

Agenda

- Update on Informix @ IBM
- Informix Servers Roadmaps
- Tools and Connectivity Roadmaps
- Quality
- Informix and IBM Product Integration
- Summary
- Q&A




Topics

- Update on Informix @ IBM

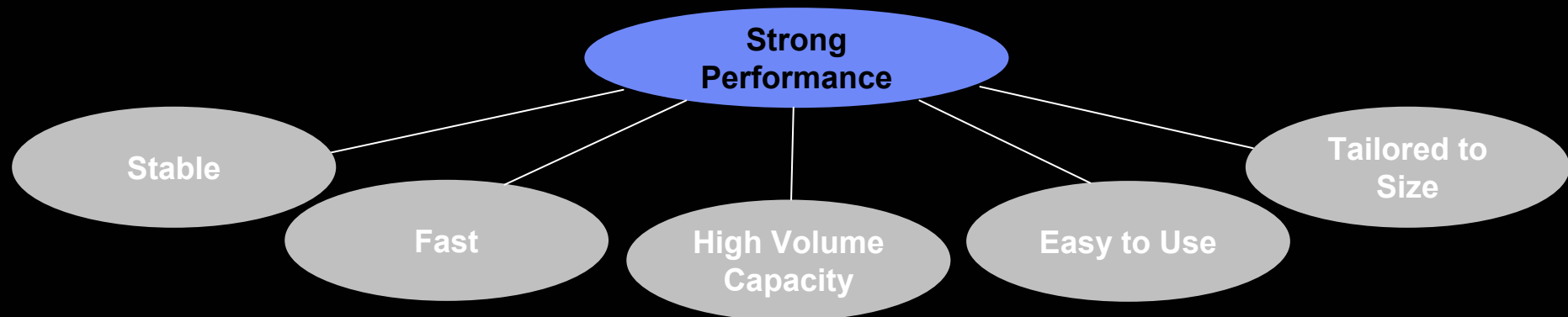


Message to Informix Clients and Partners

- 
- IBM has plans to continue to support and enhance IDS and major Informix software products, for as long as clients require.
 - IBM has significantly increased the interoperability between IDS, DB2 Information Management and other IBM software products.
 - IBM can extend the value of an existing Informix investment with our middleware software and hardware offerings.
 - IBM has ensured that DB2 is the easiest and best platform for clients who are considering transitions from Informix.

Product Satisfaction is Very High

- The majority of Informix clients and partners are satisfied with the capabilities of the product
- Informix Products have benefited from IBM's development process, quality standards and technology sharing

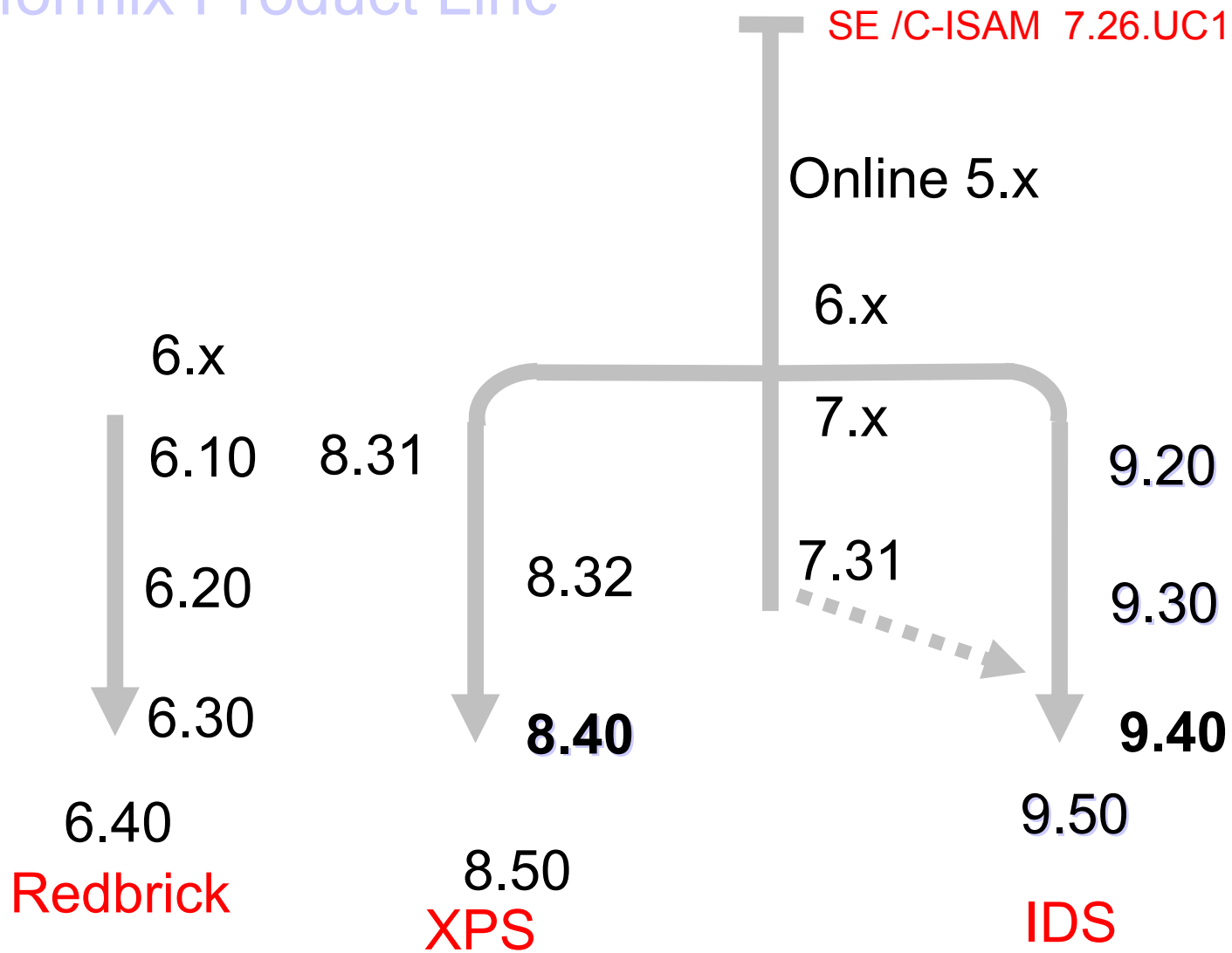


Topics

- Informix Servers Roadmaps



Informix Product Line



IDS 9.40 – Market Success !



“The fastest, most reliable, highest scaling IDS database ever produced... provides the performance and reliability needed for today's always available, demanding and global e-business environments.”

Over 6000 downloads... “IDS 9.4 is the most successful download ever at the IIUG site.”

IIUG, October, 2003

“... the majority of Informix users plan to continue to use or expand their use of Informix in the foreseeable future...”

July, 2003 IBM survey of over 200 Informix customers worldwide

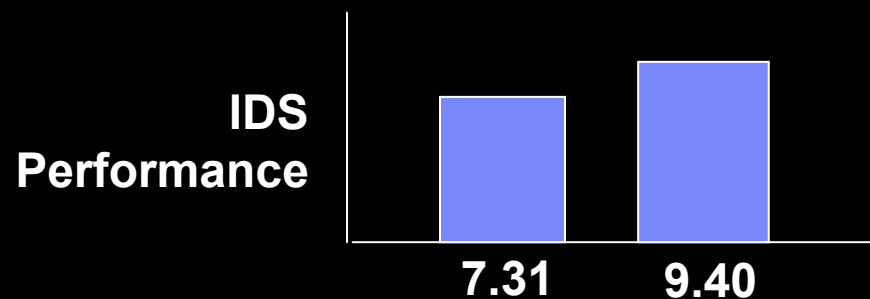
IDS 9.40 – Back to Basics

- Performance
 - 8-15% increase overall
- Availability
 - High Availability Data Replication (HDR) & Enterprise Replication (ER)
- Scalability
 - Create and manage HUGE instances
- Security
 - End-to-end encryption
- Easy Upgrade
 - Minutes to upgrade from IDS 7
- Quality
 - Highest Quality release ever!



