

# All Roads Lead to Power™



## Power Systems and the marriage of the IBM System i and the IBM System p

By Dave Mountain, VP Sales

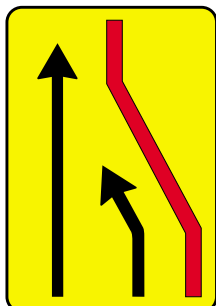
**A**nd the two became one... It just made sense for IBM and it may make sense for you.

- Same manufacturer
- Same frame
- Same components
- Same people
- More options
- One simplified message: (“All Roads Lead to Power”™)

### Why not just build it on the same production line?

**It brings down the cost** in an ever-commoditizing marketplace.

**It gives you choice** – you don’t have to decide the machine’s gender until the last stage in the process and even then it can be multi-gender (i5/OS, AIX, Linux ...and more to come).



MERGE

**It allows you** to bring the best attributes from many platforms to one platform so that they all come up in performance and capabilities.

**It can** (with a little cross training which brings people’s utilization and career paths up) give you flexibility in your operations.

**It can lower your costs** on hardware and, depending on your environment, you can lower your software licensing costs by thousands if not tens of thousands of dollars.

**It can lower your storage costs** by increasing your utilization and your use of reasonable hierarchical storage management disciplines.

If we are now all “Power”, what specifically do “i” and “p” users get in new releases?

### Let’s start with AIX:

IBM has not left AIX customers behind nor will they. The Unix (AIX) market is large and it’s important—hence the continued investment in Unix (AIX) capabilities.



**The message is:** “Of course we’re investing in AIX. By the way, it runs on Power and so do other applications and other operating systems. What else can we run on Power for you to simplify your IT?”

### AIX 6.1 Now Available

- New AIX Enterprise Edition
- Standard Edition + Addition Management Tools
  - + Wpar Manager
  - + Tivoli Management Edition
  - +TADDM – Tivoli Application Dependence Discovery Manager
  - New Systems Director Console (Browser-based)
  - Replaced WebSM
- *Enhanced Security*
  - Role-based Security
  - Security Expert
  - Additional Function
- Encrypted File System



### And move on to “i for Business”:

The same goes for “i” users. Always a loyal base, IBM feels it is providing a physical growth path to “i” users. In addition they feel they are expanding the “i” horizon, to allow them use other applications and other operating systems that were considered “foreign” to them before.

**The message is:** “Of course we still love you, but the world is moving on. You can keep what you have, upgrade it on the operating system you know and love, and also incorporate technologies you may not have considered previously. By the way, regardless of what path you choose, it all runs on Power”.



### BladeCenter S and JS12

### IBM i 6.1 Now Available

- New support for **BladeCenter**
- New **SAN DS8000** performance optimization
- New **PowerHA** disk clustering
- New **Java Virtual Machine**, shared with AIX & Linux
- New **PowerVM** virtual storage for i partitions
- New **Systems Director Navigator**
- New **Encryption for Data Backups**
- and much more....



**So what are your choices for Power Systems?**

**Choice #1: Medium Enterprise Power Servers**

- ✓ Simpler to manage Power Systems, Blades and Windows servers with the new IBM Systems Director
- ✓ Easily add capacity with modular building blocks in the new 16-core Power 560 Express
- ✓ Faster deployment with pre-installation of IBM i on BladeCenter S
- ✓ Extended growth options for i clients on 4-core 520 and 8-core 550



**Power 550**

You can start anywhere in the Power Lineup and move up. You can run multiple applications on multiple operating systems and anything you are running now can be moved to Power.

**Choice #2: Large Enterprise Power Servers**

- ✓ More performance and efficiency and scalability with three new processor options for Power 570
- ✓ Improving resiliency with hot node add & repair for Power 570 & 595
- ✓ Integrating UNIX platform and enterprise service management with AIX Enterprise Edition
  - ✓ Providing a new foundation for enterprise platform management with IBM Systems Director
  - ✓ Investing in innovative energy efficiency control solutions with Active Energy Manager



**Power 595**

but you've got a huge growth path and scalability with these models.

**What ties all this together to give you the choice and flexibility?**

It's as simple as 1, 2, 3:

**Power 520**



**We use the term "Large" here and we mean it.** The bottom line message is: You can start anywhere in this Power Lineup and run a lot of applications and a lot of transactions – fast. You can run multiple applications on multiple operating systems, and anything you are running now can be moved to Power. Not only that

**1** PowerVM™ - Power virtualization from the company that invented VM

- Dynamic Logical Partitioning
- Micro partitioning
- Virtual I/O Server
- Scalable, Live Partition Mobility



- Lx86 – Linux on x86 binaries
- Workload Partitions
- Live Application Mobility
- Across operating systems
- Across software applications

**2** PowerVM Virtual I/O Server (VIOS) are first to support both UNIX and Linux on the same system

- Designed for live movement of mission-critical workloads
- Expanding IBM virtualization leadership with over 4 decades of experiences

**Power 570**



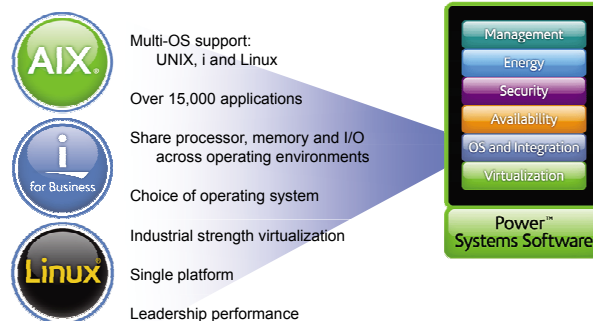
**Power 560**

**We use the term "Medium" but it is an understatement.** Power Systems scale from the small single blade in a BladeCenter to the higher end Models 550 & 560. No one likes to be called "small" so we didn't bother with it. All customers think of themselves as at least Medium. The bottom line message is the same:

\*\* Statement refers to the maximum size of a logical partition or virtual machine in terms of CPUs. VMware Infrastructure 3 Enterprise supports a maximum of 4 virtual CPUs per virtual machine (source: VMware Infrastructure 3 Online Library, section "Virtual Machine Maximums" at [http://pubs.vmware.com/vi301/config\\_max/config\\_max.1.2.html](http://pubs.vmware.com/vi301/config_max/config_max.1.2.html)). The IBM System p 570 supports up to 16 CPUs per Logical Partition.

