XML input and output from the database engine. Security improvements come from the added support of secure sockets layer (SSL) for the HTTP and socket interfaces, as well as an encryption API in the stored procedure language. UniVerse file management, debugger and administration tools have been enhanced. Database triggers now support all UniVerse file types and the data replication feature has been enhanced to support virtual attributes and distributed files.

UniVerse 10.1, targeted for release in the second half of 2003, will include performance enhancements, enhanced support for XML, a SOAP client API, extended availability of SSL for JDBC, telnet, and UniObjects for Java, and will offer enterprise application integration options through an interface to IBM WebSphere MQ.





IBM offers a wide range of enhancements and support for UniData products.

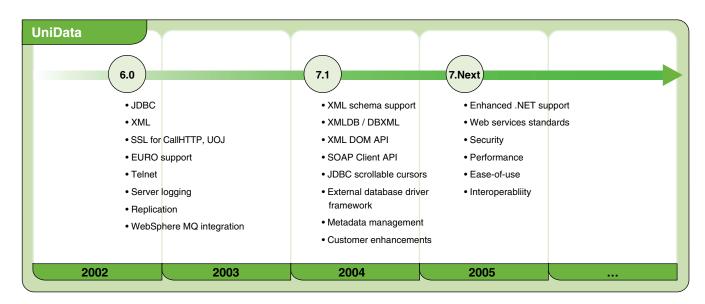
#### UniData

IBM UniData is an extended-relational, SQL-compliant database that supports repeating groups, hierarchies and arrays. UniData offers both best-of-breed native interfaces with ActiveX, Java and C interfaces, as well as industry-standard interfaces such as JDBC, ODBC, OLE DB and HTTP.

IBM intends to offer enhancements and support UniData customers and business partners for as long as they require. More details are included in this section below.

UniData 6.0, released in the second half of 2002, includes enhancements to openness, security, robustness and scalability. This release provides a native JDBC driver as well as support for XML input and output from the database engine. Security improvements come from the added support of SSL for the HTTP and socket interfaces as well as the telnet and UniObjects for Java protocols. UniData 6.0 includes realtime replication functionality as part of the core database feature set. Integrated native support for WebSphere MQ is also included in this release.

Enhancements under consideration for UniData beyond release 6 include enhancements to XML, support for a SOAP client API, and an open driver framework to allow external database storage options.





RedBack is designed to help customers develop scalable object-based client/server or Web applications, or interface with thirdparty object-based products.

#### RedBack

RedBack® is the IBM scalable object-enabling infrastructure solution for N-tier development for the U2 databases. Its inherent object capabilities, provided through user-defined RedBack Business Objects (RBOs), offer a natural solution for those customers looking to develop scalable object-based client/server or Web applications, or to interface with other third-party object-based products such as Crystal Reports (from Seagate Software).

IBM intends to offer enhancements and support to RedBack customers and business partners for as long as they require. More details are included in this section below.

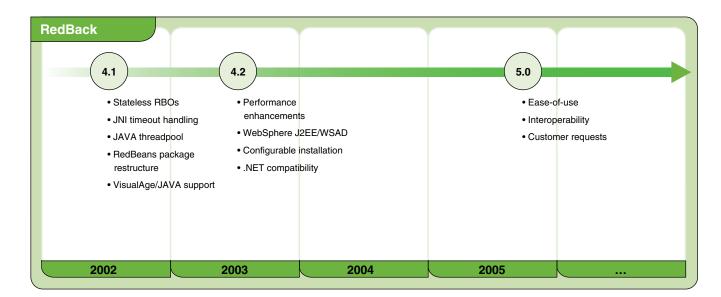
RedBack is an object abstraction tool for backend U2 databases and business application logic. Functionality includes XML parsing, support of the Microsoft V1.1 SOAP specification, and support for J2EE via the IBM Redbeans™ Server package.

Version 4.1 of RedBack, released in mid-2002, features enhanced Java-related capabilities, performance enhancements, improved documentation and demonstration suites. An IBM VisualAge® for Java (VAJ) interface enables access to RBOs through the implementation of Enterprise Java Beans™ (EJBs™) prototypes allowing integration with WebSphere applications and services. A new Java threadpool subsystem, complete with administration facilities, provides an additional level of scalability. Java Native Interface (JNI) timeout handling allows developers to proactively accommodate situations where method calls do not return in a timely fashion. Recordsets can now be supported by entity beans as well as the U2 Remote Procedure Call (RPC) mechanism. Stateless RBOs improve performance by decreasing I/O related to unnecessary or redundant storage. Streamlining storage and garbage-collection processes will improve the performance of stateful RBOs.



