IBM i Update

I

Agenda

- The Latest News
  - POWER7+ Express Servers and other Hardware
  - IBM i 7.1 Technology Refresh 6
    - DB2
    - IBM Mobile Database
    - PowerHA SystemMirror for I
    - Security
    - Content on Demand
    - Zend Server
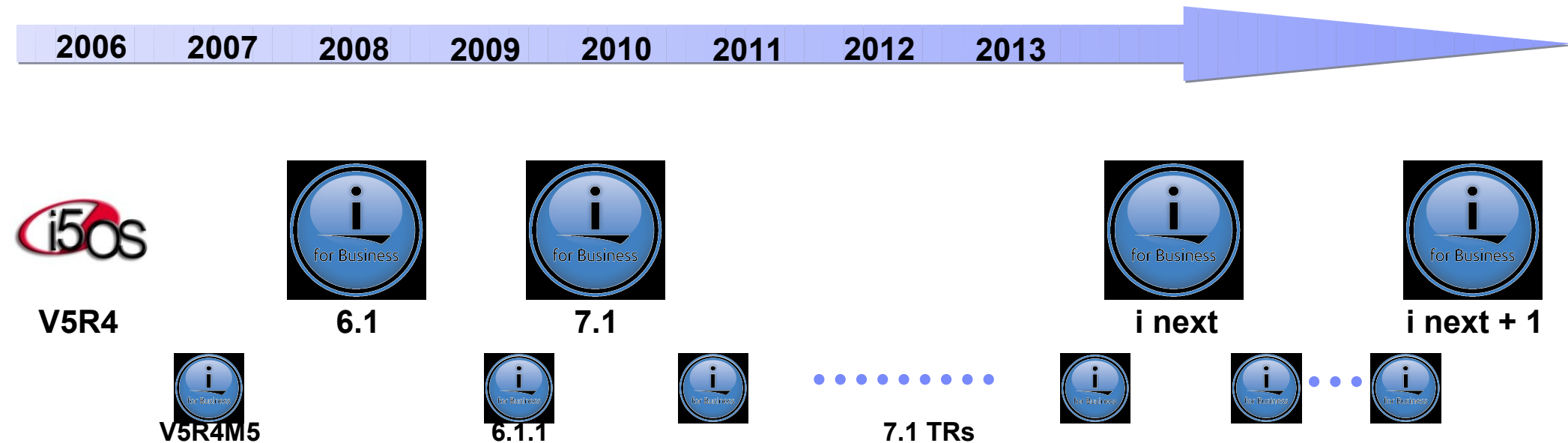   - Lotus Statements of Direction

- DB2 Web Query

- V5R4 Reminder

IBM i Announcements

IBM i Roadmap

2006	2007	2008	2009	2010	2011	2012	2013

V5R4　　　　　**6.1**　　　　　**7.1**　　　　　　　　　　**i next**　　　**i next + 1**

V5R4M5　　　　　**6.1.1**　　　　　　　　　**7.1 TRs**

- Responding to IBM i market, time between releases is longer
- Interim technology refreshes will provide new functions and I/O support
- Simpler to install on a current release and less disruptive

IBM i 7.1 Technology Refresh 6 - Highlights

- Enhancing the value proposition of **DB2 for i** by extending SQL capabilities, improving performance and enhancing data center manageability
- Support for latest **POWER7+ Express Servers**
- Use of **USB Flash Drives** now supported by IBM i
- **New Mobile Solutions**
  - **Zend Server for i Version 6** provides mobile application development and runtime
  - **IBM Mobile Database** solution uses DB2 for i as data source
  - Statement of Direction for **IBM Lotus Notes Traveler** and **IBM Connections** availability
- **IBM i Secure Sockets Layer (System SSL)** supports TLSv1.1 and TLSv1.2 and Online Certificate Status Protocol (OCSP)
- **PowerHA SystemMirror for i** adds support for additional storage devices, including IBM SAN Volume Controller (SVC) and IBM Storwize V7000, V3700 and V3500
- **IBM Systems Director** error detection and reporting

ITG Whitepapers
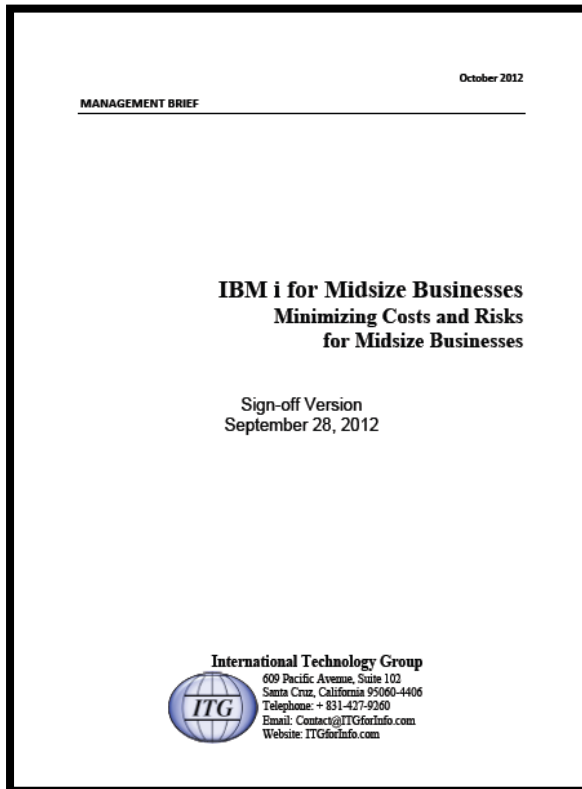
- "Three-year IT costs for use of IBM i 7.1 and Power Systems average 44 percent less than for x86 servers with Microsoft Windows Server and SQL Server, and 57 percent less than for x86 servers with Linux and Oracle databases."[1]
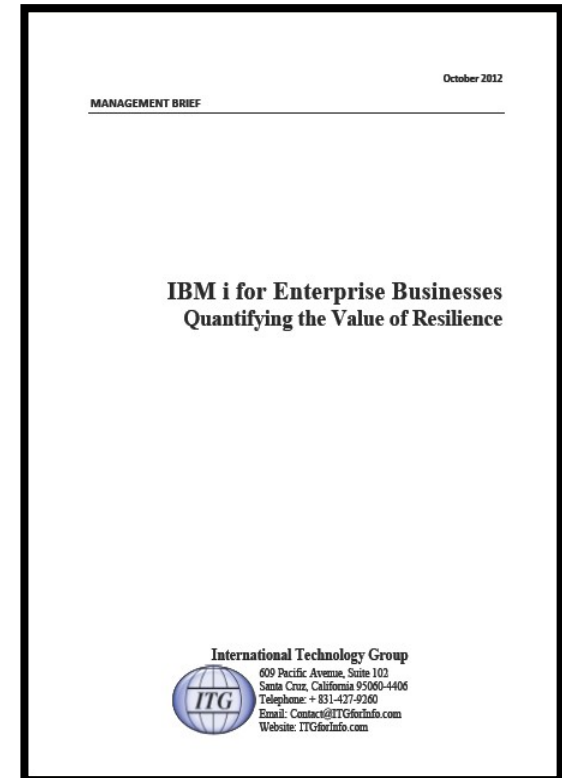
- "No matter how one rates the value of IBM i's distinctive strengths, that value is increasing over time."[2]

[1.] ITG Management Brief: IBM i for Midsize Businesses - Minimizing Costs and Risks for Midsize Businesses; October 2012

[2.] ITG Management Brief: IBM i for Enterprise Businesses: Qaulifying the Value of Excellence - October 2012
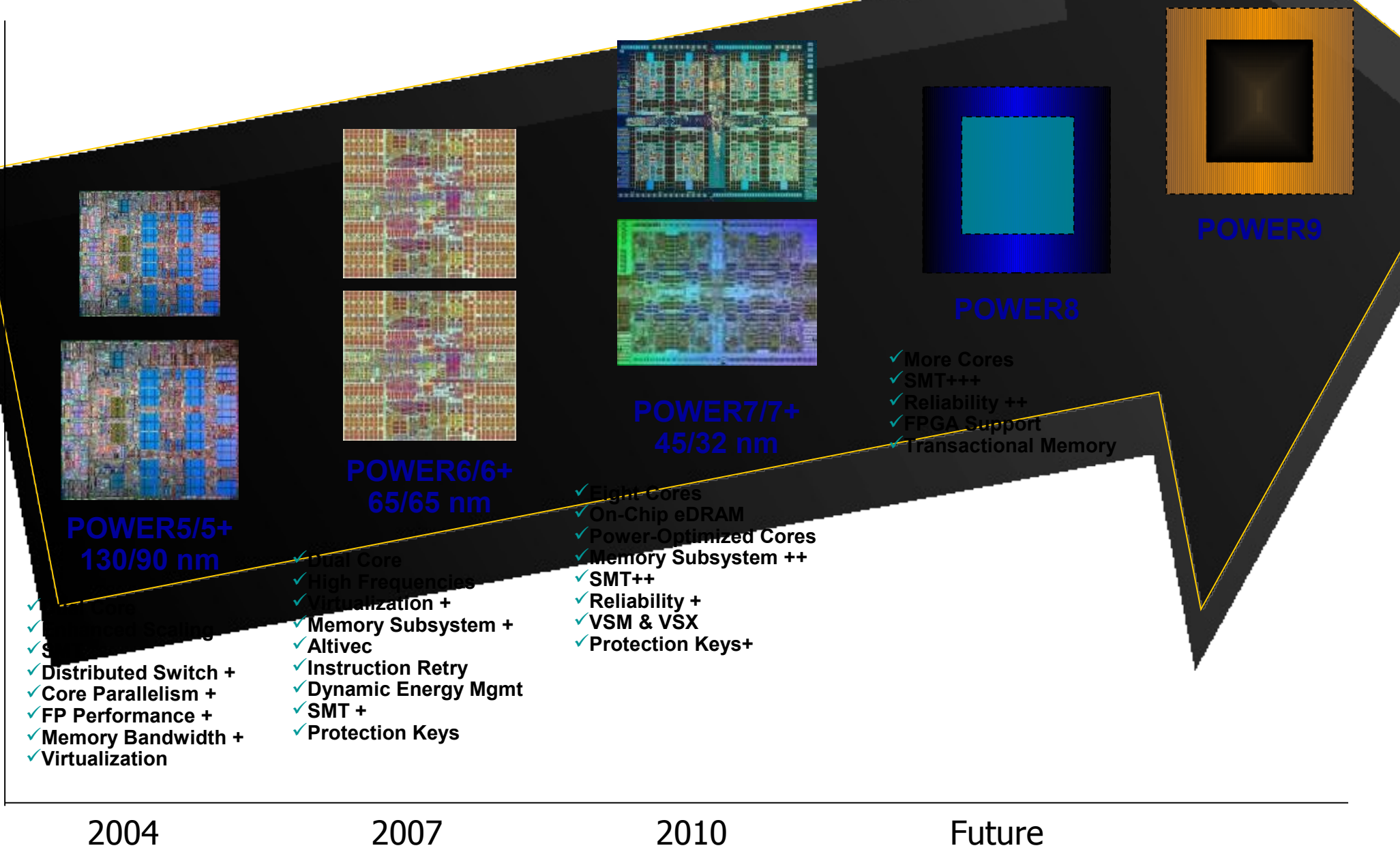
IBM i 7.1 Technology Refresh 6 – More details

- **DeveloperWorks**
  - Main page: http://www.ibm.com/developerworks/ibmi
  - Landing page for 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: http://www.iprodeveloper.com/blog/modern-i-zation-25/ibm-i

IBM Power Hardware Enhancements

Power Processor Technology Roadmap

POWER9

POWER8

✓More Cores
✓SMT+++
✓Reliability ++
✓FPGA Support
✓Transactional Memory

POWER7/7+
45/32 nm

✓Eight Cores
✓On-Chip eDRAM
✓Power-Optimized Cores
✓Memory Subsystem ++
✓SMT++
✓Reliability +
✓VSM & VSX
✓Protection Keys+

POWER6/6+
65/65 nm

✓Dual Core
✓High Frequencies
✓Virtualization +
✓Memory Subsystem +
✓Altivec
✓Instruction Retry
✓Dynamic Energy Mgmt
✓SMT +
✓Protection Keys

POWER5/5+
130/90 nm

✓Dual Core
✓Enhanced Scaling
✓SMT
✓Distributed Switch +
✓Core Parallelism +
✓FP Performance +
✓Memory Bandwidth +
✓Virtualization

| 2004 | 2007 | 2010 | Future |

POWER7+ Design

Physical Design:

- 8 cores with integrated Cache, Memory Controllers, and Accelerators
- 3 / 4 / 6 / 8 Core options
- 32nm technology
- eDRAM

Features:

- L3 Cache: 10 MB per core
- Higher Frequencies
- New RAS Features
- Memory Compression Engine
  - Active Memory Expansion with no processor overhead penalty
- Encryption / Cryptography Support
- Random Number Generator
- Enhanced Energy / Power Gating
- 2X SP performance
- 1/20 core LPAR Granularity

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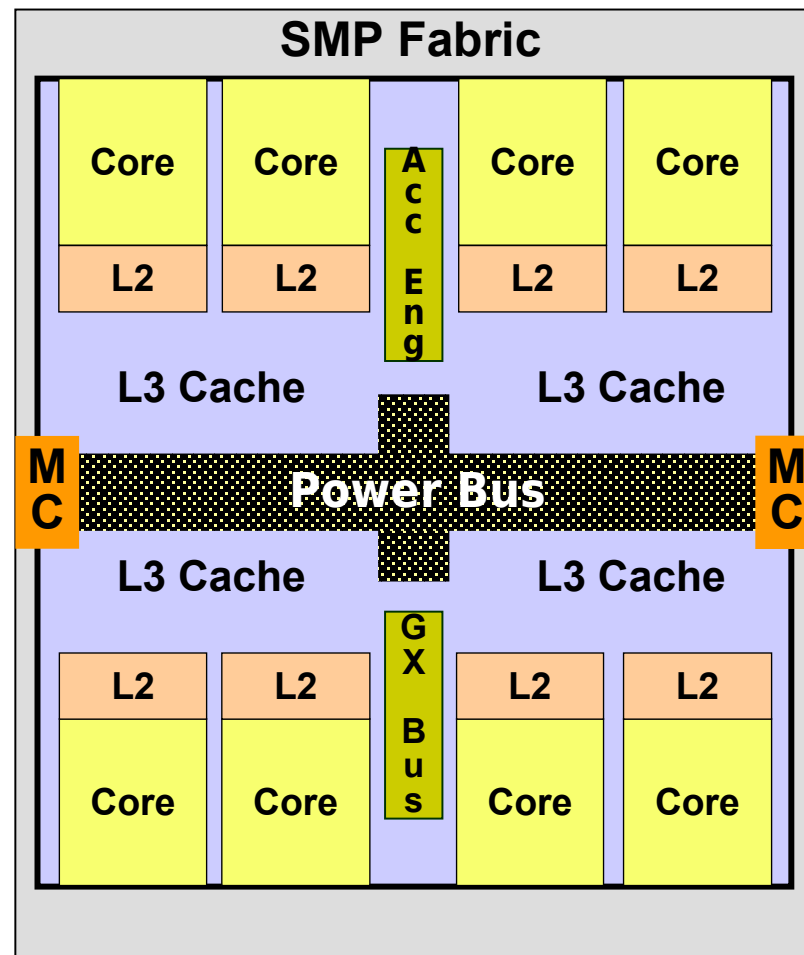
POWER7 Portfolio

