

AIX under the covers



Jackie Jansen

Did you know that more than 10,000 iSeries customers also run AIX? As most of you are aware, IBM has recently added AIX 5L Version 5.2 and Version 5.3 to its list of operating systems that will run on the eServer i5. The IBM eServer i5 can run i5/OS, Linux, and AIX 5L natively, and under the covers, Windows and Linux on Intel. This allows for a fast consolidation of AIX or UNIX applications while improving processor and storage utilization rates. The eServer i5 can now deploy new AIX applications and utilize additional databases such as Oracle. The new POWER5 hardware is required to run AIX simultaneously with IBM i5/OS.

5L V5.3 you can dedicate processors in increments of 1/10 of a processor to a partition. AIX 5L V5.3 also has support for virtual storage and virtual Ethernet. This allows all your disk drives to be managed as a single pool of protected storage. Virtual disks for AIX are implemented on the eServer i5 as Network Server Storage (NWSSTG) objects. You can define over 4,000 individual virtual networks that provide up to 1 Gbit/second data transfer between multiple partitions and multiple operating systems. There is currently no support within AIX for virtual CD/DVD or virtual tape. These resources must be owned and managed by AIX 5L. While i5/OS can host the virtual disk and networks for AIX, AIX cannot be a host for virtual resources.

Current iSeries customers should be aware that when you run AIX 5L in a partition you are, in essence, running an AIX server. This means that you will require AIX skills. The administrator will use OS/400 tools to administer an OS/400 (or i5/OS) partition and AIX tools to administer an AIX partition. AIX programmers will be happy to see the functions and tools that they are familiar with.

Since both the IBM eServer i5 and the eServer p5 are built on the same POWER5 technology users will see equivalent performance between eServer i5 and eServer p5 servers with the same configuration. The AIX 5L applications that run on eServer p5 will run unchanged on the eServer i5. AIX 5L does not require any interactive or 5250 CPW to run.




AIX 5L can take advantage of many of the recent enhancements announced on the iSeries and i5. Capabilities such as shared processor support with automatic movement of processors, support for dynamic movement of I/O resources between the partitions and capacity on demand are all available.

This announcement allows customers to simplify their IT infrastructure. You are now able to pool your hardware resources and optimize their use across multiple operating systems. AIX 5L will run in a partition on the eServer i5. A single partition acts like an i5/OS, Linux or AIX server. AIX 5L V5.2 requires full processors and does not support micro-partitioning. It also requires direct I/O. With AIX

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A hardware management console or HMC is required when implementing AIX on eServer i5. The HMC essentially replaces the requirement for a primary partition on the eServer i5. It is required whenever you are implementing logical partitions.

For more information on running AIX 5L on eServer i5 see the IBM web site www.ibm.com/iseries/aix 

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	AIX 5L V5.2	AIX 5L V5.3
Dynamic LPAR (processors, memory, and I/O)	Y	Y
Micro-Partitions (up to 10 partitions per processor)	N	Y
Uncapped Partitions (automatic movement of processor resources)	N	Y
Virtual Storage and Ethernet (through i5/OS)	N	Y
Direct I/O (managed by AIX 5L)	Y	Y