

*Data Management*

## Break Free with IBM DB2 9.7

Reduce Operational Costs

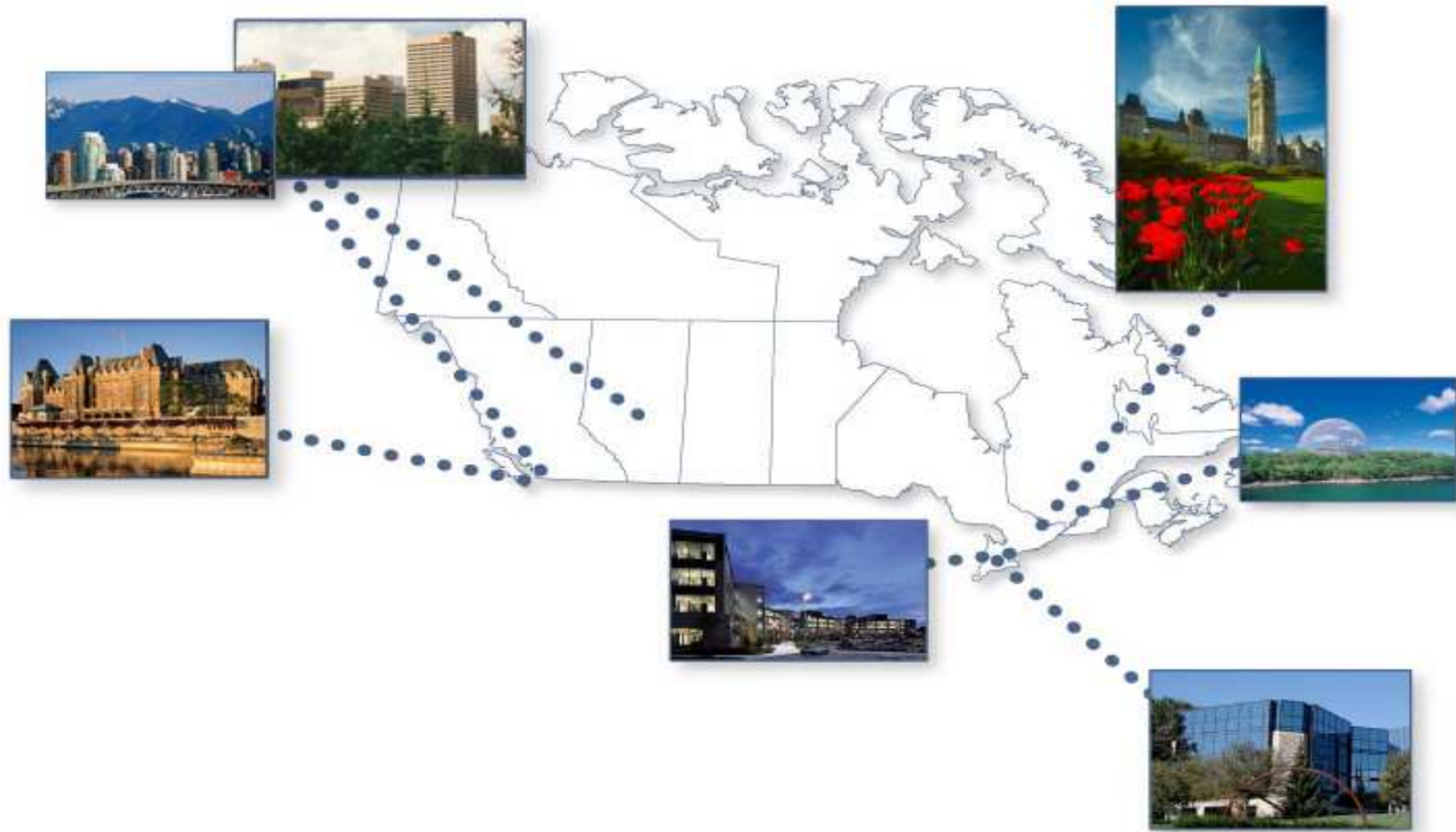
## Legal Notices

*The information on features in development is intended to outline our general product direction and it should not be relied on in making a purchase decision. The information on the features in development is for informational purposes only and may not be incorporated into any contract. The information on the features in development is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. The development, release, and timing of any features or functionality described in our products remains at our sole discretion.*