Power 795

5 Feb POWER7+ Announcement

Power 780+

Power 770+

Power 750+ / 760+

Power 720+/740+

Power 710+/730+

Power 775

PowerLinux 7R1 / 7R2

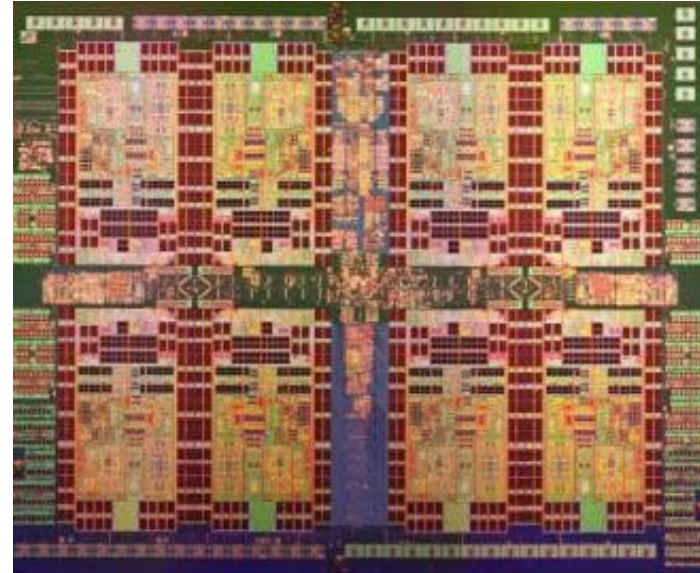**IBM PureFlex System**

PS Blades

p460

p260+

p24L

Power 755

POWER7+ Technology Leadership

**Higher GHz
+
More L3 cache**

✓ 3, 4, 6 or 8 cores per chip
✓ 3.6 to 4.4 GHz
✓ Integrated eDRAM L3 Cache
✓ Dynamic Energy Optimization
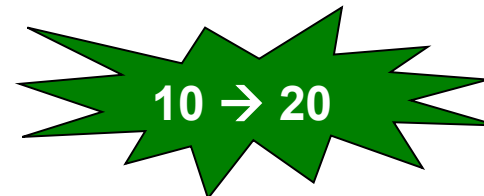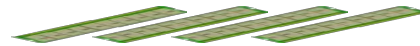
Power Express 710 – 740 Highlights

New Power 710, 730, 720, 740 'D' models with enhanced capabilities

- **Higher performance with POWER7+**
  – Higher frequencies, bigger L3 cache
- **Improved price performance**

- **Double the memory capacity**
- **Improved price performance**

- **Enhanced Ultra SSD I/O Drawer**

- **2X partitioning capability**
  – Up to 20 partitions/core with PowerVM

10 → 20

More Performance –- Less Price

New POWER7+ Models Offer Significantly Improved Price/Performance

- **Power 740**
  - 21-42% Better
- **Power 720**
  - 14-21% Better
- **Power 730**
  - 49-60% Better
- **Power 710**
  - 16-39% Better

Based on rPerf and USA prices.
Prices are subject to change without notice. Reseller prices can vary

POWER7+ 720 Express

✓ Single Socket:
✓ 4U Form Factor
✓ **POWER7+**
✓ 4, 6 or 8 cores per socket
✓ **Up to 512 GB Memory**
✓ 5 + 4 PCIe x8 Gen2 Slots
✓ 6th PCIe x4 Gen2 slot for Ethernet
✓ One GX++ Slots
  ▪ 12X PCI Drawer
  ▪ Ultra SSD I/O Drawer option
✓ 6 SFF Bays
  ▪ Optional add'l Storage drawers
✓ Optional Split Backplane support on planar

Power 720 (E4C & E4D) IBM i Edition Offerings

720 IBM i Editions supersede regular Express Editions

#0777
720 4-core Express Edition for IBM i

- 50% processor core activations at no charge
- 5 no charge IBM i user entitlements
- Unlimited users for IBM i Access Family
- Reduced price development tools

#0779
720 6-,8-core Express Edition for IBM i

- 50% processor core activations at no charge
- 1 IBM Service Voucher
- Unlimited users for IBM i Access Family
- Reduced price development tools

----OR ---

----OR ---

#4928
Power 720 Solution Edition for IBM i

4-core Power 720 Express
- 3 no charge processor core activations
- IBM i users @ only $70
- 1 IBM Service voucher
- Unlimited users for IBM i Access Family
- Reduced price development tools

#4927
Power 720 Solution Edition for IBM i

6 or 8-core Power 720 Express
- 5 no charge processor core activations
- IBM i users @ only $70
- 1 IBM Service voucher
- Unlimited users for IBM i Access Family
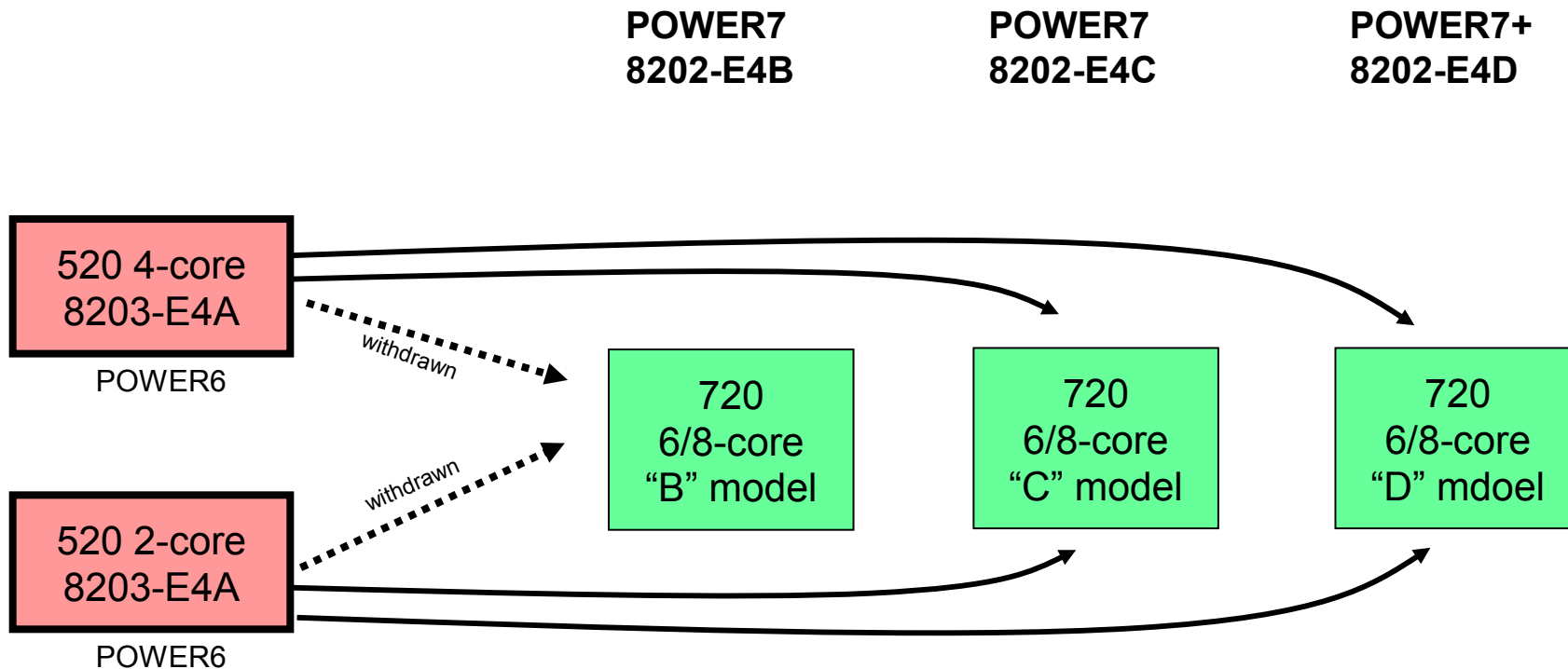- Reduced price development tools

Solution editions available only with participating ISVs and the order is subject to minimum size overall transaction requirements and must be registered/approved prior to installation.

Prices are USA suggested list prices as of Oct 2012. Prices and are subject to change without notice. Reseller prices may vary.

Content subject to change until announced – do not share with customers or press until announced

520 / 720 Upgrade Paths Details   (same serial number)

| | POWER7
8202-E4B | POWER7
8202-E4C | POWER7+
8202-E4D |

520 4-core 8203-E4A
POWER6

520 2-core 8203-E4A
POWER6

withdrawn

withdrawn

720 6/8-core "B" model

720 6/8-core "C" model

720 6/8-core "D" mdoel

Notes:

- Same-serial-number upgrades from Power 720 to a newer Power 720 (B-to-C, B-to-D, or C-to-D) are not offered
- POWER6 9408-M25 to POWER6 8203-E4A conversions remain available

POWER7+ 740 Express

- ✓ Single or Dual Sockets
- ✓ 4U Form Factor
- ✓ **POWER7+**
- ✓ 6 or 8 cores per socket
- ✓ **Up to 1 TB Memory**
- ✓ 5 + 4 PCIe x8 Gen2 Slots
- ✓ 6th PCIe x4 Gen2 slot for Ethernet
- ✓ Dual GX++ Slots
  - ▪ 12X PCI Drawer option
  - ▪ Ultra SSD I/O Drawer option
- ✓ 6 SFF Bays
  - ▪ Optional add'l Storage drawers
- ✓ Optional Split Backplane support on planar

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POWER7+ 720 / 740

Power 720: 1S4U
Power 740: 2S4U
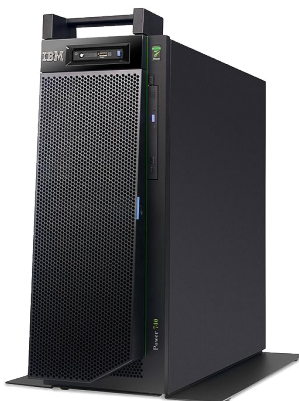
Power 720: 1S4U
Tower

*	Power 720 8202-E4D	Power 740 8205-E6D
POWER7+ Architecture	4-core 3.6 GHz 6-core 3.6 GHz 8 core 3.6 GHz	1 or 2 x 6-core 4.2 GHz 1 or 2 x 8-core 3.6 GHz 1 or 2 x 8-core 4.2 GHz
Planar	Single Socket	Dual Socket Single Socket option
DDR3 Memory DIMMs	4 / 8 / 16* / 32* GB 4GB to 512* GB	4 / 8 / 16 / 32 GB 4GB to 1 TB
SAS SFF Bays	Up to 6 or 8 HDD or SSD	
PCIe Gen2 Expansion Slots	Five x8 Full High (FH) (Base) One x4 FH (Base) / Ethernet Adapter Four x8 LP (Optional)	
Integrated SAS Controller	Standard: RAID 0, 1, & 10 Optional: RAID 5 & 6	
Integrated Ports	3 USB, 2 Serial, 2 HMC	
Ethernet in 6th PCIe slot	Quad 10/100/1000	
Media Bays	1 Slim-line & 1 Half Height	
I2X PCIe IO Drawers	Max 2 **	Max 2 / 4
12X PCI-X I/O Drawers	Supported **	Supported
HDD/SSD-only drawer	Max 14**	Max 14
EXP30 Ultra SSD Drawer	Max 1 **	Max 1 or 2
Virt Management	IVM & HMC	
Redundant Power and Cooling	Optional	Standard
EnergyScale	TPMD	
Warranty	3 Years	

