



IBM eServer™ iSeries™

The Power of Linux on iSeries

Craig E. Johnson
johnsonc@us.ibm.com

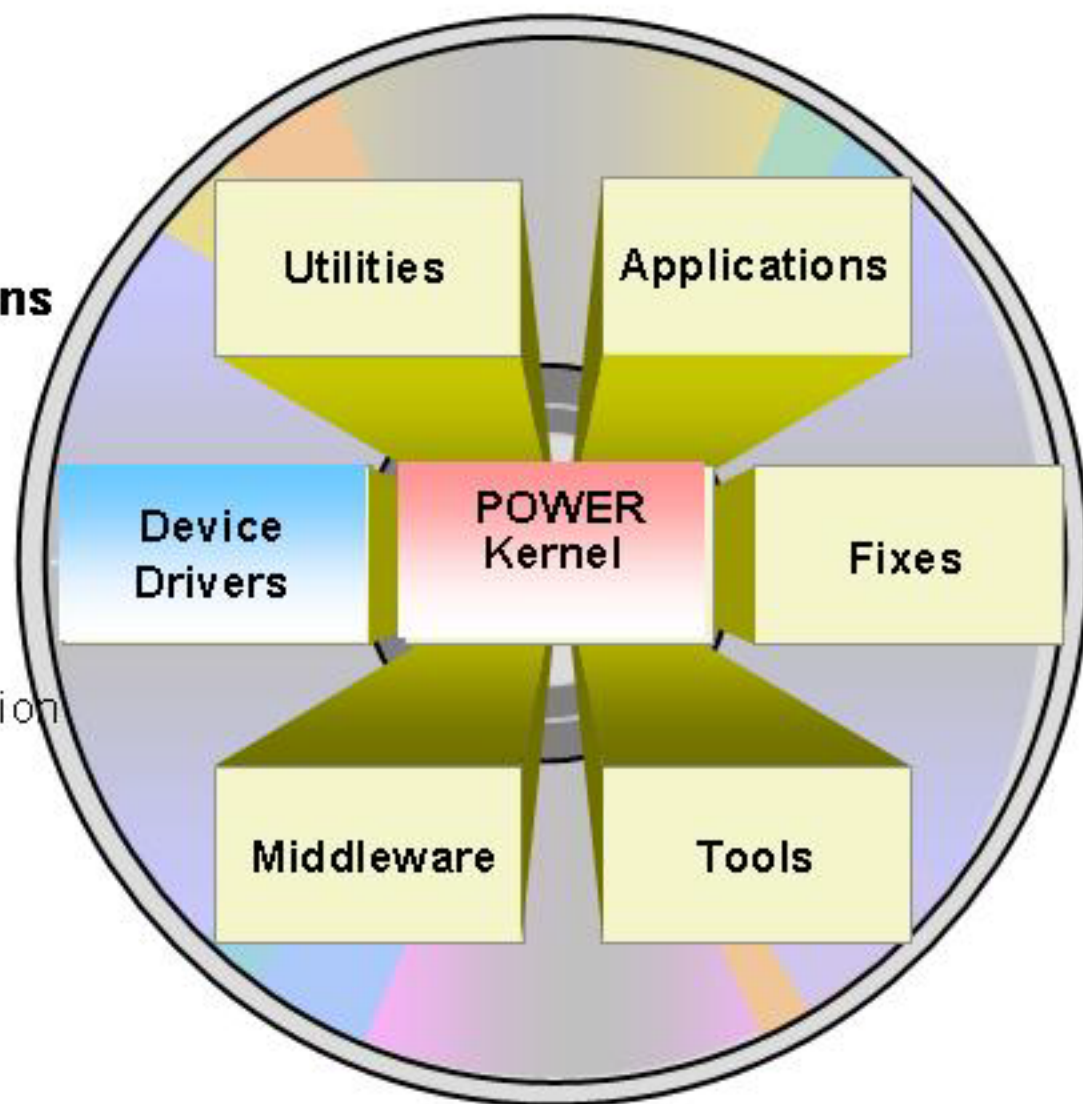
iSeries IT Optimization



- **Simplify Your IT Infrastructure**
- **Integrate to Innovate**
- **Deliver Without Disruption**