*The information contained in this presentation is provided for informational purposes only. Although efforts were made to verify the completeness and accuracy of the information contained in this presentation, it is provided "as is", without warranty of any kind, express or implied. In addition, this information is based on IBM'S current product plans and strategy and represent IBM'S goals and objectives only, and are subject to change or withdrawal by IBM without notice.*

*IBM shall not be responsible for any damages arising out of the use of, or otherwise related to, this presentation or any other documentation. Nothing contained in this presentation is intended to, or shall have the effect of creating any warranty or representation from IBM (or its affiliates or their suppliers and/or licensors); or altering the terms and conditions of the applicable license agreement governing the use of IBM software.*

# IBM Canada Software Labs



# IBM DB2

## Reduce Operational Costs



### Low Operational Costs

*Automate DBA tasks,  
optimize storage,  
leading performance.*

### Reliability

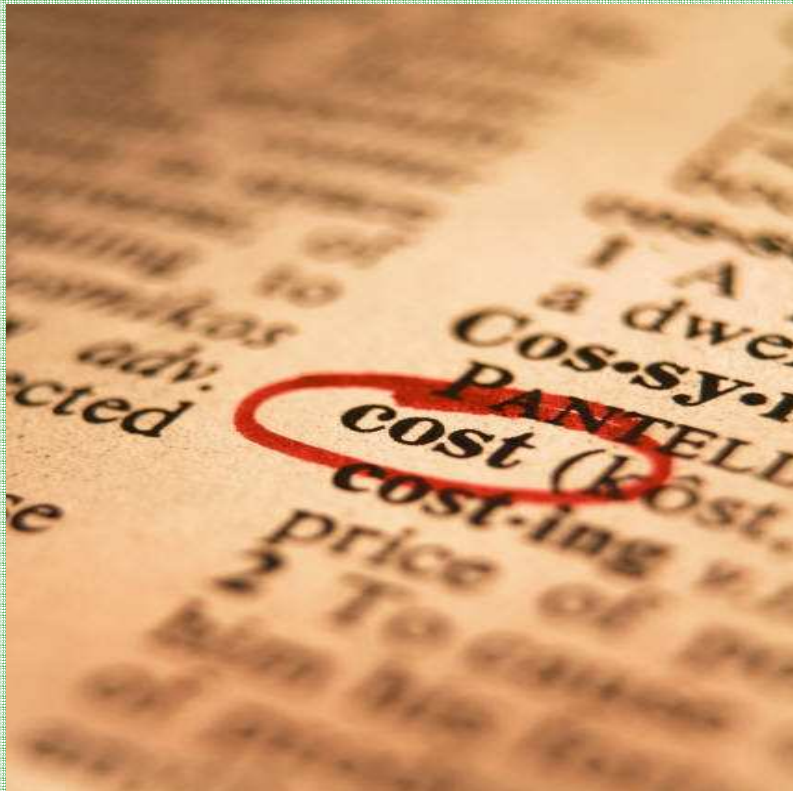
*Strong heritage of proven  
reliability, availability,  
and security.*

### Ease of Use

*Developer support,  
XML data management,  
virtual appliances.*

***“DB2 beats everything hands down in terms of costs, reliability, and ease of use.”—Jochen Guther, Managing Director***