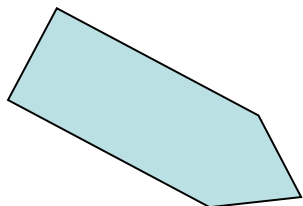* max of 64GB memory on 4-core Power 720

Merging Power 770 & Power 740 = Power 750/760

**Enterprise System features
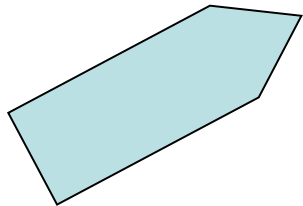Express System pricing**

Power 770

**Quad Sockets
IO Subsystem**

Power 760

Power 750

Power 740

**Memory Architecture
RAS Features**

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Power 750
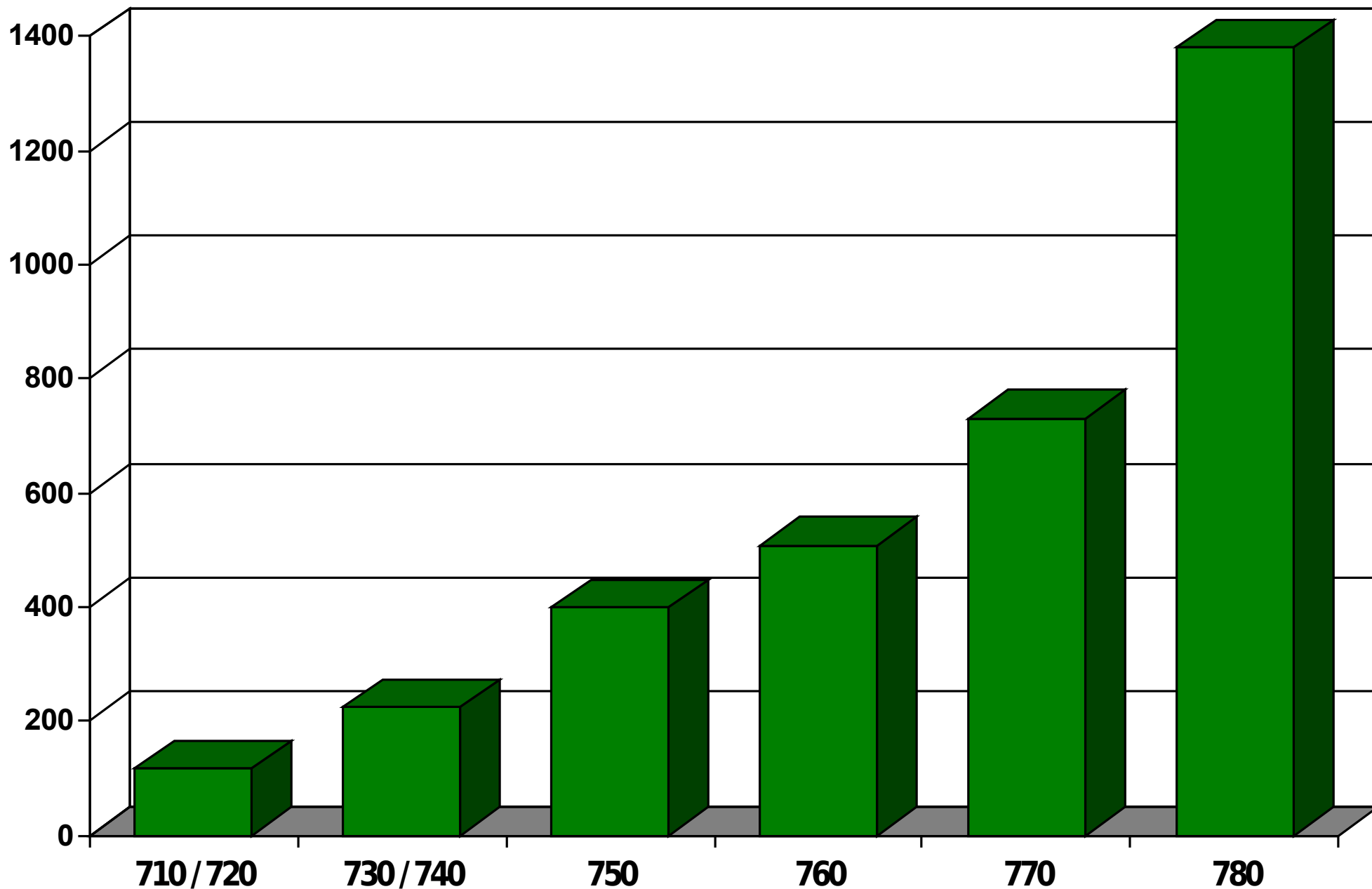
✓ **POWER7+**

✓ **8 Cores per Socket @ 3.5 & 4.0 GHz**

✓ **Up to Four Sockets**

✓ **Up to 32 Cores**

✓ **Up to 1 TB of memory**

✓ **6 PCIe Gen2 slots**

✓ **6 SFF DASD/SSD Bays**

✓ **Multifunction card** w/ up to 4 10GbE ports

✓ **Enhanced RAS**

✓ **Three year maintenance coverage**

ENERGY STAR

Content subject to change until announced – do not share with customers or press until announced

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Power 760

✓ **POWER7+**

✓ **12 Cores per Socket @ 3.1 & 3.4 GHz**

✓ **Up to Four Sockets**

✓ **Up to 48 Cores**

✓ **Up to 2 TB of memory**

✓ **6 PCIe Gen2 slots**

✓ **6 SFF DASD/SSD Bays**

✓ **Multifunction card** w/ up to 4 10Gb E ports

✓ **Capacity on Demand for Processors**
- **Permanent activations**
- **Dynamic Processor Sparing**

✓ **Enhanced RAS**

✓ **Three year maintenance coverage**

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POWER7+ Performance

rPerf ratings charted. If CPW ratings charted, the bars show the same scaling.

Content subject to change until announced – do not share with customers or press until announced

IBM i Operating System Support

- **IBM i 7.1, or later**

- **IBM i 6.1.1 with machine code 6.1.1, or later**
  - **NOTE: on POWER7+ servers 6.1 is supported as a CLIENT partition accessing all I/O through either IBM i 7.1 or through VIOS without additional charge**
  - **For a modest additional charge,** FC # EB24: *IBM i 6.1.1 Native IO Enablement* **on the Power 710/720/730/740 adds native 6.1 I/O access**
  - **Without #EB34, IBM i 6.1 can not be ordered as the primary OS with FC #2145 & #0566**

- **SAN Load Source Specify**
  Boot from SAN (FC #0837)
  Optional Load Source Specify

- **System Console - Internal LAN (FC #5553)**

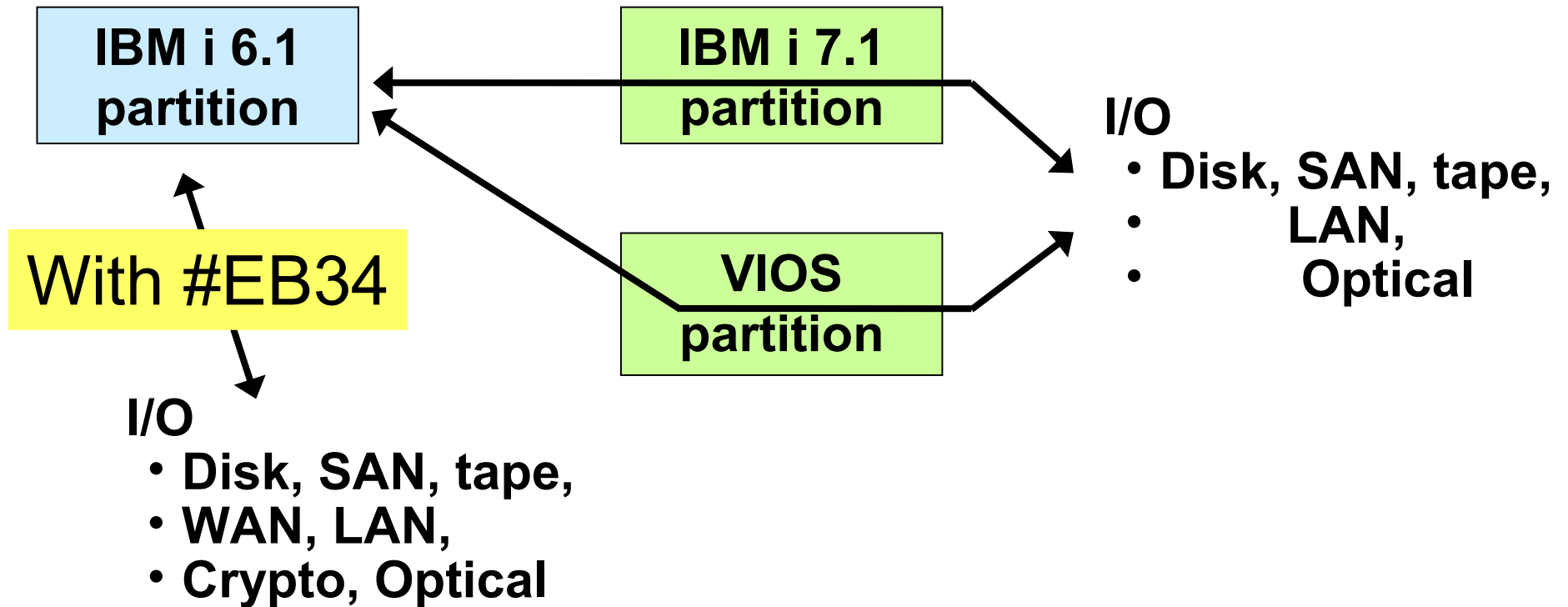# Schedules and Availability - Software

- **Announce: 5 Feb 2013**
- eConfig support: 5 Feb 2013

- Planned Availability (GA):
  - **13 Feb** : IBM i 7.1 TR6
  - **20 Feb** POWER7+ 710, 720, 730, 740

    (need TR6 for above)

  - **8 March:**
    - IBM i 6.1 client on POWER7+ 710-760
    - IBM i 6.1 native I/O on POWER7+ 710-740 & 770/780 with #EB34
  - **15 March**
    - POWER7+ 750, 760
    - Two new PCIe Gen2 adapters

POWER7+ 710/720/730/740/770/780 IBM i Native I/O support

- **IBM i 7.1 native I/O support & virtualized I/O**
- **IBM i 6.1 native I/O support (with #EB34)**
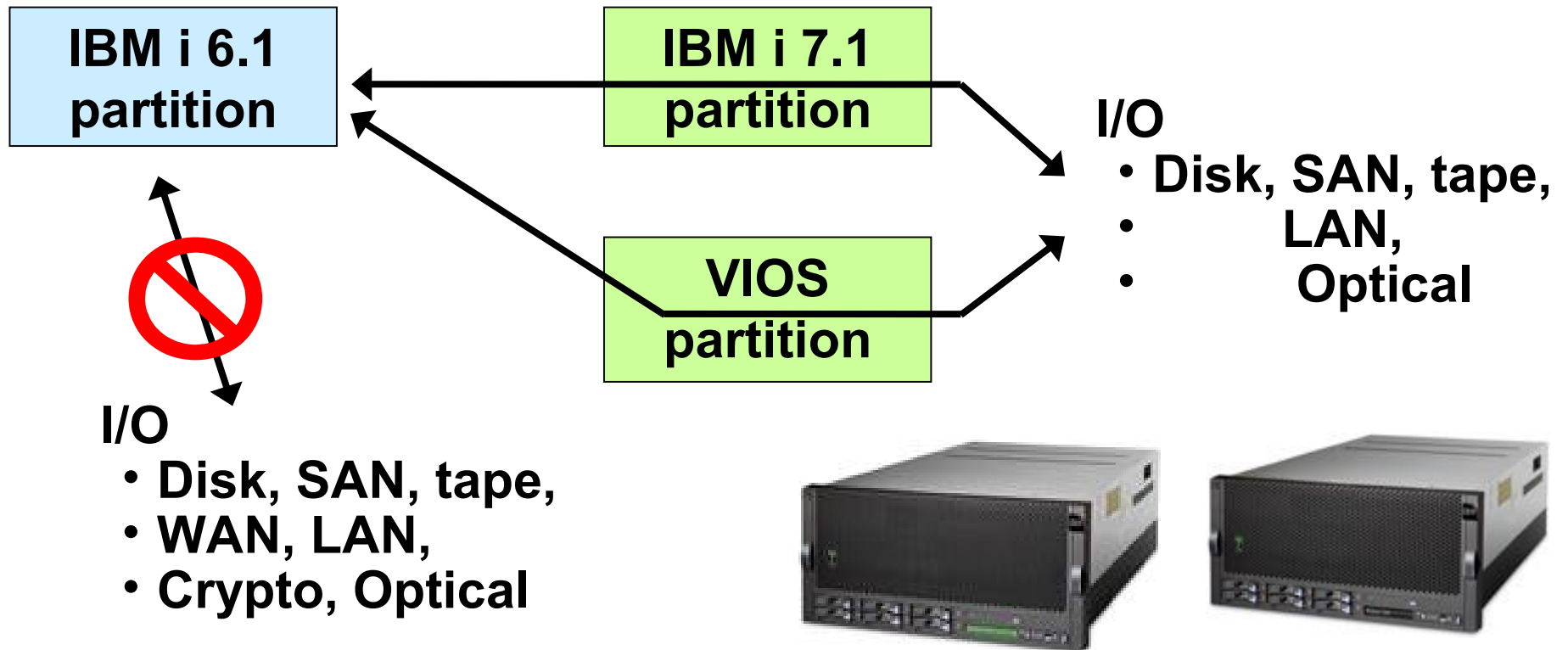- **Plus virtualized options -- supported as client of IBM i 7.1 or VIOS**

IBM i 6.1 partition

IBM i 7.1 partition

VIOS partition

With #EB34

I/O
- **Disk, SAN, tape,**
- **LAN,**
- **Optical**

I/O
- **Disk, SAN, tape,**
- **WAN, LAN,**
- **Crypto, Optical**

POWER7+ 750/760 IBM i Native I/O support

- **IBM i 7.1 native I/O support**
- **IBM i 6.1 NO native I/O support (no #EB34)**
- **I/O supported as client of IBM i 7.1 or VIOS**

for Business

Plan:

IBM i 6.1 partition	IBM i 7.1 partition

I/O
- **Disk, SAN, tape,**
- **LAN,**
- **Optical**

VIOS partition

I/O
- **Disk, SAN, tape,**
- **WAN, LAN,**
- **Crypto, Optical**

SSD Savings with 6-Packs and 4-Packs

Save 20%   PLUS
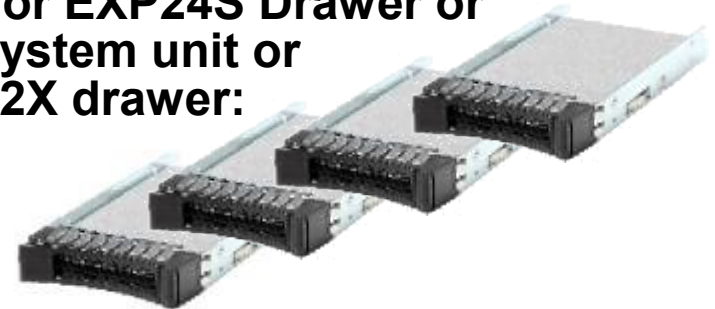**convenient to order & easy to understand / explain**

Order with a new server order

For Ultra SSD I/O Drawer:

A 2.3 TB six-pack = up to 140,000 IOPS for 20% less than buying single features

For EXP24S Drawer or system unit or 12X drawer:

A 1.5 TB four-pack = up to 90,000 IOPS for 20% less than buying single features

Prices shown are IBM USA suggested list prices and are subject to change without notice; reseller prices may vary. Packs consists of six or four SSD drives. An SSD drawer or SAS controller is not included in the pack. Maintenance after warranty is not discounted.   IOPS are read-only using a typical workload used to measure I/O workload, not necessarily typical server I/O usage. IOPs achievable will vary with the configuration.

EXP30 Ultra SSD I/O Drawer Enhancements

#EDR1

Up to 480,000 IOPS (100% read)
Up to 11.6 TB
Up to 4.5 G**B**/s bandwidth
Downstream HDD

Feb 2013 Announcements:

- Support on 'D' models of 710, 720, 730, 740, 750, 760
  (already supported on 'D' model 770 and 780)
- SOD for 'C" model 770 and 780
- IBM i 7.1 TR6 <u>native</u> support   (not supported through VIOS)
- New 6-pack convenience package

- **Ultra performance**
- **Ultra density**

Use of USB Flash Drives with TR6
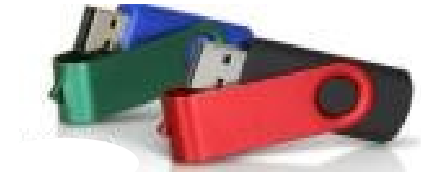
- POWER7+, POWER7 Rack Servers → System Unit ports only
- "Optical Class Drives" → Same ease of use as IBM i Optical devices
- Intended uses are data movement (IFS, Save/Restore) and D-mode IPLs
- Not recommended as back-up devices, but handy and useful for:
  - Copying a file (e.g., PTF fix, database file, spool file) from one IBM i partition to another.
  - Copying a file from an IBM i partition to another type of system – even to a PC
  - Installing PTFs, or an XPF application
  - ISV software distribution
  - Performing a D mode IPL
  - Use as an alternative to sending files over a network, if network is constrained
  - Copying a mainstore dump and other debug info from an IBM i partition and taking it to another partition, or even a PC, to send it in to IBM service.