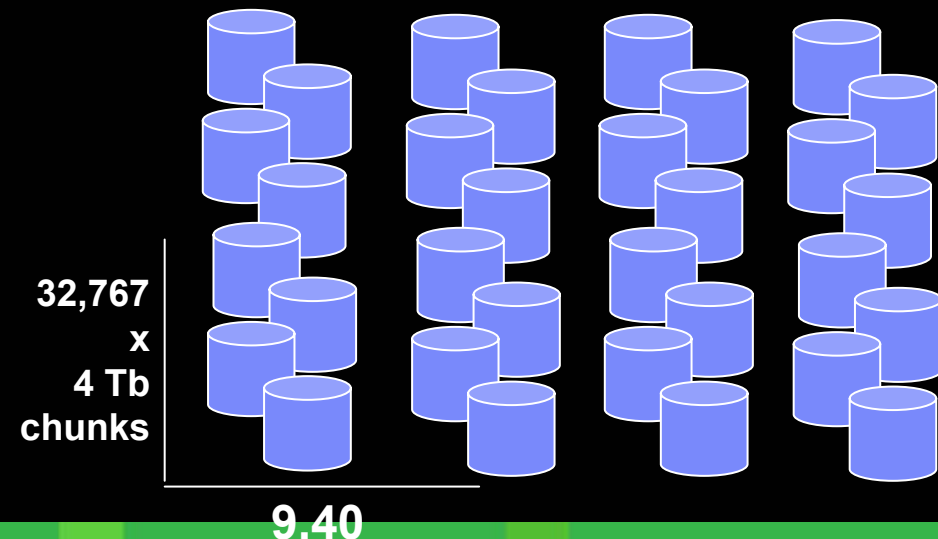
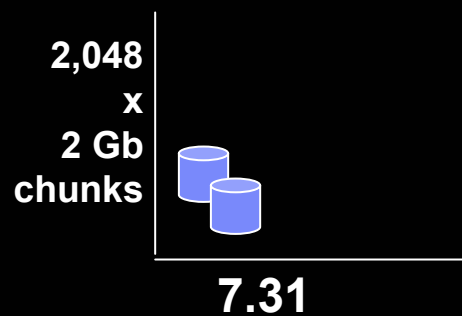
IDS 9.40 – High Performance Technology

- ✓ 8-15% improvement in internal benchmarks
- ✓ Cleaner indexes and improved memory management for more-efficient use of memory and processors.
- ✓ Enhanced buffer priority management for more-efficient use of large amounts of memory
- ✓ Smarter query optimization
- ✓ Reduced contention between concurrent users



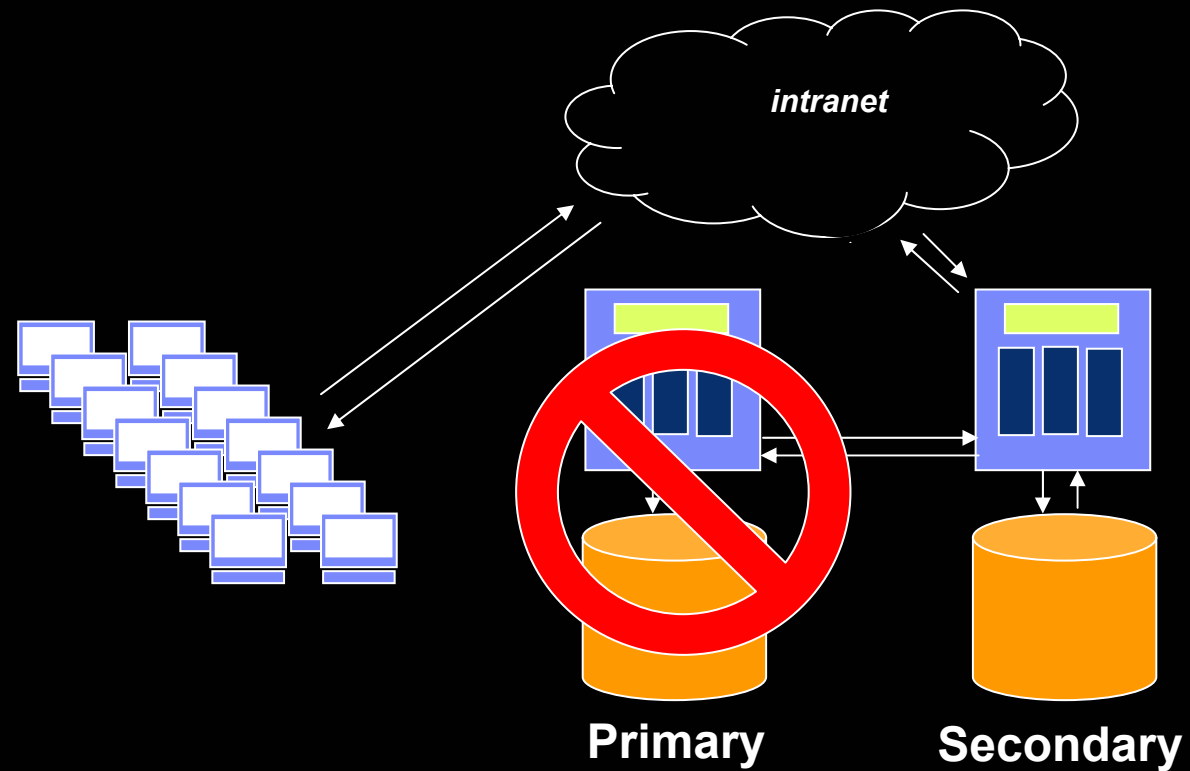
IDS 9.40 - Scalability

- ✓ Maximum chunk size 4 TB
- ✓ Maximum number of chunks 32 K
- ✓ Admin Tools (dbexport/dbimport, ontape, unload/load, onunload/onload, dbload..)
- ✓ Data capacity of a single instance **128 PB****
- ✓ Maximum VARCHAR size 32 KB
- ✓ DBMS utility file size limits -- 7 EB (7 trillion MBs) for some, 4 TB for others



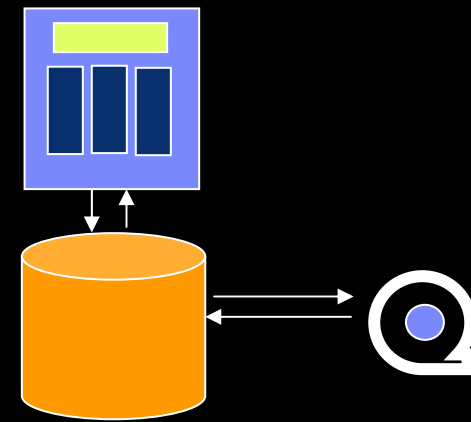
IDS 9.40 - Mission Critical Reliability & Availability

- ✓ HDR / ER support of all data types
- ✓ HDR / ER co-existence on the same instance



IDS 9.40 – Restoration and Administration

- ✓ Full tape size support
(TAPESIZE=0 means write to end of tape)
- ✓ No room loss, money safe
- ✓ Re-directed restores
(Rename chunk paths to duplicate a system)
- ✓ Restartable fast recovery
- ✓ ISA 1.5
 - ISM support
 - Edit / configure alarms
- ✓ Unix bundle installer

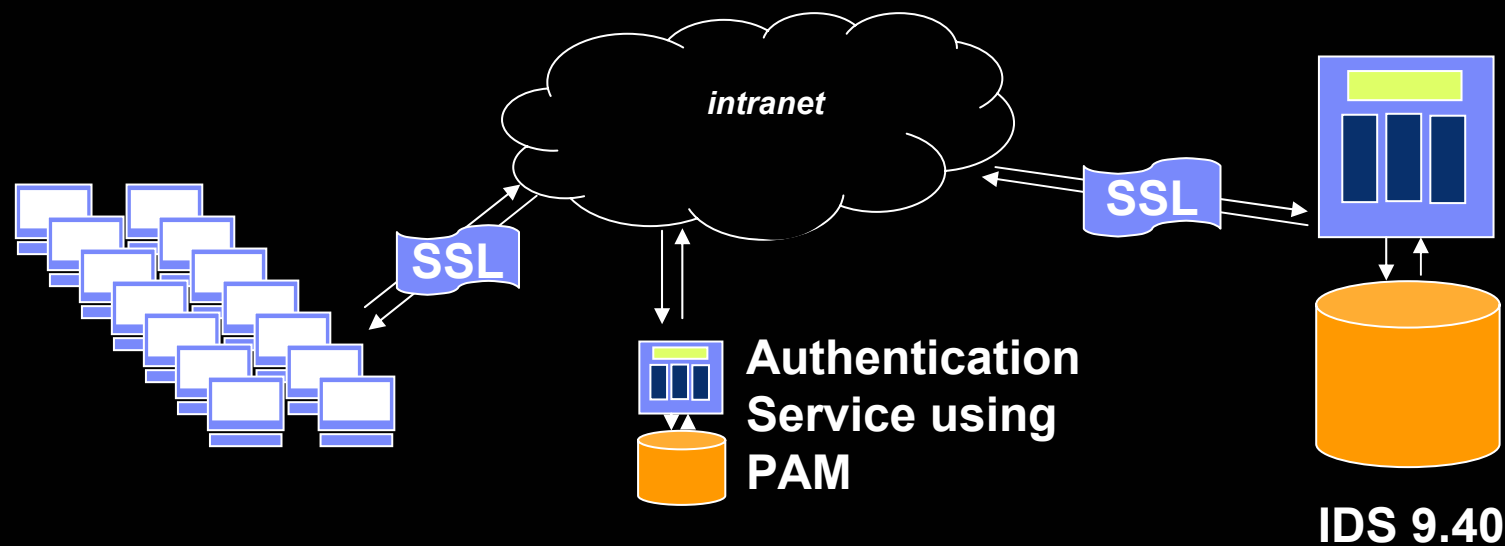


**More flexible archive
and restore options**

IDS 9.40

IDS 9.40 – Security Features

- ✓ Secure over-the-wire encryption using OpenSSL encryption libraries
- ✓ Configurable user authentication mechanisms using Pluggable Authentication Modules (PAMs)