## Low Operational Costs



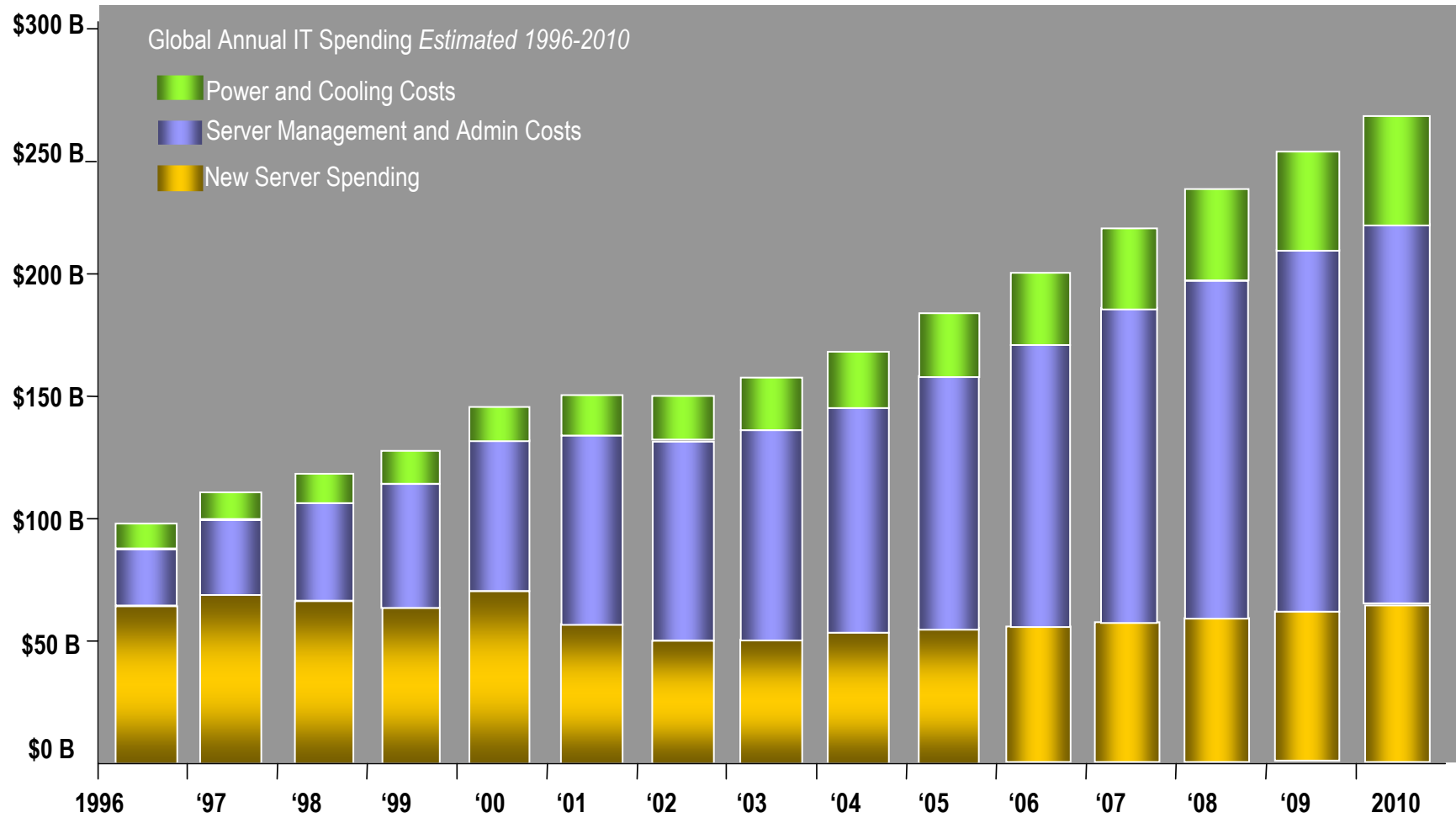
**Unparalleled Automation**  
→ Lower administration costs

