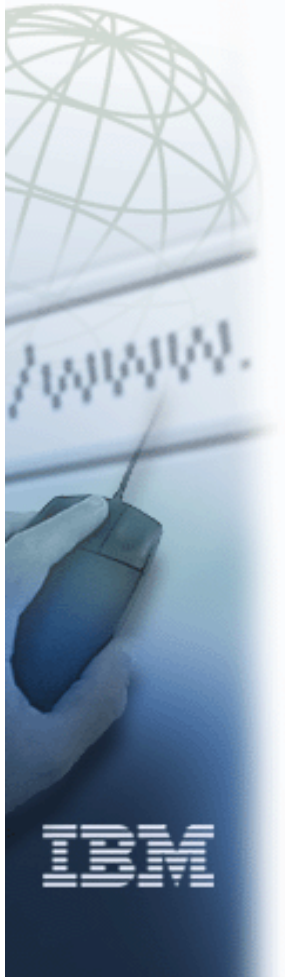


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**iSeries. mySeries.**

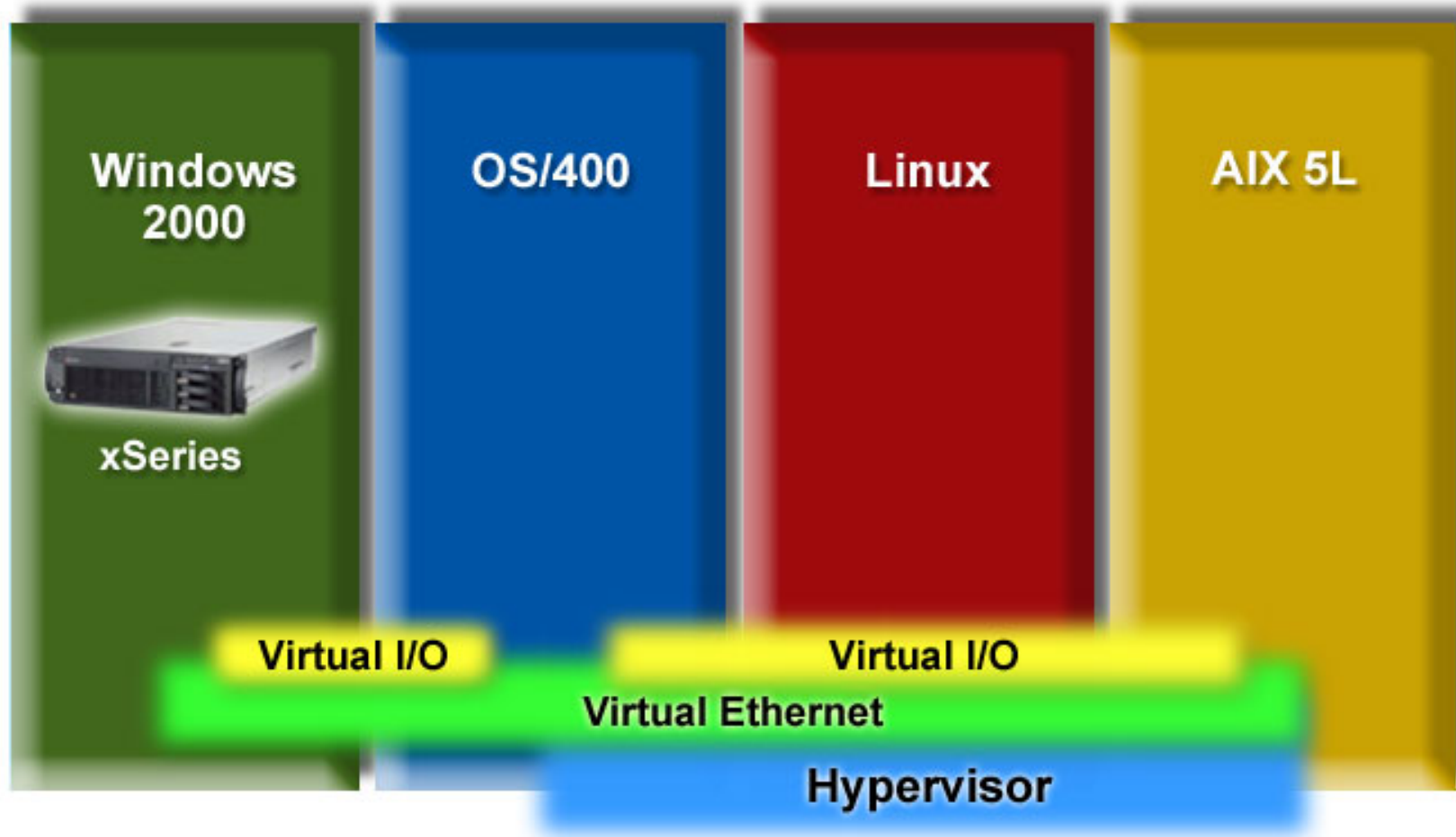
# Linux on iSeries

*Georg Gruber*  
*IBM Austria*



