

IBM i Trends & Directions

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Top 10 Strategic Technology Trends For 2014

- Mobile Device Diversity and Management
- Mobile Apps and Applications
- The Internet of Everything
- Hybrid Cloud and IT as Service Broker
- Cloud/Client Architecture
- The Era of Personal Cloud
- Software Defined Anything
- Web-Scale IT
- Smart Machines
- 3-D Printing





There are 7.1 billion people on the planet
6 billion of them have access to mobile phones,
only 3.5 billion of them use a toothbrush

Trends and Their Buzzwords – What Are We Talking About?

Systems of Record

Systems of Engagement



Back-end Data & Services

- Databases and Data sources
- Transactional services

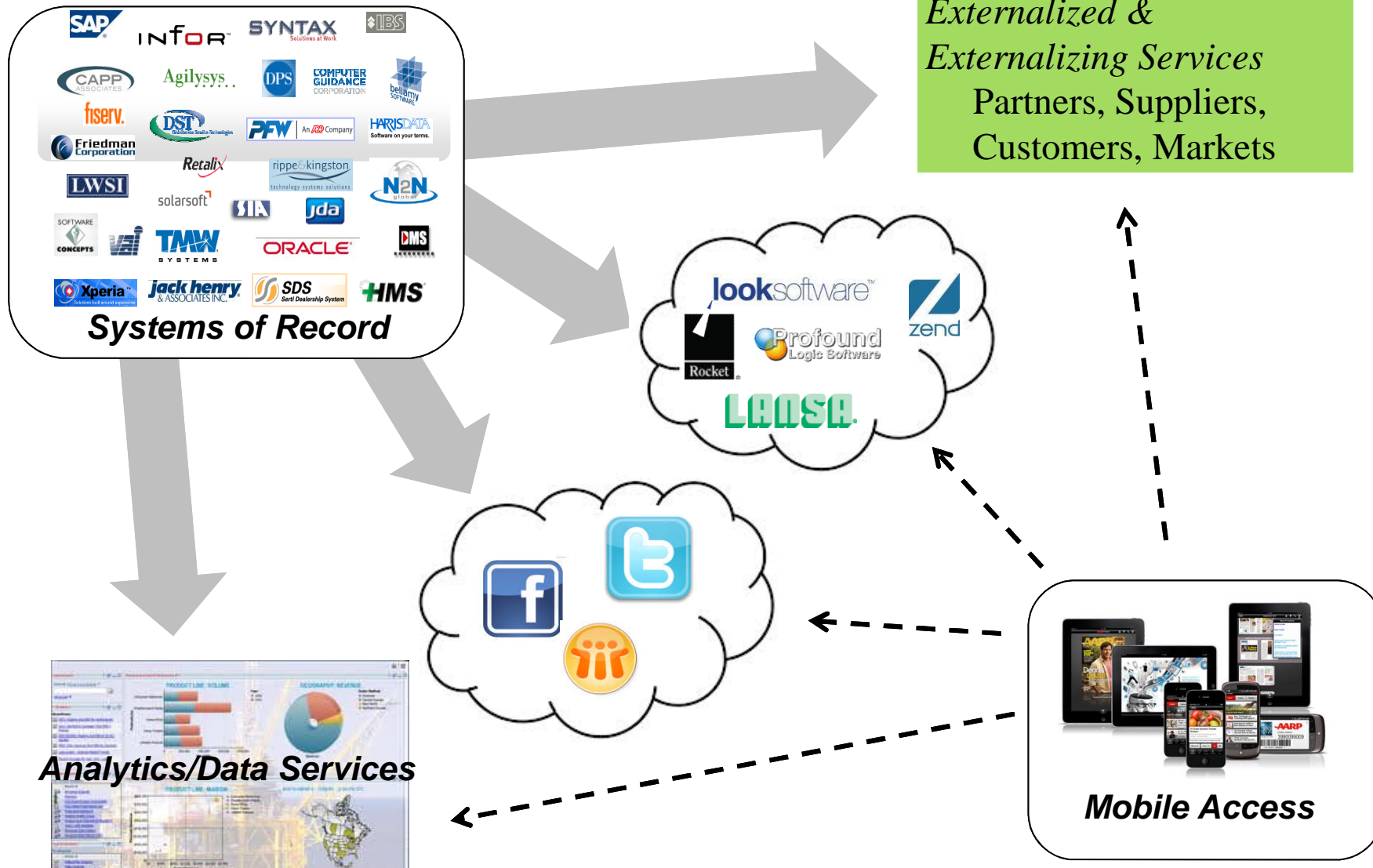
Middle Tier Server

- Web Application Server
- Mobile Application Runtime Server
- Security components
- Back-end access services
- Caching to back-end services