IDS 9.40 – Application Development enhancements

- ✓ SQL language enhancements
 - New joins, triggers on views, union in sub-select, named return parameters, order by not in select, sequences
- ✓ Expanded Unicode support 3.1.3 (code from DB2)
- ✓ Multiple collation support
- ✓ CSDK 2.81 (First release for all informix servers)
- ✓ Continued support of IBM Informix
4GL, SQL, ODBC, JDBC, OLE/DB, SQLJ
- ✓ .NET Support

Informix Dynamic Server 9.4 for Linux on zSeries



- IBM Informix 9.40 is the first IBM database engine to fully exploit the large memory, **64-bit** capabilities of the Linux kernel on the zSeries.
- Fully implemented **64-bit** architectures, such as zSeries, remove the **32-bit** limitations from files, file systems, and applications and enable the use of detail-data, regardless of its volume.
- **64-bit** systems reduce the work of the application programmer by removing the design constraints inherent in **32-bit** architectures. This means larger I/O block sizes, reduced disk accesses, and the ability to store more data in system memory, which results in improved performance, ease of use, and the ability to handle larger problems more easily.



9.4 References



“We chose Informix over Oracle”



“Because of the improved functionalities of the IDS on Linux... Irwin expects to increase its operational efficiency by 80%”



“an easily administered database... less expensive than the competition”

**El Salvador
Tax Authorities**

“actual conversion was planned for a 4-5 day period... conversion was complete after 2 days”



9.4 References

“IDS more than capable of keeping up with the 5,000 per second transaction rate...reduce(d) total cost of ownership for its IT environment by 30 percent.”

“...expects to save up to US \$250K / year in expenses”

“anticipates it can reduce IT platform costs by 40 percent compared to the previous Unix-based application and over 50 percent compared to Oracle”



IBM Informix Dynamic Server Roadmap

**IDS
v9.40**

GA March 2003

- Backup & Restore
- HDR & ER coexistence
- Remove size restrictions
- Security Sys.
- Monitoring, Utilities
- Performance

**IDS
v9.50**

2005

- In Development: Safety – High Availability
- Application Dev / XML / Stds. Compliance
 - 4GL/WebSphere EGL
 - Autonomic / Ease of Administration (New Mode Single DBA)
- Software Group Integration
- Security : Column level encryption, Server utilities check
- Performance : Configurable page size from 2k to 32K, PDQ enhancement
- Table level Restore

**IDS
v9.60**

- Customer/Partner Requests
- Safety
- DB2 Interoperability
- Integration with IBM Software

**IDS
v9.70**

DB2 Interoperability, Market, Technology & Customer Requests

2003

2004

2005

2006

2007

2008

....2010



IBM Informix XPS Roadmap

**XPS
v8.40**

Oct 2002

- Long IDs
- Snowflake support
- Ext. Tables support
 - 2g files

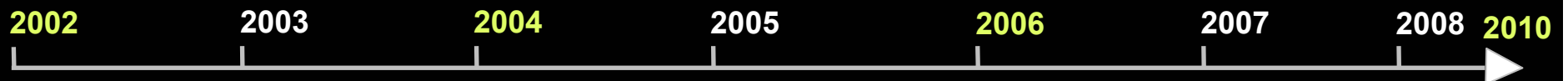
**XPS
v8.50**

2H2004

- In Development: Other core features
 - Re-startable Restore
 - Distributed Query Coordinator
 - OLAP functions
- DB2 Tools Integration:
 - Query Manager, OLAP Server, i-Miner
- Ease of Use, IBM SW integration, Performance

**XPS
vNext**

2H2006



IBM Red Brick Warehouse Roadmap

Red Brick v6.2

Oct 2002

Integrated Analytics

- ANSI SQL/OLAP functions
- Integrated Backup/Restore
- Query/Load Performance
- Load/Export data in XML

Red Brick v6.3

April 2004

DB2 Interoperability

- DB2 BI tools integration
- Performance Improvements
- Dynamic Smart Scan
- Self Tuning TMU Block
Improve performance of aggregations, deletes, table scans