A Linux Distribution

- **UNIX-like operating system**
- **Developed / tested by the Open Source community**
- **Includes Popular Open Source Applications**
 - Apache, Samba, Firewall, MySQL, ...
- **Packaged and shipped by distributors**
 - Red Hat
 - UnitedLinux = open industry consortium providing a binary-compatible Linux distribution
 - SuSE, Turbolinux, Conectiva
 - Other regional distributors : Red Flag, Mandrake, etc...
- **Distributors also offer**
 - Maintenance
 - Support
 - Documentation / Education



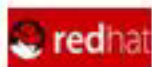
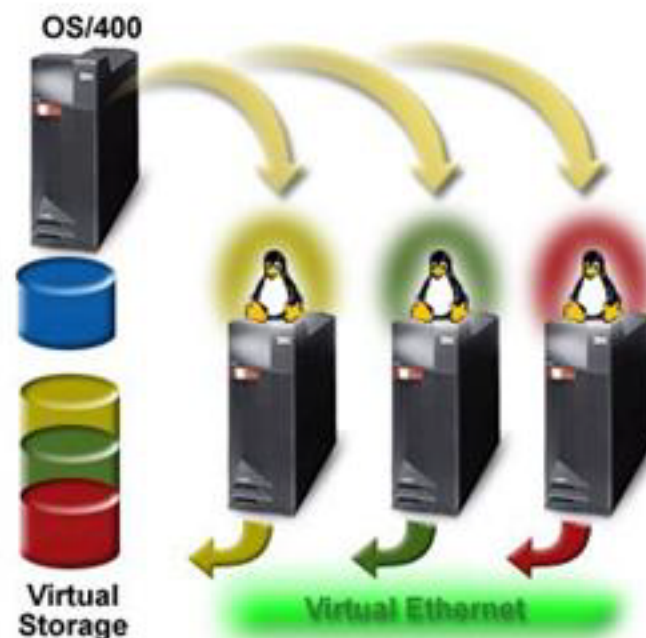
Linux on iSeries

On Demand Virtualization

- ▶ Up to 10 Partitions per Processor
- ▶ Dynamic resource movement
- ▶ Virtual Storage
- ▶ Virtual Ethernet
- ▶ Capacity on Demand

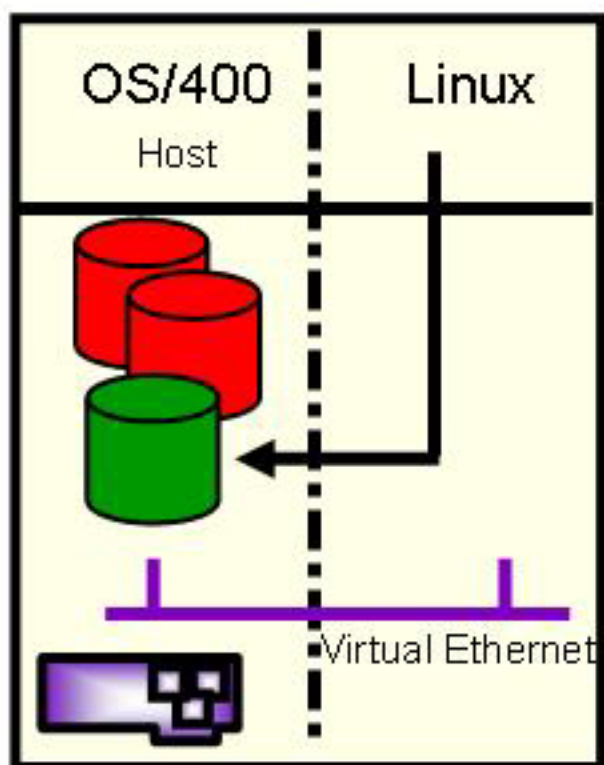
Integration

- ▶ Linux access to OS/400 Data and Applications
- ▶ Server and Storage Management



