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With special thanks to Susan Schreitmueller



Technical Forum & Executive Briefing

17 al 21
Octubre
2011

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AIX Release Strategy & Best practices recommendations



AIX Release Strategy changes for 2011

IBM significantly enhanced the AIX® Release and Service Delivery strategy in February 2011 for AIX 6 and AIX 7

The principal changes are:*

- ***Three years of support for each Technology Level (TL)*****
- ***A single Technology Level per AIX version, per year***
- ***Service Packs will be released approximately 4 times per year per Technology Level***

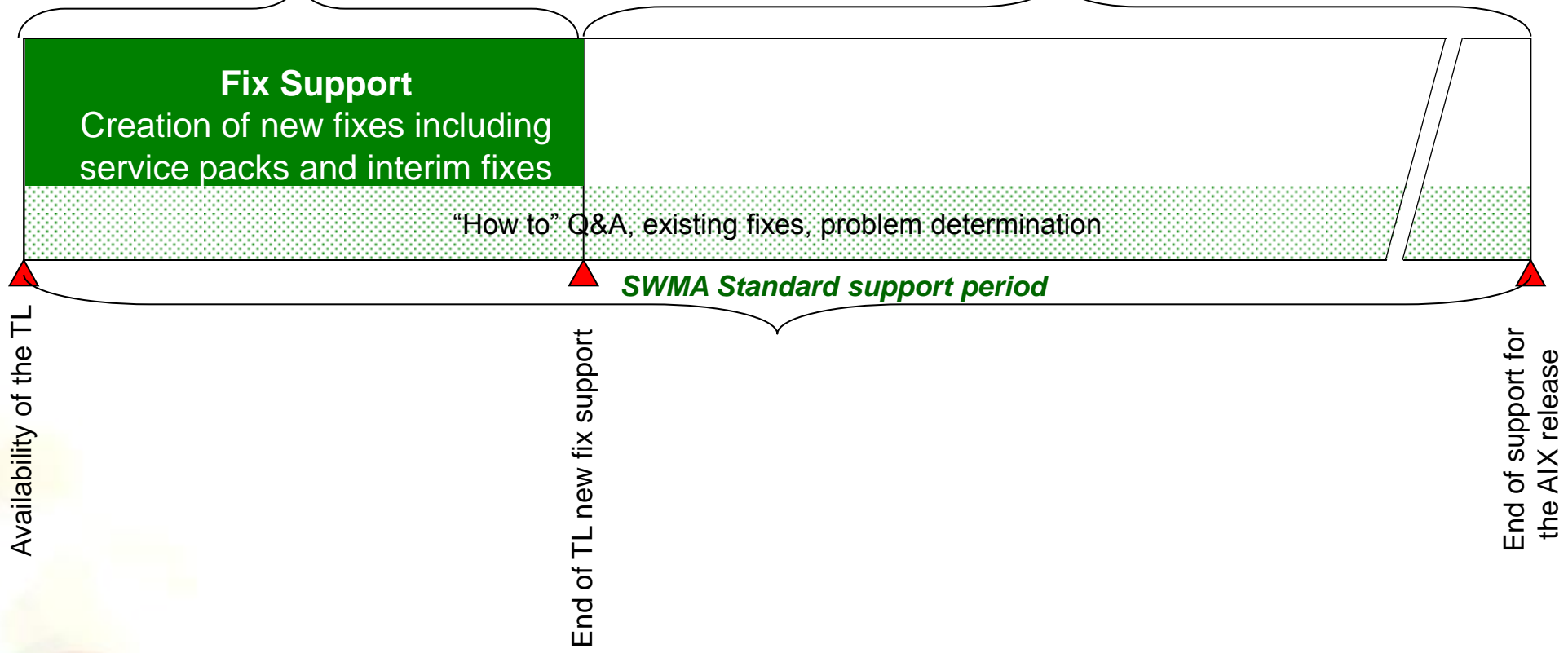
* All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

**Due to variations in the release dates of Technology Levels from year to year, some Technology Levels will be supported for slightly more than three years and some will be supported for slightly less than three years. A three year service life for each Technology Level is an objective, not an absolute limit. The service life of Technology Levels will also be limited by the end of service life for the underlying AIX release

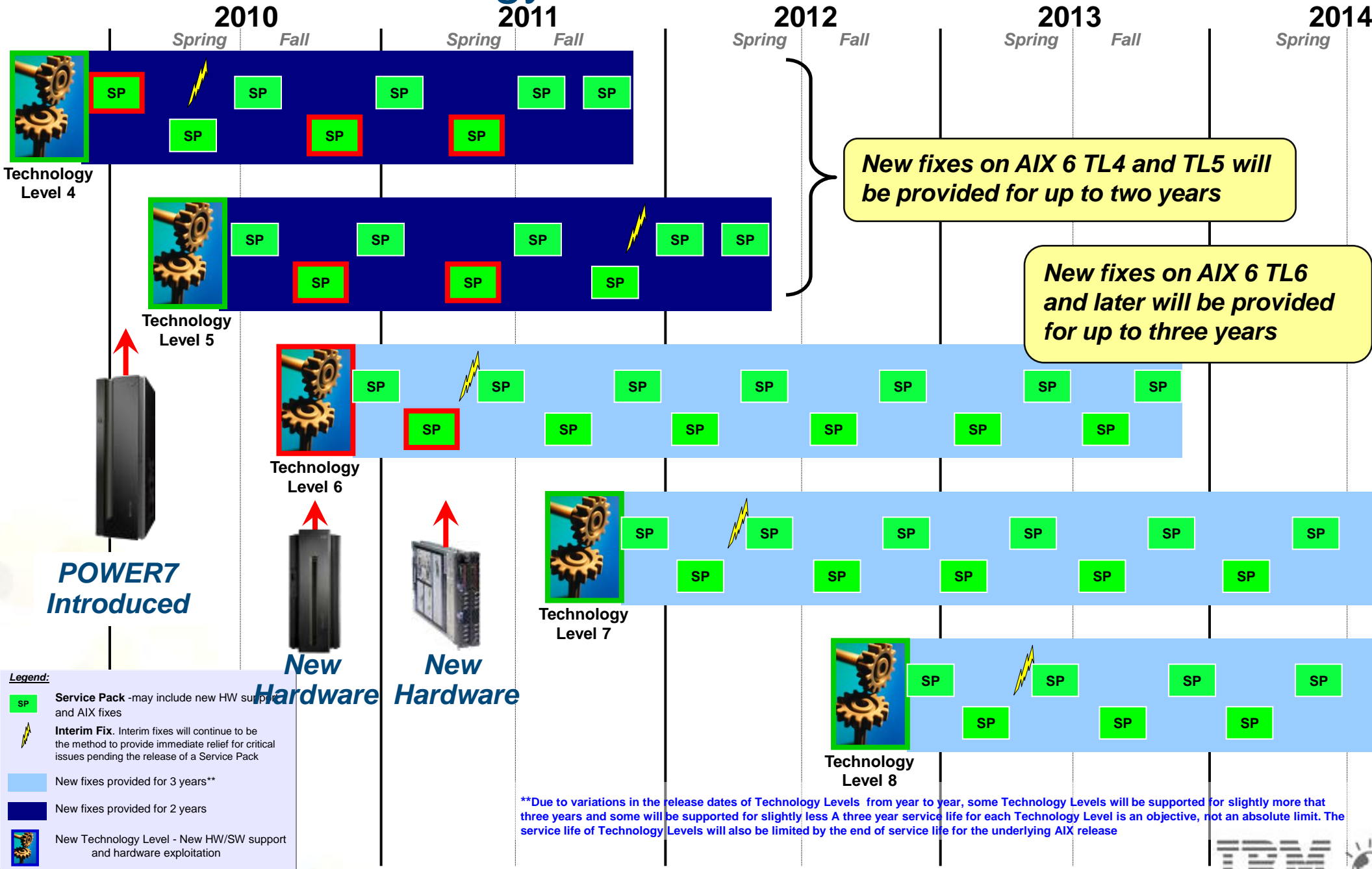
AIX Technology Level Lifecycle

Approximately 3 years for AIX 6 TL6 and later

No new fixes

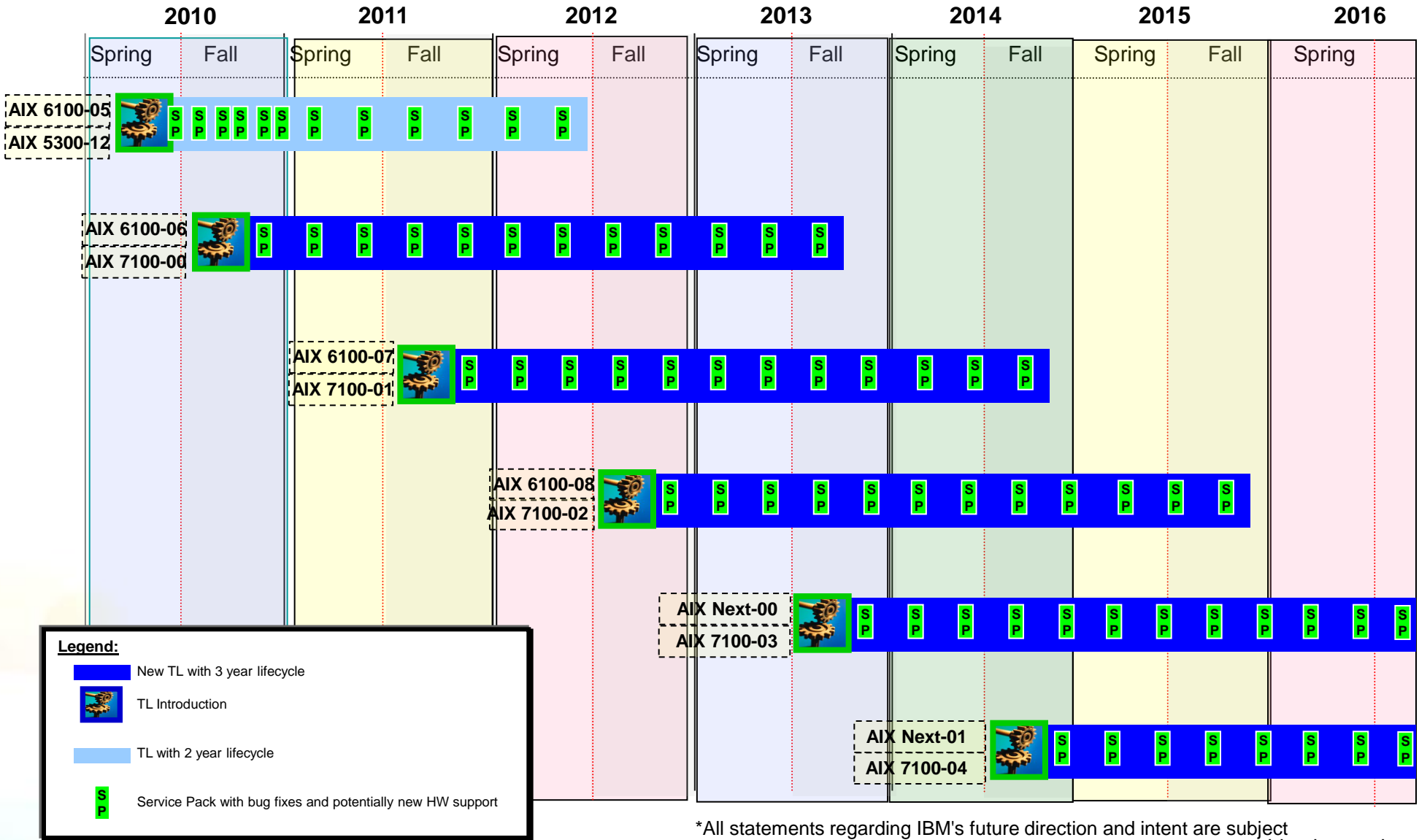


AIX Release Strategy* (AIX 6 shown)