- Generic USB 2.0 support → Use vendor devices up to 32 GB in capacity
- IBM i 7.1 Native support, and virtualization to another IBM i 7.1 or IBM i 6.1 partition

Other I/O News of IBM i Interest

- **More removable media choices**
  - LTO-6 for 720/740 CEC and in 7226 1U drawer
  - Bigger RDX cartridge – 1.5TB

- **Two new PCIe Gen2 Adapters**
  - 2-port 16Gb Fibre Channel
    - Requires VIOS
  - 4-port 10Gb CNA/FCoE + 1GbE
    - Requires VIOS
    - IBM i supports NIC, not FCoE

#EN0A/#EN0B

#EN0H/#EN0J

- **NPIV** (N_Port ID Virtualization) attach of SVC, V7000 Storwize, V3700
  - Expands existing VSCSI support
  - Native support not offered

- **Ethernet Link Aggregation Enhancements**
  - Automatic retry to re-link dropped links
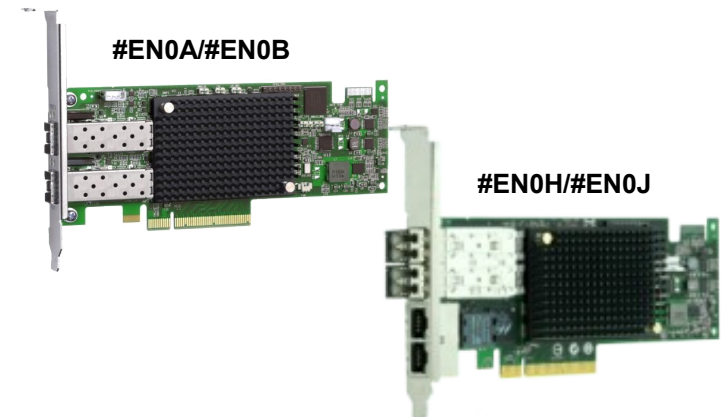
VIOS – NPIV attachment of SVC and Storwize Storage

- POWER7+, POWER7, POWER6 Servers

- IBM SAN Volume Controller (SVC), and Storwize V7000, V3700, and V3500

- NPIV attach is simpler to set up than today's VSCSI attachment

- Includes loadsource support

- Allows use of PowerHA LUN level switching

Ethernet Link Aggregation Enhancements

• Today's IBM i 7.1 support: Ethernet ports that successfully established their link when the line description was varied on, but then lost and re-established the link, will rejoin the aggregate.

• New IBM i 7.1 TR 6 support: More automatic recovery

  • Ethernet ports that fail to establish link at vary on time, will now periodically attempt to join the aggregate

  • Ethernet ports that encounter errors other than lost link will also rejoin the aggregate once errors are handled

  • New message for a resource leaving or joining an aggregate can be monitored to allow additional customized automation

Performance Improvement to LIC PTF Apply

- Both IBM i 7.1 TR 6 PTF Group and IBM i 6.1 PTF MF45484

- Improvement is for both PERM and Temp Apply LIC PTFs

- Improvement is for memory- and processor-constrained partitions, so typically would be smaller partitions and systems

- Individual results will vary

- Included with the TR PTF Group because of occasional reports of long PTF apply times for this group

    - If IBM i TR 5 PTF Group is already on the partition, improvement is already now when applying TR 6 PTF Group

    - If IBM i TR 5 PTF Group is not already on the partition, improvement is seen on subsequent PTF applies
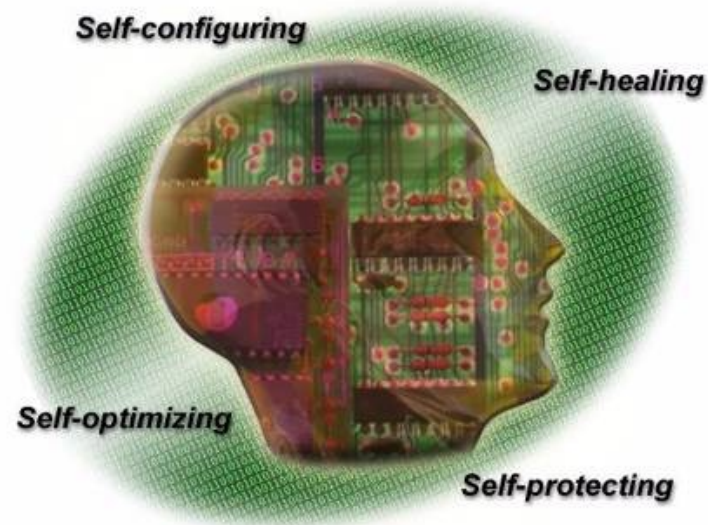
DB2 for i Enhancements
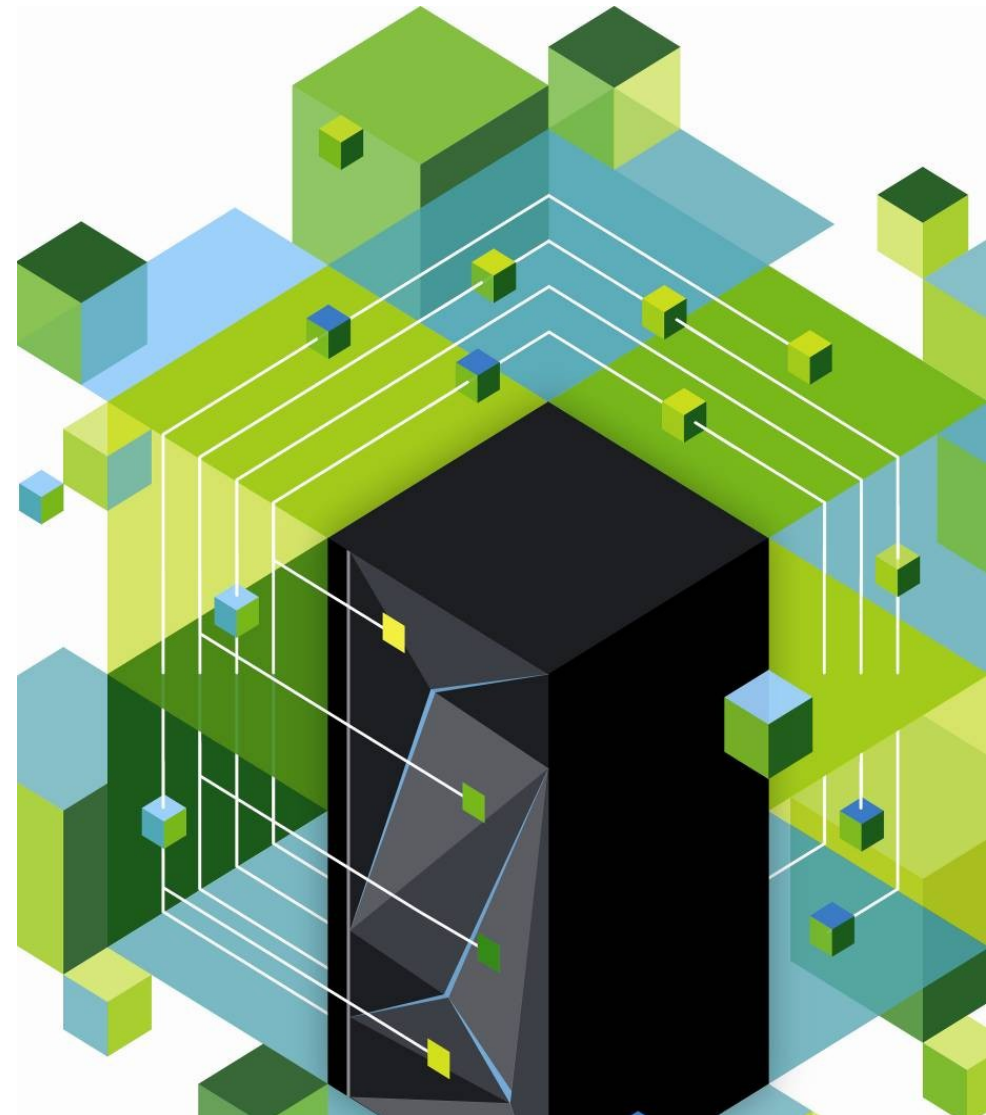
IBM i Customers Buy These Values

➢ Simplicity - Run the Business, not the Computer

➢ Integration - "It's In There"

➢ DB2 for i - My Data is My Business, and the Data is on i

DB2 for i enhancements extend the value proposition:
- You can do more with SQL
- The database is faster and smarter
- You have new ways to understand your business, from an IT perspective
- Greater insight translates to improved operations
- The security auditor can do more and do it more easily

DB2 for i – Enhancements for TR6

"solution platform"

- **Functional enhancements:**
  - New and enhanced SQL language capabilities
  - New database centric application interfaces

"tuned to the task"

- **Performance enhancements:**
  - Improved Navigator performance for Database tasks
  - Enhanced Index Strategy techniques and insight
  - New JDBC method to achieve blocked fetch of data

"industry leading tooling"

- **Database Management enhancements:**
  - Database Reorganization more efficient driven by smaller service windows
  - New techniques for managing SQL objects across machines

"near zero downtime"

- **Availability and Recovery enhancements:**
  - Tracking important system limits
    - studying trends drives to fewer outages
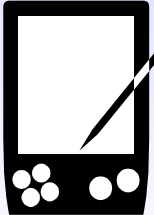
"secure and auditable"

- **Security enhancements:**
  - New capabilities to extract non-Database detail
  - Wider use Client Special registers for DB2 for i commands and applications

IBM Mobile Database

IBM Mobile Database Value Proposition

Mobile Info Management for All Enterprises

- 6 MB footprint zero admin database to fit on mobile devices
- Database encryption data protection for the most sensitive data

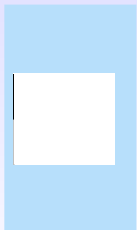## Bidirectional Synchronization Solution

- Reliability ensured
- Advanced conflict detection with customized resolution
- Designed for occasionally connected devices

Application Development Freedom

- Standard SQL
- JDBC and ODBC interfaces

Investment Protection

- Open standards compliance
- Android support
- Multi-platform synchronization server support
- Award winning 24 X 7 product support for your peace of mind
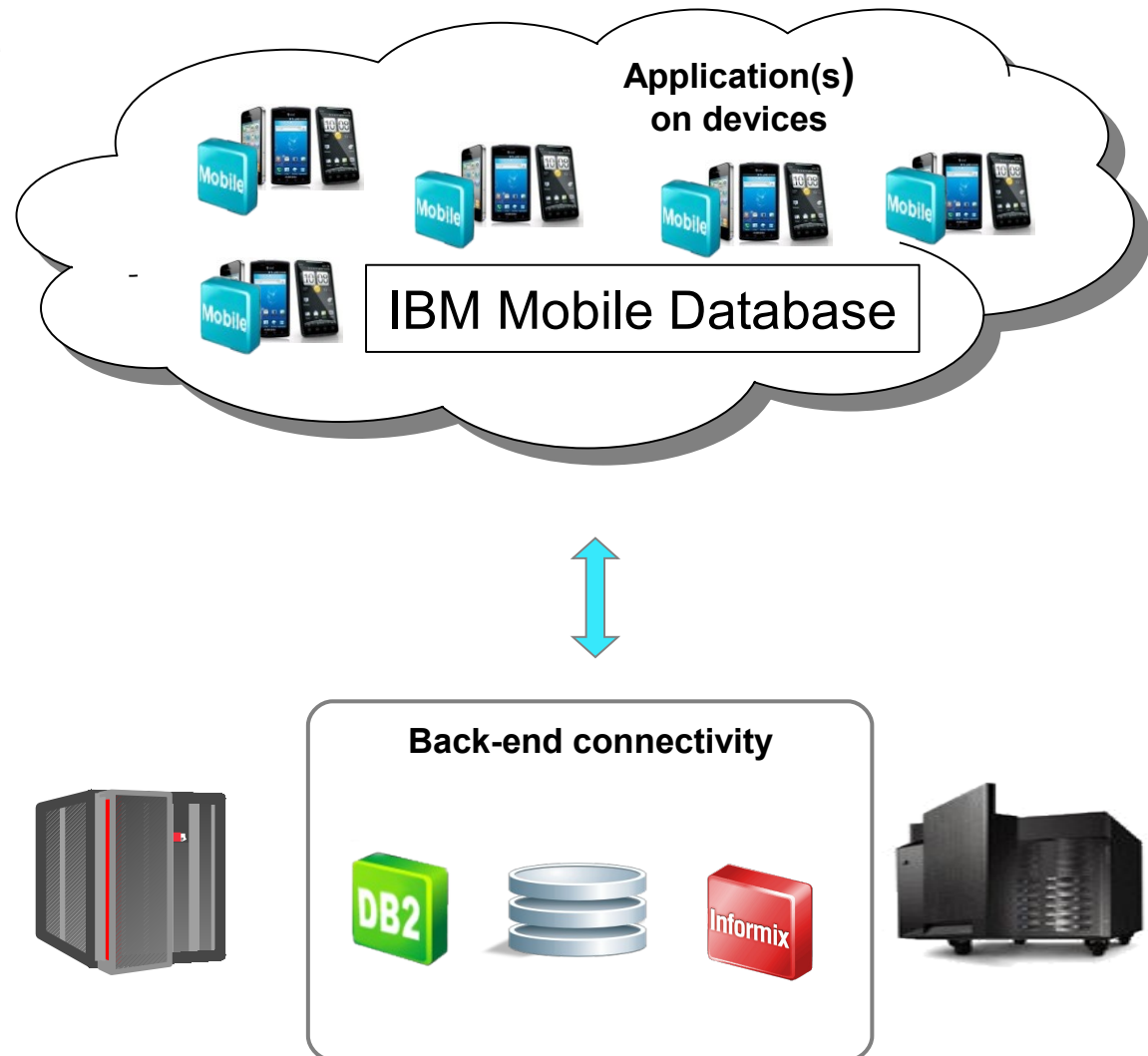
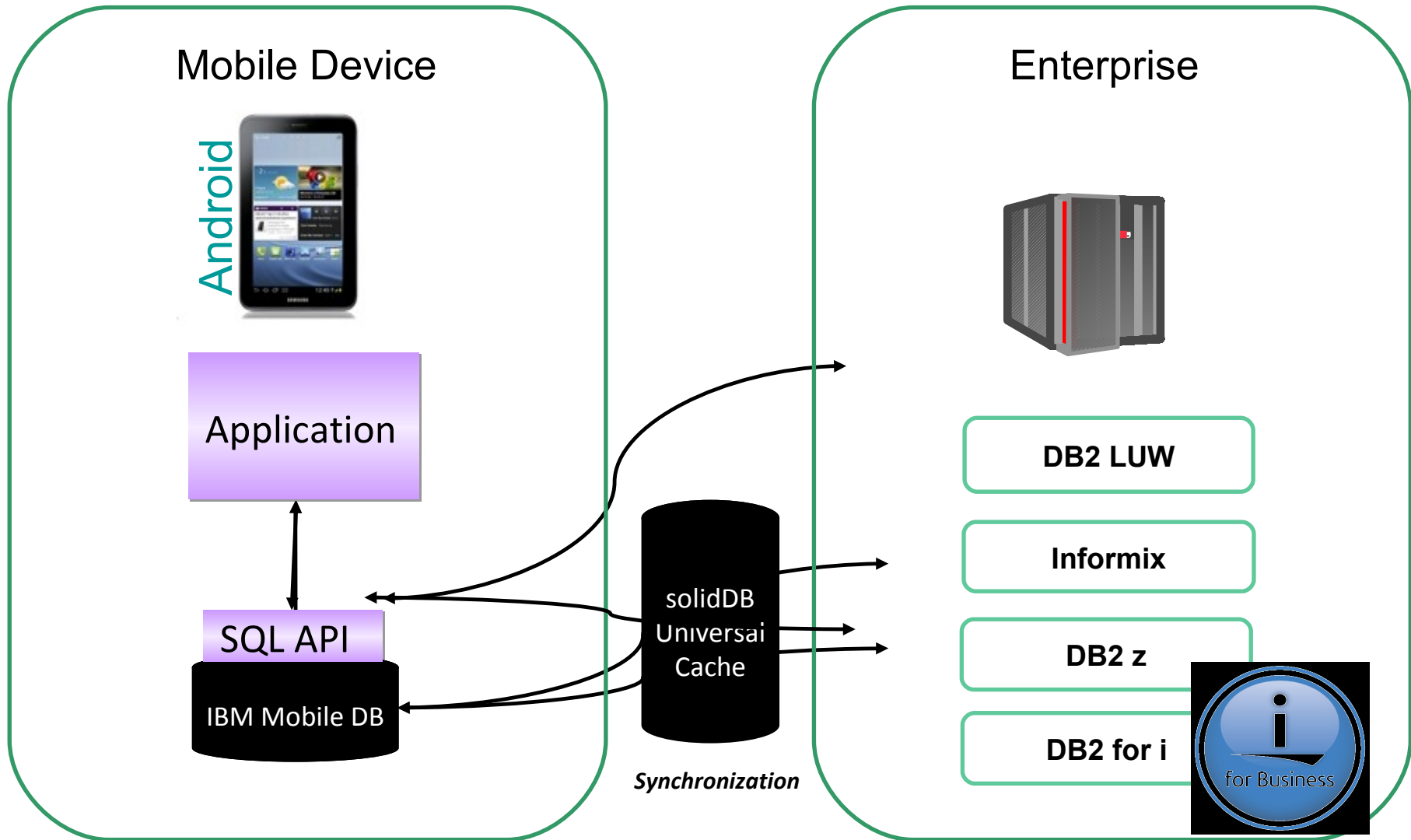## Simple to Install, Manage and Deploy

