IBM

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pSeries Special

EC to Order and EC on your Wallet

Act now! Easy-to-order "Express Configurations " include the popular pSeries 660 6M1 server are now available at up to 33% savings! Contact your IBM representative or IBM Business Partner for more details on this unbeatable offer.

AIX5L Self-study Courses now available!
AIX Basics, System Administrations, TCP/IP Communications, Differences
http://isource.ibm.com/cgi-bin/goto?it=usa_annred&on=202-232

Take a p690 Virtual Tour
In addition to unparalleled speed, the IBM pSeries 690 has the ability to consolidate critical applications on a single, datacenter-class server. Click on the following link to take a virtual tour:
http://www-1.ibm.com/servers/eserver/pseries/hardware/tour/690_briefing.html

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Announcing AIX 5.2!

In this month's "Check Into IT" column, we take a look at the newly announced AIX 5.2. AIX 5.2 brings NEW exciting features and capabilities to pSeries servers.

Following are just a few of the highlights of the latest version of AIX:

✓ **Dynamic Logical Partitioning** Dynamic LPAR enables administrators to add, remove, or move system resources such as memory, PCI Adapters, and CPU between partitions without the need to reboot each partition. In addition, an API has been created to allow administrators to automate such operations via system calls using cron or some other scheduling program. Dynamic LPAR also lets the administrator move media devices between partitions for ease of installation and administration. All this without taking down the operating system on either partition.

✓ **Smaller Real Mode Memory Address Region** With AIX 5.2 and the latest firmware level, the minimum granularity for memory allocation in an LPAR is reduced from 1GB to 256MB. Also, with a smaller real mode memory address region, memory allocation rules regarding partitions with greater than 16GB of RAM are relaxed. With AIX 5.2 and the latest firmware, you can now have both large partitions (>16GB) and small partitions (<16GB) on the same system, with less than 48 GB of RAM.

✓ **NEW Standards** With AIX 5.2, the most open UNIX in the industry, strict adherence to standards continues with compliance to POSIX Async I/O standards, SNMP v3 and DNS Bind v9.

✓ **Enhanced JFS2 and LVM** The JFS2 journaled file system, free with the AIX Operating System, is enhanced from a 1TB file and filesystem size limit in AIX 5.1 to 16TB in AIX 5.2. Also, enhancements to LVM and backup quality enable native filesystem snapshot support.

✓ **EZNIM** AIX 5.2 offers enhances system management features to help reduce operator time during installation and patch management. New "EZNIM" (Easy NIM) helps the operator set up server/clients for Network Installation Manager (NIM) install purposes without needing detailed knowledge of NIM.

✓ **Additional Networking Enhancements** AIX was the first UNIX Operating System to implement IPv6 support and is now adding mobile gateway support. Infrastructure is now in place in AIX 5.2 for pervasive devices like PDA's and mobile phones. Support for SCTP (Stream Control Transmission Protocol) for streaming audio and video is included with AIX 5.2.

✓ **YET MORE Linux affinity** IBM continues to lead with a superior Linux interoperability strategy. AIX 5.2 now supports more than 380 Linux applications. A Linux to AIX migration continues to be made easier with new program interfaces allowing customers to develop on Linux and port easily to Enterprise Ready AIX. A complete listing for tools and download site for IBM's AIX for Linux Toolbox can be found at http://www-1.ibm.com/servers/aix/products/aixos/linux/

✓ **Additional Goodies**
  - ✓ MPIO for SCSI, enabling multi-path I/O to SCSI storage arrays
  - ✓ Security and Directory enhancements with XSSO/PAM authentication support
  - ✓ Additional RAS features including lost I/O detection and recovery
  - ✓ Workload Manager enhancements including time-of-day and day-of-week configurability
  - ✓ SVR4 command and tools enhancement to continue to ease transition from other UNIX operating system flavors to AIX
  - ✓ AND many more exciting features

AIX 5.2 was announced on October 8,2002 and is expected to begin shipping on October 18,2002.