# iSeries IT Optimization

**iSeries. mySeries.**

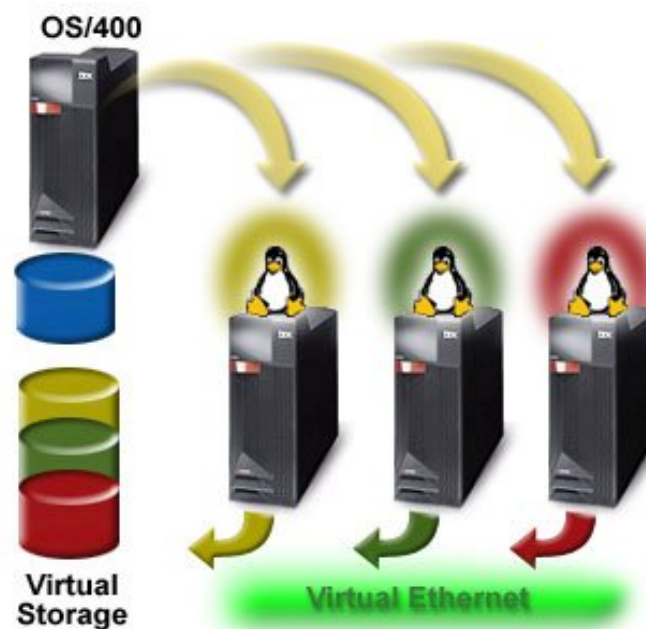


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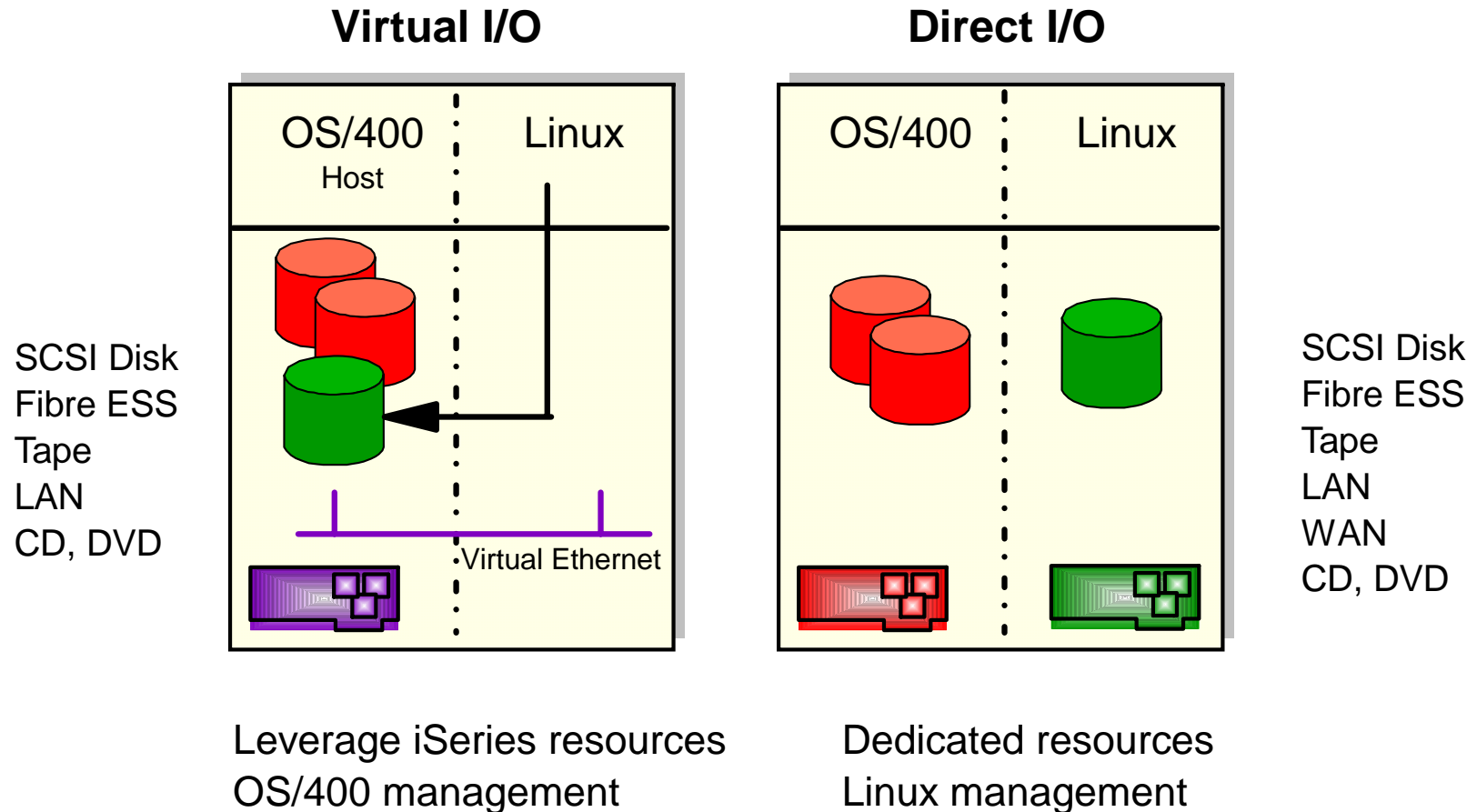
[ibm.com/redbooks](http://ibm.com/redbooks)