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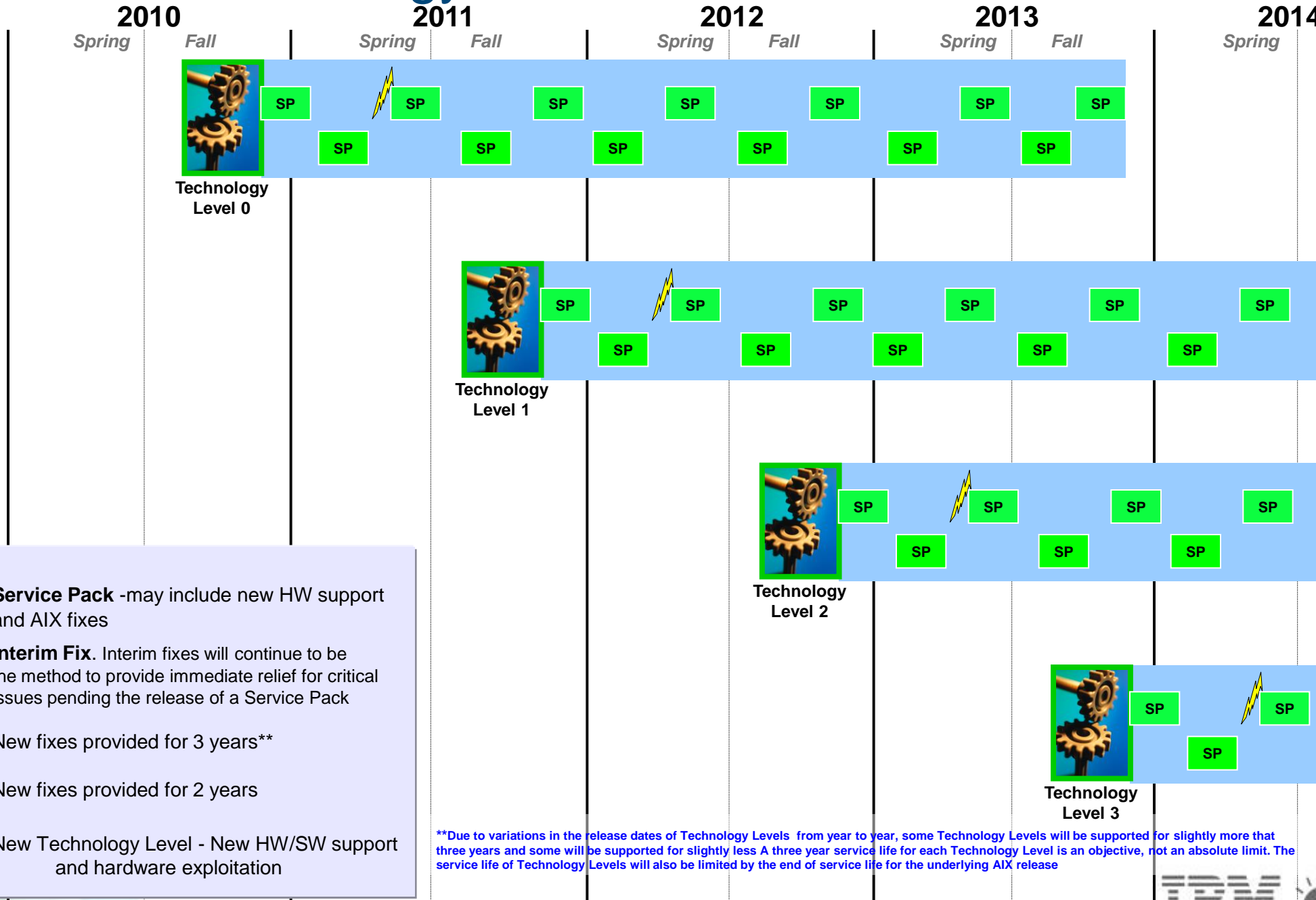
AIX TL Lifecycle – 3 Year Lifecycle with 1 TL per Year



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AIX Release Strategy* (AIX 7 shown)



Legend:

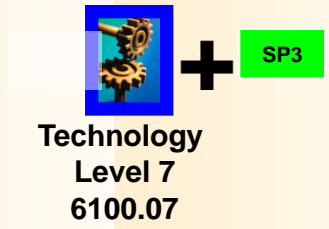
- Service Pack** - may include new HW support and AIX fixes
- Interim Fix.** Interim fixes will continue to be the method to provide immediate relief for critical issues pending the release of a Service Pack
- New fixes provided for 3 years**
- New fixes provided for 2 years
- New Technology Level - New HW/SW support and hardware exploitation**

**Due to variations in the release dates of Technology Levels from year to year, some Technology Levels will be supported for slightly more than three years and some will be supported for slightly less. A three year service life for each Technology Level is an objective, not an absolute limit. The service life of Technology Levels will also be limited by the end of service life for the underlying AIX release

Recommended Client Strategy: Once per Year Update*



Potential Client Adoption Schedule



Once per year update implements the previous Technology Level plus the latest Service Pack available for that TL.

Depending on the length of the client certification cycle, the client will be able to get new fixes on their environment for more than two years

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When will Technology Levels drop out of support?

<http://tinyurl.com/AIXTLlife>

AIX support lifecycle information

Product lifecycle

Abstract

Lists the duration of fix support availability and end of fix support for AIX Technology Levels (TL).

AIX TL fix support

Release	Release Date	Fixes Available Until
AIX 5.2 TL8	February 2006	February 2007
AIX 5.2 TL9	July 2006	November 2007
AIX 5.2 TL10	June 2007	April 2009 End of Service
AIX 5.3 TL5	August 2006	November 2007
AIX 5.3 TL6	June 2007	30 May 2009
AIX 5.3 TL7	November 2007	30 November 2009
AIX 5.3 TL8	April 2008	30 April 2010
AIX 5.3 TL9	November 2008	30 November 2010
AIX 5.3 TL10	May 2009	2 years later
AIX 5.3 TL11	October 2009	2 years later
AIX 5.3 TL12	April 2010	2 years later
AIX 6.1 TL0	November 2007	30 November 2009
AIX 6.1 TL1	May 2008	31 May 2008
AIX 6.1 TL2	November 2008	30 November 2010
AIX 6.1 TL3	May 2009	2 years later
AIX 6.1 TL4	November 2009	2 years later
AIX 6.1 TL5	April 2010	2 years later
AIX 6.1 TL6	September 2010	3 years later
AIX 7.1 TL0	September 2010	3 years later

PowerHA Release Life Cycle Strategy

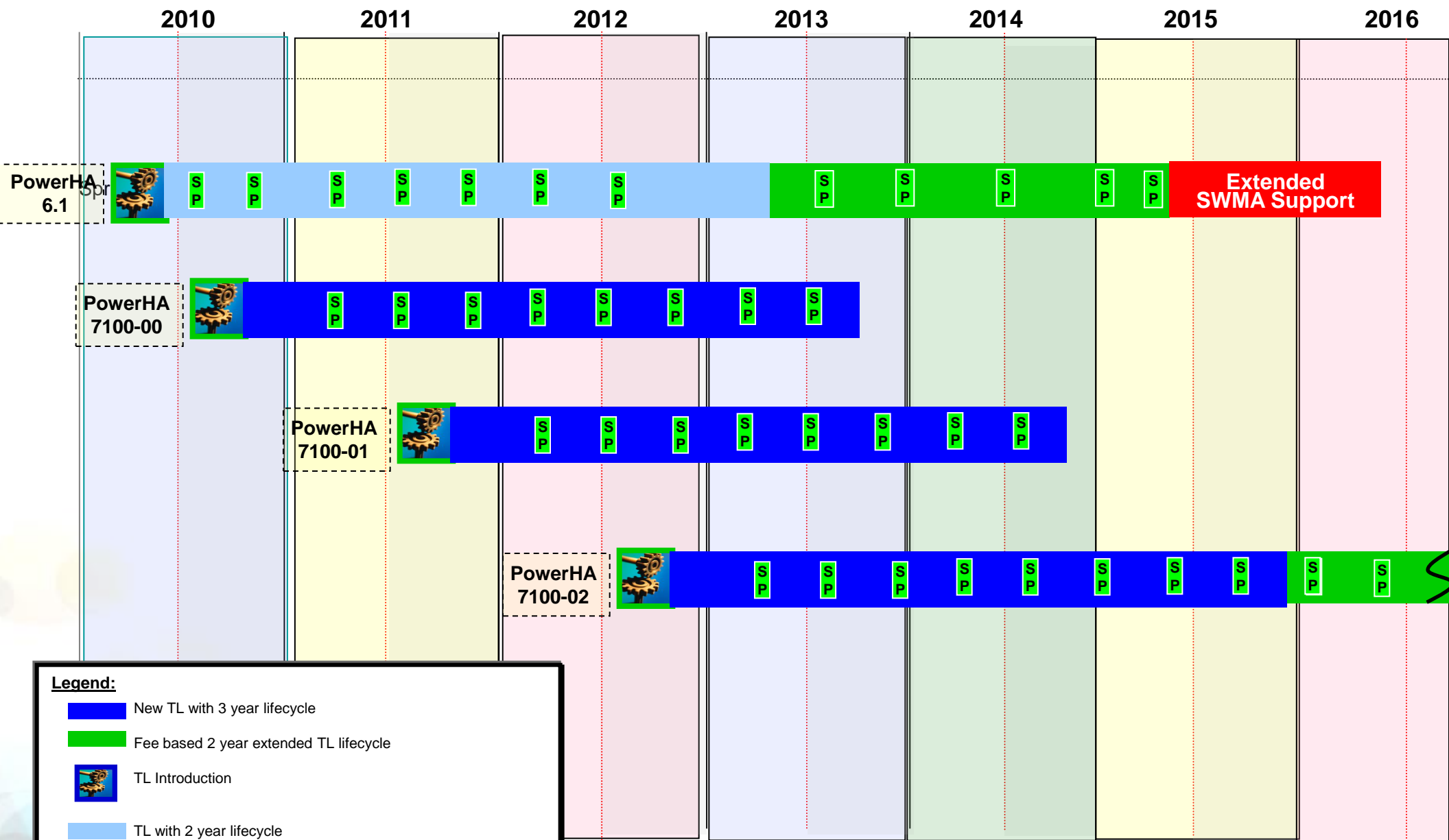
- Current Model: Major release every year
 - *Requires ISV certification for every major release*

New Model: Implement Technology Level Release Strategy

- *Major release as necessary*
- *Minor release updates to Major release*
- *At least Two technology levels per major release*



New PowerHA TL Lifecycle* with 1 TL per Year



Legend:

- New TL with 3 year lifecycle
- Fee based 2 year extended TL lifecycle
- TL Introduction
- TL with 2 year lifecycle
- Service Pack with bug fixes and potentially new HW support