Linux I/O Flexibility

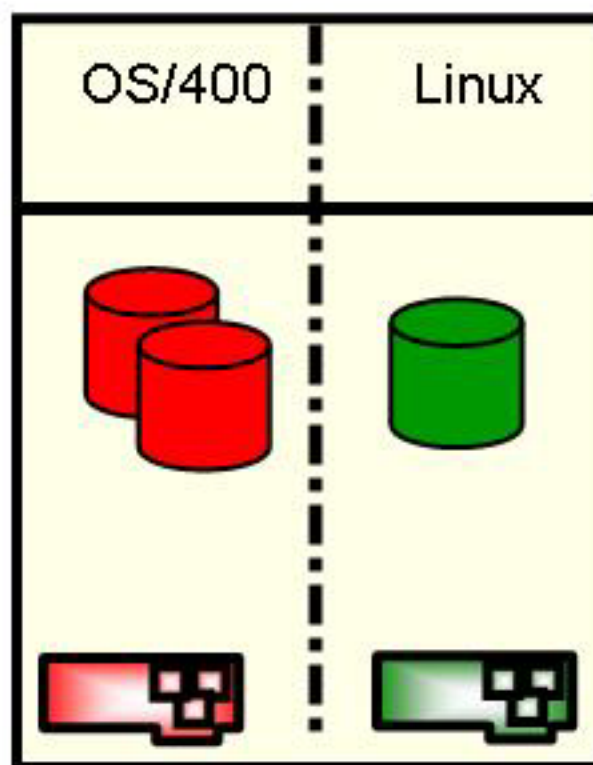
Virtual I/O



- ▶ SCSI Disk
- ▶ Fibre ESS
- ▶ Tape
- ▶ LAN
- ▶ CD, DVD

- Leverage iSeries resources
- OS/400 management

Direct I/O

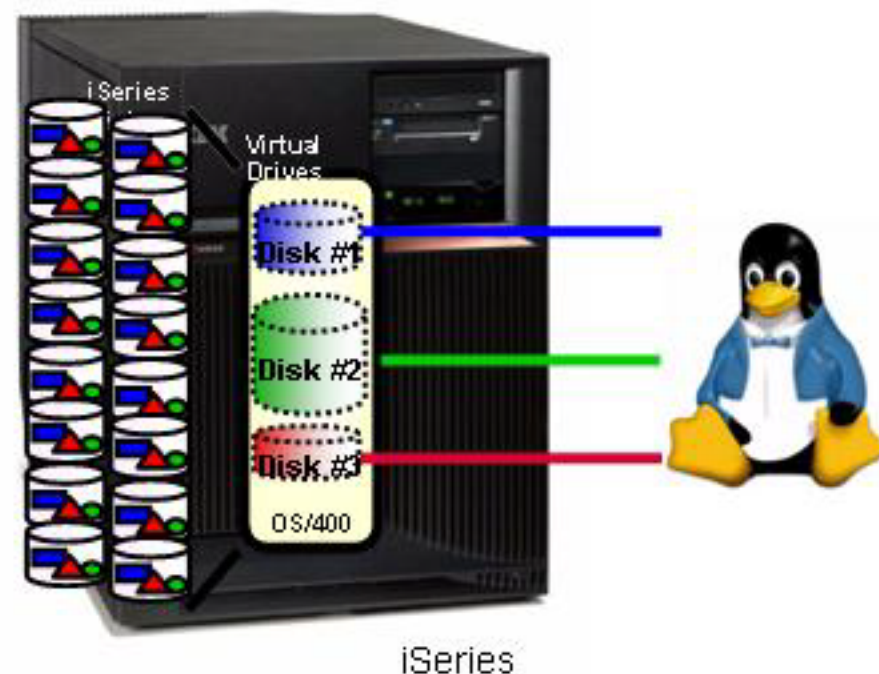


- ▶ SCSI Disk
- ▶ Fibre ESS
- ▶ Tape
- ▶ LAN
- ▶ WAN
- ▶ CD, DVD

- Dedicated resources
- Linux management

Storage Virtualization

- **Storage spaces created from OS/400**
 - ▶ 1 MB to 64 GB 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
 - ▶ Automatic balancing of storage across drives
 - ▶ Flexible Storage Management
 - ▶ Easy setup of multiple Linux environments