**Deep Compression**  
→ Lower storage costs

**Industry-leading performance**  
→ Lower server costs

**Fast & easy virtual appliances**  
→ Lower IT costs

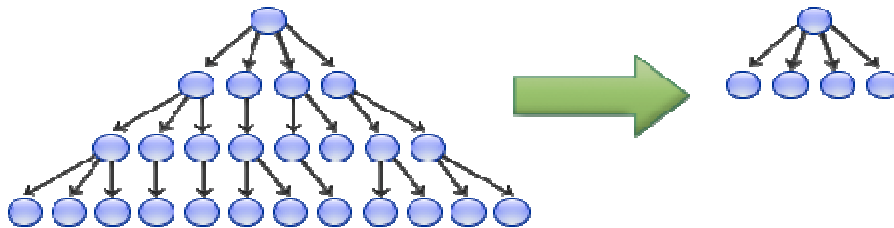
# Administration is the Largest Cost



Source: IBM Corporate Strategy analysis of IDC data, Sept. 2007

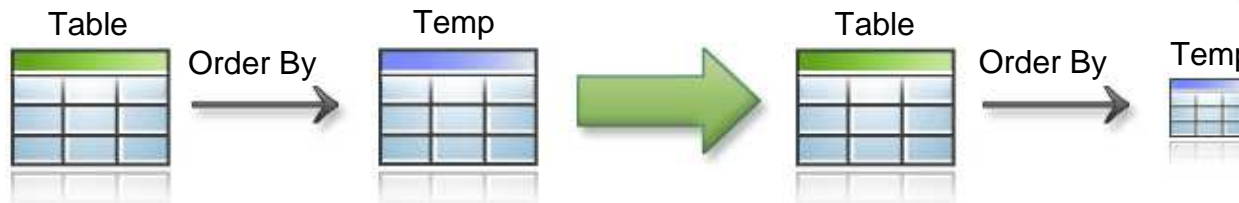
# New Improving the Best Compression in the Industry

- Multiple algorithms for automatic index compression



*Unique in the industry*

- Automatic compression for temporary tables



*Unique in the industry*

- Intelligent compression of large objects and XML



## New Security the Way you Want It



- Security has been redesigned for the complexities of having local, remote and outsourced IT staff
- Customize all of DB2's security groups to your needs
- Fine grain control of what is part of each security level
- Create new security or access groups to match your company's needs



## New Respond to Changing Business Needs

- To be successful, organizations must adapt to changing business needs
- Often technology and databases limit an organization's ability to be responsive
- DB2 gets rid of these limits
- **Break free with DB2:**
  - Change database schemas without downtime
  - Move database schemas efficiently
  - Move data to new tables without downtime
  - Re-organize database partitions
  - And more



## New Change Schemas without Downtime

- Respond to evolving business needs
  - Easily update the database schema
- Avoid costly database downtime
  - Make changes in real time
- Freely change columns used in views and other objects