Extended SWMA Support

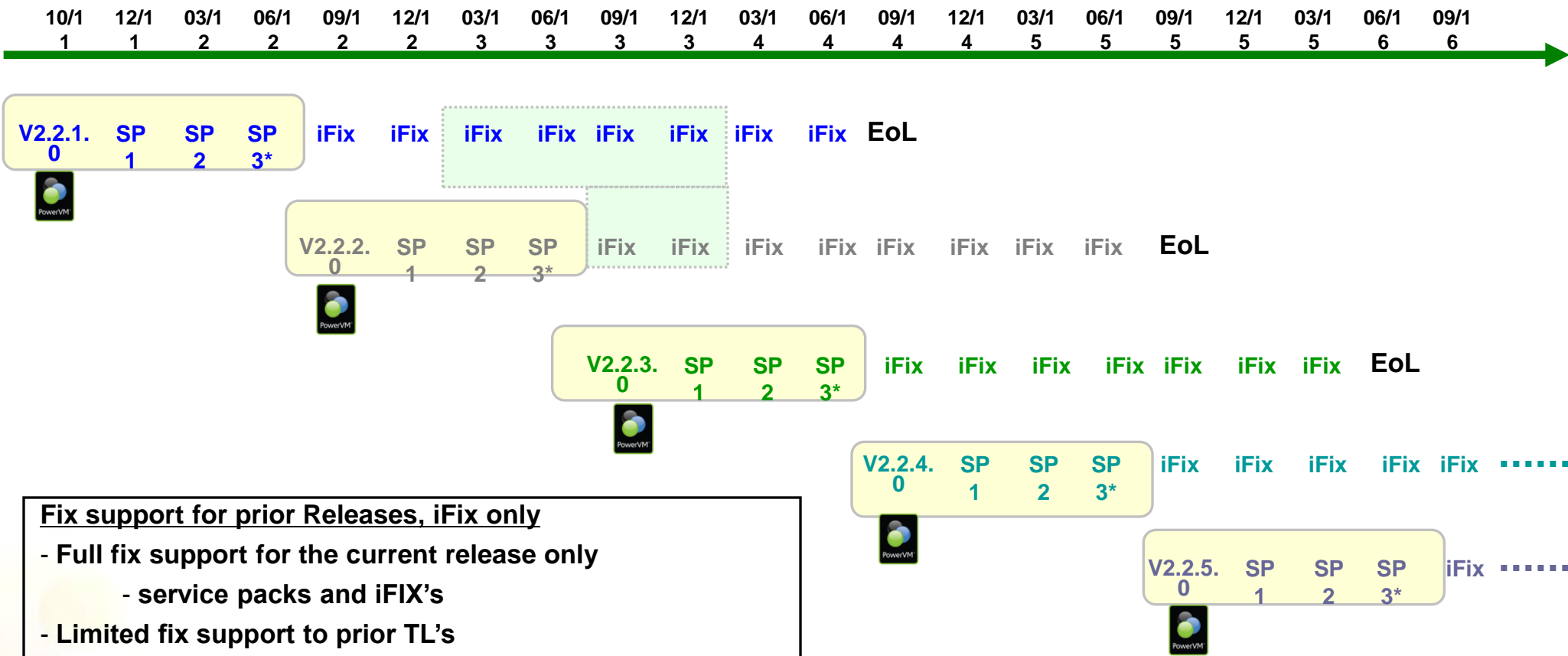
*All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

Enhanced Virtual I/O Server service strategy



Current VIOS Service Strategy	New VIOS Service Strategy
Three years of fix support provided for each VIOS release	Three years of fix support provided for each VIOS release
Fix delivery for prior VIOS releases are via iFix only	Fix delivery for prior VIOS releases will be via servicepacks and iFix (for emergency fixes only)
No new function or HW enablement added to prior VIOS releases	<ul style="list-style-type: none">■ New function <u>will not be enabled</u> for prior VIOS releases■ New HW <u>will be enabled</u> for prior VIOS release via servicepack

Previous Fix support for prior Releases via iFix only



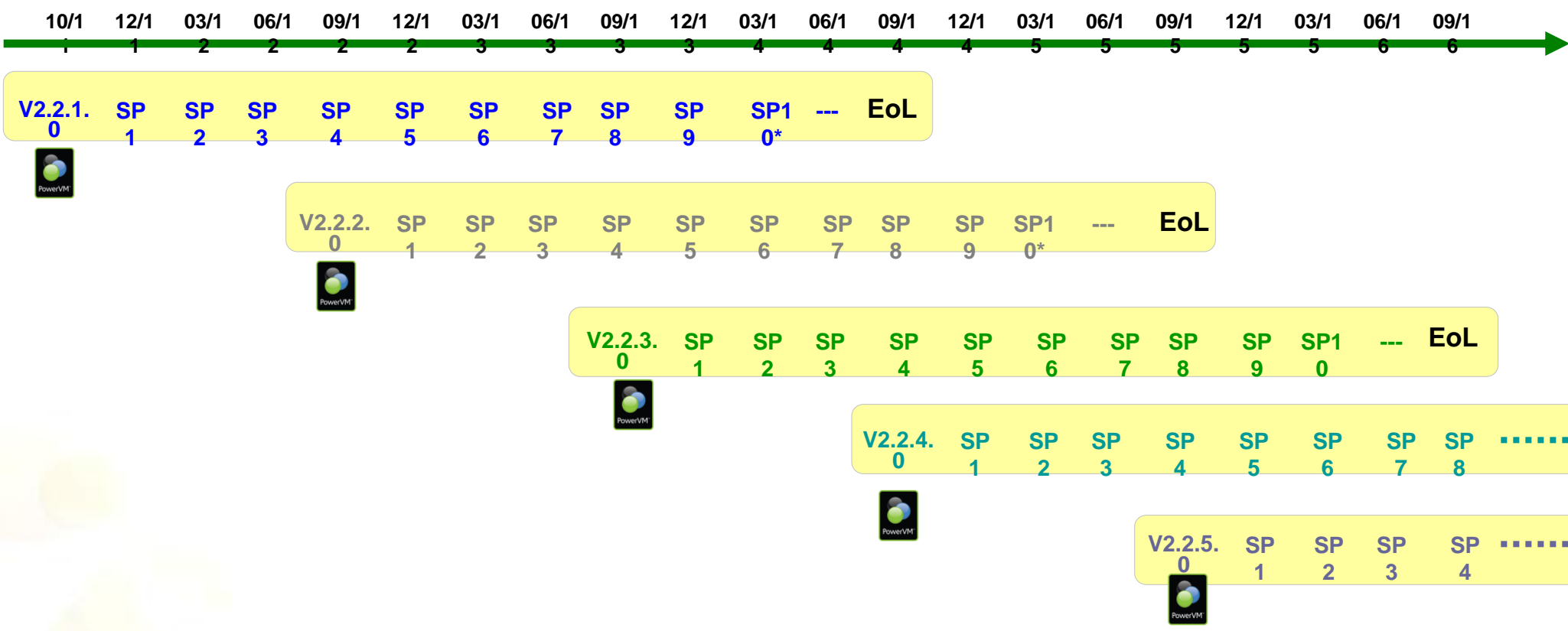
Fix support for prior Releases, iFix only


- Full fix support for the current release only
 - service packs and iFIX's
- Limited fix support to prior TL's
 - iFIX only

- New VIOS product release and new VIOS Update

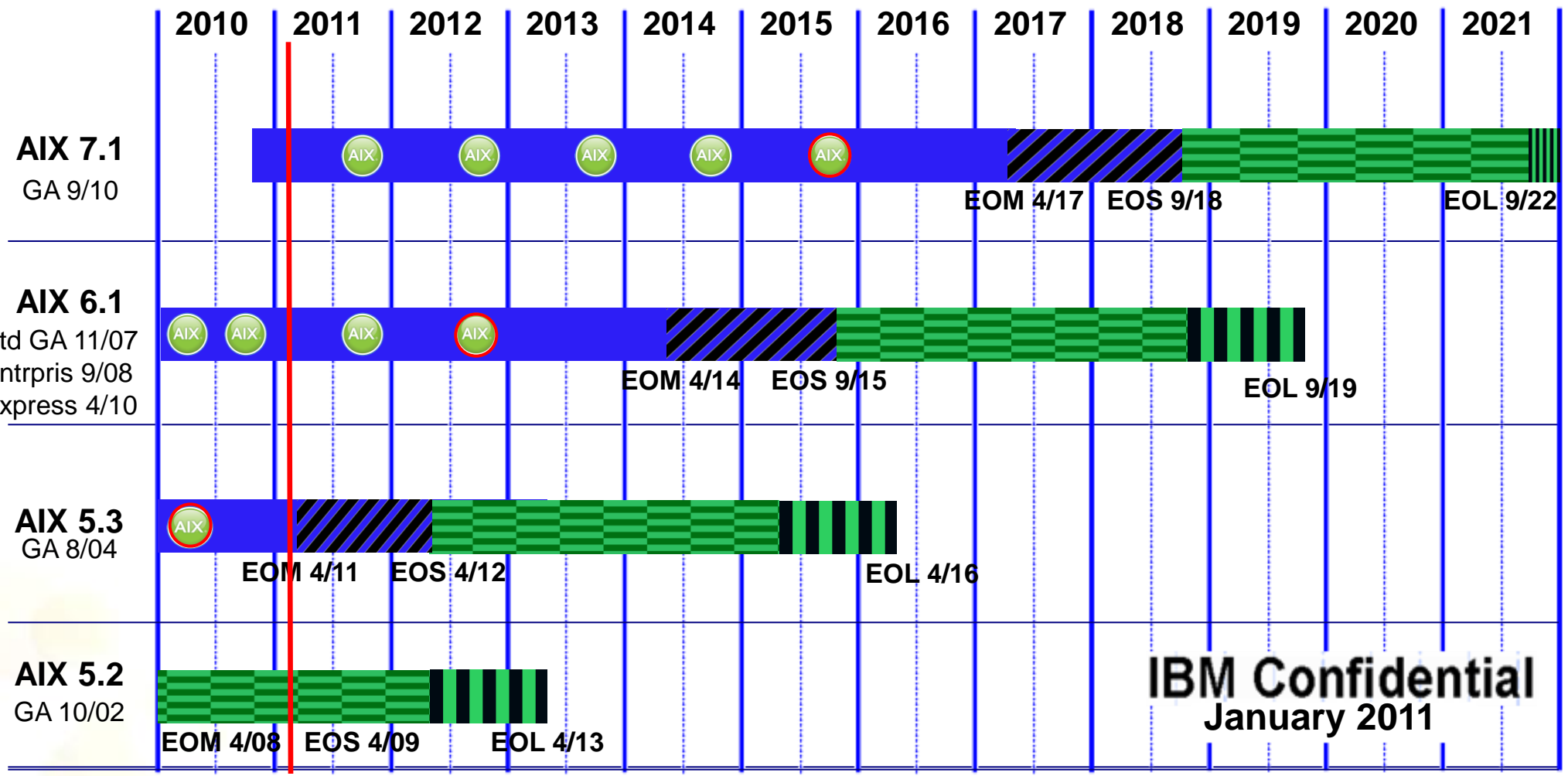
* **- Last Service Pack before EOL**

Enhanced VIOS Lifecycle: Servicepack and iFIX support for the life of the Release



 - New VIOS product release and new VIOS Update
 * - Last Service Pack before EOL

AIX Planned Release Lifecycle



IBM Confidential
January 2011

- Marketed and serviced
- Serviced only
- AIX -Technology Level Update
- AIX -Last TL Update
- Fee-based service extension
- Web support only