- Easily scalable to support enterprise mobility requirements on demand
- Zero administration database
- Simple installation and configuration out-of-the-box (only a few files)

IBM Mobile Database

- Full-featured, small footprint mobile data management solution

  - Persistent data

  - Secure storage

  - Synchronization with back-end databases

- Available on Android

- Free to download from the web

Application(s) on devices

IBM Mobile Database

Back-end connectivity

DB2   Informix

IBM Mobile Database GA Sept 14, 2012

Mobile Device

Android

Application

SQL API

IBM Mobile DB

solidDB Universal Cache

Synchronization

Enterprise

DB2 LUW

Informix

DB2 z

DB2 for i

i for Business

IBM PowerHA SystemMirror for IBM i TR6
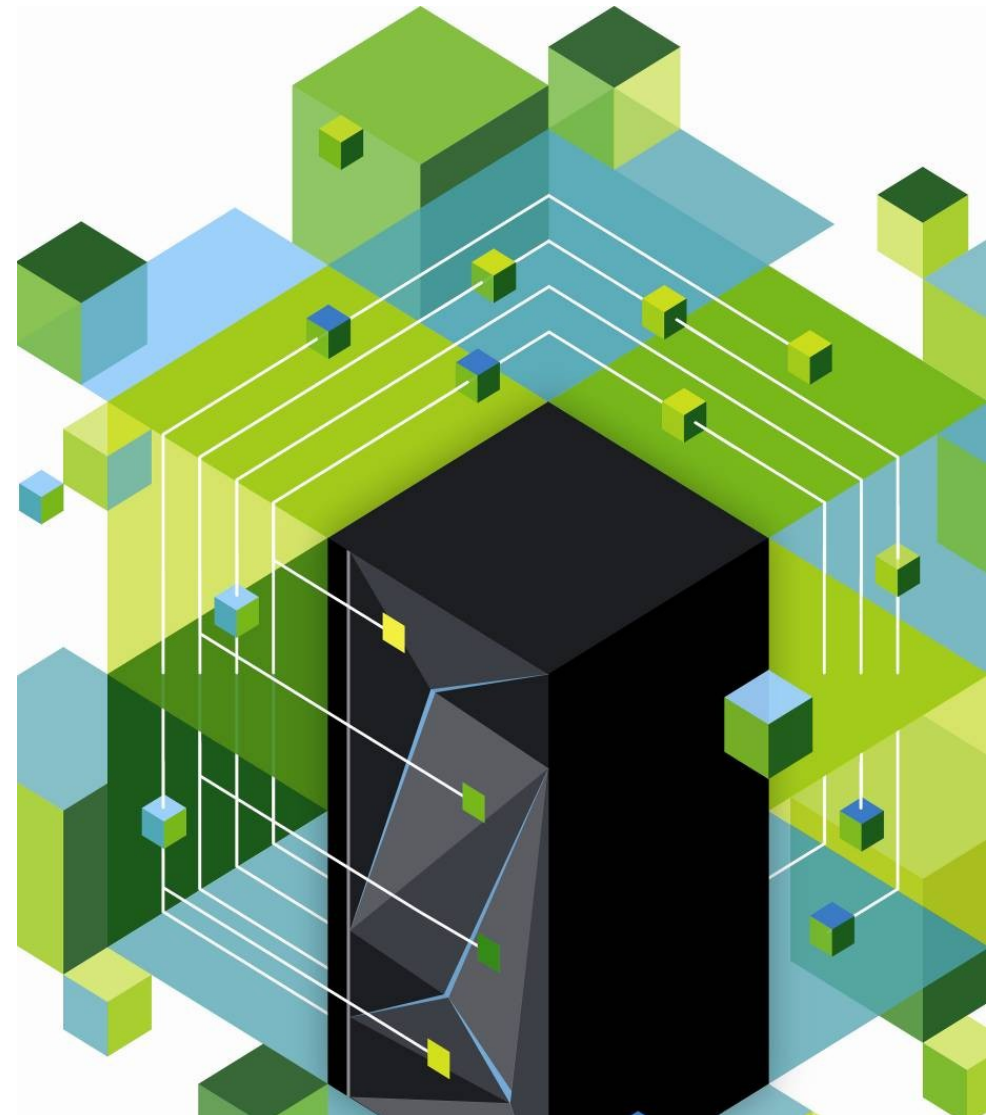
PowerHA High Availability Clustering Solutions

- **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
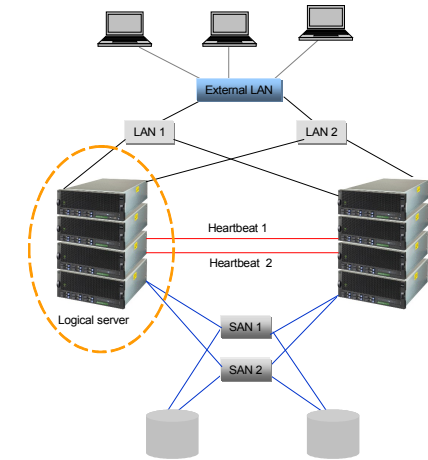
Data Center Clustering
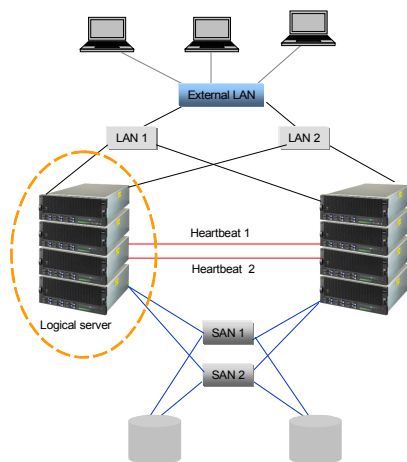
Multi-Site Clustering

PowerHA SystemMirror for IBM i 7.1

- PowerHA is embedded OS technology and provides a unified solution for High Availability and Disaster recovery
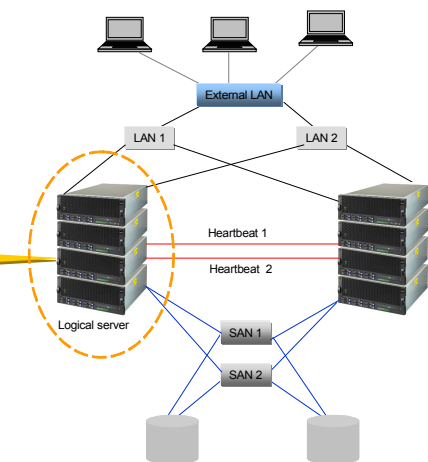
- PowerHA Standard Edition provides HA solutions for the data center

- PowerHA Enterprise Edition provides mutli-site solutions based on storage replication services

1Q 2013

PowerHA SystemMirror V7	Standard Edition	Enterprise Edition
IBM Director Navigator graphical interface	✓	✓
IBM i cluster enabled storage management	✓	✓
SLIC level event management	✓	✓
IASP encryption	✓	✓
Integrated copy services management	✓	✓
Host based replication (geomirroring)	✓	✓
IBM storage based replication		✓
Cluster wide sysbas synchronization	✓	✓
Automated failover/failback	✓	✓
Three site MGM (Metro Global Mirror)		✓
Config wizards	✓	✓
Advanced Copy Services (Lab Services)	✓	✓
Cluster Enabled Admin Domain	✓	✓
Cluster Enabled Flashcopy & Copy Services	✓	✓
V7000 & V3700 LUN Level Switching	✓	✓
Single command D side FlashCopy		✓
New PowerHA GUI (replaces previous GUIs)	✓	✓

Storwize V7000 PowerHA SystemMirror for i
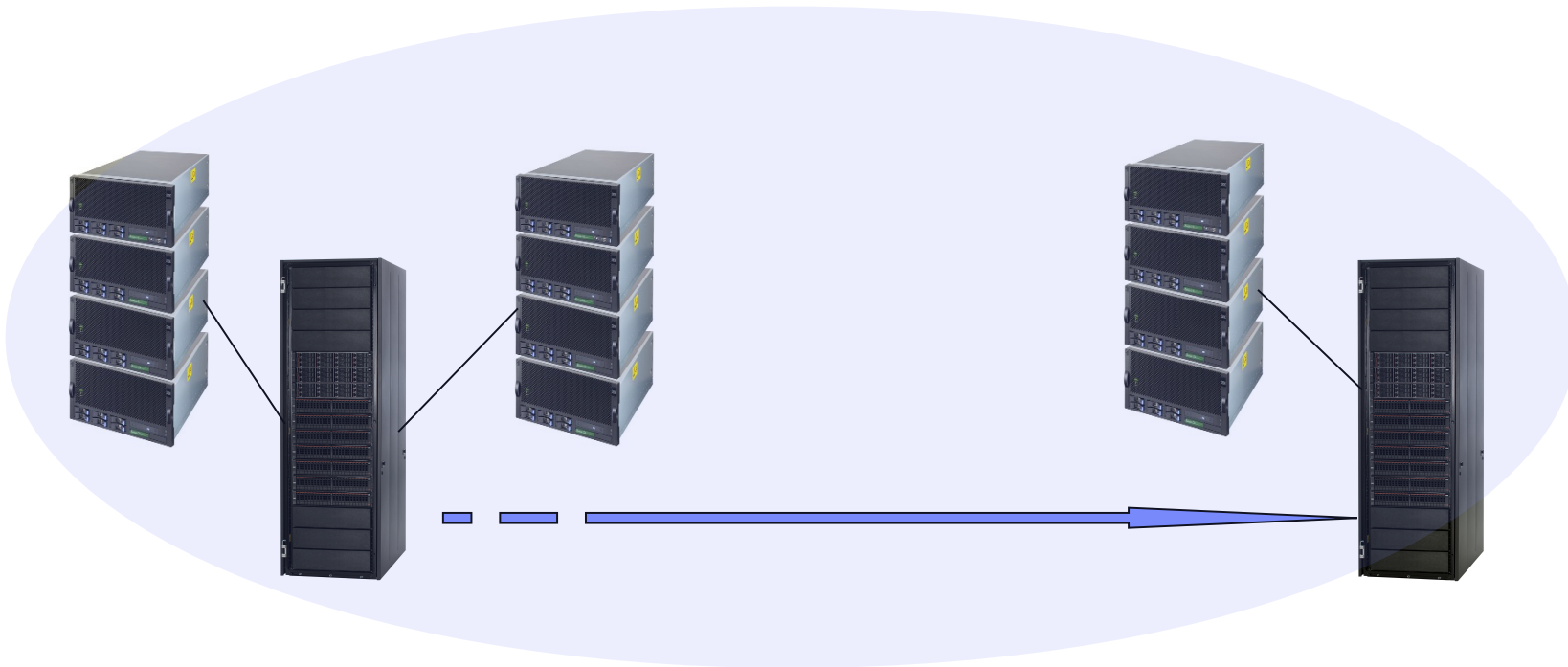
- PowerHA SystemMirror 7.1 TR6
- SVC and Storwize V7000
  - FlashCopy (ACS available from Lab Services as well)
  - Metro Mirror, Global Mirror
  - and with NPIV LUN Switching