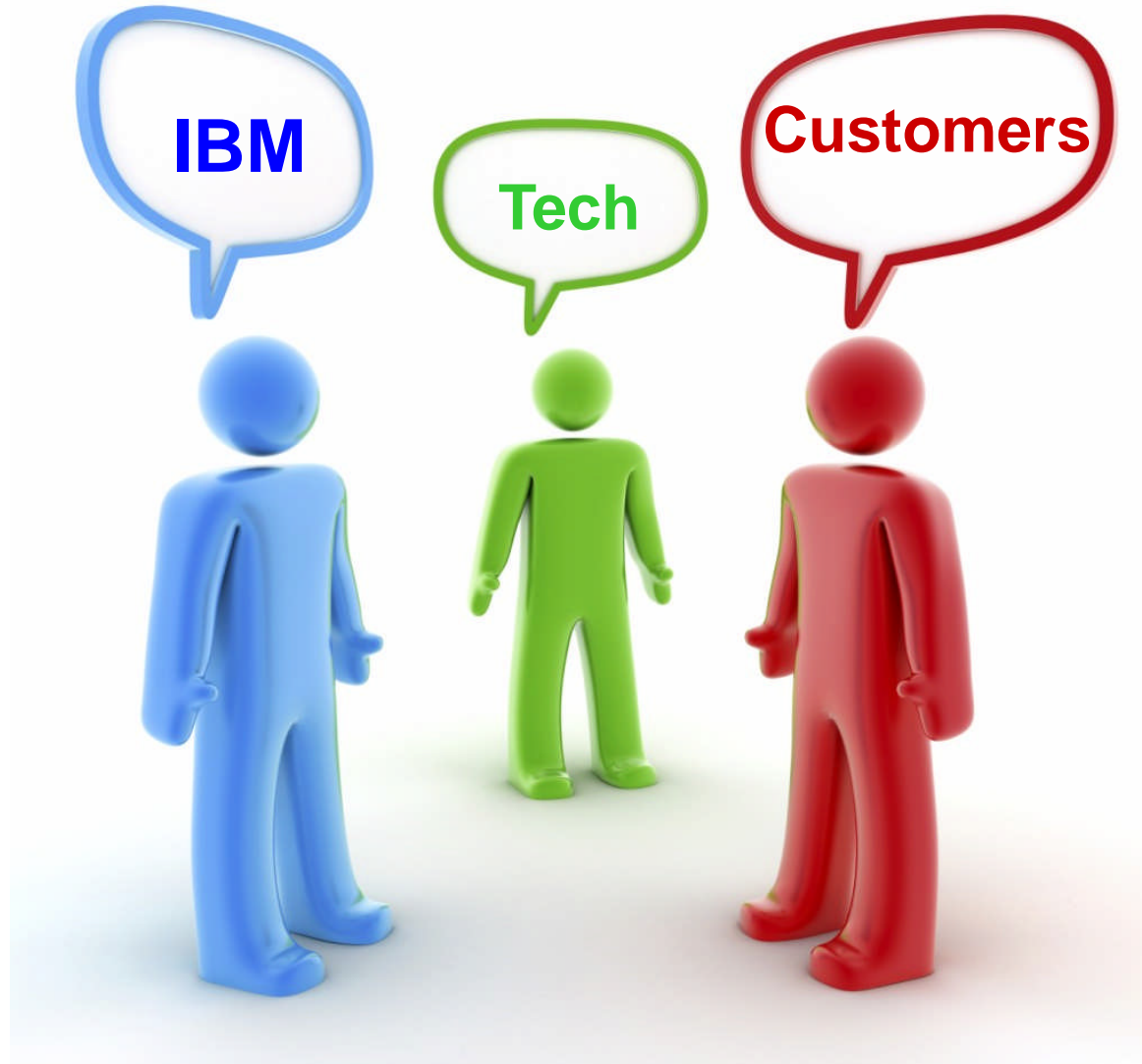
Client Tier Devices

- OS Device Variety
- Screen size variety
- Various Smartphones
- Tablets

Extending the value of Systems of Record



Sources of Input



Customer Input

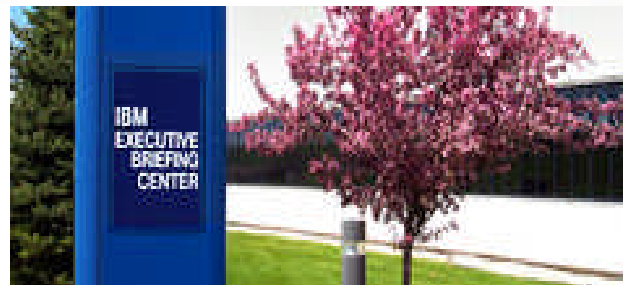
- Large Users Group
 - Strategic Initiatives
 - Top 20
 - Very Critical
- COMMON (CAAC)
 - Top 20
 - Very Critical
- COMMON Europe
 - Top Concerns
 - CEAC Top 20