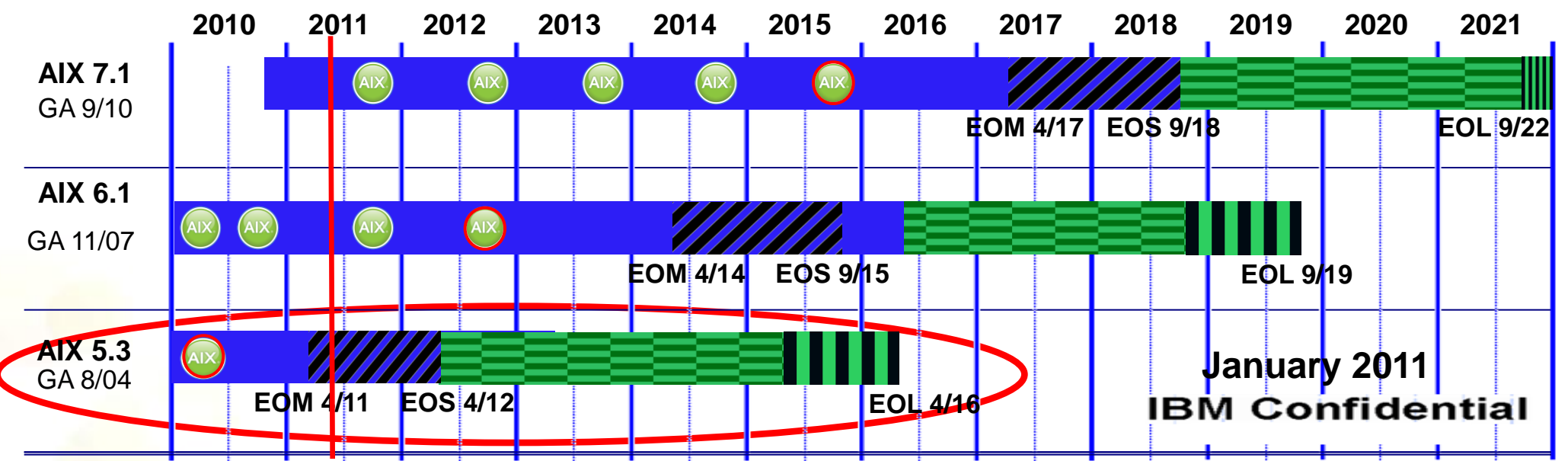
All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.



Special considerations for AIX 5.3

AIX V 5.3 Lifecycle key dates

- General Availability August 2004
- End of Marketing announced April 2010 effective April 2011
- No longer in econfig!**
- End of Support announced April 2011 effective April 2012



Legend:

- Blue box: -Marketed and serviced
- Blue diagonal lines: -Serviced only
- Green circle with AIX: -Technology Level Update
- Red circle with AIX: -Last TL Update
- Green checkerboard: -Fee-based service extension
- Black vertical lines: -Web support only

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



Support Best Practices Whitepapers

<https://www14.software.ibm.com/webapp/set2/sas/f/best/home.html>

United States [change]

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IBM Systems Support

- BladeCenter
- Power
- System i
- System p
- System x
- System z
- System Storage
- Systems networking
- System Blue Gene
- IntelliStation Pro
- IBM Monitors
- Systems Management software
- Hardware upgrades
- Feedback

Service and support best practices

For Power Systems

IBM provides many documents that recommend service and support strategies for IBM systems and software. These best practices documents describe system planning and support procedures to improve system administration operations. The documents also provide strategies for IBM Power, System p, and System i servers. You will find information on key components like firmware, the AIX operating system, cluster software and the Hardware Management Console.

AIX	
January 2011	Managing AIX Updates using SUMA, NIM, and AIX Service Tools (120KB)
February 2011	IBM AIX Operating System Service Strategy Details and Best Practices (145KB)
November 2007	Fix Central changes supporting AIX Service Strategy (509KB)
May 2007	IBM AIX 5L Operating System: Release and Service Strategy Changes for 2007 (88KB)

Hardware and firmware	
April 2009	IBM Power 595 and 570 Servers CEC Concurrent Maintenance Technical Overview (1,067KB)
December 2008	IBM Power Systems System Firmware (Microcode) Service Strategies and Best Practices (1.6MB)

Additional support

PDF reader

You may need the latest version of Adobe Reader to view or print the PDF-formatted documents referenced on this page.

[Get Adobe® Reader®](#)

Related links

- Warranties and licenses
- developerWorks
- AlphaWorks
- IBM Business Partners

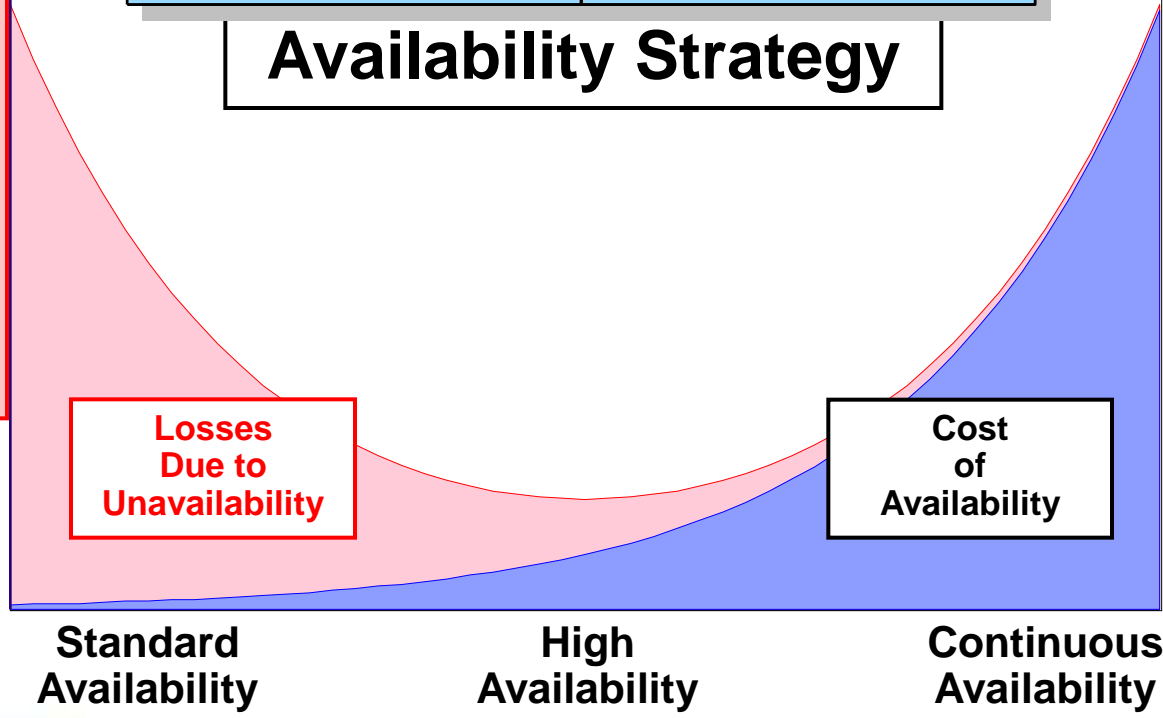
The cost of downtime versus the cost of availability

Business Operation	Downtime (Avg. Cost per Hour)
Brokerage operations	\$6.5 million
Credit card/sales auth.	\$2.6 million
PPV television	\$150 thousand
Home shopping (TV)	\$113 thousand
Catalog sales	\$90 thousand
Airline reservations	\$89.5 thousand

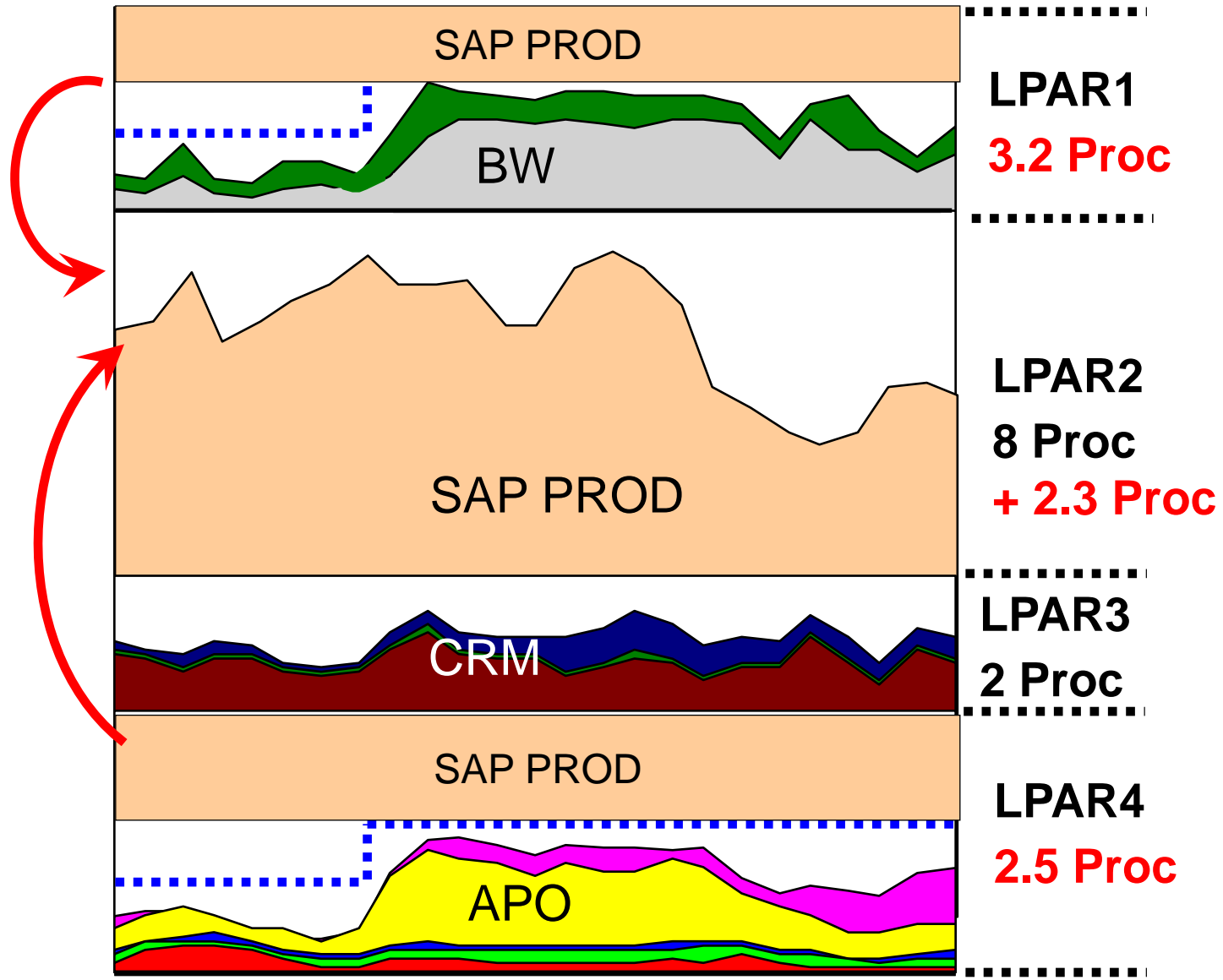
- Cost of an Outage**
- Lost Revenue
 - Lost User Productivity
 - Lost IT Productivity
 - Overtime Payments
 - Wasted Goods
 - Fines

- Cost of Solutions**
- Standard Products
 - People Skills
 - Tools
 - Effective Processes
 - IT Applications and Databases
 - High Availability Design
 - Special Solutions

Availability Strategy



With Server Consolidation, our maintenance picture becomes even more important and complex



Establish a Methodology

- Build a maintenance strategy into your purchase cycle
 - *Have some redundant systems in your environment*
- Know what fixes affect the environment
 - *Subscribe to IBM's notification boards and subscription lists*
 - *Use AIX Strength-to-Strength (on ibm.com/AIX)*
 - *Review the firmware read-me's.*
 - *Visit the IBM – Power Systems / AIX forums*
 - *Use Fix Level Recommendation Tool (FLRT) and Pre-Req*
- Establish a baseline and an upgrade schedule for both Software AND Firmware
 - *Don't get too far behind*
 - *Plan for maintenance!*
 - *ITIL methodologies are a great start for good maintenance*
- Use tools to minimize downtime
 - *Rolling Upgrades*
 - *Multi-bos, alt_disk_install*
- Always finish up so you start with a clean environment

Maintenance Strategy

Planning for maintenance methodology should begin before the machine is delivered

Processes / Application Architecture / Change Management

Software

- Review compatibility requirements
- Establish criteria & policy for emergency fixes
- Sign up for subscription services
- Tracking mechanism -compare report

Availability Requirements

- What are the different application availability requirements?
- Are there incompatible release level issues?
- What are my SLAs, Use CMDB!