IBM WebSphere Application
Developer will integrate with
RedBack via plug-in technology.

Release v4.2, scheduled for general availability in the second half of 2003, continues to build on the performance enhancements and WebSphere interfaces introduced in v4.1. Changes to the U2 backend state file structures will increase efficiency through a further reduction in disk I/O, and will address state file data contention issues. The new IBM WebSphere Application Developer (WSAD) will integrate with RedBack by providing access to RBOs using plug-in technology.

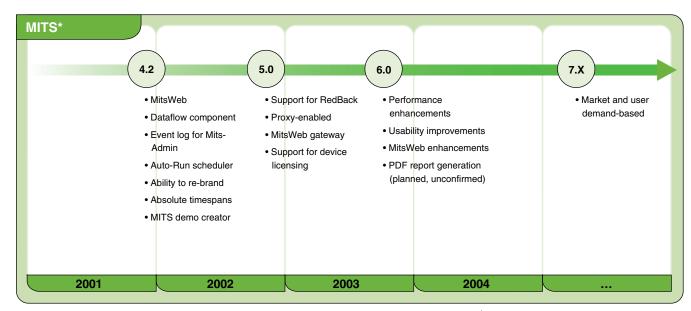


#### MITS

The MITS (Management Information Tools Software) product suite provides an end-to-end business intelligence and online analytical processing (BI/OLAP) solution, specifically designed for the multivalued, extended-relational database environment. The MITS product family includes MitsMaker, MitsServer, MitsSecurity, MitsAdmin, MitsView and MitsWeb.

MITS v5.0, released in 2002, features support for RedBack via RedBack objects, connectivity with Apache and Microsoft Information Server, support for U2 device licensing, improved data formatting, and additional usability enhancements. MITS v5.1, scheduled for release in the fourth quarter of 2003, adds over 30 new features, including the ability to run MitsWeb as a Windows service.





\* Projections based on continuation of MITI-IBM contract

### Highlights

The MITS product family supports UniData and UniVerse databases on 32-bit Windows and a variety of UNIX-based platforms. The MITS product family supports the UniData and UniVerse databases and is also available for D3, mvBASE and mvENTERPRISE, as well as jBASE, on both 32-bit Windows platforms and a wide variety of UNIX platforms. IBM resells this product, which is developed by Management Information Tools, Inc. (MITI).

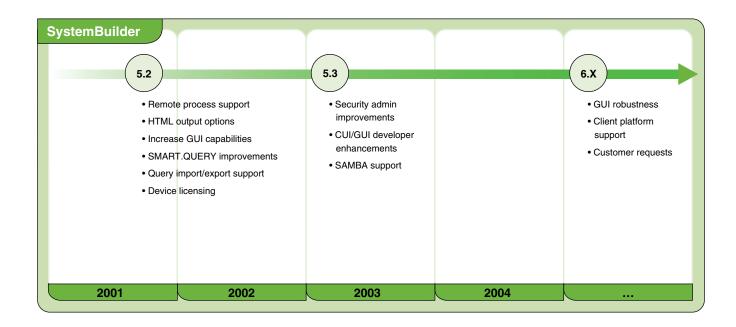
#### SystemBuilder

IBM SystemBuilder is a native 4GL Rapid Application Development (RAD) and runtime toolset for the U2 databases. SB+ Server provides developers the means of creating process-oriented server-centric applications. SBClient further enhances SB+ applications by providing an ActiveX-based graphical user interface (GUI) environment as well as data migration between the server and client. SB+ integrates with RedBack to extend applications with Java technologies and browser-based interfaces.

IBM intends to offer enhancements and support to existing SystemBuilder customers and business partners for as long as they require. More details are included in this section below.



IBM intends to release new SystemBuilder features, offering enhanced security, smoother data migration and better GUI support for U2 databases. SystemBuilder Version 5.3 has been generally available since first quarter 2003. New features enhance security, facilitate data migration and strengthen GUI support. Security administration streamlines user-group management, increasing the usability of this function. Support for SAMBA provides seamless data transfer between UNIX and NT. Enhancements to both server and client interfaces provide additional functionality and ease of development. In addition, System Builder v5.3 increases interoperability by adding the MAPI blind carbon copy (BCC) option, and enhancing the ability to launch desktop applications.





