Infrastructure Simplification

Leverage AIX 5L to Beat HP and Sun

Session I13

Craig Johnson, Mike Martin

Doug Mack, Louise Hemond-Wilson

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Thanks for the Fast Start in <u>2004</u> !

- **Delivered incremental revenue**

- **Significant competitive wins**

- **Sales & Technical skills development**

- **Customer references**

- **Strong momentum for even more success in 2005!**

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MICO Bosch

- **Background**
  - Motor Industries Company Ltd. (MICO), a subsidiary of Robert Bosch AG, Germany, is India's largest Auto-Component company

- **Objectives**
  - Deliver better performance for OS/400 applications running on 820s and 270
  - Select server to support new SAP application

- **Solution**
  - Two eServer i5 570s
  - i5/OS supporting ERP application: PRMS
  - AIX 5L supporting new SAP and Oracle
  - 2nd server for disaster recovery

By supporting both application environments, the eServer i5 is able to deliver a solution implementation that HPQ and Sun could not match

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Flintshire County Council

- **Background**
  - Flintshire County Council supports schools, roads, taxes, Social Services, and leisure facilities

- **Objectives**
  - Increase capacity of 825 servers and consolidate 720
  - Update end of life hardware supporting AIX 5L
  - Consolidate 30 Novell file servers

- **Solution**
  - Two eServer i5 570s running 18 partitions
  - i5/OS: finance, administration, and Domino
  - AIX 5L: HR and payroll running Oracle
  - Linux: file and print services
  - 2nd server for high availability with Mimix and HACMP

"The Micro-Partitioning on the 570s will enable us to run the equivalent of 18 different servers on just two physical machines, and re-allocate capacity and resources between them in an incredibly flexible way." John Thomas, Operational Services Manager

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Fang Brothers Knitting

- **Background**
  - Global textile and apparel manufacturer with headquarters in Hong Kong
  - Manufacturer for Gap, Ann Taylor, Tommy Hilfiger, and more

- **Objectives**
  - Provide more capacity to support company expansion
  - Improve customer relationship management

- **Solution**
  - Two eServer i5 520s
    1. i5/OS with RPG-based Garment application to support Hong Kong users and migration from Exchange to Domino mail.
    2. One i5/OS partition with Garment application for China and AIX 5L partition to run CRM application from e-Jing -- built with WebSphere and Oracle

eServer i5 with its multiple operating system capabilities can support a broad spectrum of applications

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Greif

- **Background**
  - World leader in industrial packaging products & services for various industries.
  - 175 operating locations in more than 40 countries.

- **Objectives**
  - Consolidate regional applications and 100+ servers
  - Move to a single ERP global instance
  - Introduce high availability

- **Solution**
  - IBM eServer i5 570 8-way with 9 Logical Partitions (LPARs)
    - 2 i5/OS Processors ,6 AIX 5L Processors, + Linux
    - Migrated Baan+Oracle solution from HP/EMC to eServer i5 AIX partition
    - Consolidated regional applications into centralized i5/OS architecture (BPCS)
    - Migrated Domino environment from Windows to i5/OS
    - Moving some infrastructure applications to Linux
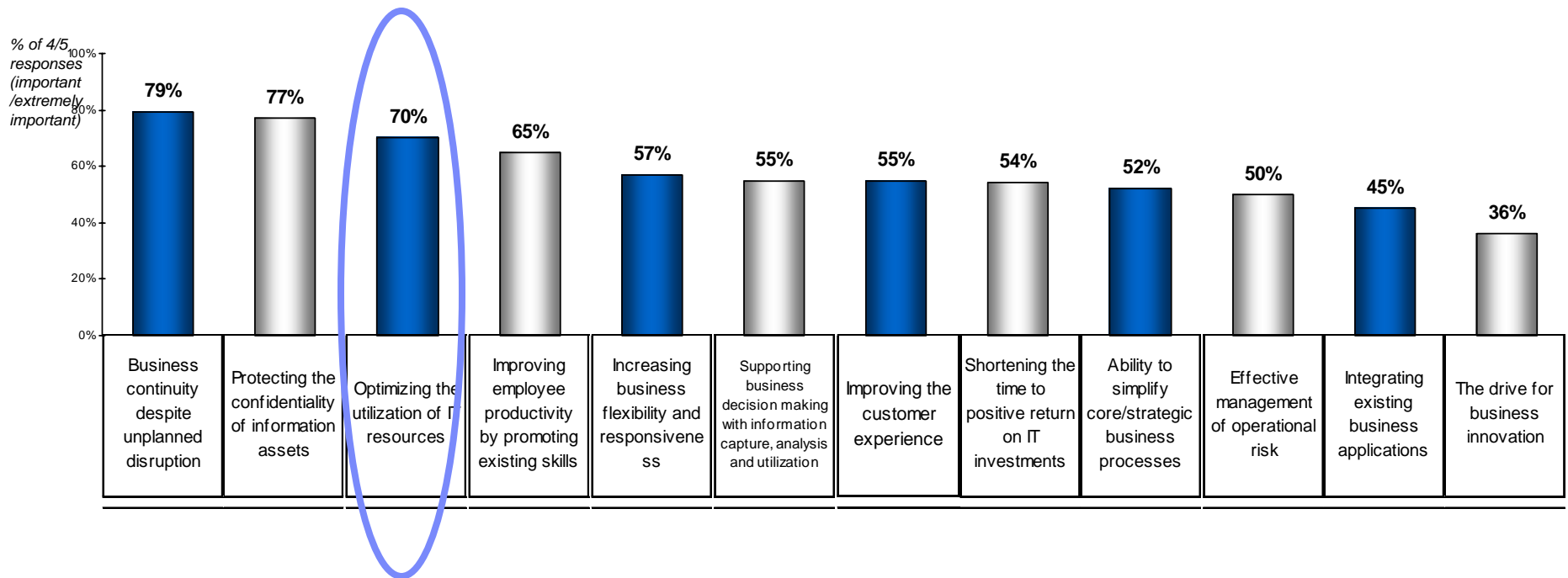   - Windows applications on Integrated xSeries Server