Red Brick vNext

2H2005

- Market, Technology trends
- Customer Requirements
- Quality Enhancements

Red Brick vNext

DB2 Interoperability,
Market, Technology
& Customer Requests

2002

2003

2004

2005

2006

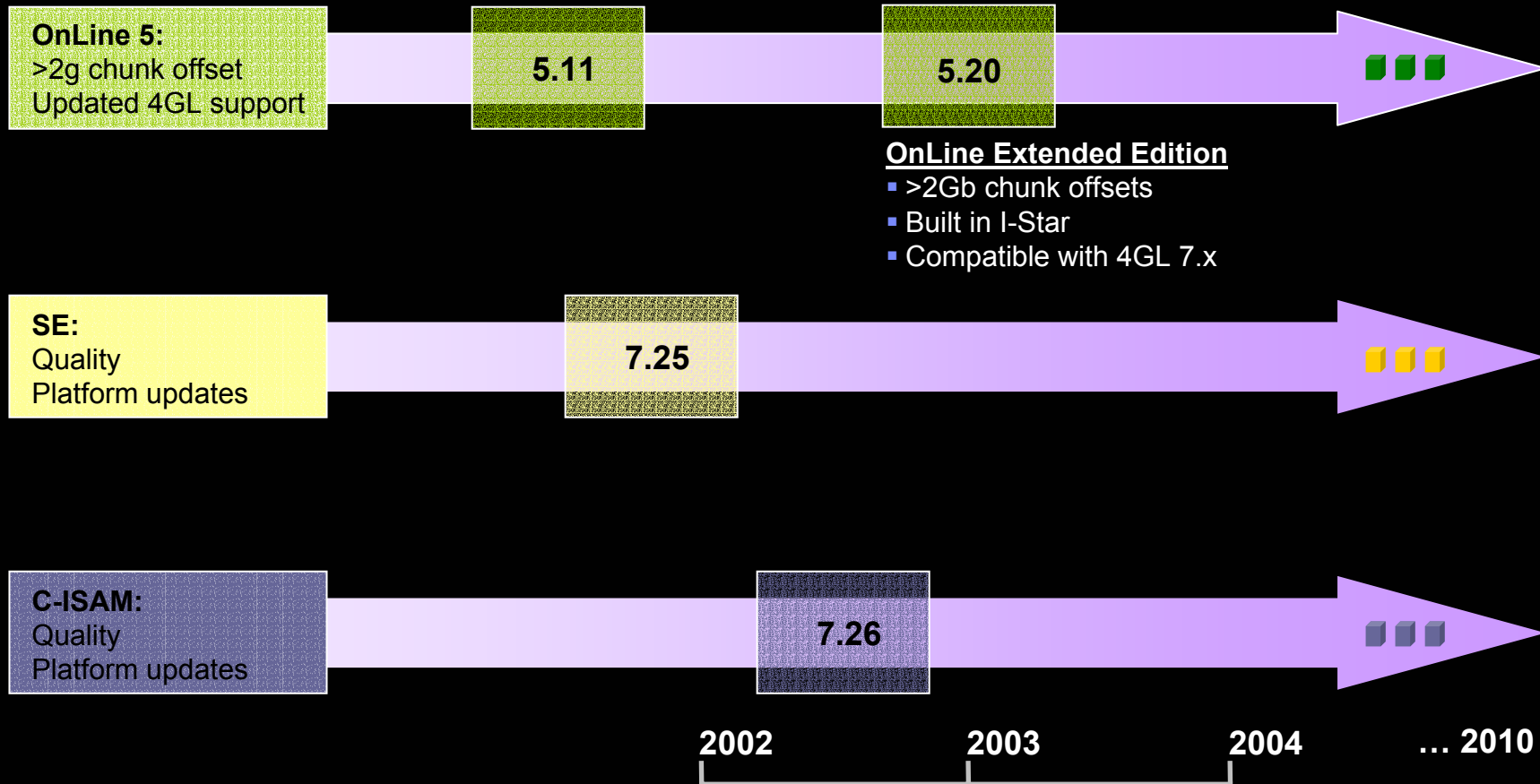
2007

.....2010



“Classic” Servers Roadmap

Classic Servers receive continued platform support as needed



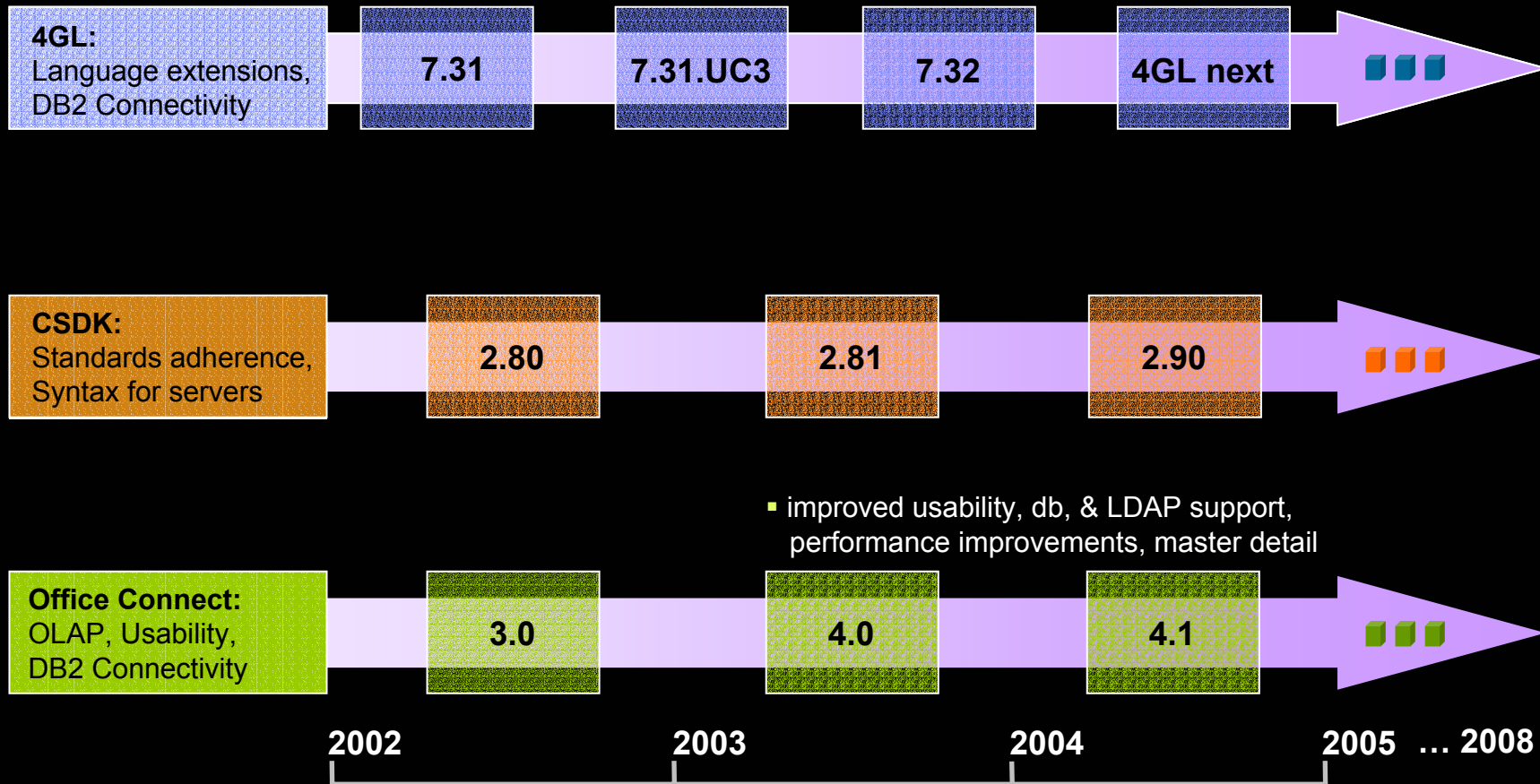
Topics

- Tools and Connectivity Roadmaps



Tools and Connectivity

Informix tools and connectivity are being functionally enhanced and many will connect natively with DB2



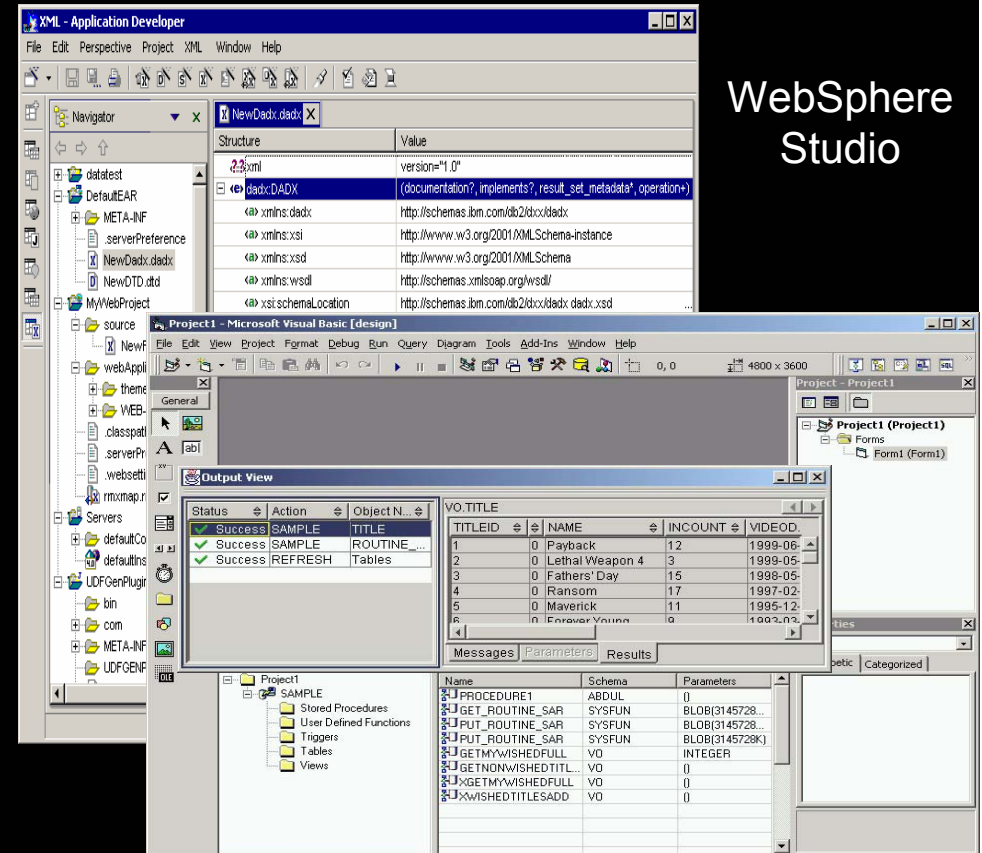
CSDK Goal: Improve Application Development Productivity

Developer Productivity for Both Worlds: Java & .NET

- **Flexibility in Access Style**
 - SQL
 - JDBC, Java Beans
 - ADO, ODBC, OLE DB
 - Web Services

- **Seamless Integration with IDEs**
 - Java...WebSphere Studio
 - .NET...Visual Studio .NET

- **Increased Productivity**
 - Less Code
 - Less Maintenance
 - Faster Development



WebSphere Studio

Microsoft Visual Studio .NET

IBM Informix CSDK .NET Roadmap

CSDK 2.81.UC3

Shipped Q4'03

- Availability of new IDS .NET provider
- Supports .NET framework 1.1

CSDK 2.90 TC1

Availability with IDS 9.5

- Support for Informix specific data types (non-complex types)
- Supports .NET framework 1.1
- Incremental Integration with **Visual Studio .NET 2003 Toolbox, code generation for IDS .NET components**
- Windows 2003 OS Certification

CSDK v.Next

- Strong Integration with Visual Studio 2004 - rich set of UI for IDS database objects including browsing and creation of database objects
- Continual support for new versions of .NET framework
- Support within IBM Explorer for CSDK .NET
- Support for IDS Complex Types

2003

2004

2006



.NET Data Provider

Capabilities

- Microsoft defined API for .Net Framework Languages
 - Visual Basic.Net, Visual C#
- Windows only API, compatible with Microsoft .Net applications and tools
- Extensions to support Informix specific capabilities
- Compatible with all Informix servers
- Leverages DB2 implementation and agreements with Microsoft

Competitive Strengths

- Supports the latest .NET framework (1.1)
- Connection pooling support

Future Plans

- Integration with Microsoft Visual Studio 2003 and 2005 (Whidbey)
- Complete support for Informix data types – Rows and Collections



Integration with Microsoft Visual Studio .NET

- Emphasis on improving Visual Studio .NET development experience when using IBM (DB2 and IDS) DBMS
- IBM connections and database projects are depicted within Visual Studio:
 - Data Connections folder
 - Server Explorer tab
 - Solution Explorer shows IBM database projects
- Future release will add support for:
 - IDS SQL Editor
 - IDS Query Builder
 - Content and dynamic help



.NET Installation and Deployment

- IDS .Net Provider requires .NET framework version 1.1
- IDS .Net Provider will be included with CSDK (development) and I-Connect (runtime) distributions
- Requires a stored procedure to be installed in sysmaster database of each server instance



4GL Future Integration with WebSphere Studio

WebSphere Studio is...