- Customer Briefings and Planning Sessions
 - Strategic Roadmaps



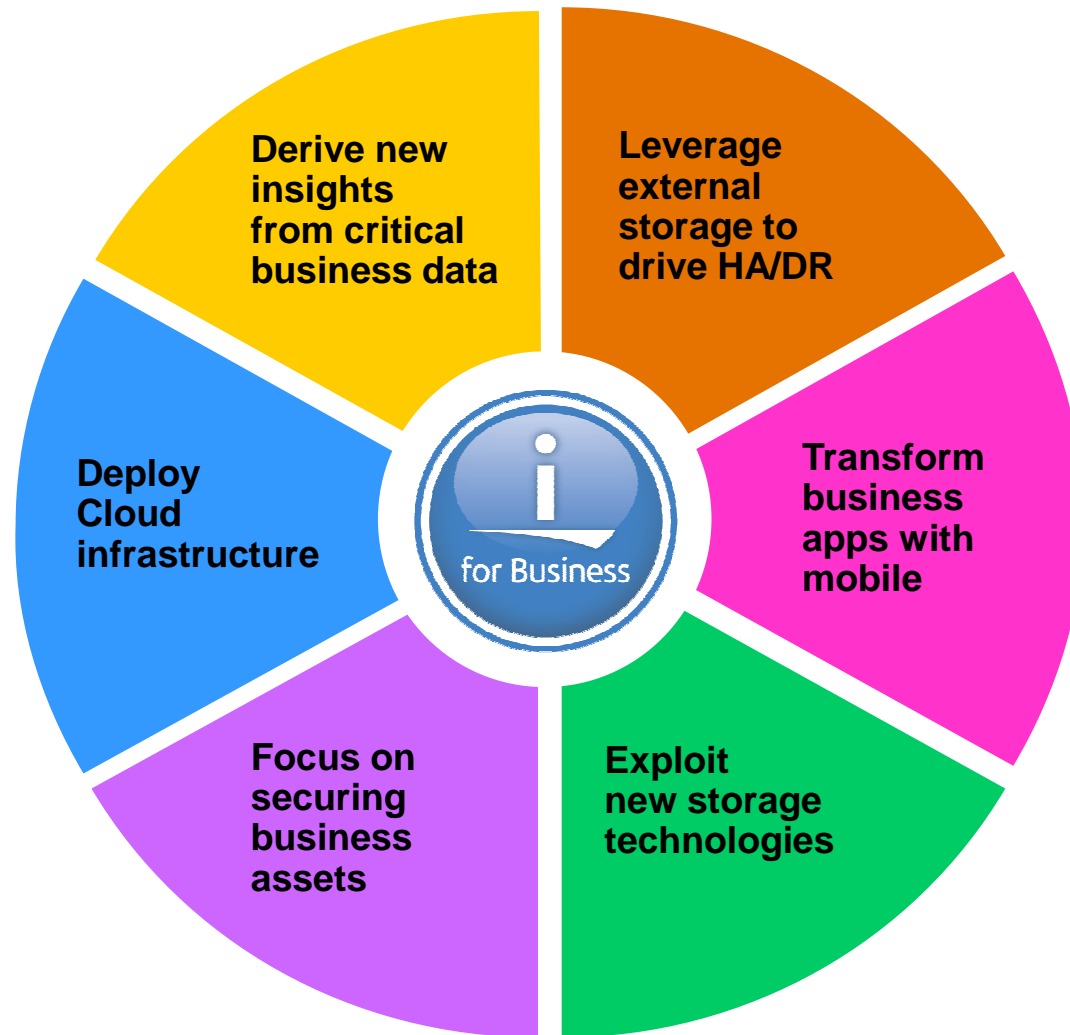
实验室之旅

- ISV Advisory Council
 - Very Critical

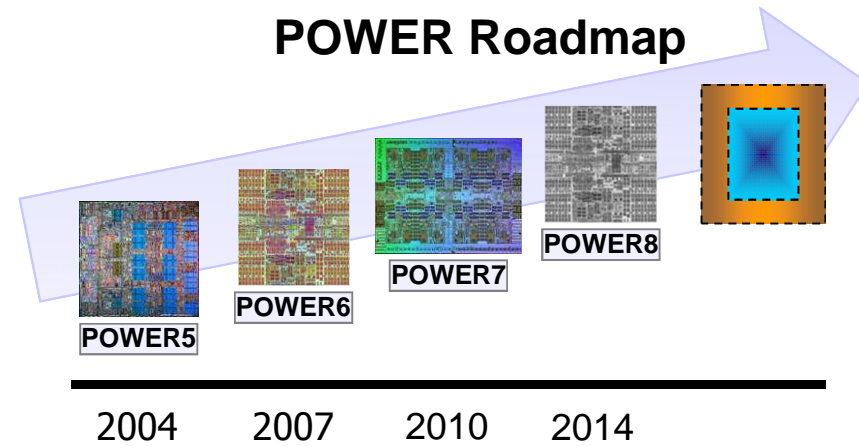


- Cloud/MSP Summit

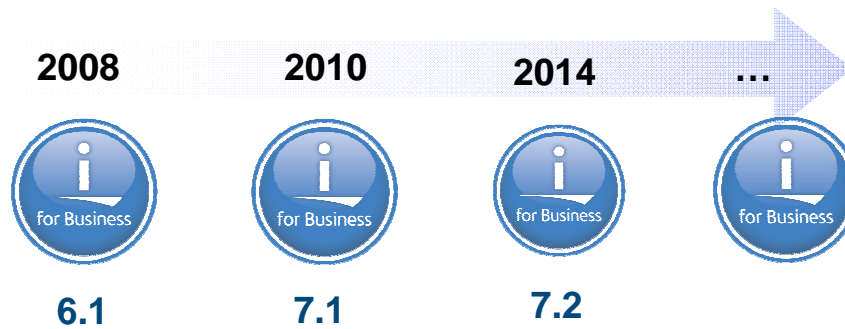
Top IBM i Client Projects



The IBM i Roadmaps



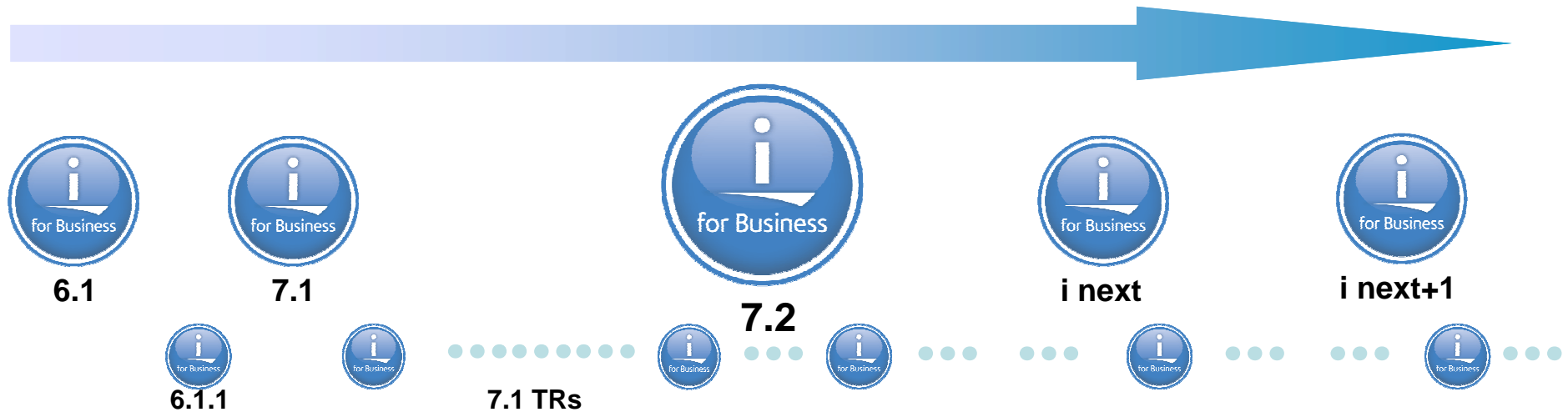
IBM i Roadmap



	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
V5R3	█																								
V5R4	█																								
IBM i 6.1			█																						
IBM i 7.1				█																					
IBM i 7.2					█																				
iNext																									
iNext +																									

IBM i Releases

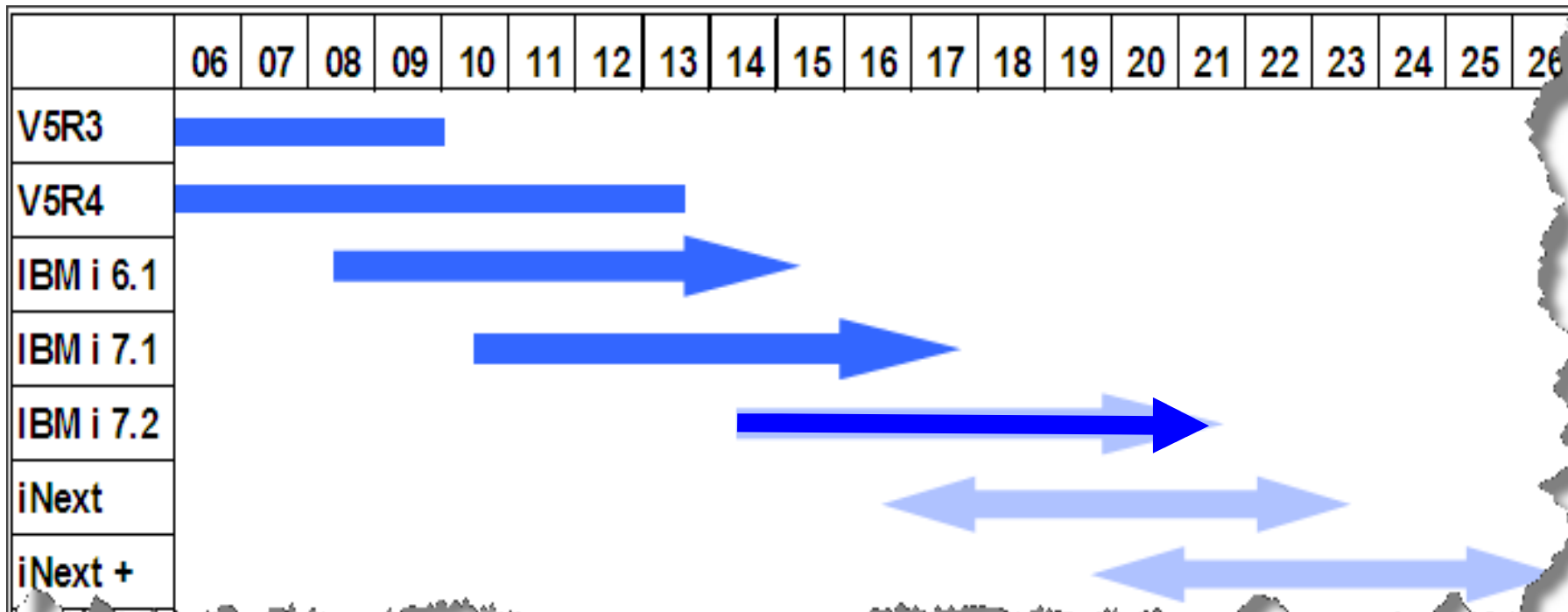
2008 2009 2010 2011 2012 2013 2014 2015



- 7.1 Introduced Technology Refreshes
- 7.2 Incorporates 7.1 TRs and adds new capabilities
- TRs will transition to 7.2 over time

** All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

IBM i Support Roadmap



Arrows indicate general timeframes, not specific dates.

All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

IBM i Business

- 100,000s of systems in 100,000+ enterprises
- 115+ countries
- Cross industry solutions



Wholesale Distribution

Computer Services

Finance

Retail

Insurance

Consumer Package Goods

Travel & Transportation

Agribusiness

Automotive

Construction

Manufacturing

Lodging

Healthcare

Education

Associations

Local Government

Legal Services

Accounting Services



IBM i Investment Themes

- **Solutions for Today and the Future**
 - Focus on solutions integration with new technology
 - Invest in DB2 and language features for strategic solutions
 - Enable Mobile Device Support
- **Systems On-Site or In the Cloud**
 - Exploit future POWER system technology
 - Deliver advanced virtualization of system & storage
 - Provide resiliency, availability & flexibility
- **Simple & Integrated, Secure & Available**
 - Simplify management of systems and high availability
 - Broaden storage area network integration
 - Extend industry-leading integrated security



Power **VM**

Power **VC**

Power **HA**

Power **VP**

Power **SC**

IBM i – Thousands of Leading Industry Solutions



MSP / Cloud Wins Customers for IBM i

Moorepay is a Managed Service Provider of HR and Payroll solutions

- 2012 – Moorepay delighted to see hundreds of businesses choose to outsource their HR and payroll with them.
- May 2013 – announced a hugely successful first year, celebrating 1,000 new client wins.



A fast reliable responsive solution that puts the brakes on escalating costs, instability, and dissatisfied users



“IT costs were escalating without producing the positive results we hoped for. We wanted to repair the poor perception of IT held by the rest of the company, and ensure that it made the life of our workforce easier, rather than representing a daily annoyance.”

David Booth, CIO

- The leading provider of mining, heavy construction, industrial, piling and pipeline services in Canada
- JD Edwards EnterpriseOne solution
- Platform instability with Microsoft Windows Server & SQL Server was a serious issue
 - Users dissatisfied with IT
 - Costs escalated
 - Business growth hampered
- Migration to IBM i provided the resolution
 - Eliminated recurring outages
 - Improved performance and responsiveness
 - **Reduced IT costs 52% year over year**
 - Restored faith in IT
- Focus now on new opportunities, growth

Modern Interfaces Wins Customers for IBM i

Customer Case Study - Paragon



“Before modernizing with newlook it was extremely difficult to find new customers”
– Shawne O'Connor, Director



**100% customer growth
with rich graphical
interface**



**50% reduction
in training
times**



**Real-time dashboard
to clearly deliver vital
information**

IBM i – Delivering Competitive Advantage



“Its stability, TCO and speed of development convinced us we should not only maintain our mid-range environment, but expand it to keep it at the center of our operations for the long term. IBM i has enabled us to grow the scale of our environment, while at the same time become more nimble and resilient.”