- Not available on Sun Solaris on SPARC or T1/T2
- Not available on HP-UX on Itanium or PA-RISC
- First and only UNIX to deliver
  - Excellent for continuous availability when moving compute, transactional or data intensive mission-critical workloads
  - Significantly more scalable than non-UNIX solutions
- 4 times the cores (16 vs 4)\*\*
- 10 times memory/per core (48 vs 4)\*\*\*
- Reduce impact of planned outages
- Relocate workloads to enable growth
- Provision new technology with no disruption to service
- Save energy by moving workloads off under utilized servers

### Shared Infrastructure



### 3 Shared Infrastructure, multi-OS support (UNIX, i and Linux)

- Over 15,000 applications
- Share processor, memory and I/O across operating environments
- Choice of operating system
- Industrial strength virtualization
- Single platform
- Leadership performance

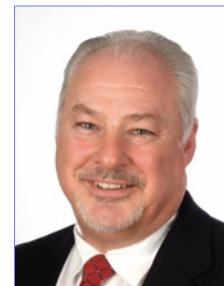
These three components make up the magic of Power Systems—the best of a number of platforms combined on one. IBM has been headed here for a long time. Now

they've arrived. But things don't stop here. Power Systems will only become more feature rich, as operating systems and infrastructure integrate further, and more features are added.

In the not so distant future (3-10 years realistically) reliable applications on demand (remember "on demand"?) will become a reality too. There are pricing, stability, and risk factors to overcome that other entities (software vendors and telecom and cable companies primarily) have to iron out to make applications on demand common-place but it will happen.

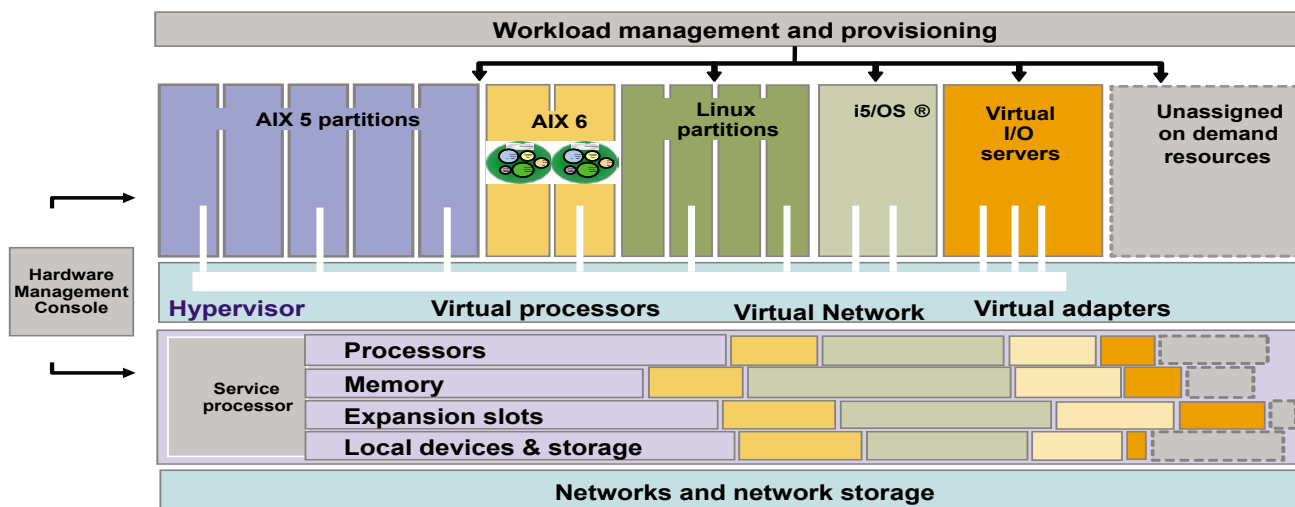
Getting to Power Systems, regardless of the road you've traveled so far, is a head start in moving forward with your IT. **M-R**

**If you're not familiar with VIOS and how it works you need to be. For an introduction to VIOS or and in depth explanation of how it can work for you, please e-mail Dave Mountain at: [dmountain@midrange.ca](mailto:dmountain@midrange.ca) for more information.**



Dave Mountain

## PowerVM Virtual I/O Server (VIOS)



\*\*\* Statement refers to the maximum amount of memory supported in a virtual machine. VMware supports a maximum of 4 CPUs and 16 GB of RAM per virtual machine (source: [http://pubs.vmware.com/vi301/config\\_max/config\\_max.1.2.html](http://pubs.vmware.com/vi301/config_max/config_max.1.2.html)). This translates to a total of 4 GB of RAM per CPU. IBM System p 570 supports up to the full memory and CPU configuration of the system for LPARs, which translates to 16 CPUs and 768GB of RAM. Thus, the p570 supports up to 48GB of RAM per core.