- an industry leading IDE
- well integrated with WebSphere Application Server (WAS), the leading web app server in the world

4GL customers will get . . .

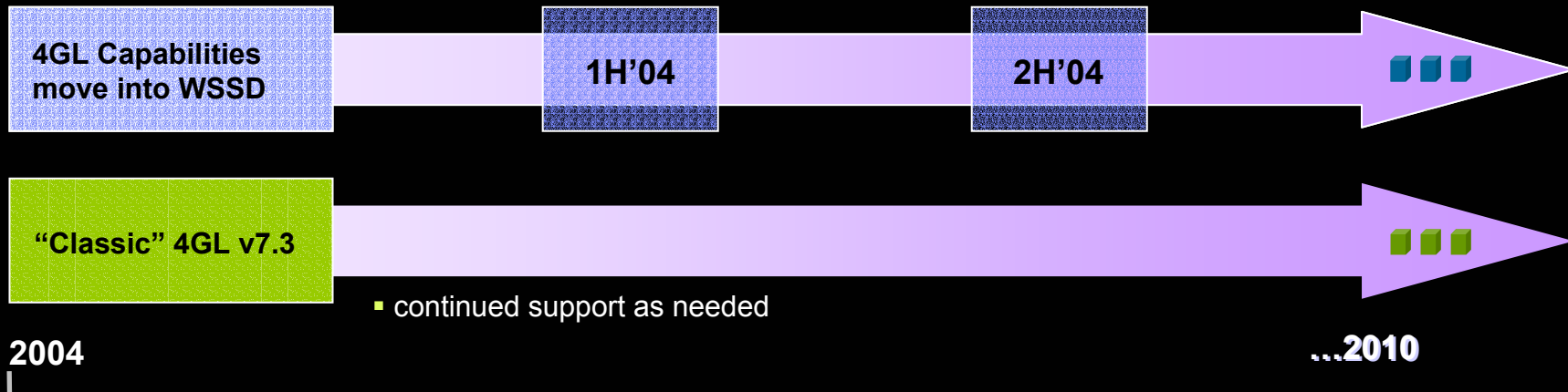
- web applications
- Windows platform
- open database connectivity
- context-sensitive EGL editor and debugger
- enhanced reporting
- continued text-based UI support

WebSphere Studio Site Developer V5.1.2

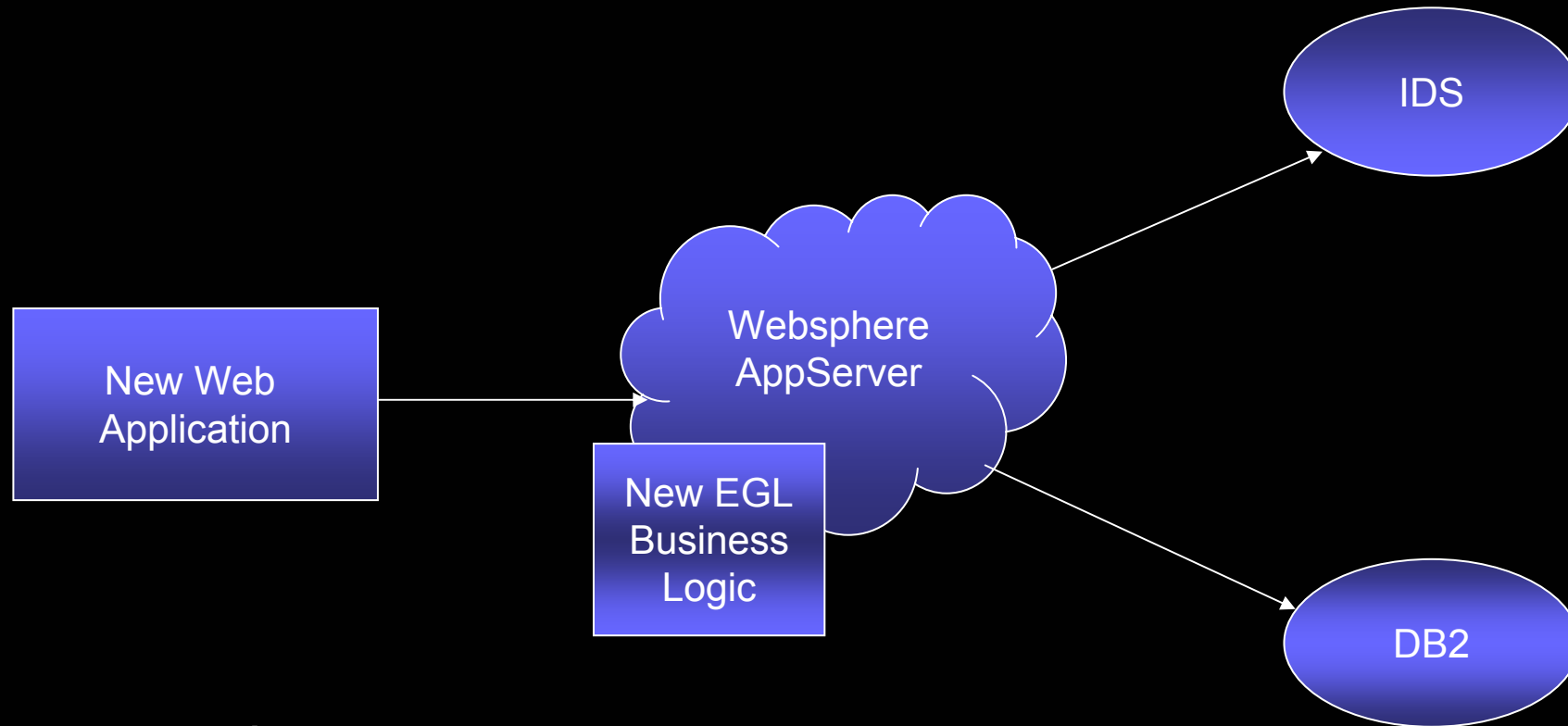
- A well-defined and easy to use IDE
- New web application development
- 4GL-syntax incorporated in EGL
- Connectivity to DB2 and Informix
- Develop new batch database programs

WebSphere Studio Site Developer V6.0

- Provide DB2 connectivity to migrated applications
- Develop new web applications using current I4GL business logic
- Develop new TUI applications or maintain existing ones
- Deploy on new platforms, including Windows
- Use enhanced reporting capabilities



Websphere 5.1.2 – Phase 1 Offering



- * New web application development
- * 4GL-syntax incorporated in EGL
- * Connectivity to DB2 and Informix



EGL 5.1.2 Release

What's in it for you . . .