Ken Spangler, VP of IT

- FedEx Ground
 - Nearly 3 million packages picked up daily
 - 7 to 8 million packages in the delivery pipeline at any one time
 - Average daily transactions exceed 1 billion
- Systems provide package rating and invoicing; optimized delivery routing; and timely, accurate tracking data
- IBM i is the foundation of operations
 - Virtualization for flexible resource allocation and nimble growth in capacity
 - High system availability to meet customer expectations for near-perfect reliability
 - Rapid application development supports new function, faster
- Low TCO helps keep overall cost structure down, improving competitiveness

Cloud

“Power with IBM i reliability provides the speed & agility to respond to our customer’s business requirements as they need it, when they need it, for as long as they need it.”
Dave Wiseman, Director of IS, Connectria



Analytics

“..our salespeople have found the automated pushing of reports with the ability for them to filter the data much more productive for their needs.”
Ken Toole, Architect, Maple Leaf Farms



Mobile

“LANSA’s LongRange product allows us to create stunning native mobile apps for Apple or Android devices and keep the business logic running on the IBM i.
Jay Kamradt, IS Supervisor
Kawasaki Motors Manufacturing



Social

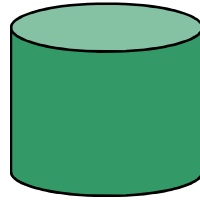
“WebSphere Portal is the primary gateway for students, staff, alumni and the public to get information from our IBM i system.”
Roxanne Reynolds-Lair, CIO
Fashion Institute of Design & Merchandising



Business Requirements for Application Environments

Data

Fast Access
Easy Management
Reliable Storage



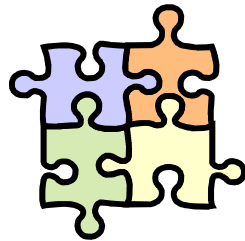
Security

Business Data
Easy Administration
System Integrity



Integration

Single Source
Just Add Applications
It's All There



Flexibility

Many Functions
Capable of Growth
Simplicity



Investment Protection

Focus on Business, not Technology
Solutions Keep Working as Technology Changes
Additional Software Development Yields Additional Function



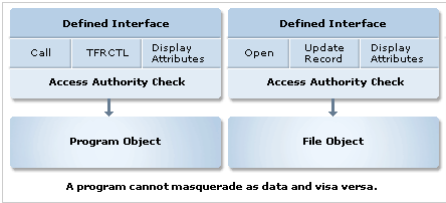
IBM i Architecture

DB2 for i & Single Level Store



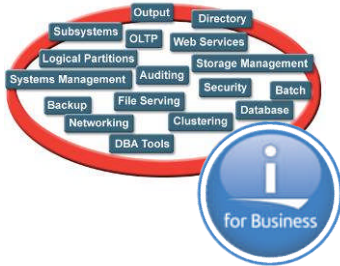
Automate & optimize storage management

Object Based Architecture



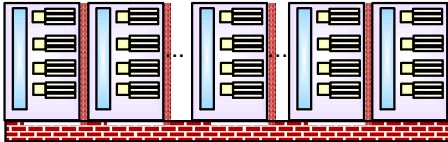
Enables integrity, security, virus-resistance

Integration



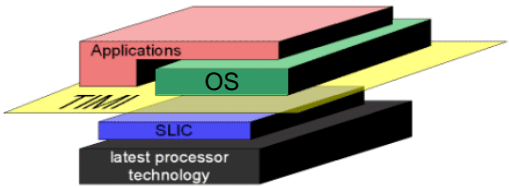
Integrates business components, e.g. DB2 database

Virtualized Work Management



Provides built-in application virtualization

Technology Independent Machine Interface



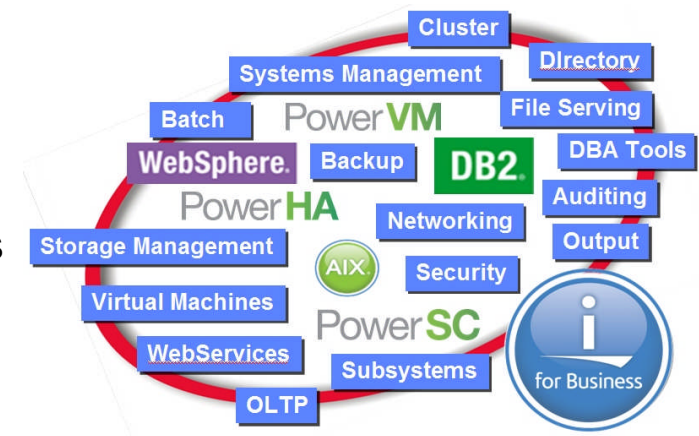
Ensures application compatibility across multiple technology generations

A system designed for business

IBM i 7.2 Themes

- Solutions for Today's IT
 - Growth Areas: Mobile, Graphical & Extending Value
 - Delivering Capabilities where needed: Cloud & In-House
 - Applying POWER with POWER8
 - Powerful Advanced Middleware

- Integrating Advanced Technology
 - DB2 Security, Performance & Automation
 - Development Platform, Language Features & Tools
 - Integrated Security & Management
 - Growing Beyond the Limits



Recent Advancements in Mobile Access for IBM i

- RPG Open Access
- XML Services
- JTOpen Lite
- PHP – Zend Server for IBM i, Zend Studio
- IBM Connections
- IBM Notes Traveler
- IBM Mobile Database
- DB2 WebQuery
- Rational HATS
- And more ...



+ PLUS – Tools from Industry Vendors

SUNGARD PUBLIC SECTOR
Connect the Community ★★★★★
www.sungardps.com

NaviLine Mobility

Mobile Building Inspections

Improve mobility and streamline communications with SunGard Public Sector's NaviLine Mobile Inspections for iOS and Android tablets. Robust and reliable, Mobile Inspections arms building inspectors with field-tested tools.

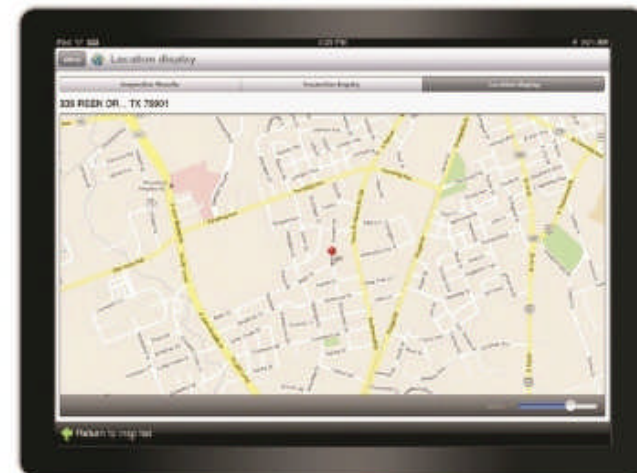
Benefits

- Real-time inspection results
- Consistent and reliable reporting
- Assess fees while in the field
- GPS and mapping capabilities

Features

Centralized Inspections – Record and report on all permit inspections.

Inspection Map – Enables users to quickly verify inspection location.



Cloud

- Many ISVs currently offer SaaS solutions on IBM i
<http://www.ibm.com/partnerworld/wps/servlet/ContentHandler/whitepaper/ibmi/saas/position>
- Many MSPs have developed successful hosting businesses focused IBM i



Huhtamaki

Builds a resilient and flexible private cloud

The need:

As a truly global company, Huhtamaki wanted to capitalize on economies of scale for its IT resources, but faced the challenge of serving geographically dispersed locations across a huge area. Specifically, Huhtamaki was looking to replace disparate ERP systems hosted on aging servers with a common platform approach that could better utilize virtualization capabilities to run these systems.

The solution:

Huhtamaki began building an internal cloud for IT services based on the IBM® Power® 720 platform, with IBM PowerVM® virtualization software supporting a number of logical partitions running the IBM i operating system. The company utilizes IBM System Storage® SAN Volume Controller to manage a virtualized storage pool comprising IBM System Storage DS5020 and DS3400 and IBM Storwize® V3700 disk arrays.