Firmware

- Categorize fixes— concurrent/deferred
- Create Single Point of Failure Matrix
- Establish methodology for putting on cyclical fixes vs. hypers
- Sign up for subscription services

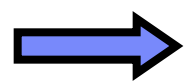
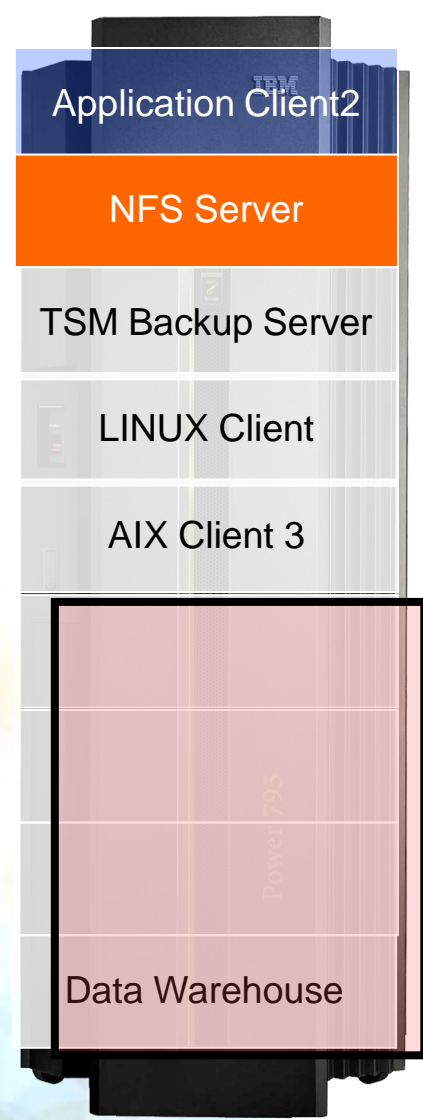


Tools You Should Use

- FLRT, Pre-Req
- Compare_Report, Ippmgr
- Multibos, thin client,
- Subscripts, Community, Best Practices



For Server Consolidation, it is important plan for both O/S and Firmware Maintenance Activities

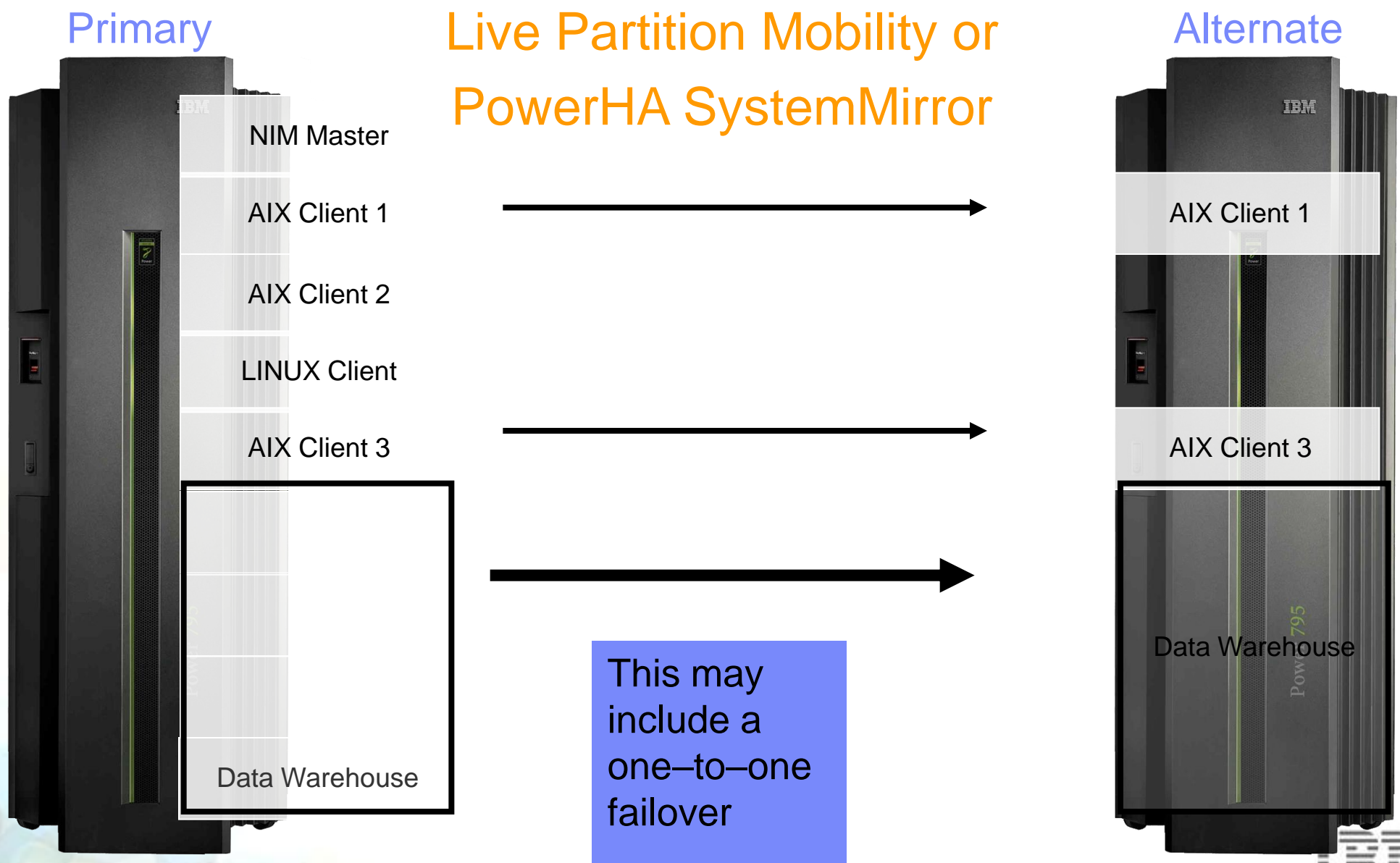


HOST01

LPA R1	App Client	P2	
LPA R2	TSM Server	P3	(HOST02, HOST03, HOST04)
LPA R3	NFS Server	P1	(HOST02, HOST03)
LPA R4	LINUX Client	P4	
LPA R5	Data Warehouse	P1	HOST02
LPA R6	Web Client	P4	



Rolling Upgrades may include initiating mobility relocation or failover to a secondary hosting server



Power Flex. *deploying a comprehensive virtualization infrastructure*

New

flex-i-ble ['flek-sə-bəl] *characterized by a ready capability to adapt to new, different, or changing requirements**

Multi-system virtualization infrastructure providing a highly available and flexible IT environment to support clients' most demanding business resiliency objectives – leveraging years of IBM innovations.

- At least two systems enables **active-active availability**
- **Allocate and rebalance** processor and memory
- Live Partition Mobility for **flexible workload movement**
- **Seamless growth** with Capacity on Demand
- On/Off Processor days for **extra capacity**