- **On Demand Virtualization**
  - Up to 10 Partitions per Processor
  - Dynamic resource movement
  - Virtual Storage
  - Virtual Ethernet
  - Capacity on Demand
- **Integration**
  - Linux access to OS/400 Data and Applications
  - Server and Storage Management



# Linux I/O Flexibility

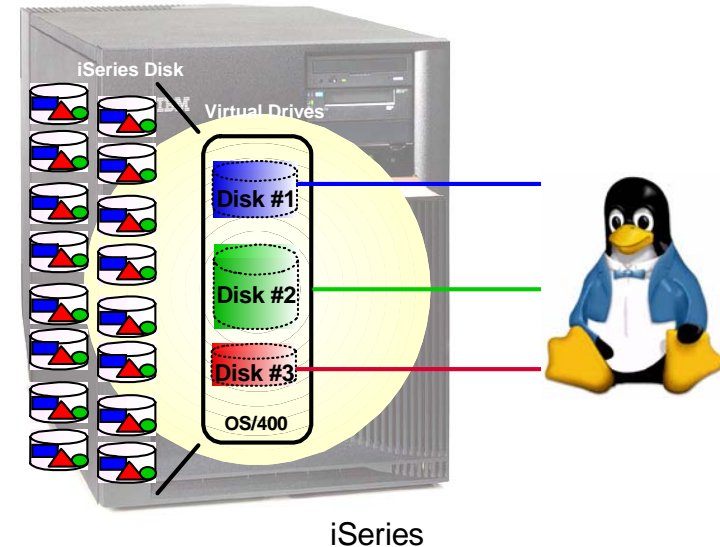
iSeries. mySeries.



# Storage Virtualization

iSeries. mySeries.

- Storage spaces created from OS/400
  - 1MB to 64GB each
  - Up to 20 per Linux partition
- Dynamically added to Linux
  - Requires V5R2 Primary and host
- Shared Storage
  - Storage spaces can be read from multiple partitions