The benefit:

- Accelerates provisioning of new services by over 99 percent, enabling greater employee productivity and business agility.
- Decreases the time taken to recover from a disaster to minutes rather than days, lowering business risk.
- Offers easy scalability, supporting the company's strategy to extend the solution to additional systems.

“We feel very confident in the roadmap for IBM Power Systems and IBM i in the coming years.”

— Aki Kemppi, Group IT Service Manager, Huhtamaki Group

Solution components:

- IBM® Power® 720 Express, IBM i 7.1, RackSwitch™ G8264, Storwize® V3700, System Storage® DS5020 and DS3400
- IBM PowerVM®, System Storage SAN Volume Controller
- IBM STG Lab Services
- IBM Business Partner ICT Group Oy



IBM i Positioning



Enterprise Systems

Enterprise Power servers and IBM DS8000 storage deliver maximum availability for critical data and IBM i applications in **large enterprises**



Scale Out & Entry Systems

Entry Power servers with choice of integrated or IBM V7000 or V3700 storage provide maximum flexibility and price/performance for **mid-sized companies**



PureSystems

PureSystems with integrated storage and networking provide converged infrastructure for IBM i and x86 **workload consolidation**

Power Systems Software provides leading server virtualization management and clustering for high availability

Power **VM**
Power **HA**





Scalable **SQE**

Data Centric

RCAC

Easy to use

Bet your business on us

Encoded Vector Indexes

Open for Business

Easy to maintain

Intelligent SSD

Secure Proven

DB2 **for i** Reliable

IBM and Integrated DB2 for i

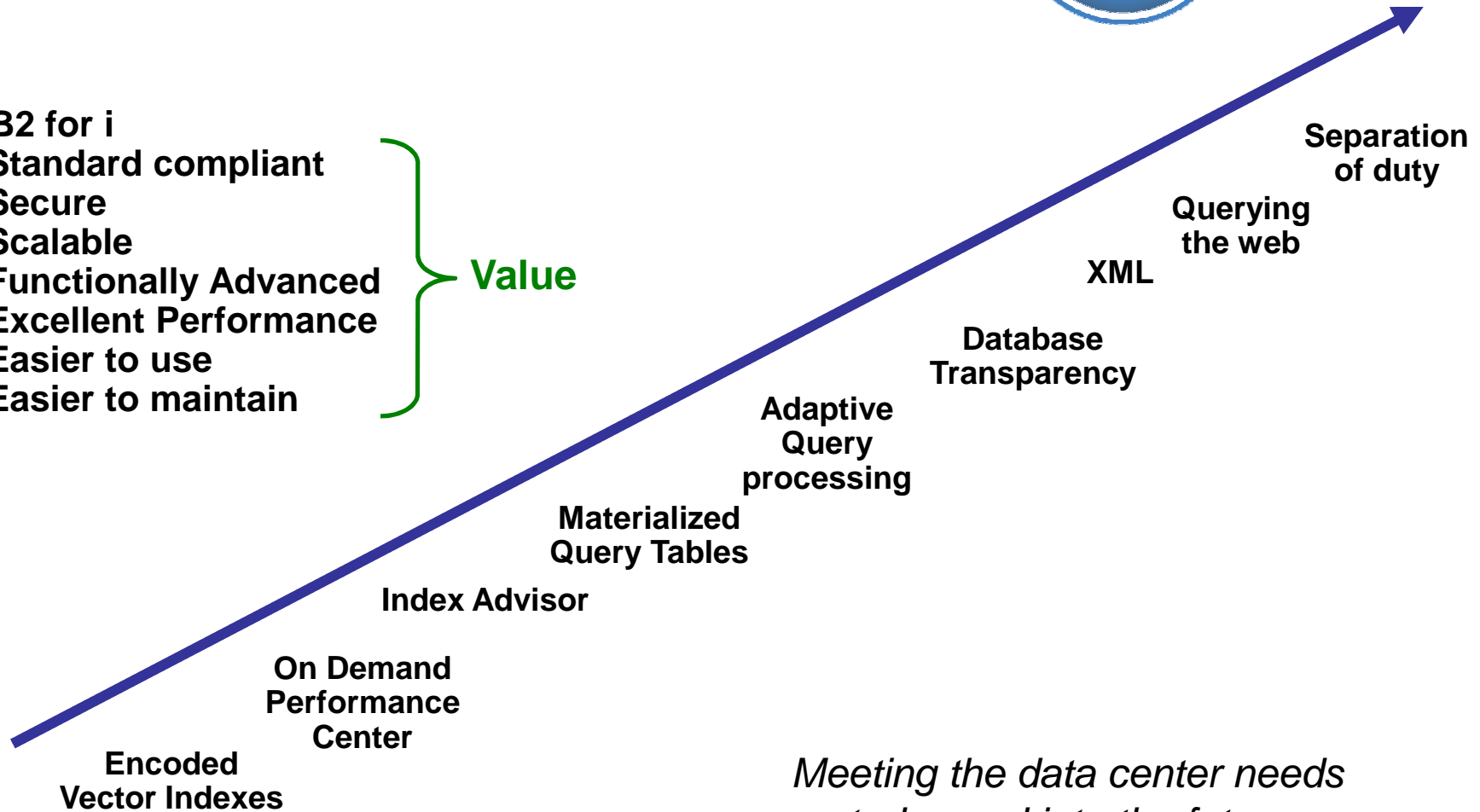
IBM **Information Management** software



DB2 for i

- Standard compliant
- Secure
- Scalable
- Functionally Advanced
- Excellent Performance
- Easier to use
- Easier to maintain

Value



Meeting the data center needs today and into the future

DB2 for i: "My Data is My Business and the Data is on i "

- Many typical DBA tasks are fully automated
 - Manage disk storage space allocation
 - Monitor table space allocations and extents
 - Review and balance indexes
 - Application rebinding
 - Maintain database integrity
 - Update database statistics
 - Synchronize OS and database security
 - Reload data following hardware/software upgrades

- 7.1 added Adaptive Query Processing
 - And much more

- 7.2 adds more Out of the Box
 - Function and Performance
 - Automatic record movement between DB2 partitions