*source : www.miriam-webster.com

Consolidate with new levels of flexibility and resiliency

Single System

128-core Power 795



1 system
100% active



Dual Systems

2 x 64/128 Power 795



2 systems
Each 50% active
More resilient



Power Flex

2 x 64/128 Power 795
Flex CUoD

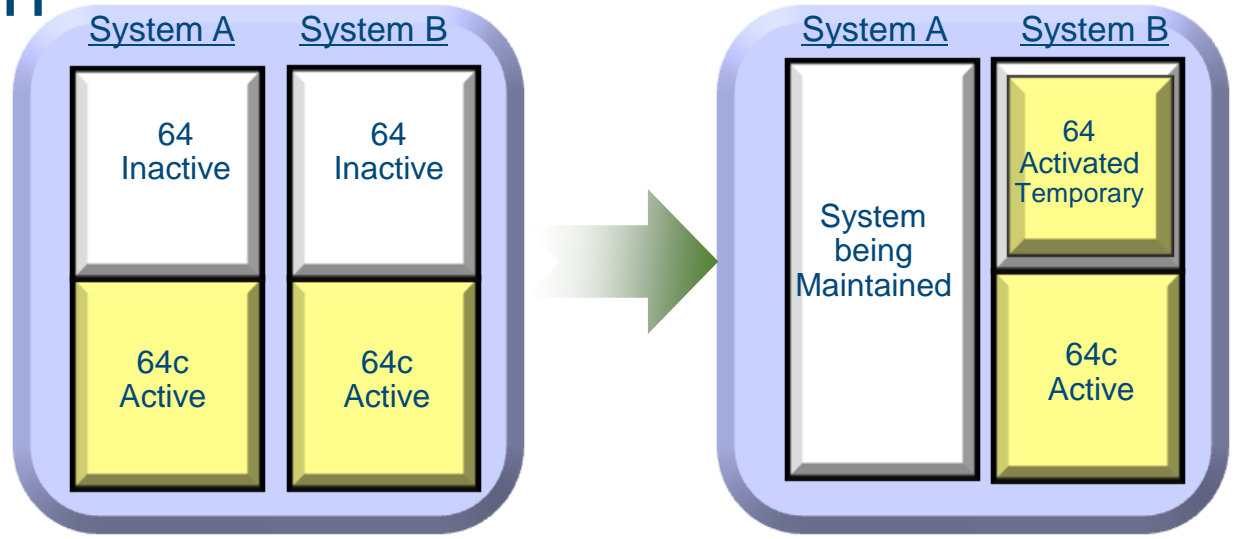


2-4 systems
Each 50% active
More resilient
More flexible

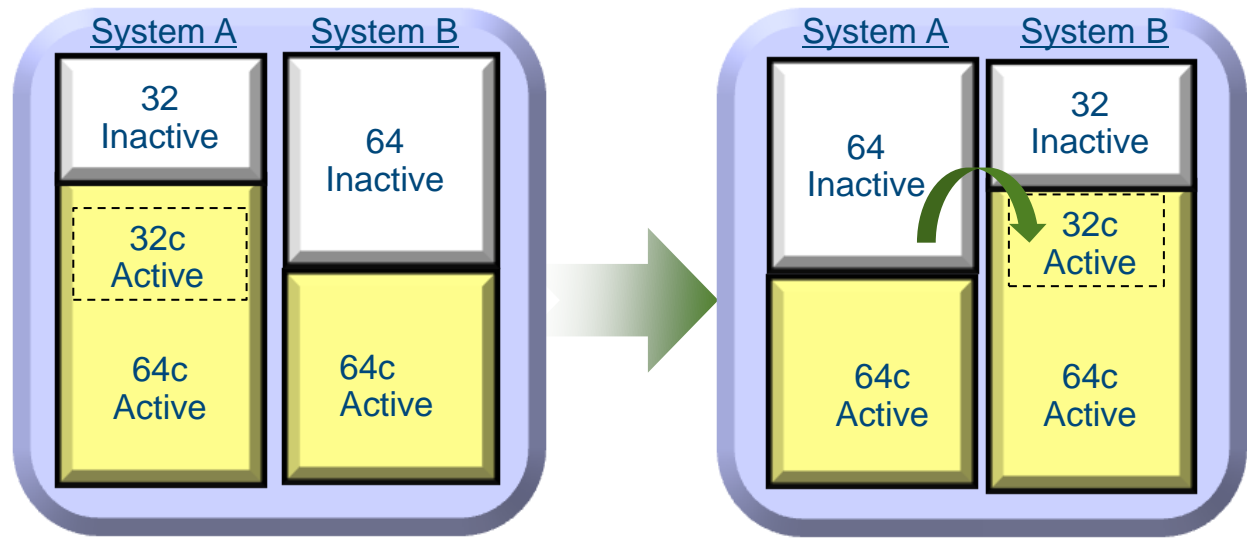


Power Flex in action

Planned Maintenance



Resource Re-balancing



Higher availability and increased flexibility



Fix Level Recommendation Tool

http://www14.software.ibm.com/webapp/set2/flrt/home

FLRT >

Fix Level Recommendation Tool

For IBM Power Systems administrators

The following consolidated information is for guidance purposes only. This information was obtained from generally available product support documentation. These combinations of product levels are supported by IBM.

Date: 2010.09.02
Model: IBM Power 770 (9117-MMB)
 Click [here](#) for the latest device firmware for this model.
Clock: 3.5 ghz.

Your selected levels

Product	Version/Release	Status
AIX	6100-04-04	✓
System Firmware	AM710_065	✓
PowerHA	5.5	✓
Virtual I/O Server	2.1.3.10	⚠

Detailed results

⚠ Virtual I/O Server [Get the update](#)

Update recommended: Interim fix IZ75191
 Fixes an erroneous Service pack level reported by the ioslevel command. This interim fix applies to a VIOS at the 2.1.3.10-FP-23 level (Fix Pack 23 applied). Do not apply this interim fix to a VIOS at any other level.



System Software Maps

<https://www-304.ibm.com/support/docview.wss?uid=ssm1maps>

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System software maps



Document information

Operating system(s):

AIX

Reference #:

maps

Modified date:

2011-04-26

Translate my page

Select Language

Find System to software maps for IBM Power Systems and for IBM BladeCenter servers based on POWER processors.

Available system software maps

Select the desired set of maps.

- System to AIX maps
- System to IBM i maps
- System to PowerVM Virtual I/O Server

System Software Maps

<https://www-304.ibm.com/support/docview.wss?uid=ssm1maps>

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Hardware to Software Map for 9117-MMB Power 770 and AIX



Select a release or other available resource

- ↓ AIX 7.1
- ↓ AIX 6.1
- ↓ AIX 5.3
- ↓ AIX 5.2

- ↓ AIX 5.1
- ↓ AIX 4.3.3
- ↓ AIX 3.2.5
- ↓ Additional resources

Learn more

- Understanding this report
- Hardware Announcement Letter (U.S.)
- ← Select another system

Document information

Operating system(s):

AIX

Reference #:

platformaix9117-MMB

Modified date:

2011-04-26

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Select Language

AIX 7.1			
Technology Level	Base Level	Recommended Level	Latest Level
7100-00	7100-00-00	7100-00-02	7100-00-02
AIX 6.1			
Technology Level	Base Level	Recommended Level	Latest Level
6100-06	6100-06-00	6100-06-03	6100-06-04
6100-05	6100-05-00	6100-05-04	6100-05-05



Prerequisite Tool

http://www-912.ibm.com/e_dir/eserverprereq.nsf

IBM Prerequisite

The IBM Prerequisite site provides you with compatibility information for hardware features. This tool helps you to plan a successful system upgrade by providing you with the prerequisite information for features you currently have or plan to add to your system.

To begin your search, select the Hardware or Software tab.

Visit the [IBM Systems Hardware Information Center](#) for the latest information about planning, upgrading, installing hardware and software, getting fixes, and more.

Feature prerequisite information	
Machine type-model(s) supported	8202-E4B, 8205-E6B
Feature code	1824
Description	Quad-port 1 Gb HEA Daughter Card
Initial feature announce date	08/2010
Information last updated	29 Aug 2010 02:00 AM
Other information	

OS information			
Code type/OS	Version/Release	Fix level	Other information
Server Firmware	Base Server Firmware Level for 8231-E2B, 8202-E4B, 8205-E6B and 9119-FHB: FW 7.2.0	AL720_xxxx, AM720_xxxx, AH720_xxxx	
HMC Firmware	Base HMC Firmware Level for 8231-E2B, 8202-E4B, 8205-E6B and 9119-FHB: V7R7.2.0M0	MHxxxxxx	
AIX Version 7.1	Base AIX 71 Level for 8231-E2B, 8202-E4B, 8205-E6B and 9119-FHB: 7100-00		
AIX Version 6.1	Base AIX 61 Level for 8231-E2B, 8202-E4B, 8205-E6B and 9119-FHB: 6100-06		
AIX 5L Version 5.3	Base AIX 5.3 Levels for 8231-E2B, 8202-E4B, 8205-E6B and 9119-FHB: 5300-12 SP1, 5300-11 SP5, 5300-10 SP5. Planned availability September 30, 2010		
IBM i 6.1	Base IBM i 6.1 Level for 8231-E2B, 8202-E4B, 8205-E6B and 9119-FHB: IBM i 6.1 with i 6.1.1 machine code - i 6.1.1: RS610-10 OS & RS611-C LIC	C0215610	
IBM i 7.1	Base IBM i 7.1 Level for 8231-E2B, 8202-E4B, 8205-E6B and 9119-FHB: IBM i 7.1 with i 7.1.0 machine code: RS710-00 OS & (RS710-B LIC or Technology Refresh 1 (PTF Group SF99707))	C0229710	
SLES	Base SUSE Linux Enterprise Server Levels for 8231-E2B, 8202-E4B, 8205-E6B and 9119-FHB: SLES 11 SP1, SLES 10 SP3		
RHEL	Base Red Hat Enterprise Linux for 8231-E2B, 8202-E4B, 8205-E6B and 9119-FHB: RHEL 5.5		
PowerVM Virtual I/O Server	Base VIOS Level for 8231-E2B, 8202-E4B, 8205-E6B and 9119-FHB: VIOS 2.2		

IBM Software Product Compatibility

http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity/index.html

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Software product compatibility reports

Operating systems for a specific product

Products that use a specific operating system

Matrix between specific product(s) and desired operating systems

Prerequisites of a specific product

Products that use a specific prerequisite

Matrix between specific product(s) and desired prerequisites

Server virtualization environments supporting a product

Products supported by a server virtualization environment

Matrix between specific product(s) and desired server virtualization environment

End of service report for products

Software product compatibility reports

Reports about compatible software combinations

The support shown in the reports generated by this tool may require a particular maintenance level for the products.

Operating system reports



Operating systems for a specific product

Usage: Find out all the operating systems on which a product you have in mind runs.

[View sample report](#)



Products that use a specific operating system

Usage: Find out all the products that are supported by an operating system you have in mind.

[View sample report](#)



Matrix between specific product(s) and desired operating systems

Usage: Find out if a set of software products runs on operating systems you have in mind.

[View sample report](#)

Prerequisite reports



Prerequisites of a specific product

Usage: Find out all the software that a specific product needs or uses per selected capabilities.

[View sample report](#)



Products that use a specific prerequisite

Usage: Find out all the software that use or support a specific product.

[View sample report](#)



Matrix between specific product(s) and desired prerequisites

Usage: Find out if a set of prerequisites will work with a set of specific products.

[View sample report](#)




IBM Software Product Compatibility




<http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity/index.html>





Matrix between specific product(s) and desired operating systems

Report data valid at 2011-04-25 11:08:20 MDT Download pdf Print


 **Compatibility matrix**
software/operating systems

-  All product components support the operating system
-  Some of the product components support the operating system
-  Operating system is not supported by this product
-  Operating system is not applicable to the product

The Products you are interested in	1
DB2 Enterprise Server Edition 9.7	
WebSphere Application Server 7.0	

Report data valid at 2011-04-25 11:08:20 MDT Download pdf Print

The support shown in this report may require a particular maintenance level for the products. For further information please visit the [IBM Software Support web page](#).

 Disclaimers



IBM Storage Compatibility

<http://www.ibm.com/systems/support/storage/ssic/interoperability.wss>

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- Disk systems
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- Product A-Z
- Virtualization
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IBM Systems > Support >

System Storage Interoperation Center (SSIC)

[SSIC Education and Help](#)
Please view the details of the interoperability configurations queried. This requires exporting the data, or clicking the Submit button at the bottom of the search interface, then clicking on the details link in the results table.

Revise Selected Criteria - click link below to change search query

(1) [Product Family](#), (2) [Product Model](#), (3) [Product Version](#), (4) [Host Platform](#), (5) [Operating System](#), (6) [Connection Protocol](#), (7) [Server Model](#), (8) [Adapter Model \(HBA, CNA, etc.\)](#), (9) [Adapter Vendor \(HBA, CNA, etc.\)](#)

[New Search](#) **Configuration Results=**
55

Product Family

- IBM Storwize V7000 Midrange Disk System
- IBM System Storage Dual Drive Enclosures
- IBM System Storage Enterprise Disk
- IBM System Storage Enterprise Tape

Product Model

- DS6000 Series
- DS8100/DS8300
- DS8700
- ESS 750

Product Version

- DS8100/DS8300 R3.1 (bundle 63.10.xx)
- DS8100/DS8300 R4 (bundle 64.00.xx)
- DS8100/DS8300 R4.21 (bundle 64.21.xx)
- DS8100/DS8300 R4.3 (bundle 64.3x.xx)

[Export Selected Product Version \(xls\)](#)

Host Platform

- IBM BladeCenter
- IBM Power Systems (p6 and newer)
- IBM System i
- IBM System p (p5 and older)

Operating System

- IBM AIX 6.1 TL4
- IBM AIX 6.1 TL5
- IBM AIX 6.1 TL6
- IBM AIX 7.1

Connection Protocol

- FCoCEE
- Fibre Channel

Server Model

- IBM Power 755 (8236-E8C)
- IBM Power 770 (9117-MMB)
- IBM Power 780 (9179-MHB)
- IBM Power 795 (9119-FHB)

Related links

- [Warranties and licenses](#)
- [IBM System Storage for System x](#)
- [Education](#)
- [IBM Redbooks](#)

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Fix Central

The screenshot shows the IBM Fix Central website. At the top left is the IBM logo. To its right, the text "United States [change]" is displayed. Below this is a search bar with a "Search" button. A navigation menu includes "Home", "Solutions", "Services", "Products", "Support & downloads", and "My IBM". A user greeting "Welcome Jay Kruemcke [Not you?] [IBM Sign in]" is visible on the right. The main content area is titled "Fix Central" and includes a description: "Fix Central provides fixes and updates for your system's software, hardware, and operating system." Below this is a selection guide: "Select the product below. When using the keyboard to navigate the page, use the **Alt** and **down arrow** keys to navigate the selection lists." A link "Getting started with Fix Central" is provided. On the left, a sidebar menu lists "Systems support", "Fix Central", "Supported products", "Enhancements", and "Feedback". Below the menu are "Related links" for System p, BladeCenter, and System i. The main area contains four dropdown menus: "Product Group" (System p), "Product" (AIX), "Version" (6.1), and "Fix type" (Fix packs). A "Continue" button is at the bottom. On the right, there are two boxes: "Best practices" (Administration guidance for Unix servers) and "Stay informed" (Subscribe to receive support notifications, My notifications, My notifications Overview (12KB), Get Adobe Reader).