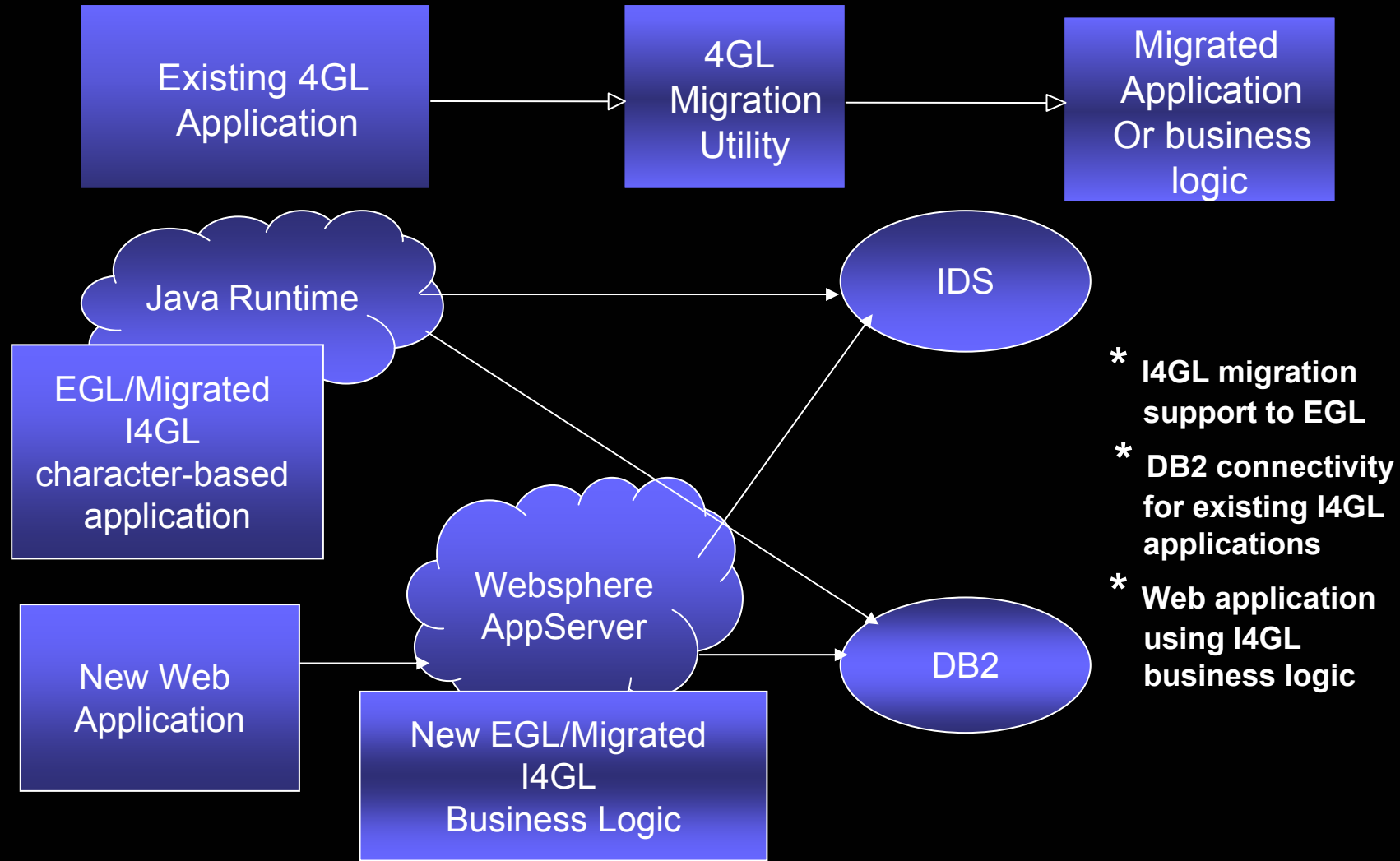
- A well-defined and easy to use IDE
- Most of I4GL's base program logic constructs and most of its SQL database capabilities
- Support for JSF technology, which links a JSF-based JSP with EGL program structures, data items, and control logic
- Support for zSeries and iSeries character-based application development

What you can do with it . . .

- Gain familiarity with EGL and WebSphere Studio IDE
- Develop new batch database programs
- Develop new web applications
- Obtain a modern IDE that you can use TODAY!!!



Websphere 6.0 – Phase 2 Offering



EGL 6.0 Release – the first migration point for I4GL customers

What's in it for you . . .

- A tool to migrate existing I4GL applications to EGL
- Enhanced reporting
- Support for TUI
- Support for the remaining I4GL constructs and data types

What you can do with it . . .

- Provide DB2 connectivity to migrated applications
- Develop new web applications using current I4GL business logic
- Develop new TUI applications or maintain existing ones
- Deploy on new platforms, including Windows
- Use enhanced reporting capabilities



Topics

- Quality



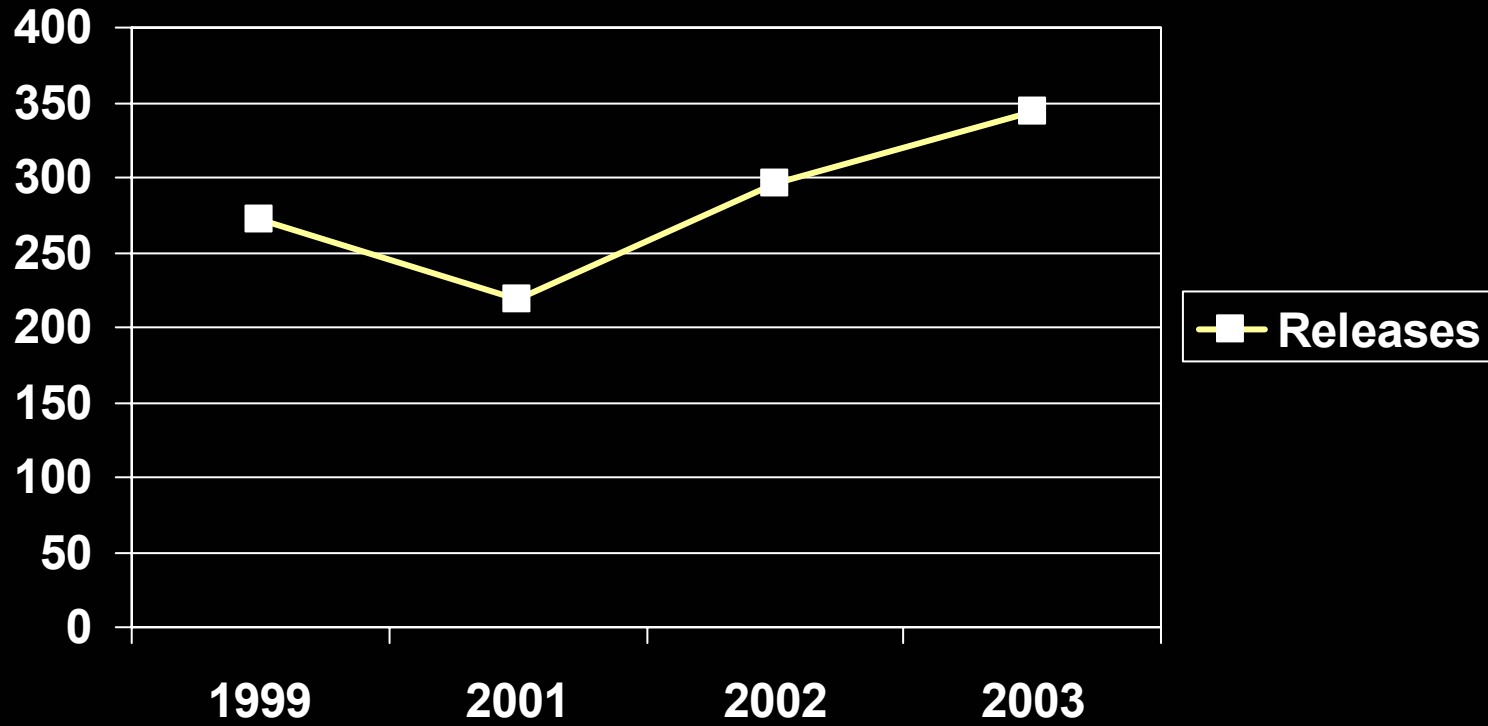
The Paradigm Shift

- To improve customer satisfaction, product quality, and overall productivity, many process changes were needed:
 - Build and test activities needed to be automated
 - QA needed to focus on new test development
 - Code review and check-in requirements needed to be defined and enforced
 - Our teaming with Tech Support needed to improve

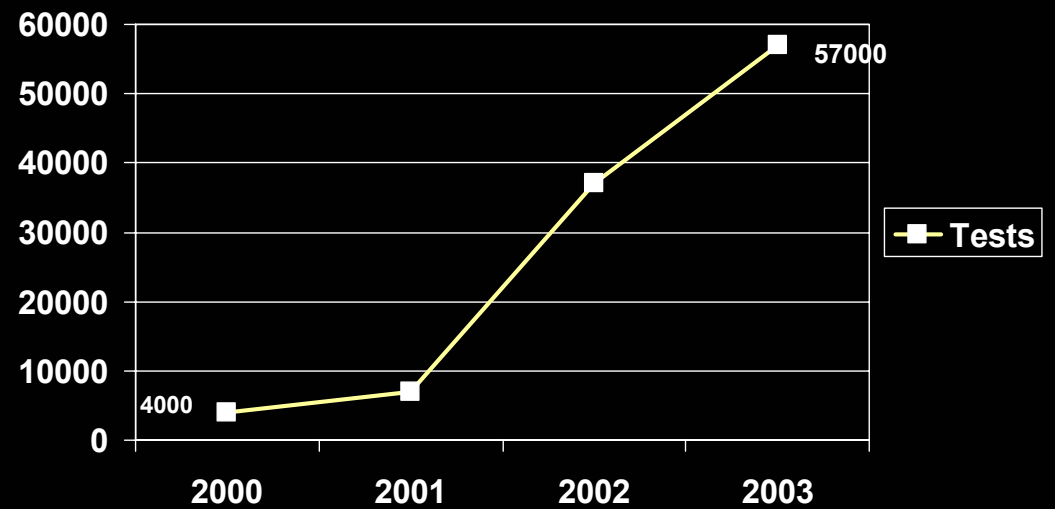
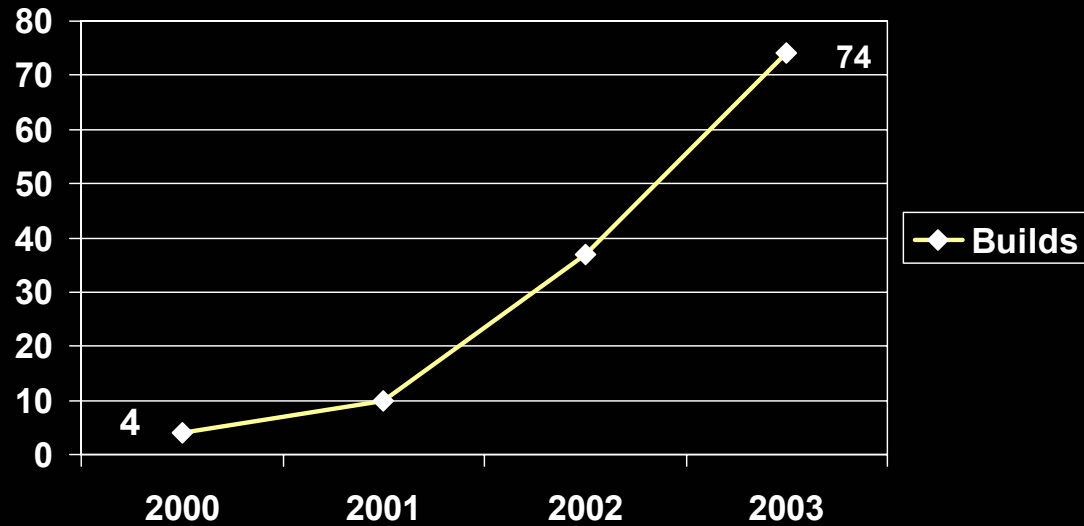
Goal: Increase customer satisfaction through improved quality and process change