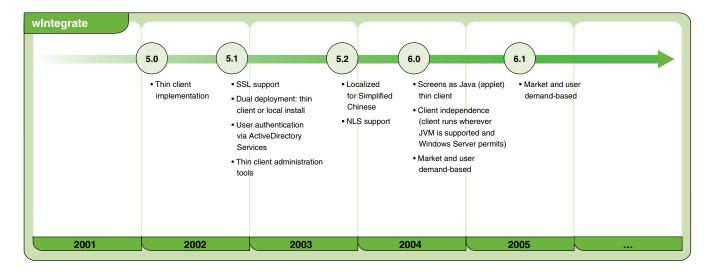
wIntegrate

IBM wIntegrate® is an advanced terminal emulation and host-based application enhancement tool for IBM UniData and UniVerse databases, plus many other multivalued databases. wIntegrate preserves the investment in host-based applications while giving them a more modern Windows look and feel. Although wIntegrate is not a 4GL or an application development environment, developers can easily create new front ends for legacy applications and extend them to the Web, without having to change the logic or structure of those programs.

The next wintegrate release will allow users to extend their applications to the Web with a new Java thin client.

wIntegrate v6, targeted for release in the second half of 2004, will allow users to extend their applications to the Web with a new Java thin client. The wIntegrate v6 thin client can be deployed wherever there is a supported Java Virtual Machine, Mac, Linux, or wireless device.

IBM intends to offer enhancements and support to existing wIntegrate customers and business partners for as long as they require.





COBOL Direct Connect provides COBOL customers with all the advantages of an extendedrelational database.

IBM DB2 Information Management Software has outpaced the industry's growth rate over the past few years—a testament to its customer approval rating.

The Informix suite is an important part of the DB2 Information Management Software family.

#### **COBOL Direct Connect**

COBOL Direct Connect (CDC) is a conversion tool and runtime interface for the UniData database. CDC converts C-ISAM files into UniData tables, providing COBOL customers with all the advantages of an extended-relational database, such as high availability and recoverability options. CDC also provides open interfaces such as ODBC, OLE DB, HTTP, and soon XML and JDBC, as well as tools such as RedBack Business Objects Server and the MITS BI/OLAP Tool Suite. CDC permits users to run both native ISAM files and UniData tables simultaneously, giving them the best of both the COBOL and UniData environments. CDC is available for Acucobol and MicroFocus COBOL, including Server Express.

IBM intends to offer limited enhancements and support to existing COBOL Direct Connect customers and business partners for as long as they require.

#### PI/Open

PI/Open is a heritage multivalued database. IBM intends to support existing PI/Open customers and business partners for as long as they require, while also providing a migration path to the UniVerse extended-relational database.

#### **Introduction to DB2 Information Management Software**

In the mid-1990s, DB2 entered the distributed database market to provide an innovative and standards-based offering with leading-edge technology to meet and exceed customer database needs from single processor to massively parallel systems. The DB2 Information Management Software unit has experienced over 22 consecutive quarters of growth, and has outpaced the industry's growth rate over the past few years.

Why DB2 Information Management Software? In 2003, the group of which Informix is a part was renamed DB2 Information Management Software, from "Data Management." Although the DB2 brand mark is not a part of the Informix products' name, the Informix suite is an important part of the DB2



DB2 sets the pace for performance and scalability across a wide variety of industry-standard benchmarks representing a broad range of applications.

The flexibility of DB2 on a range of enterprise platforms enables IBM to meet unique business needs, whether it's support of a complete IT infrastructure or mixand-match systems.

Information Management Software family.

Consider the following DB2 highlights:

• Performance leadership

In May of 2003, IBM announced a new world record for transaction processing for DB2. According to the Transaction Processing Performance Council's TPC-C benchmark, an IBM @server™ pSeries™ 690 with 32 POWER4+™ processors running the IBM AIX® UNIX operating system and DB2 Universal Database, Version 8.1 delivered 680,613.12 transactions per minute (tpm/C) at a cost of \$11.13/tpmC.