IBM Storwize V3700 PowerHA SystemMirror for i
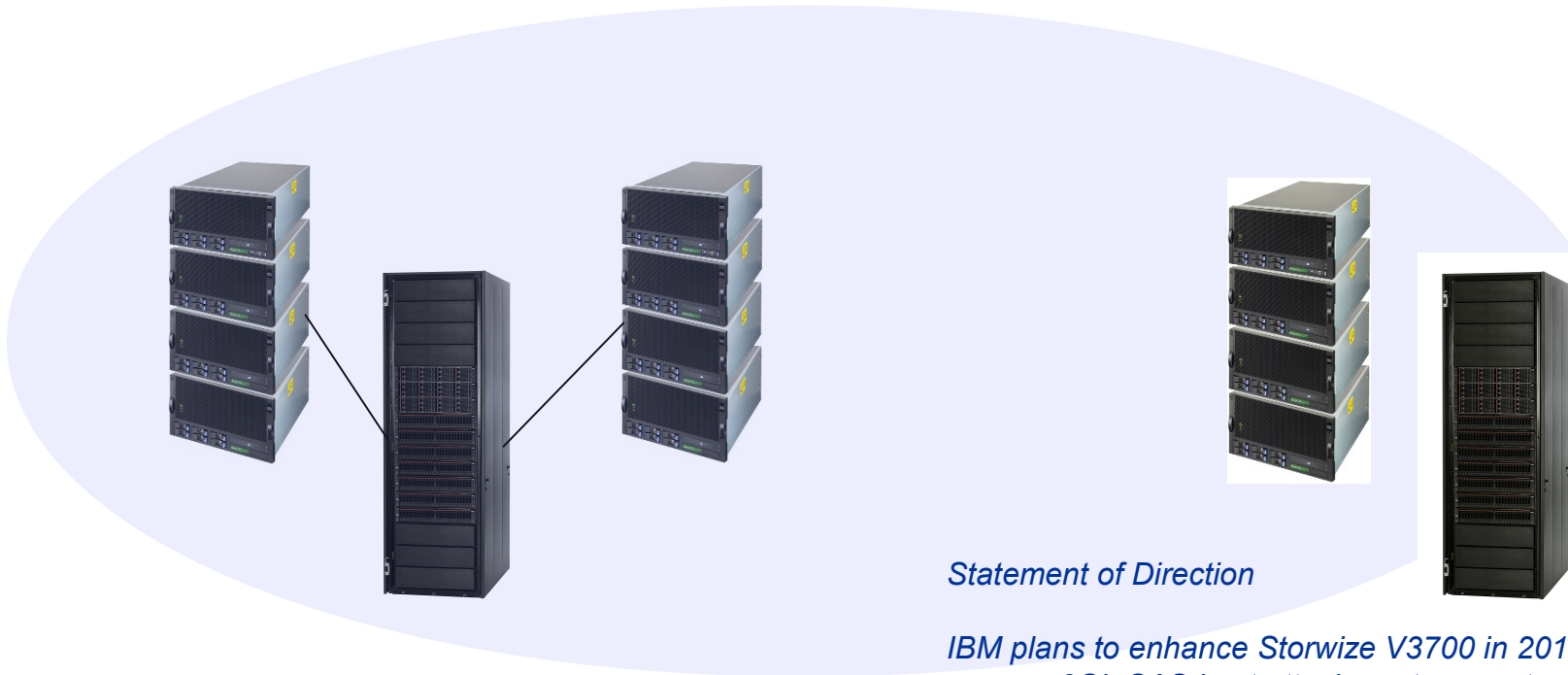
Statement of Direction

IBM plans to enhance Storwize V3700 in 2013 with the following:
*   6Gb SAS host attachment support*
Optional features:
*   Easy Tier*
*   Remote mirroring*
*   FlashCopy support for up to 2,0450 targets*

- PowerHA SystemMirror 7.1 TR6
- Storwize V3700
  - FlashCopy and with NPIV LUN Switching
  - SOD

PowerHA SystemMirror for IBM i 7.1

Storage Options for your Enterprise

|	Sync mode	Async mode	Switched LUNs
Geomirror	Yes	Yes	
DS8800	Metro Mirror	Global Mirror	✓
Storwize® V7000	Metro Mirror	Global Mirror	✓
Storwize® V3700	Metro Mirror	Global Mirror	✓
SVC	Metro Mirror	Global Mirror	✓

- Solutions for high availability and disaster recovery
- IBM storage options that span the market
- Advanced Copy Services (ACS) for PowerHA
  - Single interface for PowerHA and DS8K storage management
  - Option for Storwize V7000 FlashCopy automation

Security Enhancements

System SSL Support for Transport Layer Security Version 1.2

- The TLS protocol allows client-server applications to communicate across a network in a way designed to prevent eavesdropping and tampering

- IBM i Secure Sockets Layer has been enhanced to support the latest industry standards of Transport Layer Security version 1.2
(TLSv1.2) and Transport Layer Security version 1.1 (TLSv1.1) protocols.

- The TLSv1.2 protocol uses SHA2 hashing algorithms. System SSL also supports the Online Certificate Status Protocol (OCSP) during the certificate validation process. OCSP is used for checking the revocation status of end entity certificates.

- Applications making use of the Global Secure Toolkit (GSKit) System SSL programming interface can switch to the new protocols by making changes to the code and recompiling.
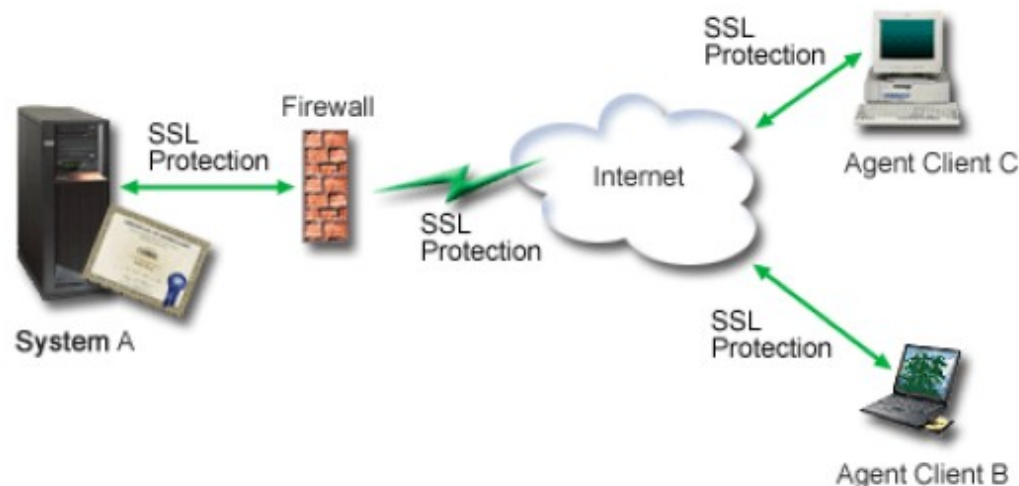
Digital Certificate Manager

- A digital certificate is an electronic credential used to establish proof of identity in an electronic transaction.
- Digital Certificate Manager (DCM) is a free feature, to centrally manage certificates for applications
  - allows the management of certificates from any Certificate Authority (CA)

- NEW in IBM i 7.1 TR6
- Options on the Application Definition configuration panels to allow many of the core IBM networking applications (Telnet, FTP, etc.) to use new protocols and enable OCSP

Content on Demand

Content Manager OnDemand

- IBM® Content Manager OnDemand (CM OnDemand) is high-performance middleware for enterprise report management
- Enterprise report management software manages formatted computer output and reports
- It helps companies gain significant return on investment by transforming costly high-volume print output to electronic information capture and presentation in support of customer service

IBM Content Manager for i

- IBM Content Manager OnDemand for i (5733-RDR) announces support for the OnDemand Administration component for IBM Navigator for i

- Navigator for i is a web console interface used to perform key tasks for IBM i administration.

- OnDemand Administration component of Navigator for i supports all tasks available in OnDemand Archive plugin for i Navigator Windows client
  - Nothing needs to be installed on the workstation to use Navigator for I

- The OnDemand Administration component is part of the base Content Manager OnDemand for i software.

- OnDemand Administration tasks include creating and managing migration policies, archive media, output queue monitor definitions, and directory monitor definitions
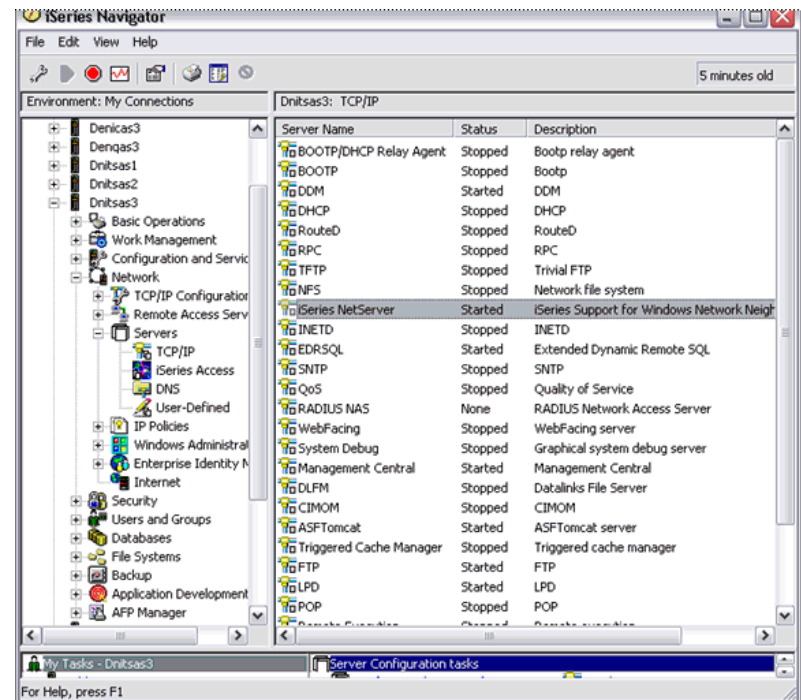
Zend Server for i Version 6
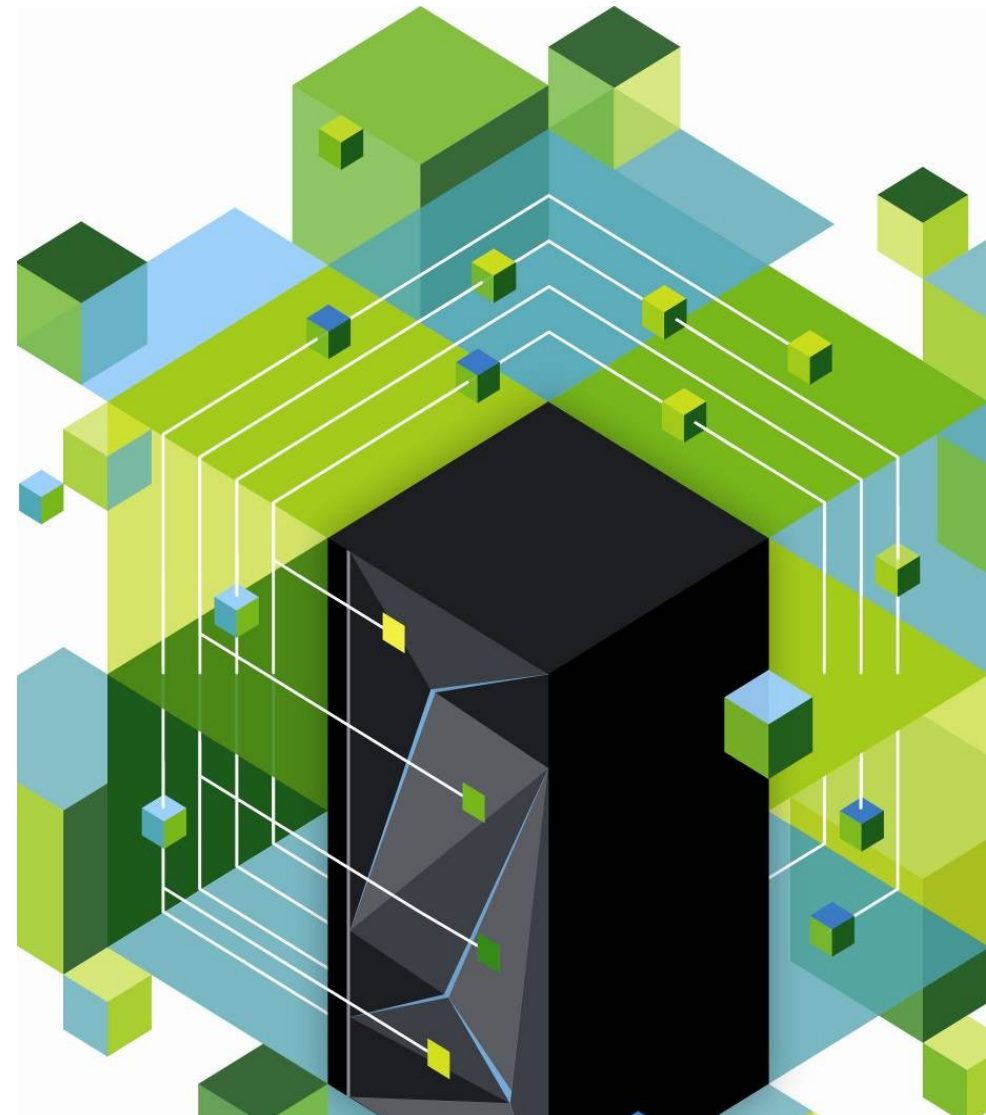
Zend Server for IBM i Version 6

- Zend Studio and Zend Server will create/run mobile apps
  - Visual, drag-and-drop mobile client app creation in Zend Studio
  - Visual, drag-and-drop creation of RESTful PHP web services which connect the mobile app to Zend Server
  - Zend Studio creates mobile apps ready for deployment to app marketplaces of iOS, Android, Windows Phone, & more platforms