New Fix Central pop-up

The screenshot shows the IBM Fix Central website interface. At the top, there is a navigation bar with the IBM logo, a search bar, and a language selector set to "United States". Below this is a secondary navigation bar with links for Home, Solutions, Services, Products, Support & downloads, and My IBM. A welcome message for "Mr. Rick Stone" is visible in the top right.

The main content area features a left-hand sidebar with a "Return to IBM Support Portal" link and a menu for "Fix Central" with sub-items: Supported products, Enhancements, Help, and Feedback. The main heading is "Fix Central", followed by a description: "Fix Central provides fixes and updates for your system's software, hardware, and operating system." Below this is a note about keyboard navigation and a link to "Getting started with Fix Central".

A red rectangular box highlights a "Product Group" pop-up dialog box. The dialog has an IBM logo at the top and contains the following text: "Welcome to IBM Fix Central. This is to remind you that any entity for whom you are acting by accessing the material available through this website has previously agreed to the terms of a license agreement governing the use of the Program, and any software code, samples, updates and fixes thereto (collectively, the 'Code'). You are only authorized to install or use the Code with a Program for which there is a valid proof of entitlement or license, as applicable." At the bottom of the dialog is a "Continue" button with a right-pointing arrow.

At the bottom of the page, there is a footer with links for About IBM, Privacy, Contact, Terms of use, Accessibility, IBM Feeds, and Jobs. On the right side of the footer, there are social media icons for Twitter, Facebook, LinkedIn, and YouTube.

Fix Central

The screenshot shows the IBM Fix Central website. At the top, there is a navigation bar with the IBM logo, a search bar, and a language selector set to "United States [change]". Below this is a secondary navigation bar with links for Home, Solutions, Services, Products, Support & downloads, and My IBM. A user is logged in as "Welcome Jay Kruemcke [Not you?] [IBM Sign in]".

The main content area is titled "Fix Central" and includes a left-hand navigation menu with options: "Systems support", "Fix Central" (selected), "Supported products", "Enhancements", and "Feedback".

The main text area contains the following information:

- A description: "Fix Central provides fixes and updates for your system's software, hardware, and operating system."
- Instructions: "Select the product below. When using the keyboard to navigate the page, use the **Alt** and **down arrow** keys to navigate the selection lists."
- A link: "For additional information, click on the following link. [Getting started with Fix Central](#)"
- Filtering options: "Product Group" (System p), "Product" (AIX), "Version" (6.1), and "Fix type" (Fix packs).
- A "Continue" button.

On the right side, there are two sidebars:

- Best practices**: "Administration guidance for Unix servers." with a link to "Best practices".
- Stay informed**: "Subscribe to receive support notifications." with a link to "My notifications" (circled in red), a link to "My notifications Overview (12KB)" (circled in red), and a link to "Get Adobe® Reader®".



My Notifications

Country/region [select]

IBM

Home Solutions Services Products Support & downloads My IBM Welcome Jay Kruemcke [Not you?] [IBM Sign out]

IBM Support Portal

Subscriptions

Help

Feedback

My notifications for IBM technical support

My subscriptions Subscribe My defaults Help

You are subscribing to the following

System p

AIX 7.1

Fields marked with an asterisk (*) are required.

Options

Name: AIX 7.1

Save in existing or new folder:

Existing: My default folder

New:

Notify me by

e-mail

daily e-mail weekly e-mail

plain text e-mail html e-mail

delivery to this folder

delivery via syndication feed (RSS,Atom)

[what's this?](#)

Selections

Select/deselect all Auto-subscribe to new topics

Security

High impact

Technology Level 0

Installation tips

Product area

- AIX 7.1
- AIX 6.1
- AIX 5.3
- AIX 5.2
- HMC
- Cluster on POWER
- Virtualization on POWER
- Firmware
- POWER hardware courses
- System p Unix Servers (incl Intellistation POWER)

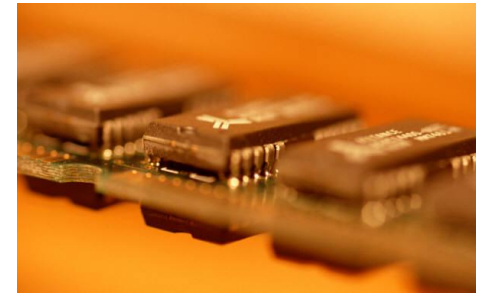
Continue

Related links

- Lenovo support
- InfoPrint support



Firmware



- Updating firmware is every bit as important as keeping the other parts of the system up to date yet this is often one of the most challenging aspects of planning for availability
- A large portion of situations, problems and outages are due to significantly outdated versions of firmware and/or O/S.
- Concurrent Firmware should be viewed as a solid strategy to reduce maintenance window downtime and to keep systems up to date.
- Fact: All service packs last year, although they often contained deferred fixes also, were able to be applied concurrently

Firmware terminology: **Release** versus **Service Pack**

- **Release Level:** A Release Level is the term for firmware that is released to support major new function (introduction of new hardware models and significant function/features enabled via firmware).
 - *Known as an “Upgrade”*
 - *Always requires a reboot of the system*

- **Service Pack:** A Service Pack contains a group of fixes within a specific release level. Service packs primarily contain only fixes however, minor function changes may be released within a service pack.
 - *Known as an “Update”*
 - *Some updates are concurrent and do not require a reboot of the system*
 - *Updating firmware involves two steps:*
 - *Apply the firmware (update what is in flash)*
 - *Activate the firmware (cause the new firmware to be running on the system)*

POWER Firmware Support Lifecycle

<http://tinyurl.com/PowerFWLife>

IBM Systems Support

- BladeCenter
- Power
- System i
- System p
- System x
- System z
- System Storage
- Systems networking
- System Blue Gene
- IntelliStation Pro
- IBM Monitors
- Systems Management software
- Hardware upgrades
- Feedback

POWER code matrix >

HMC and Power Systems firmware

Support lifecycle information

POWER7	POWER6	POWER5	Support lifecycle	Terminology
· Firmware for IBM Power Systems			· Code for HMC V6 and V5 releases	
· Code for HMC V7 releases			· Code for HMC V4 and V3 releases	

The following tables list the general availability and end of service pack support dates for firmware for IBM Power Systems and for machine code for the Hardware Management Console (HMC).

To understand the key to these tables, refer to the [Key to HMC and POWER firmware levels](#) section on the **Terminology** tab.

End of service pack support for Power Systems firmware			
System firmware release level	General availability date	Current status	End of service pack support
720 Release	September 2010	Latest release (Support for POWER7 GA)	September 2012
710 Release	February 2010	Latest release (Support for POWER7 GA)	February 2012
350 Release	November 2009	Maximum stability level	November 2011
340 Release	November 2008	End of service pack support	November 2010
330 Release	May 2008	End of service pack support	May 2010
320 Release	December 2007	End of service pack support	January 2010
310 Release	June 2007	End of service pack support	June 2009

Related links

- Warranties and licenses
- developerWorks
- AlphaWorks
- IBM Business Partners

Key to HMC and POWER firmware levels

Use the following information to read the matrix tables for HMC and System firmware Release Levels and supported code combinations. You can also refer to the color key on the supported code level tables.

Latest Release Level

The most current Release Level available. This level of firmware is installed and shipped on newly built machines. During the first two to three months that a Release Level is available, Product Development Engineering assesses the quality and stability of the release. During this time, the release is designated the Latest Release Level.

Maximum Stability Release Level

When the Latest Release Level of firmware is assessed as stable, it becomes the Maximum Stability Release Level. This Release Level is recommended to customers who require the highest level of stability.

Reduced Fix Support

A release that is within two or three months of its end of life, enters Reduced Fix Support mode. This release level is still supported, but fixes may be limited to only the most severe problems. Examples of problems that would be fixed are:

- Data Integrity problems
- Problems that result in unscheduled outages
- Breakage in base functionality
- Reliability, Availability and Serviceability (RAS) function

Problems that would not be fixed during Reduced Fix Support mode are:

- Low or non-impacting problems
- Problems with a valid workaround
- Non-pervasive problems

End of Service Pack

IBM will continue to analyze problems, but no new Service Packs will be released for a firmware Release Level that has reach End of Service Pack support. Fixes, that is, Service Packs, will only be delivered at higher Release Levels.



POWER Firmware Support Lifecycle

<http://www14.software.ibm.com/webapp/set2/sas/f/power5cm/home.html>

The screenshot shows the IBM website interface for the POWER code matrix. The main content area is titled "POWER code matrix" and "Latest release levels for IBM Power Systems". It features a navigation menu on the left, a search bar at the top right, and a main content area with a table of release levels. The table is currently displaying the "710 Release" section, which lists components and their corresponding versions. The table has two columns: "Component" and "Version".

POWER code matrix >
POWER code matrix
 Latest release levels for IBM Power Systems

United States [change]
 Home Solutions Services Products Support & downloads My IBM Welcome Jay Kruemcke [Not you?] [IBM Sign in]

IBM Systems Support
 BladeCenter
 Power
 System i
 System p
 System x
 System z
 System Storage
 Systems networking
 System Blue Gene
 IntelliStation Pro
 IBM Monitors
 Systems Management software
 Hardware upgrades
 Feedback

Related links
 • Warranties and licenses
 • developerWorks
 • AlphaWorks
 • IBM Business Partners

POWER7 **POWER6** **POWER5** **Support lifecycle** **Terminology**

Latest release levels | Supported code combinations

Latest release levels to support latest features and function
 IBM will periodically list recommended levels for the System firmware and Hardware management console.
 It should not be assumed that these are the only supported combinations, but rather the recommended level for the date of release.
 [This page updated March 16, 2010]

710 Release	
Component	Version
System firmware	AL710_086 Firmware for Entry systems AM710_086 Firmware for Midrange systems
Power subsystem firmware	Not applicable to Entry or Midrange systems
Hardware Management Console	Version 7 Release 7.1.0 + MH01219 (HMC V7R710 SP02)
List of new HMC features & functionality	Hardware Management Console