DB2 continues to set the pace for performance and scalability across a wide variety of industry-standard benchmarks representing a broad range of applications. DB2 dominates the SAP Standard Application Sales and Distribution (SD) three-tier benchmark, with results that represent almost twice the performance of the nearest competitor\* to demonstrate transactional performance leadership.

 Allows customers to choose either a complete IT infrastructure or mix-andmatch systems

DB2 is addressing the needs of customers that want to integrate their databases well with industry-leading hardware and applications to build a best-of-breed solution. Many customers want a vendor that can put a complete IT infrastructure in place and support it—and that's the power of IBM. We supply hardware and software with the services and support to make it all work. Other customers want a vendor that is open and works with best-of-breed offerings from hardware and software partners. IBM provides this as well, by also offering DB2 on IBM AIX, Sun Solaris, HP, Linux and Windows operating systems, among others.



DB2 works for both OLTP and decision support systems. In fact, DB2 also published the industry's first 10TB Terabyte TPC-H benchmark,\*\* making IBM the only vendor to demonstrate leading performance and scalability from 100 GB to 10 TB in a complex query/data warehouse benchmark. Additionally, DB2 in conjunction with WebSphere Application Server holds the leading results for the SPEC jAppServer2002 distributed mode benchmark.\*\*\*

• Innovations and patents

IBM is the world's information management technology leader, having been awarded the most U.S. inventions and patents for ten consecutive years. The relational data model and SQL language were invented at IBM. Cost-based query optimization technology was also invented by IBM, and continues to lead the industry in query optimization.

• Federated databases

Because very few customers have all their data in a single vendor's database, IBM created the innovative federated approach to managing and integrating information. Federated databases allow customers to access, manage and analyze data residing anywhere, in any format or in any database—including Oracle, Microsoft and Sybase. No other database management software company delivers that type of support.

• Integrated XML functionality

IBM has integrated XML functionality into DB2 to facilitate data interchange in support of business-to-business (B2B) applications. DB2 is the industry's first relational database with integrated in-memory text search capabilities that perform Internet searches more than ten times faster than traditional database search engines.

IBM is the world leader in U.S. inventions and patents.

IBM offers one of the most comprehensive solutions for federated database management.

With integrated XML functionality, DB2 can perform Internet searches ten times faster than traditional database search engines.



Designed to address the needs of on demand e-businesses, DB2 functionality can translate into real business benefits, from lower total cost of ownership to increased speed-to-market.

### · e-business features

The growth of e-business is increasing the need for customers to manage and distribute digital content, including images, computer-generated output, business documents and rich media. IBM Content Manager, based on DB2, is the only product of its kind designed to efficiently store and manage all types of content. For example, Content Manager enables corporations to electronically manage, protect and share critical business information, in any format, including XML and HTML. Images, audio and video, computer-generated output and business documents can now be securely shared electronically—a crucial step in e-business transformation.

### • Autonomic computing

IBM is making significant investments in autonomic computing to provide customers with self-configuring, self-optimizing and self-healing databases to minimize the complexities of managing networked computing infrastructure, and reduce the overall total cost of ownership.

#### Application compatibility and support

Leading DB2 technology and the IBM strategy of not competing with application vendors has led many application developers, such as SAP, PeopleSoft, Siebel, Retek and J.D. Edwards, to choose DB2 as their preferred database platform for both internal and external applications.



Baan and IBM are both committed to the support of our joint solution, and Informix customers can continue to rely on the existing certified Informix and Baan product lines.

DB2 is Baan's strategic database of choice for UNIX.

### **IBM** Informix partnerships

The IBM commitment to its business partners is very strong, as can be seen in our award-winning PartnerWorld partner programs. Leading application developers, such as Baan, PeopleSoft and SAP, are committed to protecting their Informix customers' investments as well as providing their applications on DB2. Their plans have been summarized below.

### Baan strategy for Informix customers

Baan strategy for Informix customers is to continue to provide investment protection and support for existing Baan customers running on Informix. Baan and IBM are both committed to the support of our joint solution, and Informix customers can continue to rely on the existing certified Informix and Baan product lines. IDS 9.40 is now certified with iBaan ERP 5.0c.