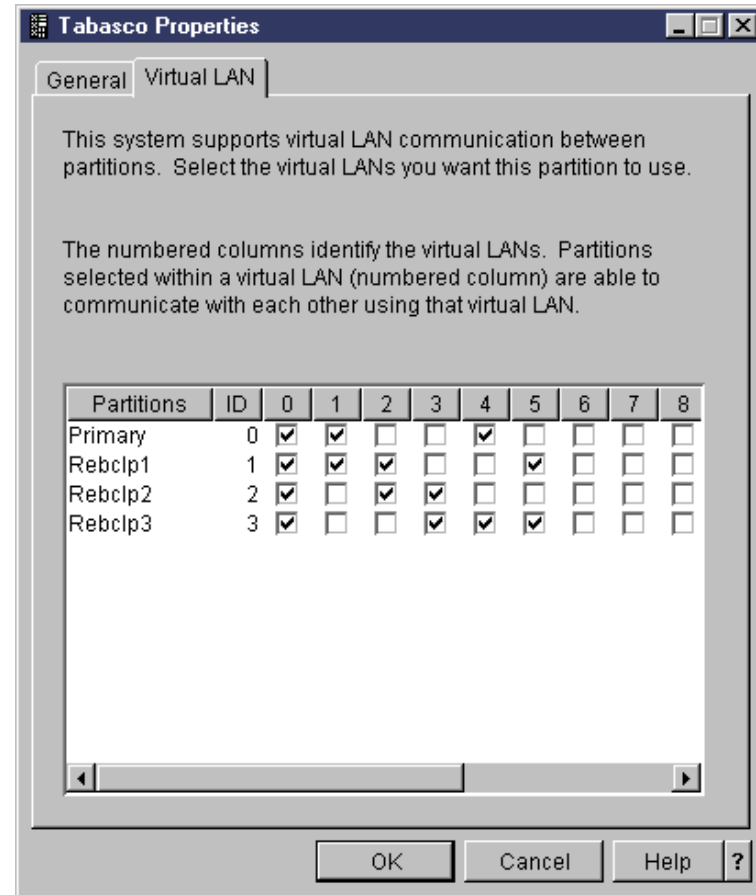


- Enables Linux to Leverage Advanced iSeries Storage Architecture
  - Data automatically spread and protected
  - More disk arms for better performance
  - Consolidated Backup of OS/400 and Linux
  - Flexible Storage Management
  - Easy setup of multiple Linux environments

# Virtual Ethernet

iSeries. mySeries.

- For fast, secure, reliable application communication between partitions
  - Up to 16 high speed TCP/IP connections between partitions
  - Emulates 1GB Ethernet Adapters
  - Utilizes iSeries memory bus
  - No additional hardware required
- Supports communications between
  - OS/400 to OS/400
  - Linux to OS/400
  - Linux to Linux
  - Linux to Windows
- Included with OS/400 V5R1 and V5R2



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# iSeries Virtualization Enhancements **iSeries. mySeries.**






	V5R2 Current Hardware	V5R3 New Hardware*
Maximum # of partitions	32	254
Partitions per processor	up to 10	up to 10
Processor Movement	Dynamic	Automatic
Partition Management	Primary	HMC
Operating Systems	OS/400 Linux	OS/400 Linux AIX

\*Not Announced



# Linux Distributions for iSeries

**iSeries. mySeries.**

Distributor	Distribution	Retail Pricing - Annual	
	<b>RHEL 3</b>	<ul style="list-style-type: none"> <li>- \$1992 with Standard Support (5 Days, 9-5 EST)</li> <li>- \$2988 with Premium Support (7 Days, 24 hours)</li> </ul> <p>Media, Maintenance, Upgrades, Support</p>	
		<ul style="list-style-type: none"> <li>- \$399 Evaluation version including 3 months Maintenance</li> <li>- \$1488 Installation Kit with 1 year maintenance</li> <li>- \$1169 1 Year Standard Support (5 Days, 9-18:00 CET)</li> <li>- \$2069 1 Year Premium Support (7 Days, 24 hours)</li> </ul> <p>1 server (up to 8 CPUs for Linux)</p>	
		<b>TLES 8</b>	<ul style="list-style-type: none"> <li>- China and Japan</li> </ul>
		<b>CLEE 8</b>	<ul style="list-style-type: none"> <li>- South America</li> </ul>

Prices are subject to change and any proposals should be verified with the distributor.



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Source: <http://www.redhat.com/software/rhel/purchase/> 11/25/03

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# IBM SWG Offerings for Linux on iSeries

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<b>DB2 UDB</b>	<ul style="list-style-type: none"><li>- DB2 UDB V8.1 DB2 UDB Workgroup Edition included with i810, i825, i870, i890 Enterprise Edition</li><li>- DB2 Connect 8.1</li><li>- DB2 Everyplace</li></ul>
<b>WebSphere</b>	<ul style="list-style-type: none"><li>- WebSphere Application Server 5.1 One processor License available with i825, i870, i890 Enterprise Edition</li><li>- WebSphere Commerce 5.5</li></ul>
<b>Tivoli</b>	<ul style="list-style-type: none"><li>- Tivoli Storage Manager 5.2 (client) Included with i825, i870, i890 Enterprise Edition</li><li>- Tivoli Monitoring (client)</li><li>- Tivoli Configuration Manager (client)</li><li>- IBM Directory Server</li><li>- Tivoli Monitoring for Apps (client)</li><li>- Tivoli Risk Manager (client)</li><li>- Tivoli Enterprise Console (client)</li><li>- Tivoli Management Framework (client)</li></ul>