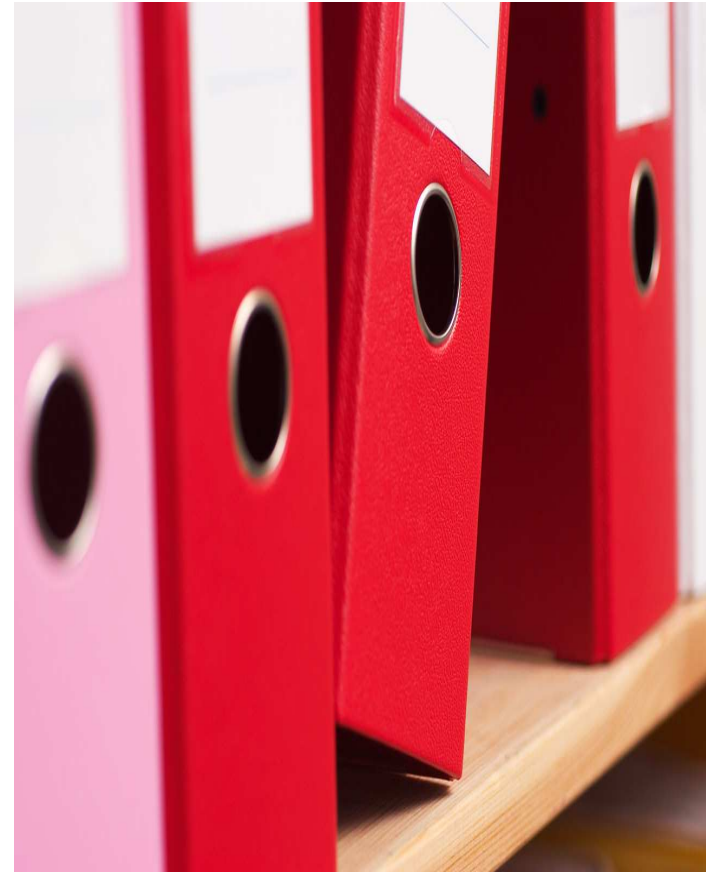
## New Move Data without Downtime

- Easily and quickly move data between QA, test, and production environments
  - Efficiently move schema
  - Easy to set up multiple test environments
  - New table space can have different properties
  - No downtime—keep tables online
  - Extract DDL and other dependent objects
  - Directly reference containers of table space in target database



## New Faster “Roll In” and “Roll Out” of Data

- Easily reorganize partitions based on evolving business needs
- Quickly detach unwanted partitions for fast data archiving and clean-up
- Faster “Roll In” and “Roll Out” of data
- Allowing you to easily:
  - Roll in and roll out partitions based on new months as needed
  - Easily update territory breakdowns



## New Easily Work with XML Data in your Warehouse

- Unlock the business insight in XML data
  - Fast performance of analytic workloads for XML data
  - Easily work with XML data in your warehouse
  - XML in data partitions, range partitions, database views, and multi-dimensional clustering
  - Improved index and compression support for XML data



“The new release of DB2 is outstanding for its data warehousing functionality...”

—*Jean-Marc Blaise, Venedim*

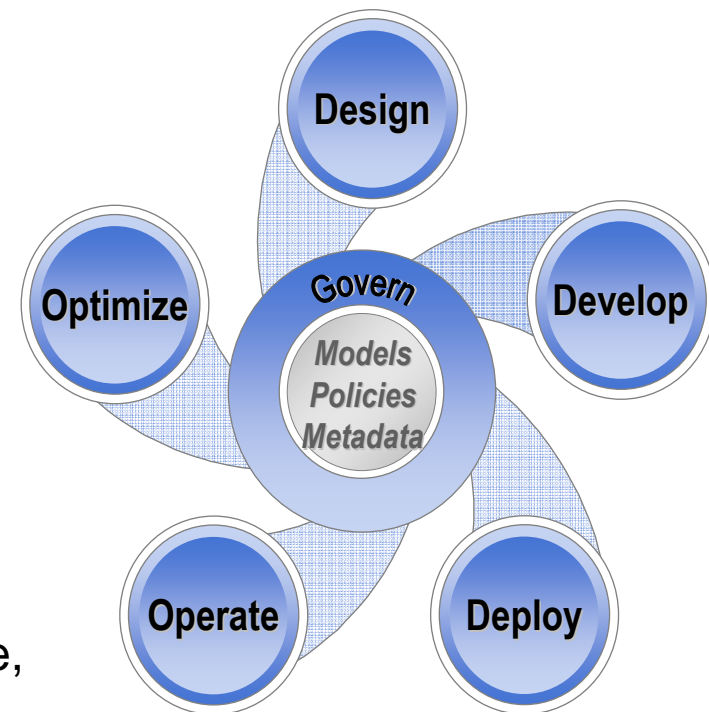
“The parallelization of queries and inserts of the XML data will allow our researchers to gain access to the data they require even faster...”

—*Tom Holdener, BJC HealthCare*

## Increase Collaboration with Integrated Tools

“Our development will operate up to 20% to 50% faster than before.”  
—Janick Bernet, Developer, Swiss ASP

- **Integrated data management tools**
  - IBM InfoSphere Data Architect\*, IBM Data Studio, IBM Optim solutions, IBM InfoSphere Mashup Hub
- **All phases of data lifecycle**
- **Collaboration across roles**
  - Business analyst, database architect, DBA, application developer, etc.
- **Support all major database platforms**
  - IBM DB2, IBM Informix, Oracle Database, Microsoft SQL Server, etc.