Neither IBM nor Baan will force any Informix customer to migrate to DB2. Baan has formally committed support for IDS through Triton, Baan IV a and b (Level 1), Baan IV c and iBaan ERP (Level 1 and 2), and will strive to evaluate all future IDS releases for certification. Because DB2 is Baan's strategic database of choice for UNIX, Informix customers may choose to transition to DB2 so that they may thus benefit from having access to a broader range of products. A transition to DB2 may be timely for existing customers looking to purchase new Baan products which are not currently available on Informix Dynamic Server. For customers considering such a transition, it is important to stress that the most secure path is to remain with IBM, as both the IDS and DB2 engineers are now part of one development and support organization within Baan. For customers not looking to migrate, we also recommend consideration of the IBM Gold Program, which offers investment protection for IDS customers who want the option to trade licenses to DB2—or vice-versa—in the future (see your IBM representative for more information).



The PeopleSoft strategy for Informix customers is to continue to provide investment protection and support for existing PeopleSoft customers running on Informix.

For customers considering transitioning from Informix, it is important to stress that the most secure path is to remain with IBM. Companies who have deployed iBAAN ERP solutions on the IBM IDS database also have the ability to maximize their software and hardware investments by stretching the performance and scalability of their existing environment by using MaxConnect.

### PeopleSoft strategy for Informix customers

The PeopleSoft strategy for Informix customers is to continue to provide investment protection and support for existing PeopleSoft customers running on Informix. Satisfied Informix customers can rely on the existing Informix and PeopleSoft product lines. PeopleSoft and IBM are both committed to the support of our joint solution. Neither PeopleSoft nor IBM will force any Informix customer to migrate to DB2. PeopleSoft has formally committed support through PeopleSoft V8.x for Human Capital Management, Human Resources Management, Financial Management Solutions, Enterprise Service Automation, Supply Chain Management and Distribution product suites. PeopleSoft has not yet made any formal commitments, or statements, beyond its V8.x. support for the Informix platform. IBM expects that decision to be announced at PeopleSoft's user conference in the summer of 2003.

Informix customers may choose to transition to DB2 because they may benefit from having access to PeopleSoft's full range of products. A transition to DB2 may be exceptionally timely for existing customers looking to purchase new PeopleSoft V8.x for Customer Relationship Management, Enterprise Performance Management (Analytics) or Learning Solutions, which are not available on Informix IDS. For customers considering transitioning from Informix, it is important to stress that the most secure path is to remain with IBM. PeopleSoft has announced DB2 as its strategic database for UNIX. Since IDS and DB2 engineers are now part of one development organization, customers can be assured that the best choice is to stay with IBM. For new PeopleSoft V8



IBM's Gold Program offers investment protection for IDS customers running SAP who want the option to trade licenses to DB2 in the future.

application decisions, IBM recommends DB2. The DB2 PeopleSoft Migration Program is available to PeopleSoft customers considering a database migration in the next 12 months. Customers not looking to migrate now may want to consider the IBM Gold Program, which offers investment protection for IDS customers who want the option to trade licenses to DB2 (and vice-versa) in the future (see your IBM representative for more information).

### SAP strategy for Informix customers

The SAP strategy for Informix customers is to continue to provide investment protection and support for existing SAP customers running on IDS. For the currently released mySAP products on IDS, satisfied SAP/Informix customers can rely on support from SAP and IBM as detailed below.

In 2002, SAP and IBM enabled all currently supported SAP/IDS applications (in their then most-current version) on the new SAP runtime environment, WAS 6.20. In addition, any enhancements made to these applications that become available in 2003 and 2004 (WAS 6.30 and 6.40 only) will also support IDS, with only two exceptions: Those new features that require Java-based database access and those that require Unicode support will not be enabled on IDS. The standard SAP support policy applies, so that those applications will be supported until their general SAP-defined end-of-maintenance date, which is typically five years from when the application was made generally available. For new SAP application decisions, IBM recommends DB2. For customers not looking to migrate, we also recommend consideration of the IBM Gold Program, which offers investment protection for IDS customers who want the option to trade licenses to DB2 in the future (see your IBM representative for more information).



There is significant potential for growth when ISVs who are selling applications with Informix products extend their platform support to DB2.

IBM is focused on creating new areas of opportunity to partner and win.