Redbooks

AIX Reference for Sun Solaris Administrators
http://www.redbooks.ibm.com/pubs/pdfs/redbooks/sg246584.pdf

Problem Solving and Troubleshooting in AIX 5L
http://www.redbooks.ibm.com/pubs/pdfs/redbooks/sg245496.pdf

LPAR Security in the IBM eServer pSeries 690
http://www-1.ibm.com/servers/eserver/pseries/hardware/whitepapers/lpar_security.pdf

A Highly Available & Scalable LDAP Cluster in an IBM AIX Environment
http://www-1.ibm.com/servers/esdd/articles/ldap/index.html

Scheduled Events:

It's not too late! You can still register for the
IBM eServer pSeries and Linux Technical University
October 14 - 18, 2002 in Dallas, TX
http://www-3.ibm.com/services/learning/conf/us/pseries

Come One, Come All! IBM eServer Event
Featuring: Linux, Grid, Autonomic & Blade Tech Today

Oct 29th	Dallas	Oct 31st	Chicago
Nov 6th	Detroit	Nov 7th	Seattle
Nov 12th	Wash DC	Nov 21st	NYC

Contact your IBM Team or Business Partner to learn more!
http://www-1.ibm.com/servers/eserver/education/vision/

AIX for UNIX Professionals Course
Ready to make the switch from Solaris or HPUX to AIX for good? Is there a new project coming your way that will run on AIX and all you have are Solaris or HPUX skills? Call your IBM pSeries account team or Business Partner to see if you qualify for nomination to an upcoming FREE AIX transformation course.

Featured Websites

Techdocs – THE Technical Sales Documentation Library: http://www-1.ibm.com/support/techdocs/atsmastr.nsf/Web/Techdocs

pSeries and RS/6000 Site and Hardware Planning Guide: http://www-1.ibm.com/servers/eserver/pseries/library/hardware_docs/sa38/380508.pdf

PCI Adapter Placement Guide – where they can and cannot go: http://www-1.ibm.com/servers/eserver/pseries/library/hardware_docs/sa38/380538.pdf

Subscribe for Technical Bulletins and Service Advisories at: http://techsupport.services.ibm.com/server/nav?fetch=sbasa

Enhanced AIX Subscription and pSeries Software Maintenance - What It Means To You

Listen up folks! In response to your feedback, IBM is improving and simplifying the way that customers can now acquire, maintain and receive support for the base AIX Operating System and for other pSeries Licensed Program Products (LPPs).

Enhanced AIX Subscription (EAS)

Now, you can take advantage of new version and releases of AIX as they become available, and do so at a fixed price! This newly announced AIX subscription offering is called the IBM Enhanced AIX Subscription (EAS). EAS replaces what we've come to know as the IBM Software Subscription for AIX (SSO). Enhanced AIX Subscription enables the maintenance of software entitlement for current or future versions or releases of AIX by providing a one-year or three-year one-time-charge, prepay, upgrade protection subscription contract.

Also, an after-license ordering feature is available for those systems already licensed for AIX. This enables you to order upgrades to the current releases or versions being marketed throughout the EAS contract. One important difference between EAS and the old IBM SSO is that with SSO, maintenance is not included in the first year of the AIX license. Please note that customers wanting telephone support are still required to purchase an AIX Supportline contract.

pSeries Software Maintenance (SWMA)

Additionally, in response to your request for multi-year contracts and a simplified ordering process for keeping software up-to-date, IBM announced "Software Maintenance". This is an enhanced offering that covers IBM pSeries brand owned software such as HACMP, C for AIX, Performance Toolbox for AIX, etc.... SWMA includes upgrade protection and remote technical software support with the licensed acquisition. One year of SWMA is automatically included for new licenses of programs covered in this announcement. A three-year software maintenance option is also available as an extended coverage option. You can contact your IBM representative or IBM Business Partner for a list of products participating in each offering.