\* Formerly Rational Data Architect

## New Faster and Easier Development Projects

- **Easy application development and deployment**
  - Support for all the latest languages and versions
  - Support for all the latest environments, including Visual Studio 2008, Eclipse, and pureQuery
  - Support for multiple SQL dialects and procedural languages
  - Accelerate development with custom and built-in packages
- **Easy Web services**
- **Choice of query languages and APIs**
  - SQL, XQuery, XPath, CLPPlus, JDBC, SQLJ, ODBC, ADO, .NET, CLI, OLE-DB, and more



Univar increased developer productivity by 25-50%.  
They reduced development costs by 35-45%.

## New Concurrency Models to Fit Your Needs

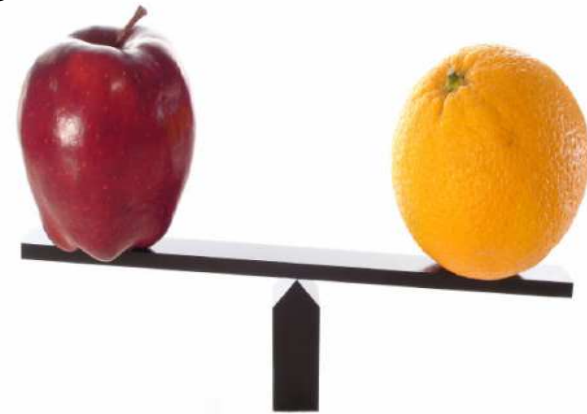
- **Support multiple “concurrent access” models, allowing you to...**
  - Optimize throughput for mixed workloads
  - Eliminate conflicts between Read and Write workloads
- **Easy for developers to work with DB2**
- **Log-based control**
  - No management overhead
  - No performance overhead
  - Much simpler to use





## New Flexible Data Typing

- **Traditionally, DB2 has supported strict typing:**
  - In accordance with SQL standard
- **Trend towards weak typing in programming:**
  - For PERL, RUBY, PHP, etc.
- **DB2 now supports:**
  - Easy casting between data types
  - Great performance with or without parameter markers
- **Easy for your application to use DB2**
- **Easy for your developers to use DB2**
  - DB2 has extended its data type support, with some data type extensions making it easier to move to DB2 from Oracle Database.



# Reliability Proven to Tens of Thousands of Clients



The Ultimate Driving Machine®



RBC Royal Bank®



plans for better health. plans for a better life.™

UNIVERSITY OF MIYAZAKI



## Top Performance for SAP

- **DB2 is Optimized for SAP**
  - Average 40% better performance
  - World record SAP benchmark, outperforming Oracle Database by 18% and needing only half the processing power!
- **Lower Cost with DB2**
  - Average 40% Storage Savings
  - Average 25% DBA Labor Savings
- **33% Growth in SAP clients choosing DB2 since 2006**
- **>100 clients migrated from other DBMS to IBM in past 12 months**



“We expected an improvement of around 20% in terms of system response time, but we found that the new system was actually 40% faster. The DB2 database is even more efficient than we anticipated.” —Peter Boegler, SAP

## Strong Platform and Operating System Support

- **Enjoy platform flexibility to meet your current and future needs**
- **Support for the following hardware platforms and operating systems:**
  - 32-bit and 64-bit Windows
  - Red Hat Enterprise Linux (RHEL) 4 and 5
  - SUSE Linux Enterprise Server (SLES) 9 and 10
  - Linux on System x™, Linux on System z™
  - Linux on IBM Power Systems (i Series and p Series)
  - AIX 5L™ V5.3 and V6
  - HP-UX 11i v2 and v3 on Itanium
  - Solaris 9 and 10 on UltraSPARC
  - Mac OS X (Beta on Express-C only)
- **Optimized for virtual environments and the cloud**
- **Easy to configure for multi-tenancy**



## Demonstrated Success for Business Partners

*Over 3000 ISVs Enabled on IBM Databases*