- IBM Developer Kit for Linux (Java)
- Visual Age C++
- XL Fortran

Details <http://lic.austin.ibm.com/Whitepapers/linuxmatrix.html#iSeries>

# Linux Sizing via Workload Estimator

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## Workloads available

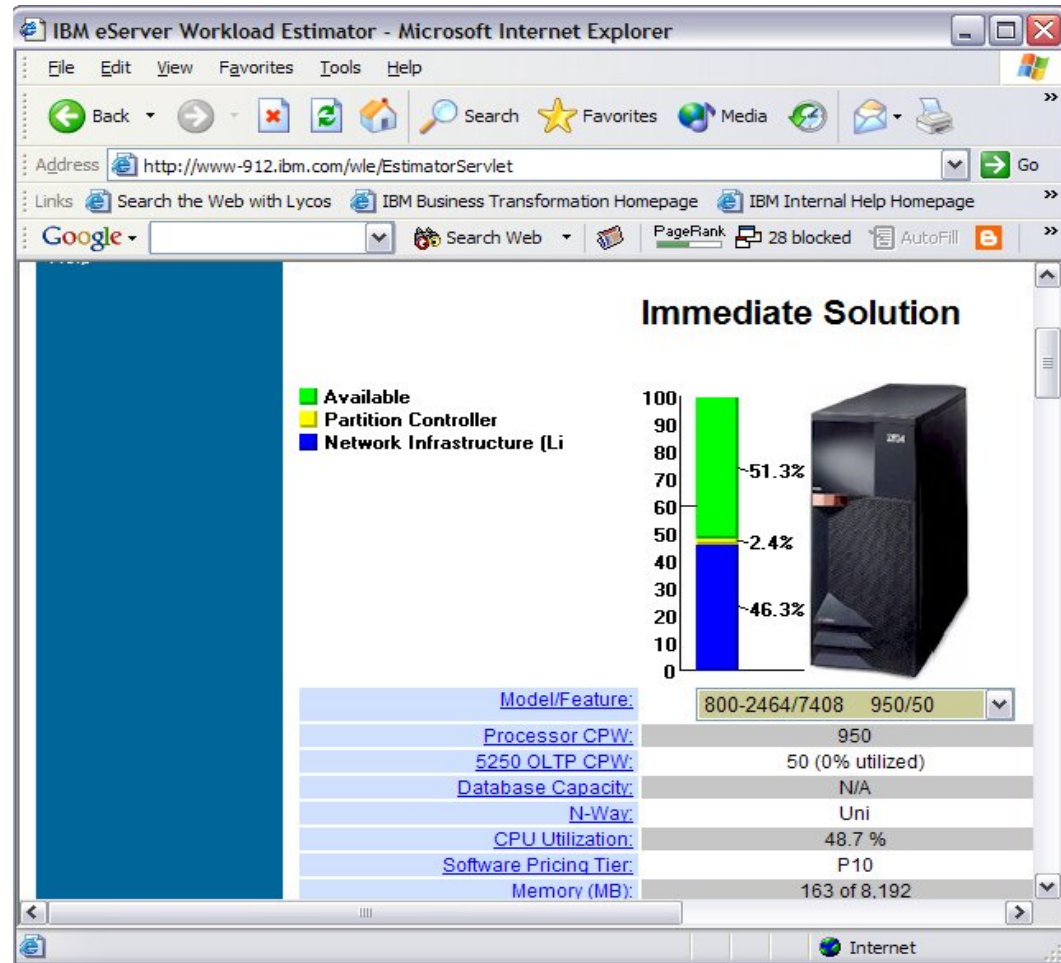
- ▶ File serving
- ▶ Web Serving
- ▶ Network Infrastructure
  - (Firewall, DNS, DHCP)
- ▶ DB2 UDB
- ▶ WebSphere

## Asks few simple workload based questions

## Provides estimate of partition size required

## Run it online or download tool

- ▶ <http://www-912.ibm.com/supporthome.nsf/document/16533356>



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