- Zend Server has enterprise-grade features for managing PHP applications
  - Application deployment, performance insight, management, caching, and monitoring on an application-by-application basis
  - Security and user management functions include
    - different roles for administrators and developers
    - permissions by application based on the users in an LDAP directory
    - maintaining a user audit trail
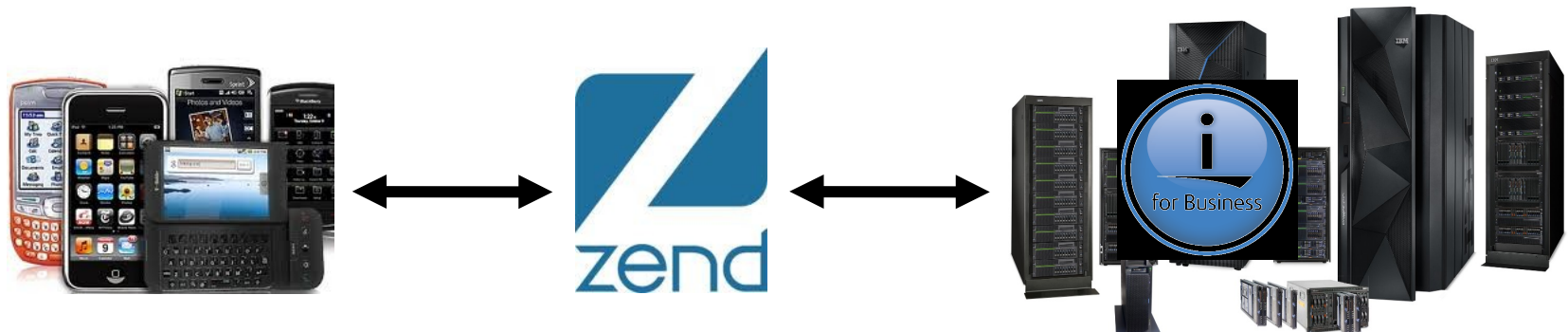
Quickly & Easily Create Mobile Solutions for IBM i Applications

Zend Studio 10
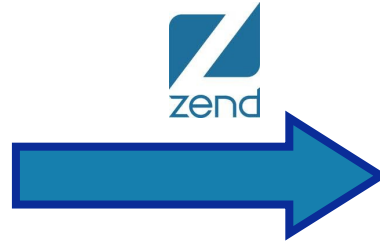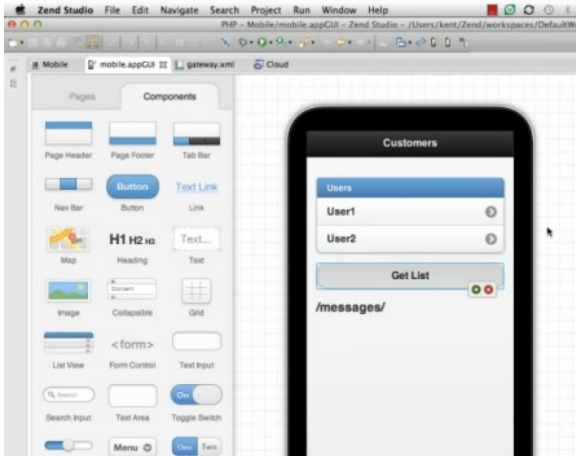
Deploy mobile apps application market places!

iOS, Android, Windows Phone, & more

- Drag & Drop interface
- Tie mobile apps to native IBM i artifacts
- Single development location for creating
  - mobile applications
  - Integrating restful web service
  - Tie to IBM i native toolkit
  - PHP application to drive the interactions

IBM i XML Service

Zend Server for IBM i Version 6
- RESTful Web Services
- "Mobil-ize" RPG & COBOL applications
- XML Service ties Mobile application to native i artifacts
- Mobile solutions for IBM i!

http://www.youtube.com/watch?v=t4nmRO9-gN4&feature=plcp

Want the New Version?

- IBM i clients may download the new version of Zend Server for i, Basic Edition Version 6 or Zend Studio for i Version 10, directly from Zend website

- Clients with contracts from Zend for Gold level support are entitled to download Zend Server for i, Standard Edition V6 or Zend Studio for i, Standard Edition V10

- Clients with contracts from Zend for Platinum level support are entitled to download Zend Server for i, Enterprise Edition Version 6 or Zend Studio for i, Enterprise Edition V10.

Lotus Announcements

IBM Lotus Notes Traveler

- Full-featured e-mail for smartphones and tablets
- Adheres to important corporate policies and safeguards sensitive corporate data
- No charge mobile offering for IBM Lotus Notes® and Domino® users
- Read and compose Lotus Domino encrypted mail
- Search corporate directory for contacts
- Support remote wipe for lost or stolen devices
- Security policies enforce password rules, denial of access and prohibiting of camera use
- Data on device is encrypted on Apple iOS, Google Android and Nokian Symbian devices

Office work doesn't always have to include a cubicle and industrial strength coffee.

IBM Lotus Notes Traveler – Next Key Features

Statement of Direction for IBM i

- Expanded platform and device support for BYOD deployments
- Support for Traveler running on IBM i
- Support for these devices:
  - Windows Phone 7.5 / 7.8 / 9
  - Windows 8 Tablets
  - Blackberry 10 (through Blackberry Enterprise Service (BES 10))

IBM Connections
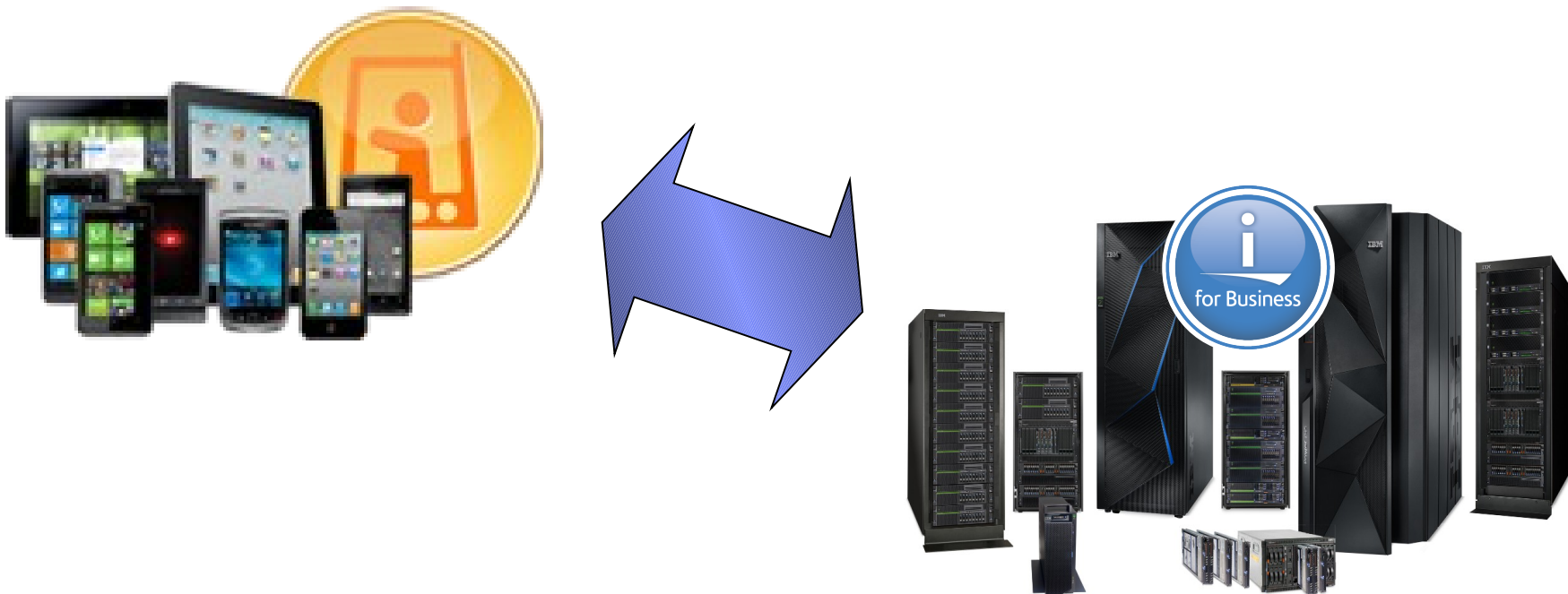
Statement of Direction for IBM i

- The social platform that can integrate social into business processes across an entire customer experience

- Leading social software platform that enables organizations to engage the right people, drive innovation, and deliver results

- Integrated and secure

- Powerful social analytics and metrics

- Delivered to any mobile device, including tablets.

- The social business solution offering the choice to deploy in the cloud, on premise and hybrid options.

DB2 Web Query for i Update
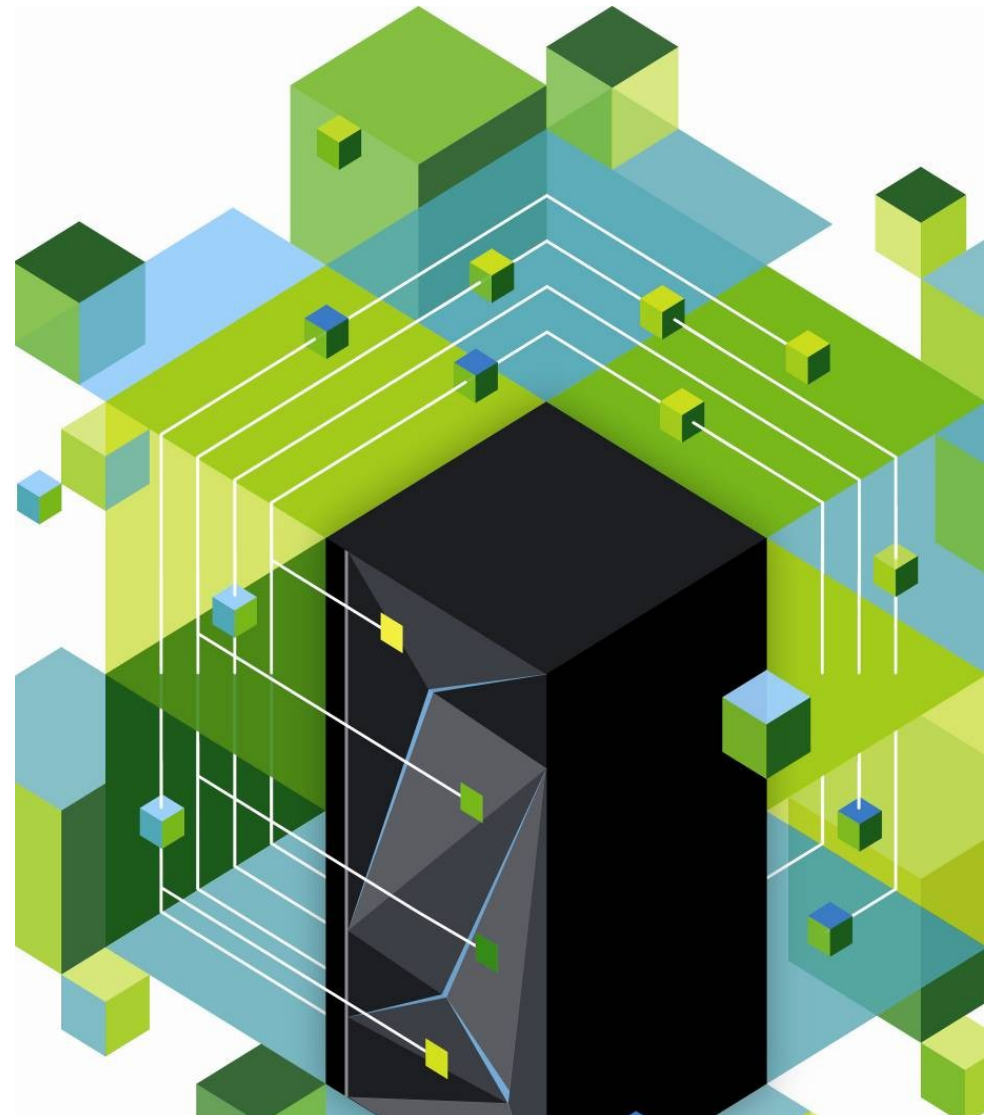
DB2 Web Query Update

- **2012 Recap**
  - Version 2.1 Delivered mid 2012 (requires IBM i 6.1 or 7.1)
  - Simplified Packaging (Express and Standard Editions)
  - Core Based Pricing (Significant Price Reduction for P20 and up)
  - Improved Usability, Security, Mobile Support

- **Enhancements Delivered Mid-Release**
  - Similar, but not attached to, Tech. Refreshes
  - Q1 2013 Delivery
    - Enhanced Charting
    - New Android App Support
      - Adds to previous iPad/iPhone support
    - Single Sign On
    - DB2 Family Data Access
      - Could add InfoSphere Information Server for non IBM databases
  - And MORE: Tech Talk 2/28
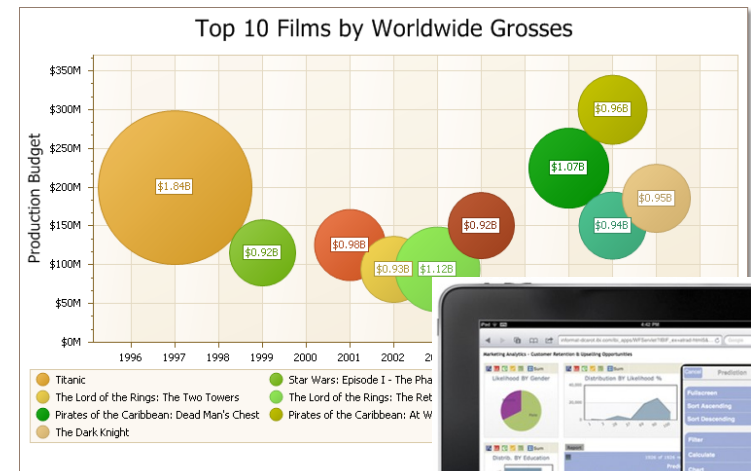
- **E-config/Ordering Changes**
  - Ability to reduce number of cores on Upgrade made simpler – Feb 5th
  - Withdrawal of Certain QU2 features – Mar 15th

IBM i for Business Intelligence

- **What is it ?**
  - Think "Solution Edition for DB2 Web Query"
  - Discounted hardware, software and installation services packaging
  - Comes in 3 flavors – Small, Medium, and Large based on P7+ 720s
    - Starts as low as $40K (roughly, using U.S. Pricing)
  - Updated with POWER7+ and DB2 Web Query Standard Edition
    - 14-21% Price/Performance Boost
    - Queries can take advantage of improved SMT, higher frequencies, L3 Cache, etc.
  - Add Data Replication Software (optional)

- **Why would someone consider this?**
  - Isolate Query/Reporting Environment from Production Systems
    - Performance Gains
    - Optimized for Querying
  - Move to latest Power, IBM i Technologies
  - Leverage 2nd machine for multiple purposes
    - DR, Dev, Test/QA
  - Cost – run the numbers !
  - KEEP THE WORKLOADS ON IBM i