Product Releases 1999-2003



Nightly Builds and Tests (IDS(4), CSDK, GLS, 4GL)



IDS Fix Packs and Defect Reduction

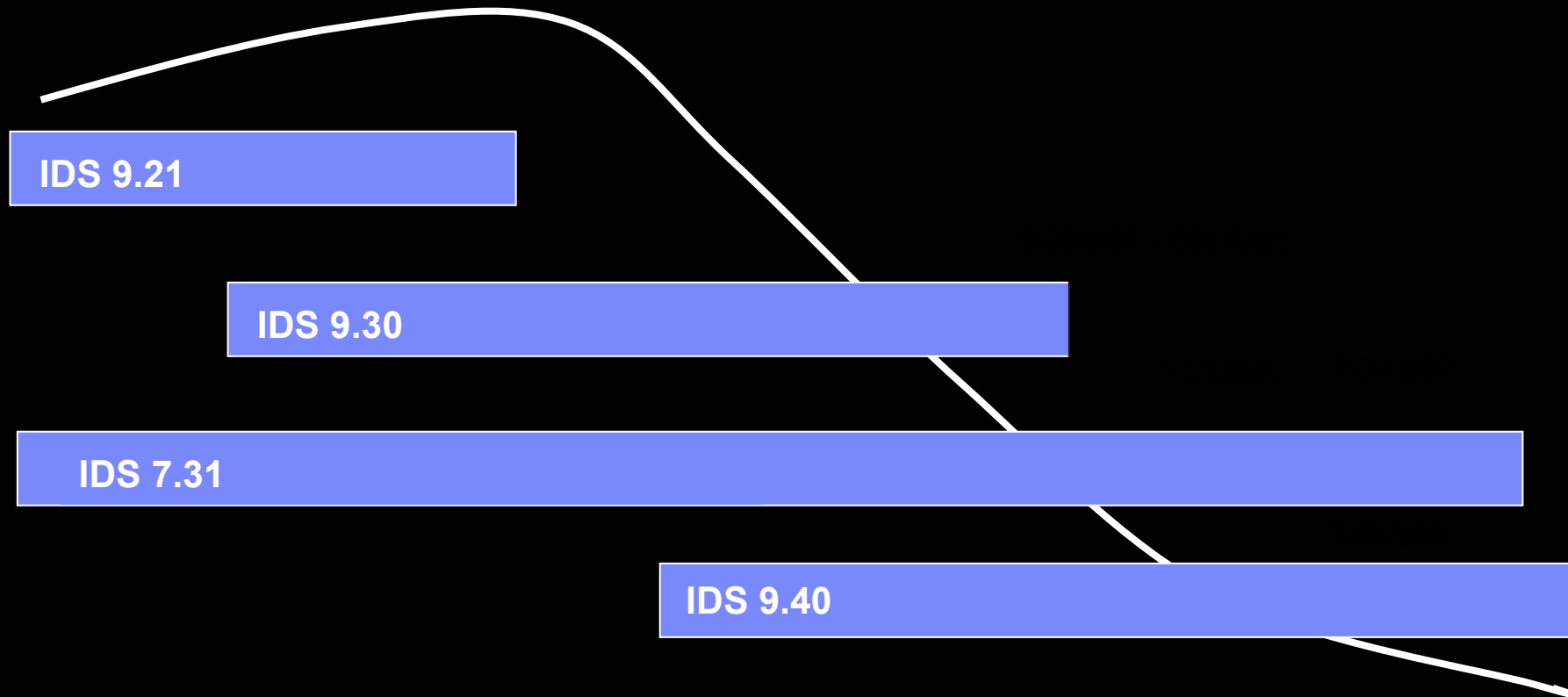
2001

2002

2003

2004

Defect Backlog



2003 Accomplishments

- IDS 9.40 provided significant new functionality to clients!
- IDS defect backlog reduced by 60% in 2003!
- Customer escalation response time reduced by 30%!
- IDS went mainframe with our first release of zSeries Linux 64-bit!
- First Itanium release of IDS – on HP-UX environment!
- First .NET API release to access IDS!
- IDS certification with WebSphere!



Topics

- Informix and IBM Product Integration



IDS and IBM Software Group Products

WebSphere. software

IDS 9.3, 9.4	WebSphere Application Server, v4.0. V5.0
IDS 9.3, 9.4	WebSphere Portal Server, V5.0
IDS 9.3, 9.4	WebSphere Studio Application Developer, V4.0 Web Services Object Runtime Framework (WORF) V3.5
IDS 9.3, 9.4	WebSphere Studio Enterprise Developer, v.5.0

Tivoli. software

IDS 7.31, 9.3, 9.4	Tivoli Monitoring for Databases, V5.1.0
IDS 7.31, 9.3, 9.4	Tivoli Data Protection for Informix

Lotus software

IDS	Lotus Enterprise Integration (LEI) 6 / Domino 6
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Informix – WebSphere Integration

WebSphere software

WebSphere Application Server

WebSphere Express

WebSphere Portal Enable

WebSphere Portal Extended

WebSphere Portal Express (multi-platforms)

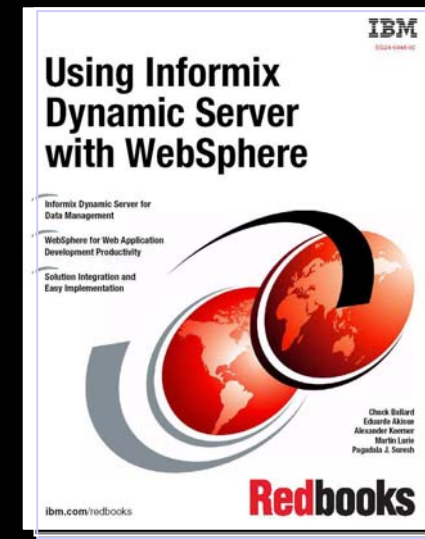
WebSphere MQ Series

WebSphere Studio Site Developer

WebSphere Studio Application Developer

WebSphere Studio App. Dev. Integration Edition

WebSphere Studio Enterprise Developer



The First IBM Informix Redbook!