2004 iSeries Product Line

Support for new servers

- ▶ Shared processor, Dynamic movement
- ▶ Virtual Storage and Ethernet

Capacity Upgrade on Demand

- ▶ Permanent and Temporary
- ▶ i825, i870, i890

Linux Processor Activation

- ▶ Included in Enterprise Edition for i870 and i890
- ▶ Extra Processor Activation for Linux

Education Vouchers

- ▶ Included in Enterprise Edition for i825, i870, i890
- ▶ Valid for Linux on iSeries Implementation Class

Service Vouchers

- ▶ Included in Enterprise Edition for i810, i825, i870, i890
- ▶ Valid for iSeries Linux Integration QuickStart

IBM Software

- ▶ DB2 UDB Workgroup Edition, WebSphere Application Server, Tivoli Storage Manager included with Enterprise Edition

iSeries 800



- 1 Processor
- Up to 9 Linux Partitions

iSeries 810



- 1-2 Processors
- Up to 19 Linux Partitions

iSeries 825



- 3-6 Processors
- Up to 31 Linux Partitions

iSeries 870



- 5-16 Processors
- Up to 31 Linux Partitions

iSeries 890



- 16-32 Processors
- Up to 31 Linux Partitions

iSeries 810 Enterprise Edition Service Vouchers

• **Customers can select from**

- ▶ *Linux (With SAMBA and WebServing)*
- ▶ Integrated xSeries solutions (Windows Integration)
- ▶ Domino for iSeries (with Domino Access for Web or Outlook)
- ▶ WebSphere Express (with IBM Telephone Directory configured)

• **Fulfilled by qualified Business Partners**

- ▶ Qualification based on the following criteria:
 - Technical Certification
 - Class attendance
 - "Real world experience" or mentorship by IBM

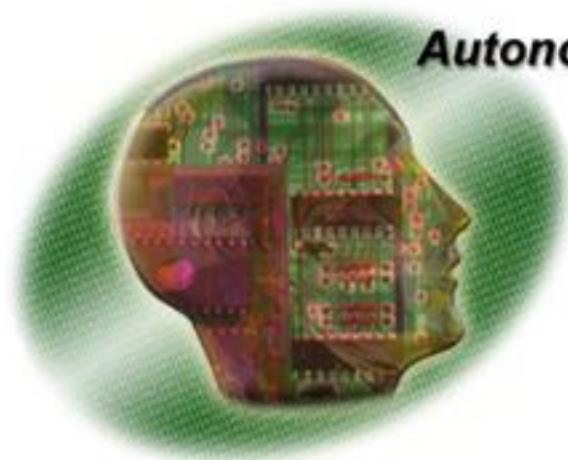
• **Announced March 1 for systems purchased after March 1, 2004**

• **Available in the Americas and in EMEA. Not applicable in Asia Pacific**



For more information and to register
http://www-1.ibm.com/servers/eserver/series/hardware/editions/vouchers/services_810.html