SAP BI Mixed Load Application Benchmark

POWER7 delivers **56%** improvement

IBM i 7.1 and POWER7 deliver **80%** improvement

Query Navigation Steps/hour

POWER6 8-Core IBM i 6.1 | POWER7 8-Core IBM i 6.1 | POWER7 8-Core IBM i 7.1
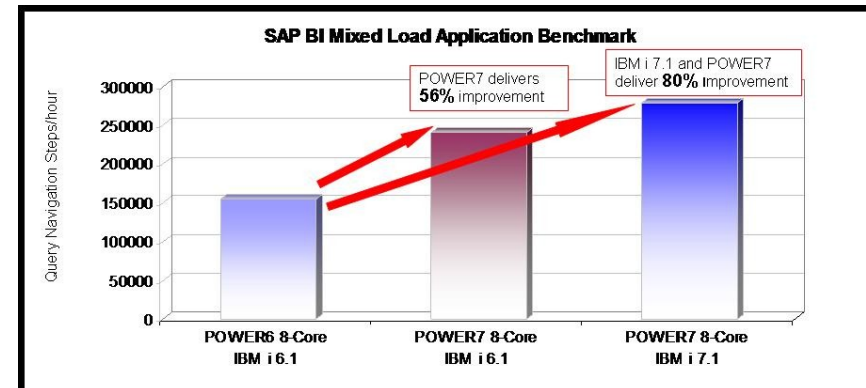
*See detailed certified benchmark results at
http://www.sap.com/solutions/benchmark/bimxl.epx

- **How Do I Get One ?**
  - E-config supports selecting the IBM i for BI Solution
  - Services voucher included – Register for FREE Installation Services

DB2 for i Center of Excellence Offerings

- **DB2 Web Query Getting Started Service**
  - 3 Day skills transfer and workshops to build prototype
  - Goes beyond tutorials with Best Practices and hand-holding
  - Best way to ensure successful implementation
  - Should include with EVERY DB2 Web Query proposal (proposal insert available)

- **Query/400 Modernization**
  - Discovery, Analysis, and Conversion
  - Addresses the question of how a customer can move from 100's or 1000's of Query/400 definitions to modernized environment that leverages DB2 query optimization!
  - Out with the (very) OLD, in with the NEW – improve performance, productivity, perception of IBM i, and move into "analytics"

- **DB2 Web Query V1 to V2 Migration Service**
  - Remote assistance to help customers move to Version 2
  - While there exists migration tooling, migrations can become more complex depending on the customer's DB2 Web Query Environment - inexpensive service to hand hold the migration

- **DB2 and SQL Performance Assessments**
  - Really critical assessment that should be conducted regularly by the customer
    - But lack of DBAs in our i community means no one is paying attention to the database
  - Assessment collects database (and system) performance data
  - Recommendations made in report
  - Nurture your client !!

Contact Doug Mack mackd@us.ibm.com

DB2 Web Query for i helps Bridgford Foods serve up on-demand financial reports with the same efficiency as their ready to enjoy foods

Bridgford The Fresh-Baked Idea Company®

> *"We were able to jointly develop, with the IBM Lab Services team, the (DB2 Web Query) 5250 Reporting Extension to automate the financial reporting process. By leveraging our existing DB2 infrastructure, we also addressed the need for ensuring a 'single version of the truth'. We now have the stability and quick recovery time for our reporting environment as we have for our ERP system."*
>
> **— Bob Delong Director, Information Technology, Bridgford Foods**

- Bridgford Foods manufactures, markets, and distributes frozen, refrigerated, and snack food products in the United States and Canada.
- Wanted a less complex solution that:
  - Automated the process of consolidating and distributing reports at each financial reporting cycle
  - Leveraged their existing IBM i infrastructure and skills
  - Eliminated data integrity issues

- Replaced a Windows/Dell BI Solution with DB2 Web Query for i on an IBM Power System, DB2 for IBM i, Infor ERP
- Improved Report:
  - Consistency
  - Preparation & distribution time
- Simplified and automated G/L consolidation and reporting

> *"I've saved at least 2 days a month with the new system and I'm relieved that I no longer have to manage all of the spreadsheet consolidation and report distribution as before. It is really slick" ."*
>
> **— Cindy Matthews, Corporate Controller, Bridgford Foods**

Resources and Collateral

- **DB2 for i Website**
  - www.ibm.com/systems/i/db2

- **DB2 Web Query for i Marketing Website**
  - www.ibm.com/systems/i/db2/webquery

- **DB2 Web Query for i Technical Website**
  - http://www.ibm.com/developerworks/systems/DB2WebQuery

- **Upcoming DB2 Web Query Tech Talk 2/28**
  - For IBMers: http://lt.be.ibm.com/stg/ltu40213
  - For BPs: http://www.ibm.com/services/weblectures/dlv/partnerworld/ltu40213

- **Saleskit**
  - IBMers: https://w3-03.sso.ibm.com/sales/support/ShowDoc.wss?docid=47637USEN&infotype=SK&infosubtype=S0&node=doctype,S0|doctype,SLK
  - BPs: https://www-304.ibm.com/usrsrvc/account/userservices/jsp/login.jsp?persistPage=true&page=/partnerworld/wps/servlet/mem/ContentHandler/CF_47637USEN&PD-REFERER=none&error

  - Collateral
    - DB2 Web Query Brochure
    - IBM i for BI Solution Brochure
    - Why i for Analytics White Paper
    - DB2 Web Query for Oracle JD Edwards
    - FAQ

V5R4 Reminder

IBM i Support

End Of Service
Sept 30, 2013
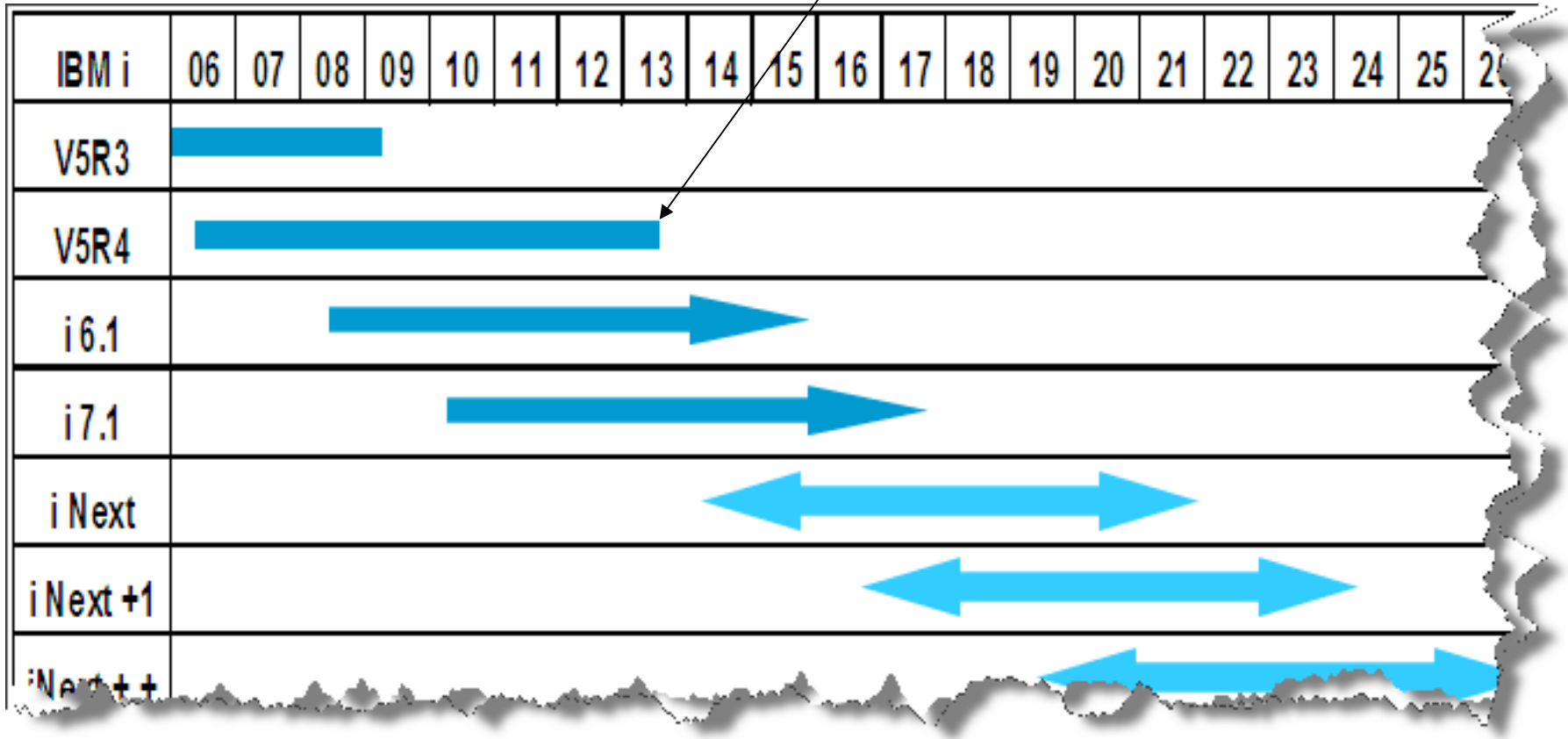
IBM i	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	2
V5R3																					
V5R4																					
i 6.1																					
i 7.1																					
i Next																					
i Next +1																					
i Next + +																					

** 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 5.4 Life Cycle*

2010	2011	2012	2013	2014	2015	2016

EOM
5/2011

EOS
9/30/13

EOL
9/30/16

- Marketed and serviced

- Serviced only

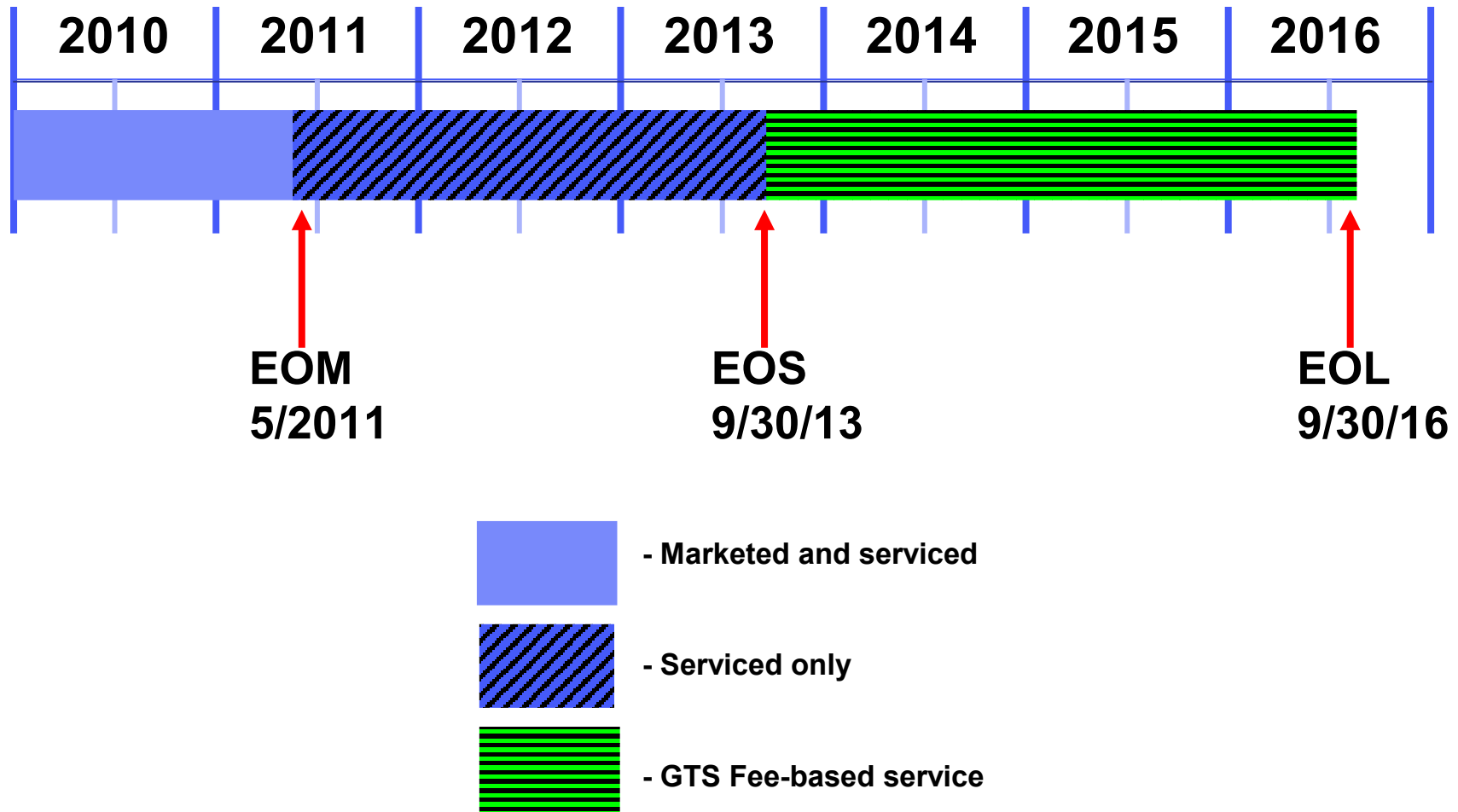- GTS Fee-based service

IBM i 5.4 has been in the market longer than any previous IBM i release

* 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 5.4 Service Extension

Q: When will the IBM i 5.4 Service Extension be announced?
A: IBM intends to announce the IBM i 5.4 Service Extension within the next year.

Q: What will be the price of the the IBM i 5.4 Service Extension?
A: For planning purposes, customer should expect to pay 75% more than they currently pay for SWMA.

Q: Will SWMA be a prerequisite to the IBM i 5.4 Service Extension?
A: Yes, customers will need to maintain SWMA for entire service extension coverage period.

Q: Will the IBM i 5.4 Service Extension be available worldwide?
A: IBM intends to make the IBM i 5.4 Service Extension offering available worldwide.

Q: How long will the IBM i 5.4 Service Extension provide support?
A: The IBM i V5R4 Service Extension offering will be available for 3 years from program services end date of 9/30/2013. All support services for IBM i 5.4 will end on 9/30/2016

Q: Will there be new cumulative PTF packages for IBM i 5.4 created?
A: IBM does not intend to provide additional IBM i 5.4 cumulative PTF packages after 9/30/2013. When deemed necessary, individual, corrective PTFs will be created for any code defects reported by IBM i Service Extension customers

Q: Will new function/new hardware support PTFs be created for IBM i 5.4?
A: IBM does not intend to provide any further enhancements to IBM i 5.4. This includes support for any new software products, hardware products or hardware features .

Questions ?

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