- Download at: ibm.com/redbooks
- Redbook ID: SG24-6948



Informix – Technologies being leveraged into IBM

- Cloudscape: zero admin, small footprint, J2EE/JDBC compliant embeddable Java database with full SQL support
 - Being leveraged in over 50 IBM software products – including releases in WebSphere & DB2
- Informix HDR
 - Being built into DB2 UDB for release 8.2 in 2H04
- IDS, XPS and Red Brick features being delivered into each future DB2 UDB release

Rational. software

DB2 Information Management Software

Tivoli. software

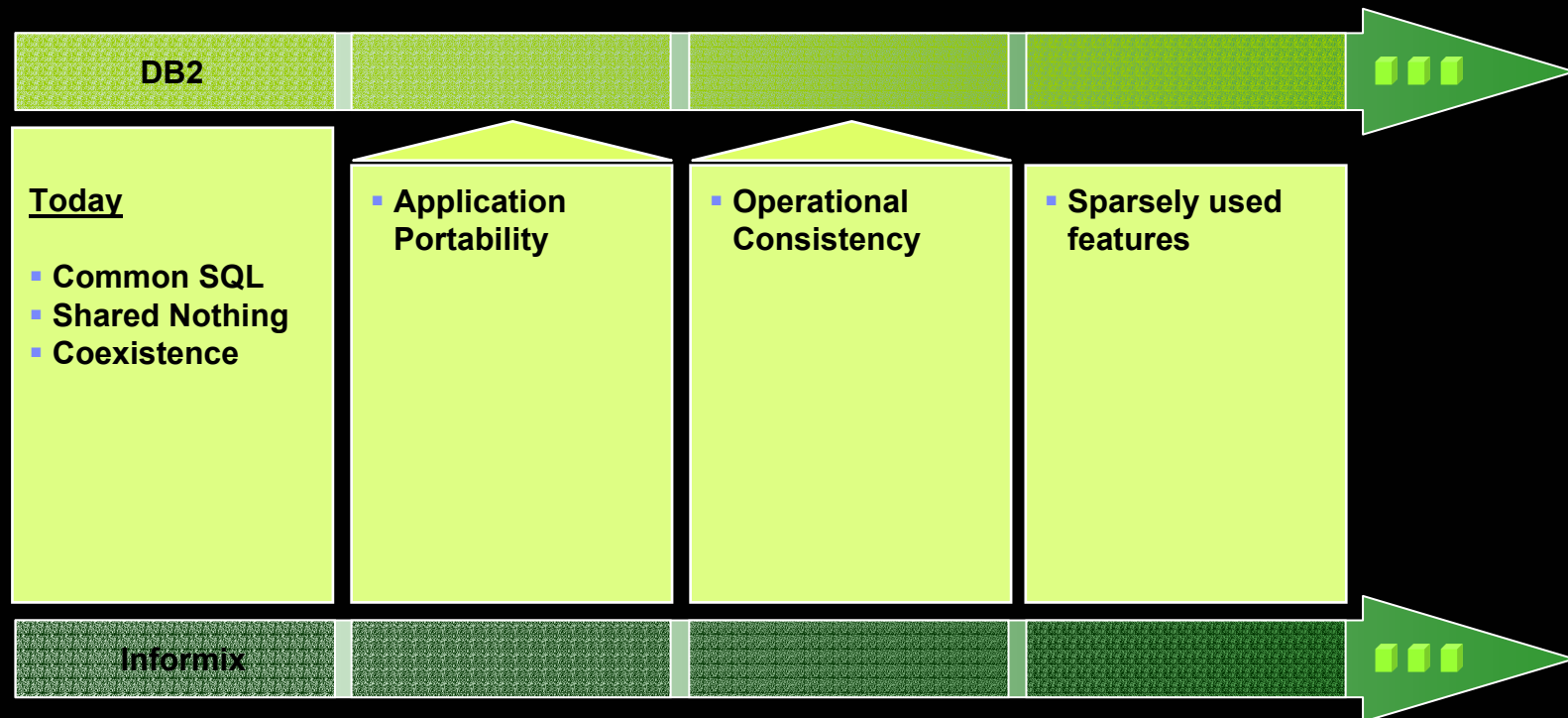
WebSphere. software

Lotus software

Informix Database Servers

Increasing Function & Compatibility in DB2 UDB
Continuing Investment in Informix Support & Enhancements

DB2 V8 Informix Compatibility Items – March 03



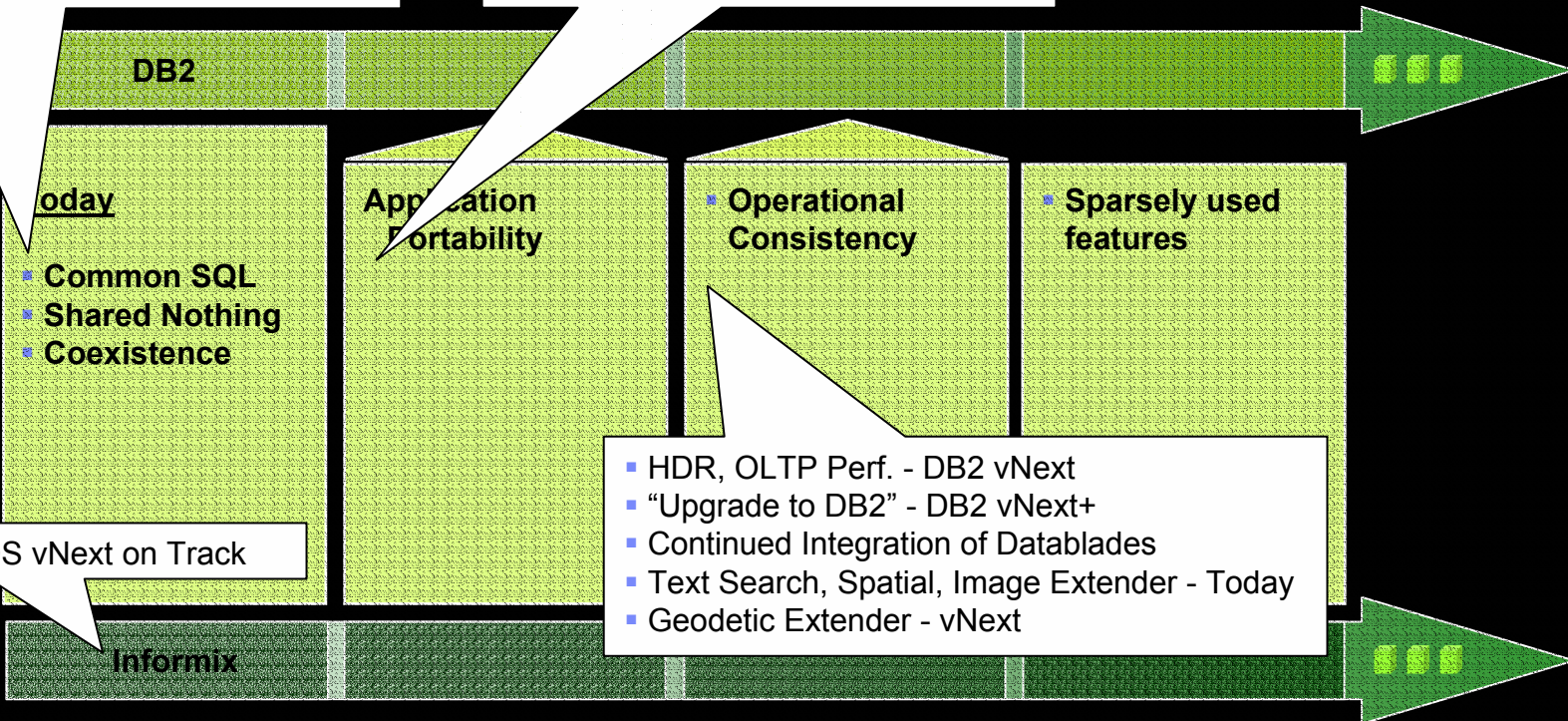
IDS 9.4 – March 03, IDS for Linux on zSeries – June 03



Informix Database Servers

- MTK for Informix in Beta
- DDL, DML, Data, Schema,- Ready
- SPL - In Progress

- ODBC, JDBC - today
- ESQL/C – vNext+
- 4GL - WAS vNext



- IDS vNext on Track

- HDR, OLTP Perf. - DB2 vNext
- "Upgrade to DB2" - DB2 vNext+
- Continued Integration of Datablades
- Text Search, Spatial, Image Extender - Today
- Geodetic Extender - vNext



Topics

- Summary



Why IBM?

- IBM continued to be the **leading vendor** in new license revenue in 2002, with a total of 36% market share (Gartner)
- IBM Service & Support
- Continued focus on product development and integration
- Informix and IBM is a winning team!

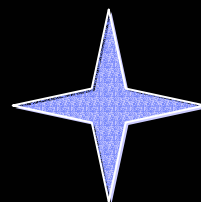


Conclusions

- **No end of life for Informix Products(pérennité)**
- **No Forced migration to DB2(DB2 is only a alternative)**
- **2003 shows revenue increase about 23 % on Informix products for IBM**
- **Sales Team have been strengthened !**
- **R&D team have been increased !**
- **IDS 9.40 provided significant new functionality to clients!**
- **Informix IDS 9.4 is still one of the leading high-end OLTP and extensible databases**
- **The informix IDS family is the Database of choice for ISVs to embed their application.**
- **Since the IBM acquisition it became an even better e-business platform due to new features in the core server and its integration with other IBM SWG middleware softwares**
- **Very tight integration with the WebSphere family allows for easy, integrated development and deployment.**
- **IDS went mainframe with our first release of zSeries Linux 64-bit!**
- **Good Expectations for Informix Products**



Q&A ?



Merci !

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Websites for More Information

- IBM Software:
 - ibm.com/software
- IBM Information Management Software
 - ibm.com/software/data
- Informix home page
 - ibm.com/informix
- IDS page
 - ibm.com/informix/ids
- Information Management Today Newsletter
 - ibm.com/software/data/db2infonews/