Linux on iSeries Investments



Autonomic



Integration



Virtualization



Open Standards

Open Source

1000+ Available Now

BLAST



The Apache Software Foundation

<http://www.apache.org/>



PostgreSQL

netfilter

firewalling, NAT and packet mangling for Linux 2.4

LTSP.org

Linux Terminal Server Project



<http://www.OpenLDAP.org>

Solution Providers

175+ Available Now

Infrastructure	e-Business	Industry

300+ More in the Pipeline

More <http://www-1.ibm.com/servers/eserver/series/linux/apps.html>

S2

■ Solution

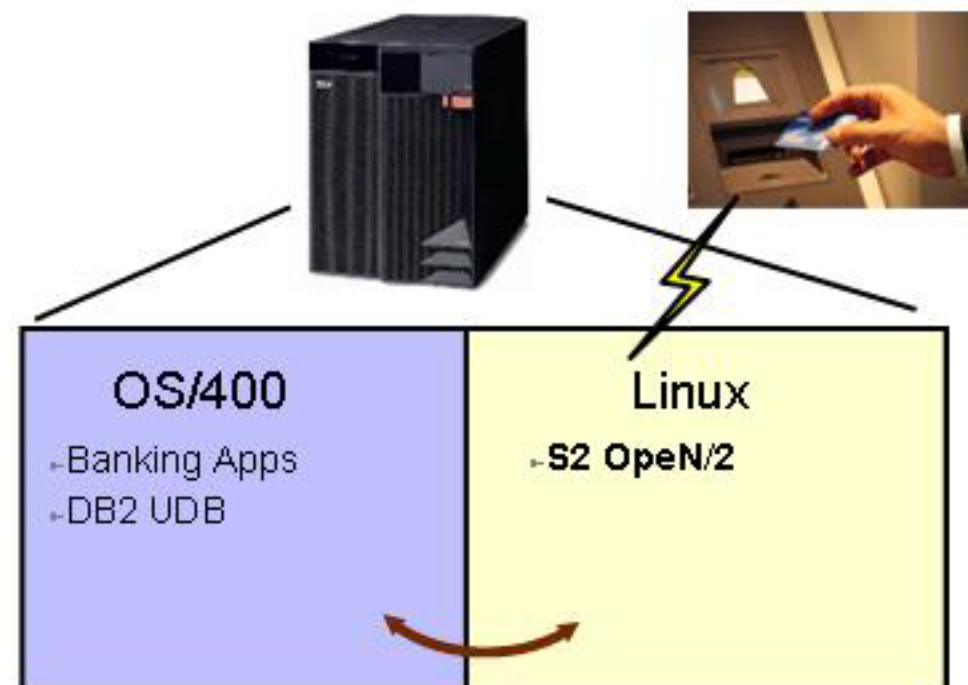
- ▶ Integrate payment and transaction processing for the banking, financial, retail and telecommunications sectors

■ S2

- ▶ OpenN/2
 - Electronic Funds Transfer, authorization and settlement from POS, ATM, and other touch point devices.

■ iSeries

- ▶ On Demand Virtualization
 - Combine multiple environments on one server
 - Share resources between partitions
 - Leverage OS/400 I/O investments
- ▶ OS/400 DB2 Integration
 - Leverage iSeries high availability solutions



More information

<http://www.s2systems.com>

Bynari and RAE Internet

▪Solution

- ▶ Reduce costs with Linux based email server for Outlook and other clients

▪Bynari

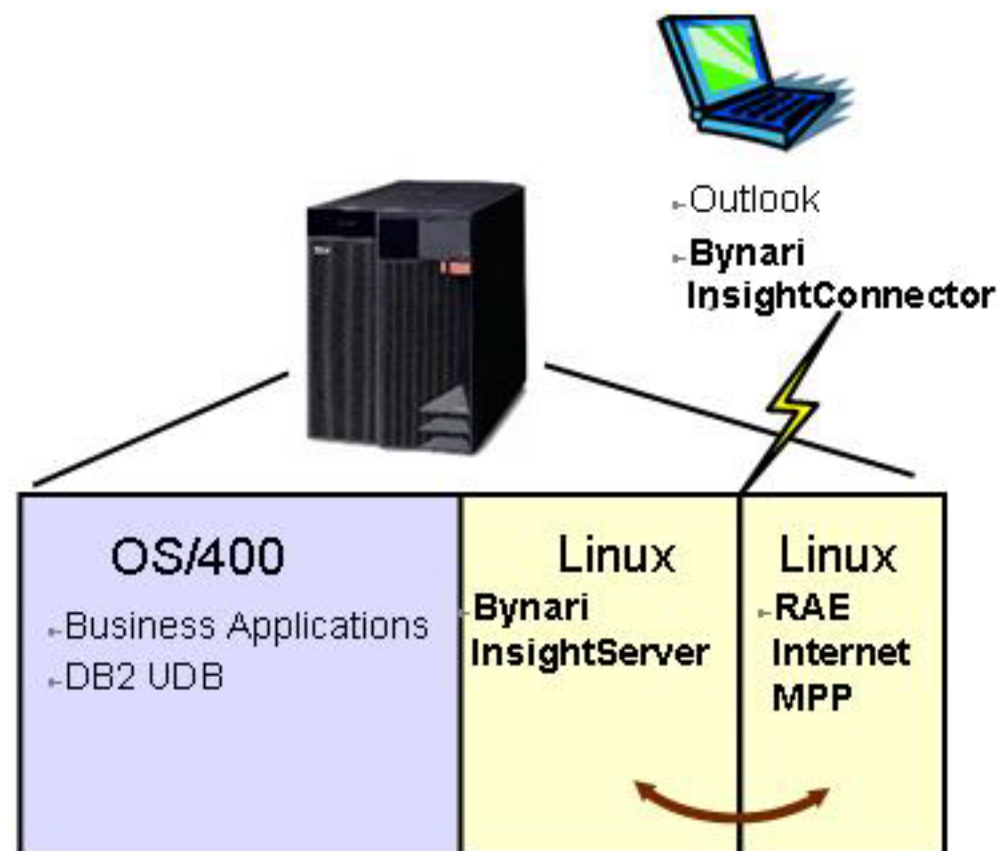
- ▶ InsightServer
 - Mail services product that provides an alternative to Microsoft Exchange
- ▶ Insight Connector
 - Is a Microsoft Outlook plug-in that allows full Outlook groupware capabilities without the need for an Exchange server