Following is a table detailing the new Operating System and Software Offerings:

	New Enhanced AIX Subscription (EAS)	New Software Maintenance (SWMA)
Bundled with Base Product?	NO Optional Charge Applies	YES One year included with new LPP purchase. No charge "registration" feature code must be ordered.
Products Covered?	AIX	pSeries Brand Owned Products such as PSSP, HACMP, Performance Toolbox, etc…
Includes Telephone Support Contract?	NO	YES - Supportline like benefits are included.
Includes Version and Release Upgrades?	YES	YES
Term of Product	One Year -OR- Three Year	One Year -OR- Three Year
Terms	One Time Charge, not auto-renewing	One Time Charge, not auto-renewing

October Announcements – And the list goes on

Along with the announcement of AIX 5.2, following is a quick summary of additional October announcements:

Capacity Upgrade on Demand (CUoD) for p670s and p690s

- CUoD enables Dynamic Processor Sparing. Along with the new Dynamic LPAR feature in AIX 5.2, when one CPU begins to fail the system automatically swaps in an unallocated unlicensed CPU to take the place of a failing processor. General Availability planned for October 25, 2002

- Requires AIX 5.2.

- At least 4 CPUs must be activated on a CuoD MCM, first MCM is required to be fully activated.

- Implementation via keyed passcode. After order placed by IBM team, license passcode is sent in just three hours.

- Only a small 5 – 6% premium is charged when choosing to gradually activate CPUs over time in comparison to a MCM with 8 initially activated CPUs. There is no requirement to ever activate additional CPUs in the future.

eServer Cluster 1600 Enhancements

- p630 added to the list of supported nodes

- **Cluster Server Manager (CSM) V1.3 for AIX 5.2**   90 day try-and-buy delivered with base AIX 5.2. CSM supports servers in the cluster at AIX 5.1, however management server must be at AIX 5.2. Linux nodes can also be managed from an AIX CSM V1.3 Management node.

- **PSSP V3.5 for AIX 5.1** Full support for AIX 5L 64-bit kernel

- **GPFS for AIX V2.1** Full support of AIX 5L 64-bit kernel; HACMP no longer required to run GPFS in direct attached disk mode (no SP switches; no PSSP)

- **HAGeo/GeoRM V2.4** Full support of AIX 5L 64-bit kernel; enhanced ease of use and performance.

p630 Enhancements

- 64-bit Linux support on p630 (SuSE Enterprise Linux)

- eServer Cluster 1600 Support (both for SP Switch 2 = Colony and Non-switch attached clusters)

- Enhanced 3D Graphics Accelerators for 6E4 (GXT6500P and GXT4500P)

Additional I/O Announcements

- DVD-ROM (not RAM, but ROM) for AIX 5.2 and later only
- VXA-2 80/160 GB tape drive for AIX 5.1 or later
- New 8 MM tape drive with 60/150 GB capacity for AIX 5.1 or later
- 146.8 GB 10K RPM Internal Disk Drive for p610, p630, p670 and p690 systems

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Technical Tip - Switching between 32-bit and 64-bit kernel mode in AIX 5L:

To switch from 32-bit kernel mode to 64-bit run the following commands, in the given order:
1. ln -sf /usr/lib/boot/unix_64 /unix
2. ln -sf /usr/lib/boot/unix_64 /usr/lib/boot/unix
3. bosboot -ad /dev/ipldevice
4. shutdown -Fr
5. bootinfo -K (should now show 64)

To switch from 64-bit kernel mode to 32-bit run the following commands, in the given order:
1. ln -sf /usr/lib/boot/unix_mp /unix
2. ln -sf /usr/lib/boot/unix_mp /usr/lib/boot/unix
3. bosboot -ad /dev/ipldevice
4. shutdown -Fr
5. bootinfo -K (should now show 32)

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