### Other business partners

While there is investment protection for ISVs continuing to sell current applications with IDS and other Informix products, there is significant potential for increased opportunity when their platform support extends to DB2, IBM Information Management products in content management and information integration, such as IBM WebSphere, and other IBM Software Group offerings such as Tivoli and Lotus software. If IBM Business Partners wish to port their applications to DB2, this and other IBM software products are available to members of PartnerWorld for Developers with the purchase of the IBM Software Access Option. The IBM Software Access Option provides Partner-World for Developers members easy access to development software as well as test, education, demonstration and evaluation software CDs and downloads. For more information on product availability, please visit the IBM Software Access Catalog (formerly known as IBM Software Mall) at:

http://www.developer.ibm.com/welcome/softmall.html

IBM Business Partners continue to be a critical component of the Customer Support and Services focus. Whether it is in the delivery of maintenance to customers, or skills transfer into each other's delivery teams, IBM is focused on constantly creating new areas of opportunity to partner and win. The Informix business partner community is seeing new opportunities opening up via the relationship with IBM, and IBM is fully committed to extending the value of this relationship with the Customer Support and Services team.

IBM does not offer application solutions that compete with those of its business partners, as some competitors do. The IBM strategy is to embrace, enhance and extend partnerships by protecting their investment, providing leadership programs, and expanding the opportunity for existing and new business partners.



IBM also realizes that business partners of all sizes and all types need up-to-date business and technical knowledge to run successful and profitable businesses. That's why IBM has developed the IBM Insight Exchange Business Partner initiative, a unique program of Webcasts and invitation-only conferences. The objective is to prepare our business partners to have a new dialog with customers and to deliver increasingly more customer value. It will give valuable insights into the trends and technologies that are shaping the future.

With presentations by both top-name industry and technology experts and IBM senior executives, Insight Exchange has been designed to provide success insights for current and prospective IBM Business Partners. To learn more about this first-of-its-kind program and register for upcoming Webcasts, please visit IBM Insight Exchange at:

#### ibm.com/software/insightexchange.

In addition to the support that IBM provides to Informix and U2 business partners, IBM also provides strong support for common customers through the International Informix Users Group (IIUG). While PartnerWorld offers many programmatic benefits that can support your marketing efforts and generate demand, IIUG membership offers a strong network and peer support system, access to specialized knowledge and software, event discounts and timely information regarding Informix products, services and programs. The IIUG is a great portal for Informix-related news. Business partners will want to take advantage of the IIUG Partner Special Interest Group (SIG), which was created as a vehicle for allowing business partners to share information and to get feedback to IBM quickly.

Business partners who have yet to join can easily become a member of the PartnerWorld community that best fits their business model. Give your company the opportunity to take advantage of a PartnerWorld membership so that you can receive communications on informative Web-based events, road shows, and other programs that will benefit your business throughout 2003.

IBM provides strong support for common customers through the International Informix Users Group.

#### Conclusion

Financial stability, a strong development roadmap, new product releases and investment protection all support the strong benefits of the IBM acquisition of the Informix database business for customers and business partners.

IBM has a long tradition of extending the value of customer and business partner investments by supporting and enhancing the products upon which our customers and business partners rely. Customers and business partners should be confident that their existing investments in the Informix and U2 portfolio will be supported and enhanced as described in this paper. No one will be forced to migrate to DB2.

Over the long term, IBM intends to integrate key technologies from a number of different Informix products into future versions of DB2, supporting Informix's original goals to deliver the "Arrowhead" vision to the Informix customer base.

IBM recommends that customers and business partners implementing new applications consider DB2 as appropriate. Review the vision and strategy earlier in this paper and speak with your IBM representative about what will be right for your situation.

The now-integrated Information Management team has a strong history of supporting customers and business partners over the long term. IBM promises to bring Informix users continued support for their products of choice, greater financial stability from their DBMS vendor, and an exciting future with new levels of technical innovation.



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The SAP Standard Application SD benchmark, R/3 Release 4.6C performed on September 14, 2002, by IBM in Beaverton, Oregon, USA, was certified on October 2, 2002, with the following data: 47,528 SAP SD users; 1.88s average dialog response time; 4,799,330 processed order line items/h; OS: AIX 5.1; RDBMS: DB2 v8.1; R/3 Release 4.6C; Central Server: IBM @server pSeries 690, 32-processor SMP, POWER4™ 1.3Ghz, 24 MB L2 cache, 64 GB main memory (certification # 2002053).

<sup>62,214</sup> QphH@10000GB;266\$/QphH@10000GB; System Availability: May 15, 2003.

<sup>\*\*\* 297.65</sup>TOPS; 1108.14 \$/TOPS