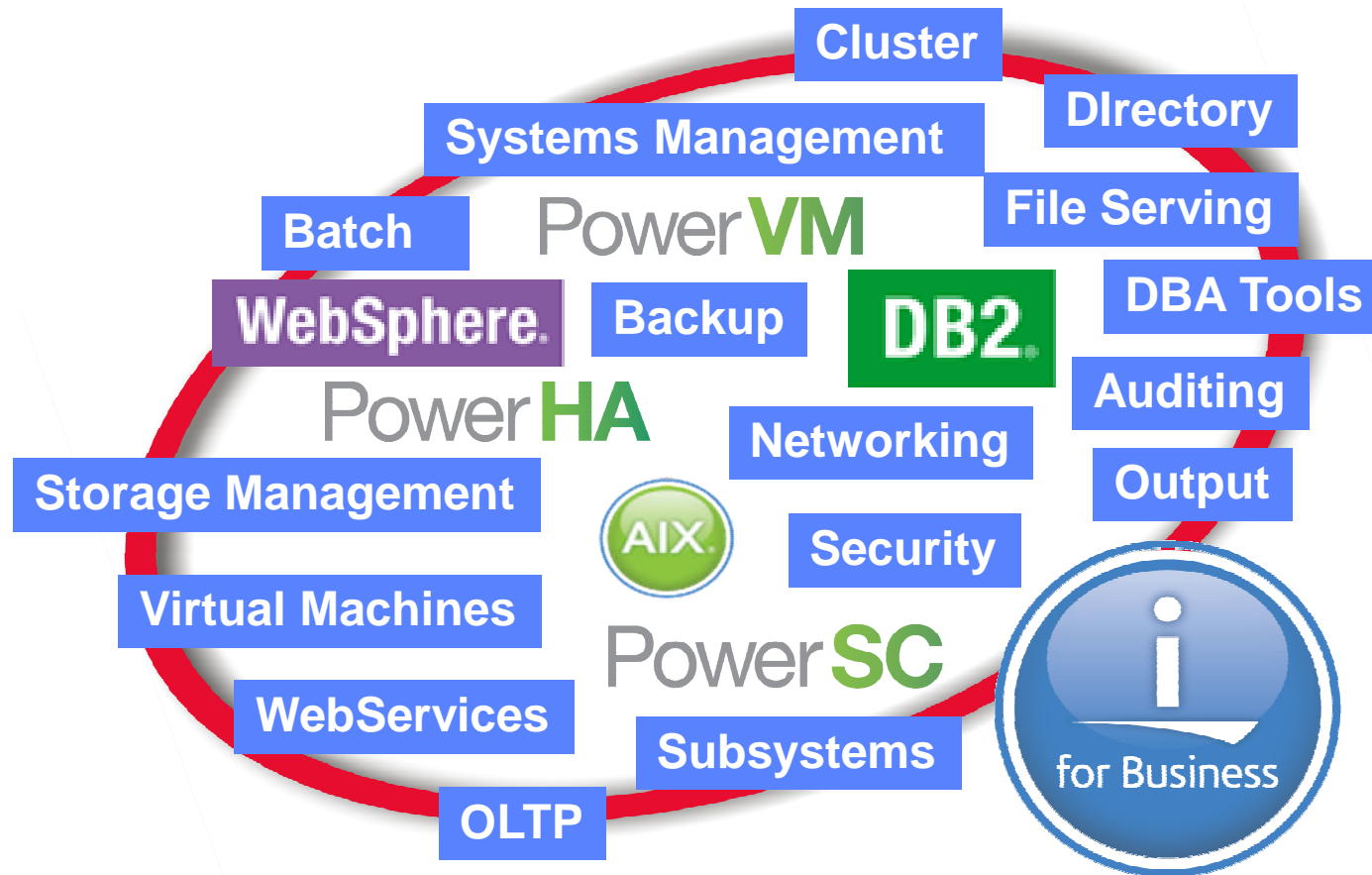


7.2 Out of the Box... what's ****faster?**

- ✓ **OPNQRYP & Query/400 complex queries**
- ✓ **I/O intensive queries**
- ✓ **Queries with long IN lists**

**** Disclaimer:** Realized performance gains depends upon many factors

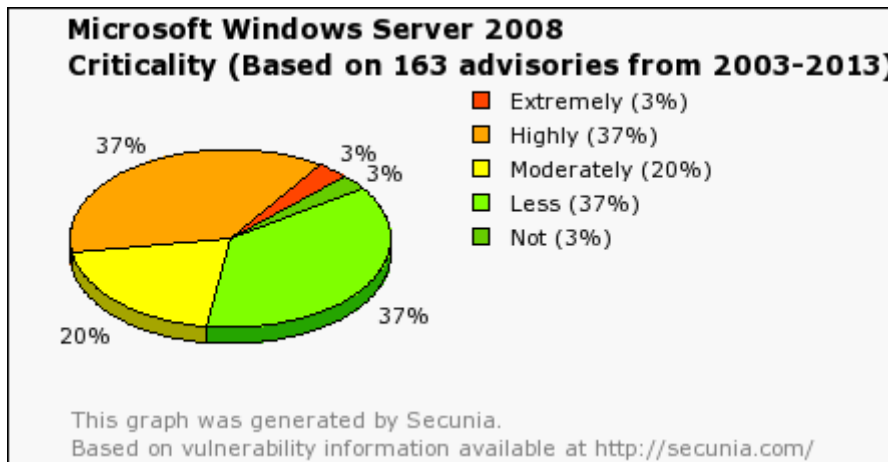
Integration with IBM i



IBM i includes operating system, database, and middleware
Designed, developed, built, tested, delivered and supported together

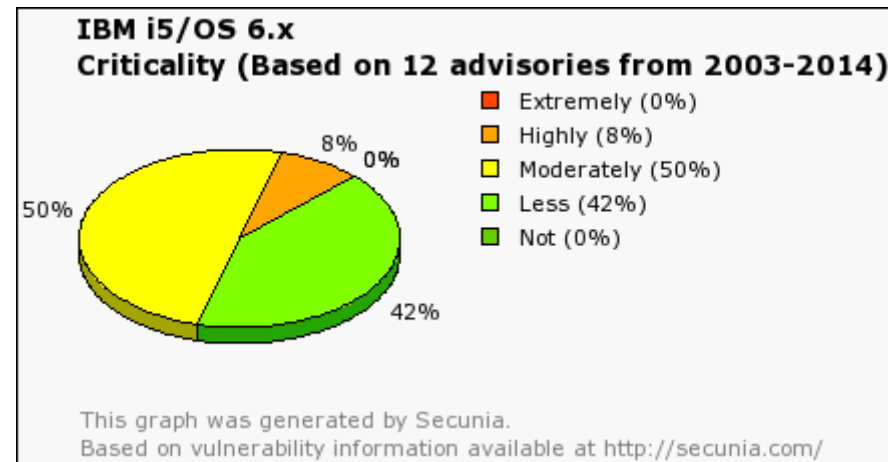
IBM i Security – More Confidence, Less Cost

Microsoft® Windows Server® 2008



- 163 advisories (all time)*
- 40% highly/extremely critical
- 2% remain unpatched

IBM i 6.1 (none reported for IBM i 7.1)



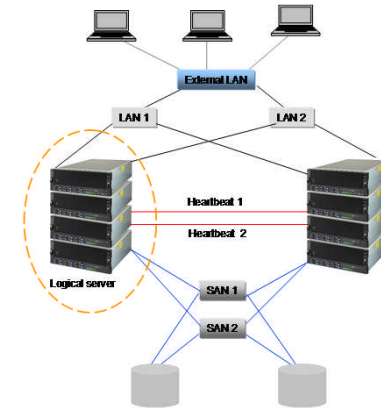
- 12 advisories (all time)*
- None highly/extremely critical
- None remain unpatched

* Vulnerabilities reported through March 7, 2014: <http://secunia.com/advisories/product/>

PowerHA Clustering Solutions for High Availability

- **High Availability (HA) Management**
 - Business continuity by workload failovers
 - Provides for redundant operating environment
 - Automated workload bring ups
 - Environment specific outage actions
 - Planned and unplanned outage management

- **Disaster Recovery (DR) Management**
 - Geographically dispersed locations
 - Host based or Storage based replication
 - Simplified compliance testing

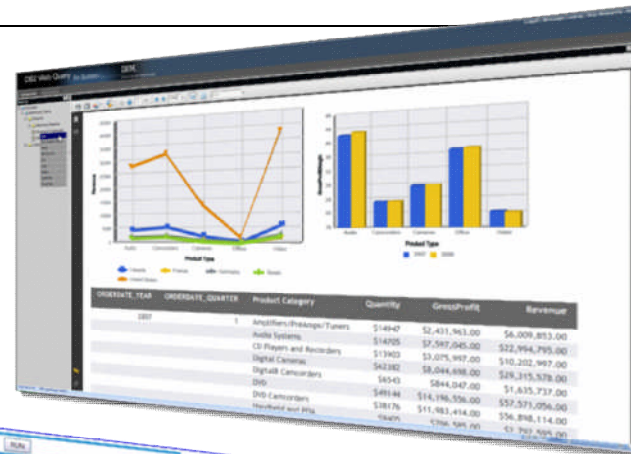
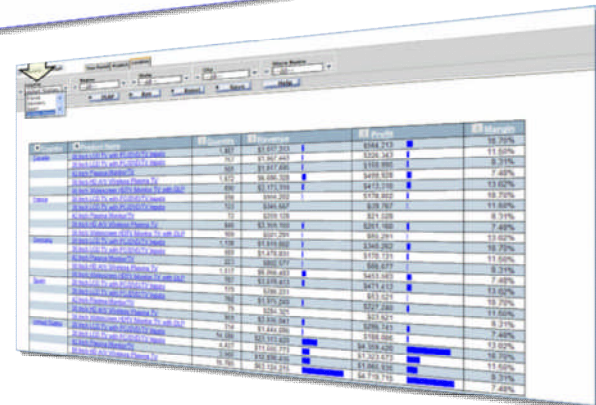