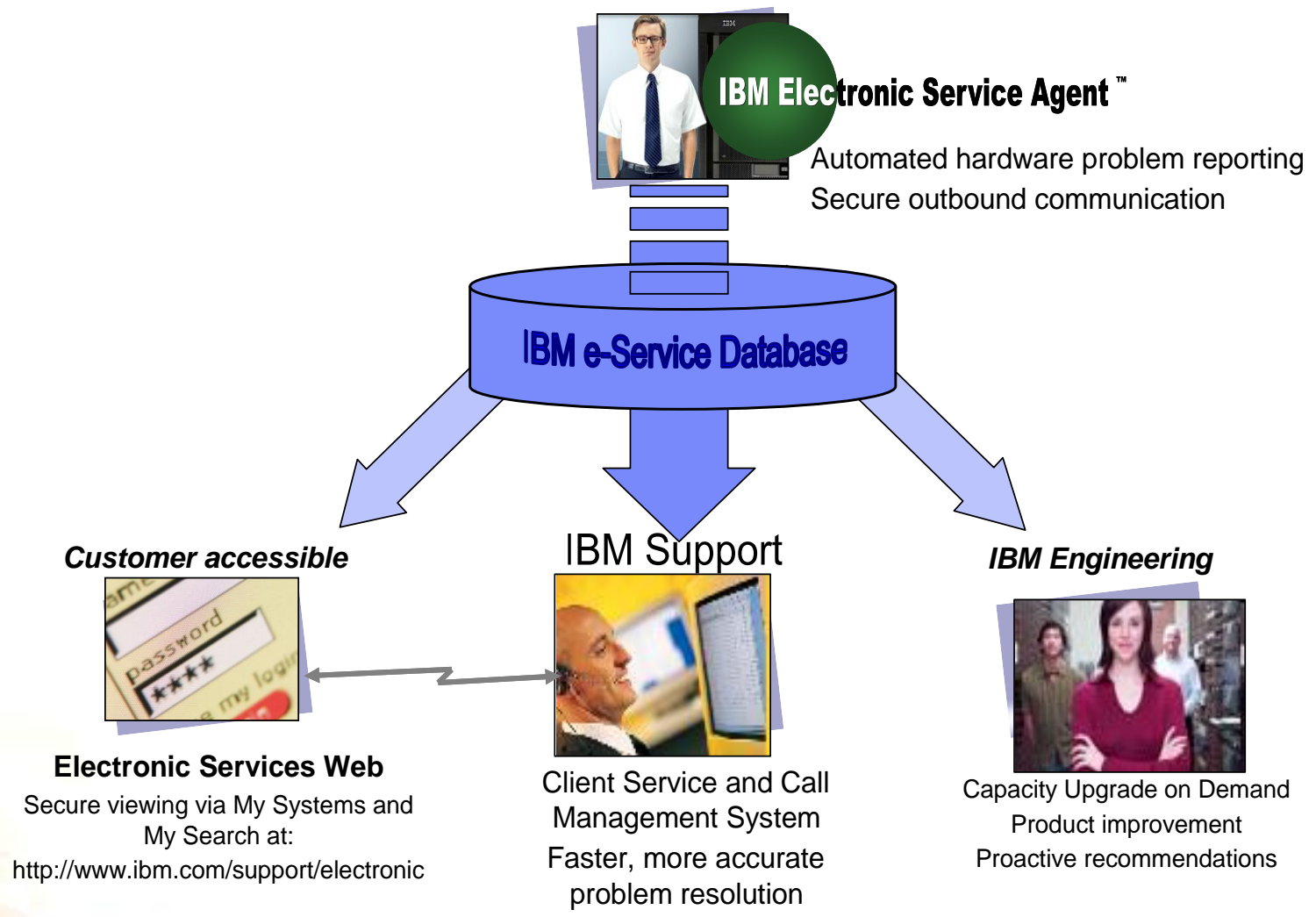
Subscribe today!
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 → Subscription Services

Did you know?
 You can quickly find APARs marked PE or HIPER in the [Technical help database for AIX](#)
 Simply add the word YesPE or YesHIPER to your query.

Related support
 → Firmware
 → HMC V7 and higher
 → HMC V6 and lower
 → Virtualization software



Electronic Service Agent



IBM Electronic Service Agent™ benefits to customers

Proactive Support

- IBM warns me of potential problems *before* they cause unplanned downtime
- When I call IBM, I no longer hear, “we’ve seen that before”

Benefits:

Less unplanned downtime means higher availability

Customized Web Experience

- IBM’s web site only shows me information relevant to the systems I have installed

Benefits:

Less time spent reading through data not relevant to me and more time finding what I need

Reactive Support

- IBM responds faster to my system problems and solves them faster

Benefits:

Faster access to key IBM resources
Faster problem resolution means higher availability

Client Self Assist

- I have access to knowledge and Intellectual capital based on systems I have installed

Benefits:

I can solve problems on my own because IBM’s tools know what I have installed

Electronic Services Portal Home Page

www.ibm.com/support/electronic

Vietnam [change]

IBM

Home Products Services & industry solutions Support & downloads My account

← Support & Downloads

IBM Electronic Services

Sign in-165 | Register-143

Welcome to the United States Electronic Services.

Did you ever wish

when you searched for fixes you could reduce the number of results by up to 90% simply by checking a box?

Now you can !

Experience [My Search with Inventory](#) now!

▶ || 1 of 5 ▶▶

Learn about IBM Electronic Services What's new? Important offerings

IBM Electronic Services comprises of two separate but complementary elements: This IBM Electronic Services Web Portal and IBM Electronic Service Agent.

IBM Electronic Services web highlights:

- Benefit from a single entry point for all IBM hardware and software support
- Get 24x7 access to customized IT information
- Access web-delivered Premium Services
- Submit hardware and/or software problems electronically
- Research technical problems online
- View Electronic Service Agent™ information
- Benefit from more efficient IT operations

IBM Electronic Service Agent™ highlights:

- Consists of no-additional-charge software that resides on your IBM
- Provides 24 x 7 automated system monitoring
- Reports hardware error logs and performance information
- Submits hardware problems automatically
- Tracks system inventory
- Automates Microcode PTF downloads
- Provides your problem history and system inventory to IBM Support to speed diagnosis and resolution

📄 [IBM Electronic Services Overview](#) (4.6 MB)
This tour shows the IBM Electronic Services (Service Agent and web site) and explains at a high level the functions, benefits and features of the end to end capabilities

📄 [Electronic Service Agents](#) (1.3 MB)
Learn about the key features of the IBM Electronic Service Agent. Get the additional information needed to install and use this service and support tool.

→ [Learn about IBM Electronic Services](#)
The page provides a collection of visual tours. These tours present different selections and functions within the Electronic Services web site

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Data centers that use less energy and take up less space can also save BIG money.

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My Search using ESA inventory data

The screenshot shows the IBM My Search interface. At the top, there's a search bar and a 'Search' button. Below it, a navigation menu includes 'Home', 'Solutions', 'Services', 'Products', 'Support & downloads', and 'My IBM'. The main content area is titled 'My Search using inventory data' and features a large image of a person looking through binoculars. To the right, there's a 'Problem submission' section with a globe icon and text: 'World wide support. Did your search give you the answer you needed? If not, with a support contract, you can submit the problem to IBM and get technical assistance. Go to "Open service request"'. Below that is a 'My Search - Try it NOW!' section with a small image of binoculars and text: 'Want to reduce and individualize your search results?'. On the left, there's a sidebar with 'IBM Electronic Services' and various links like 'Alert for System i and System p', 'My Messages', 'My custom links', 'My Systems', 'My Search using inventory data', 'Execute a Search', 'Open service requests', 'Technical documents', 'Access premium services', 'IBM Electronic Service Agent', 'Services administration', and 'Help'. Below the main image, there's an 'Introduction' section with a sub-menu: 'Introduction | Execute a Search | Demo/Q&A'. The text explains that My Search combines search and inventory data to provide advanced searching. It lists search capabilities: include/exclude keywords, specify OS/product, and include/exclude fixes. It also notes that excluding installed fixes eliminates irrelevant results.

My Search using inventory data

- By checking two boxes you can filter the search using your system inventory – installed products, OS type and release, and installed fixes.
- This search goes against IBM’s robust database of technical support information. Finding what you need and ignoring the rest is what My Search is designed to provide.
- The search results are reduced to the items that are relevant to your system and installed inventory – often up to 90%!
- Benefit**
 - Significantly reduce time searching for solutions
 - No need to understand IBM “lingo”
 - Faster problem resolution
 - Reduce downtime

Search terms	ibm.com/support, all document types	ibm.com/support, Doctype = Troubleshooting/PTF or APAR	My Search using inventory, Doctype = Troubleshooting/PTF or APAR and eliminate installed PTFs	Improvement %
OS/400 websphere security servlets	558	2	1	50%
os/400 performance printer v5r3m0	174	57	4	93%
os/400 tcp/ip telnet performance v5r3m0	76	23	6	74%
atm times out	1,024	109	40	63%

Show Me

Product Tour:



My Systems

IBM United States [change]

Home Solutions ▾ Services ▾ Products ▾ Support & downloads ▾ My IBM ▾ Welcome John Speacht [Not you?] | IBM Sign out]

← Support & downloads

IBM Electronic Services

Alert for System i and System p

My Messages

My custom links

My Systems

- View My Systems
- My Systems help

My Search using inventory data

Open service requests

Technical documents

Access premium services

IBM Electronic Service Agent

Services administration

Help

Welcome **John Speacht** .

Your prior sign in was: Tuesday, January 15, 2008 12:55 AM GMT.

View reports for systems that use IBM Electronic Service Agent to transmit information to IBM.

Identified systems											
Unique identifier	Type	Serial	LPAR# or name	Model	Group	My Group	Name for system	Company	Inventory received	Performance received	
<input type="checkbox"/> P8001B7O	2064	516E9FD	TSOPROD	102	System_z	zSeries	TSOCSL M LV z/OS 1-4 FRAN CE NEW	IBM TSOC SL	November 20, 2006 16:37:17	-	
<input type="checkbox"/> P8001N4H	9406	10-AE6EE	1	570	System_i	iSeries	ESVCAS03	IBM ESVC AS03	January 22, 2008 12:47:10	January 21, 2008 12:46:48	
<input type="checkbox"/> P9000WEE	8676	78MW063	0	61X	System_x	-	R9X335-1 02	IBM	August 30, 2006 09:15:22	-	
<input type="checkbox"/> P90015LA	9076	94439	9	550	System_p	-	esvcsp08	-	January 18, 2008 17:17:27	-	
<input type="checkbox"/> PB0011A3	7026	01104A11 F	0	880	System_p	-	eService Test	IBM Corporation - Rochester MN	July 08, 2006 04:00:18	-	
<input type="checkbox"/> PB0012W3	7043	104FA0F	0	150	System_p	pSeries	pokxsd1	-	April 28, 2005 10:07:29	-	
<input type="checkbox"/> PB001OYX	8646	23A1787	0	31X	System_x	-	MCEX220	IBM	March 21, 2006 18:57:50	-	
<input type="checkbox"/> PB0021R2	8843	KPDW548	0	41U	System_x	-	R2HS20-3	IBM	August 30, 2006 09:16:03	-	
<input type="checkbox"/> PD0015NH	2373	99AHWRC	0	MU3	System_x	-	IBM-NIH9 I00S4QL	IBM TEST	January 06, 2005 00:00:01	-	



Pulling it all together

1. Understand the IT resources that you have

- *Hardware*
- *OS version*
- *HMC*
- *LPAR & WPARs*
- *Use Electronic Service Agent and “My Systems” web portal*
- *Tivoli Application Dependency Discovery Manager*

2. Understand support lifecycles

- *Be proactive – don’t wait until you have a problem to update*

3. Understand service aids

- *Subscriptions, NIM, Pre-Req tool provide great info – use it*

4. Plan for maintenance

- *Redundant hardware*
- *Negotiate outage windows for planned maintenance*
- *Implement IBM Electronic Service Agent*