▪RAE Internet

- ▶ Messaging Processing Platform (MPP)
 - Anti-Spam and Anti-Virus

▪iSeries

- ▶ On Demand Virtualization
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More information

<http://www.bynari.net/index.php?id=504>

<http://www.raeinternet.com/mpp/>

Stonesoft



■ Solution

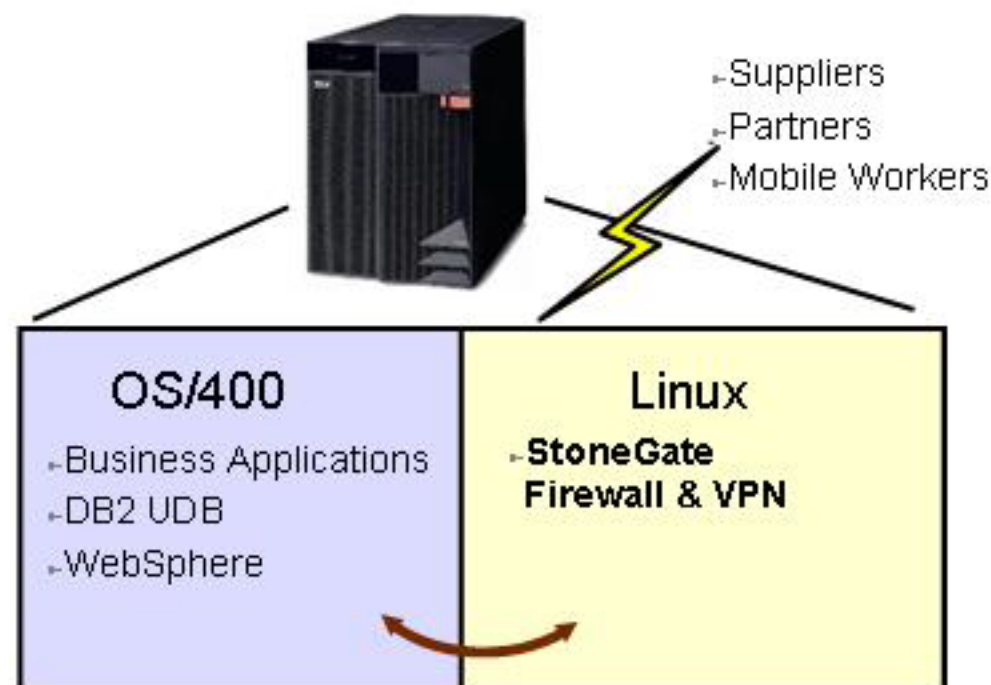
- ▶ Protect applications and data in an ebusiness world with an enterprise firewall

■ Stonesoft

- ▶ StoneGate Firewall & VPN for IBM iSeries
 - Announce 1/19/04
 - Available 2Q/04
 - available on x and zSeries today
 - FW and VPN engine is based on hardened and performance optimized Linux which is bundled in the product
 - Firewall Engine Implements access control, NAT, VPN, authentication, monitoring and logging
 - VPN Engine Implements VPN, authentication, monitoring and logging