Data Center Clustering



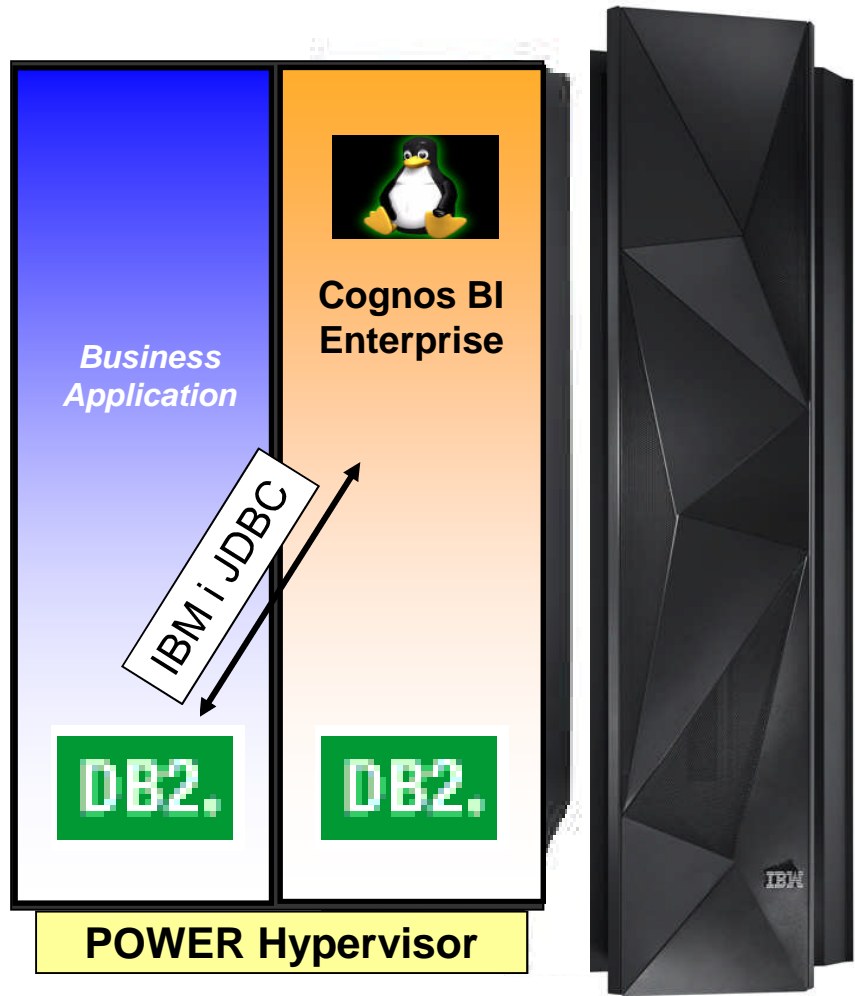
Multi-Site Clustering

Analytics - DB2 WebQuery for i

Customer	Revenue	Profit	Margin
Customer 1	100	10	10.00%
Customer 2	200	20	10.00%
Customer 3	300	30	10.00%
Customer 4	400	40	10.00%
Customer 5	500	50	10.00%

Analytics - IBM Cognos and IBM i



Home Bargains – switching to real-time sales insight to seize better deals

Real-time insight

into sales data helps buyers to seize the right deals from suppliers ahead of competitors.

Optimizes stock levels

in stores, ensuring that the right products are kept on shelves.

Enhances staff planning

and workload management, helping keep a tight rein on costs.



The transformation: Without real-time insight into sales and stock levels, Home Bargains was missing out on opportunities. Now, a new store replenishment platform enables rapid and accurate purchasing planning – helping the company obtain the best possible deals from suppliers.

"VBX Store Replenishment gives us the agility to run a more profitable business and one that is more responsive to customer demand."

—Spokesperson, Home Bargains

Solution Components

Hardware

- IBM® Power® 720 Express

Software

- IBM i
- VBX Store Replenishment

IBM Business Partners

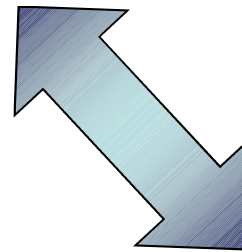
- 3X Software Ltd.
- Verbatrans
- Chilli IT

Social



IBM Collaboration Solutions

- Domino
- Traveler
- Connections
- Sametime

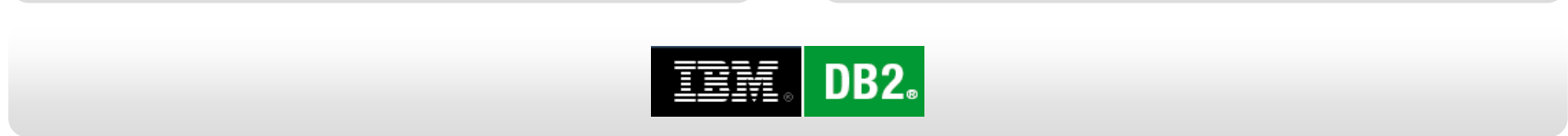


Open Source Strategy

- Encourage Open Source vendors to port to Power
- Encourage Open Source vendors to provide support
- Opens Power Solutions to include new applications and tools



IBM i ISV Solutions



IBM i has an Active, Passionate Community



IBM i Strategy



Power Solutions

- Delivering an integrated platform focused on leading industry applications
- Providing flexible solutions delivery options for ISVs and MSPs
- Enabling clients to transform their customer experience via mobile solutions

Open Platform for Choice

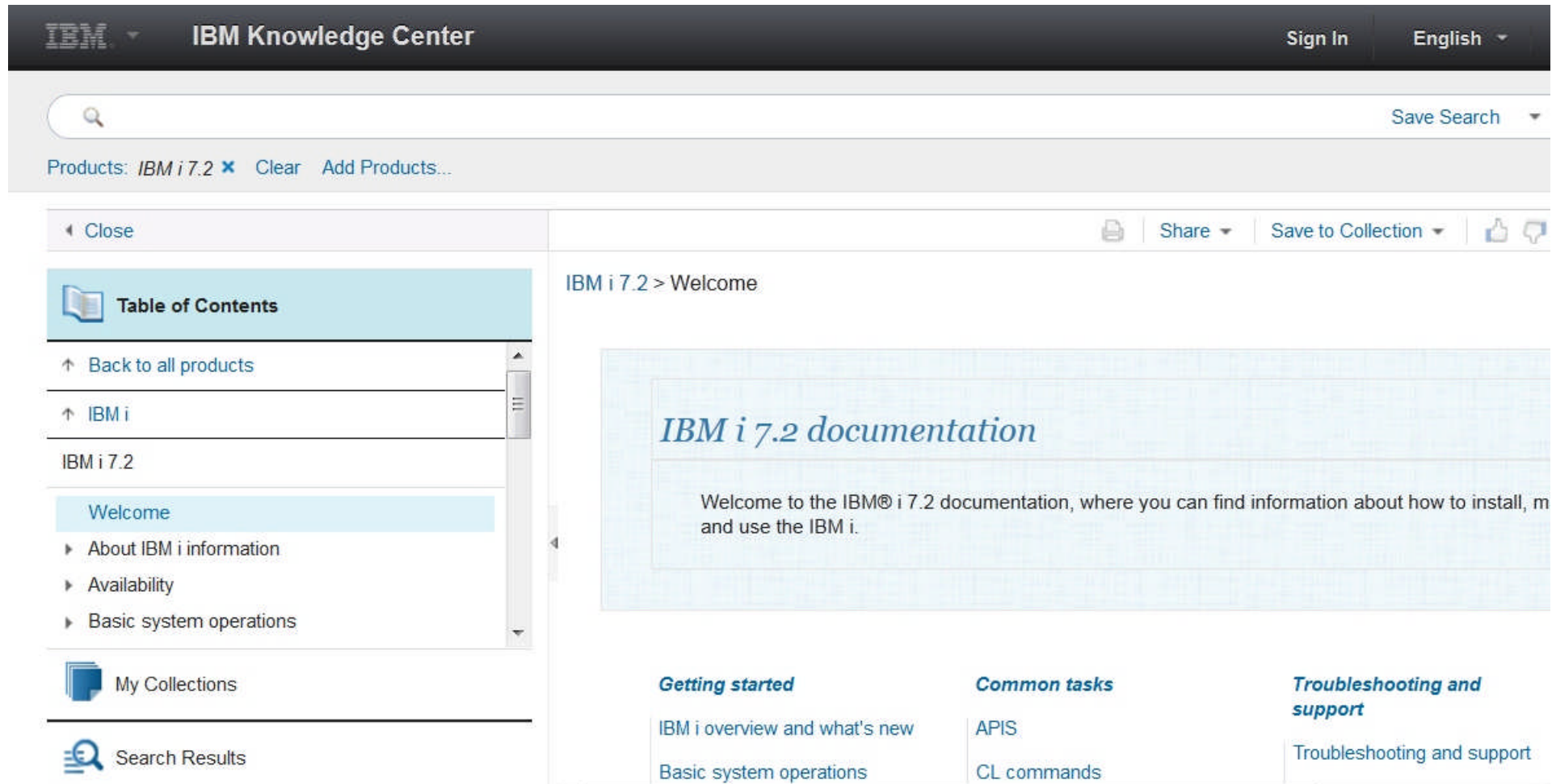
- Confirming IBM's commitment to IBM i 7.2, a new major release in 2014
- Growing IBM i solutions options via open source languages and applications
- Extending IBM i solutions portfolio with Linux and AIX application choices



The *Integrated* Promise of IBM i

- Deliver a simple, high value platform for business applications
- Provide exceptional security and resiliency for critical business data
- Leverage IBM systems, storage and software technologies

IBM i in IBM Knowledge Center



The screenshot shows the IBM Knowledge Center interface. At the top, there is a dark navigation bar with the IBM logo, "IBM Knowledge Center", "Sign In", and "English" (with a dropdown arrow). Below this is a search bar with a magnifying glass icon and a "Save Search" dropdown arrow. A filter bar shows "Products: IBM i 7.2" with a close icon, "Clear", and "Add Products...".

The main content area is split into a left sidebar and a main pane. The sidebar has a "Close" button at the top. It contains a "Table of Contents" section with a book icon, a "Back to all products" link, "IBM i", "IBM i 7.2", and a "Welcome" section with sub-links for "About IBM i information", "Availability", and "Basic system operations". Below this is "My Collections" and "Search Results".

The main pane shows the breadcrumb "IBM i 7.2 > Welcome" and a "Share" button. The main content is titled "IBM i 7.2 documentation" and includes a welcome message: "Welcome to the IBM® i 7.2 documentation, where you can find information about how to install, m and use the IBM i." Below this are three columns of links: "Getting started" (with sub-links for "IBM i overview and what's new" and "Basic system operations"), "Common tasks" (with sub-links for "APIS" and "CL commands"), and "Troubleshooting and support" (with a sub-link for "Troubleshooting and support").

http://www.ibm.com/support/knowledgecenter/ssw_ibm_i_72/

IBM i updates on developerWorks


IBM English Sign in (or register)

developerWorks Technical topics Evaluation software Community Events

developerWorks > Technical topics >

IBM i

IBM articles, tutorials, and technical resources for IBM i users



Featured article



Building an STRSQL utility with PowerRuby

This tutorial creates a Rails version of old green screen Start SQL Interactive Session (STRSQL) utility. Most IBM i professionals use STRSQL on IBM i, but if you have not, simply sign on to your IBM i 5250 and enter STRSQL on the command line. Other products duplicate the STRSQL support as a client/server application, but this Rails version stays completely on the IBM i server and use any device with a browser as the interface.

IBM i Technology Updates



Products and downloads

- Products and solutions
- Downloads and tools


Spotlights

 **QIBM QDB OPEN: The Open Database File Exit program**

Connect

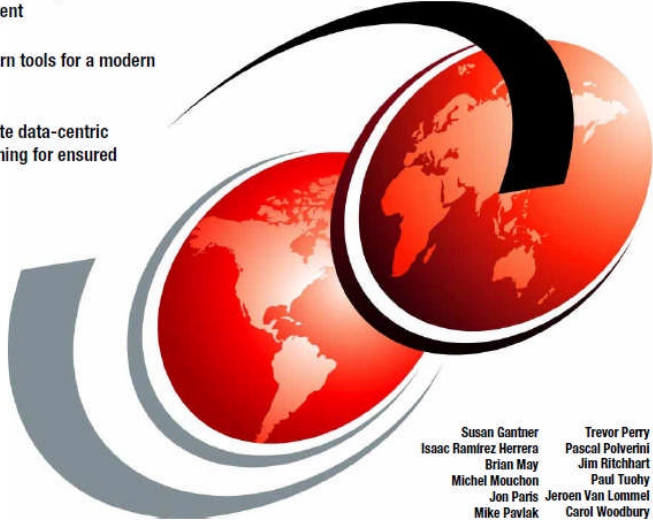
ibm.com/developerworks/ibmi

IBM i –Redbooks


Draft Document for Review March 26, 2014 12:22 am
SG24-8195-00

Modernize IBM i Applications from the Database up to the User Interface and Everything in Between

- Learn about best practices for modern development
- Use modern tools for a modern world
- Incorporate data-centric programming for ensured success




Susan Cantner
Isaac Ramirez Herrera
Brian Mey
Michel Mouchon
Jon Paris
Mike Pavlak

Trevor Perry
Pascal Polverini
Jim Ritchhart
Paul Tuohy
Jeroen Van Lommel
Carol Woodbury


ibm.com/redbooks

Redbooks



IBM i 7.1 Technical Overview with Technology Refresh Updates

- Boosted efficiency with enriched virtualization including Live Partition Mobility
- Enriched database functionality and new application development tools
- Reenergized management and performance tooling web interface



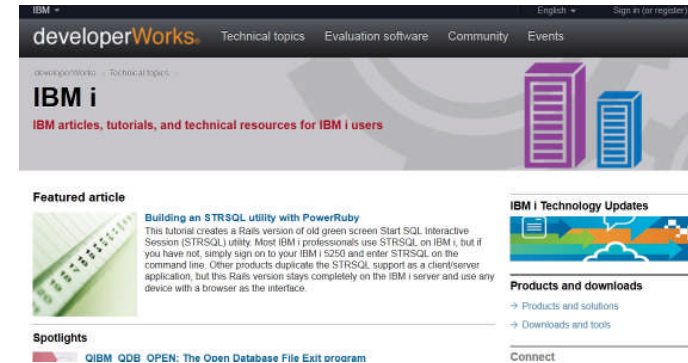
Hernando Bedoya
Octavio Bustos
Clive Griffiths
Tom Grigolett
Axel Lachmann
Yohichi Nakamura
Sandra Nelson
Xiao Hu Qu
Tom Vernaillen

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Redbooks

Social Media for IBM i

- DeveloperWorks
 - Main page: <http://www.ibm.com/developerworks/ibmi>
 - Technology Refresh Updates: <http://www.ibm.com/developerworks/ibmi/techupdates>
- Blogs
 - Steve Will: http://ibmsystemsmag.blogs.com/you_and_i/
 - Dawn May: http://ibmsystemsmag.blogs.com/i_can/
 - Mike Cain: <http://db2fori.blogspot.ca/>
 - Tim Rowe: blogs.systemideveloper.com
 - Alison Butterill <http://ibmsystemsmag.blogs.com/isight/>



[#ibmi](#)
[@Steve_Will IBMi](#)
[@IBMiSight](#)
[@DawnMayiCan](#)
[@SAPonIBMi](#)
[@ianpjarman](#)





IBM i - "Technology will change and IBM i is built to change with it"

[Link](#)

ithankyou