■ iSeries

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More information

<http://www.stonesoft.com/>

Black Hills Corporation



Background

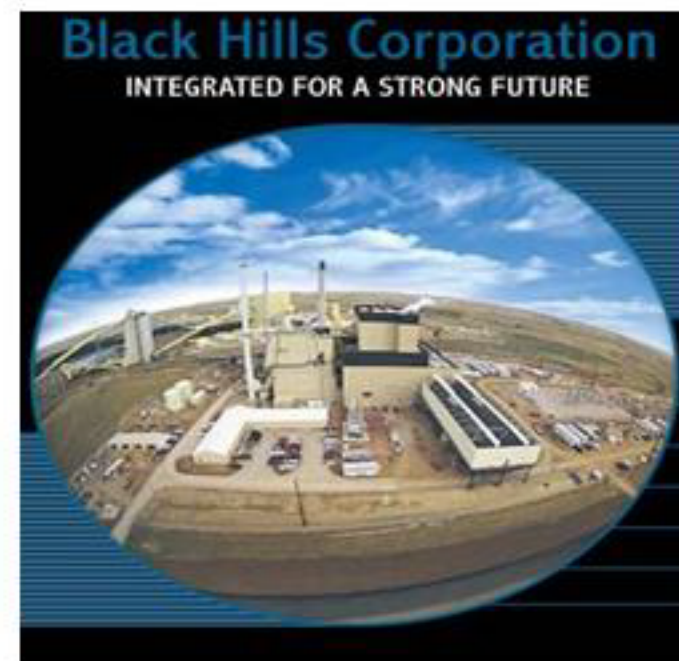
- ▶ Black Hills is a diversified energy company including power generation, fuel production, electric utility, and broadband services

Objectives

- ▶ Improve the physical security of their facilities
- ▶ Manage facilities without onsite people
- ▶ Provide an audit trail

Solution

- ▶ 2 i825s in HA Configuration
- ▶ 5 OS/400 Partitions
 - Customer care, billing, financials and Domino
- ▶ 1 Linux Partition
 - Motion: a software motion detector, keeps images that change
 - Apache: web site to see live camera feeds
- ▶ 7 Security Cameras



We chose the iSeries for our implementation of more applications on the iSeries due to its outstanding reliability and scalability. iSeries enables Black Hills to move resources between environments in minutes and consolidate backups, while providing a standard Linux environment.

Memory Experts

Background

- ▶ Memory Experts International, is a leading-edge multinational provider of Memory and Hard Drive Subsystems

Objectives

- ▶ Modernization of architecture, with the goal of cost reduction and improvements in security and service levels
- ▶ Consolidation of 13 Intel servers
- ▶ Bring email back in house
- ▶ Reduce administrative burden on their highly over worked IT administrator, and enable implementation of new functionality

Solution

- ▶ i825 - 4 processors
- ▶ 10 Linux Partitions
- ▶ 8 Integrated xSeries Servers
 - 4 - Terminal Server Clusters
 - 1 - Accpac CRM application

"We looked at rack mount, blade and VMWare Intel solutions, but found the iSeries to be a proven architecture that delivered both a technical leap over competition and a more compelling financial case in our cost of ownership calculation."

John McGuinness, VP Finance



0	PRIMARY	0.60 3GB+
1	FIREWALL (External)	0.10 128M
2	EXTRANET WWW, FTP, DNS (ext.)	0.20 256M
3	FIREWALL (Internal) FW, VPN, Proxy (WWW/FTP)	0.10 128M
4	UTILITIES DHCP, DNS (int.)	0.20 256M
5	BYNARI MAIL	0.20 256M
6	FILE/PRINT (Eng)	0.25 512M
7	FILE/PRINT (General)	0.25 512M
8	INTRANET	0.10 128M
9	DB2/ACCPAC	1.00 1GB
10	FUTURE	0.00 0M
11	BACKUP	0.20 256M

iSeries IT Optimization



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- **Deliver Without Disruption**

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