"The eServer i5 570 system rapidly improves the rate at which Greif can integrate operations into its IT infrastructure which is critical to support the company's growth objectives."
Ken Andre, Global Director, Business Information Services, Greif

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IT Priorities

- **70% of IT managers say Optimizing Utilization of IT resources is a top priority**

% of 4/5 responses (important /extremely important)

	Value
Business continuity despite unplanned disruption	79%
Protecting the confidentiality of information assets	77%
Optimizing the utilization of IT resources	70%
Improving employee productivity by promoting existing skills	65%
Increasing business flexibility and responsiveness	57%
Supporting business decision making with information capture, analysis and utilization	55%
Improving the customer experience	55%
Shortening the time to positive return on IT investments	54%
Ability to simplify core/strategic business processes	52%
Effective management of operational risk	50%
Integrating existing business applications	45%
The drive for business innovation	36%

Source: IBM it Trends 1H 04

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Infrastructure Simplification

- **45% of customers plan to simplify their environment in next two years**
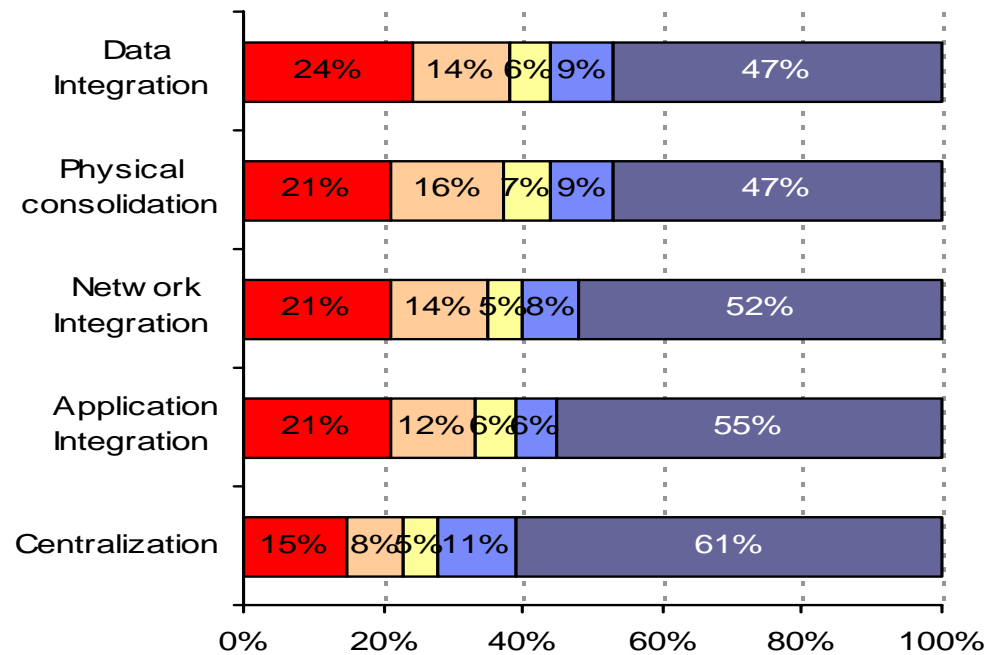
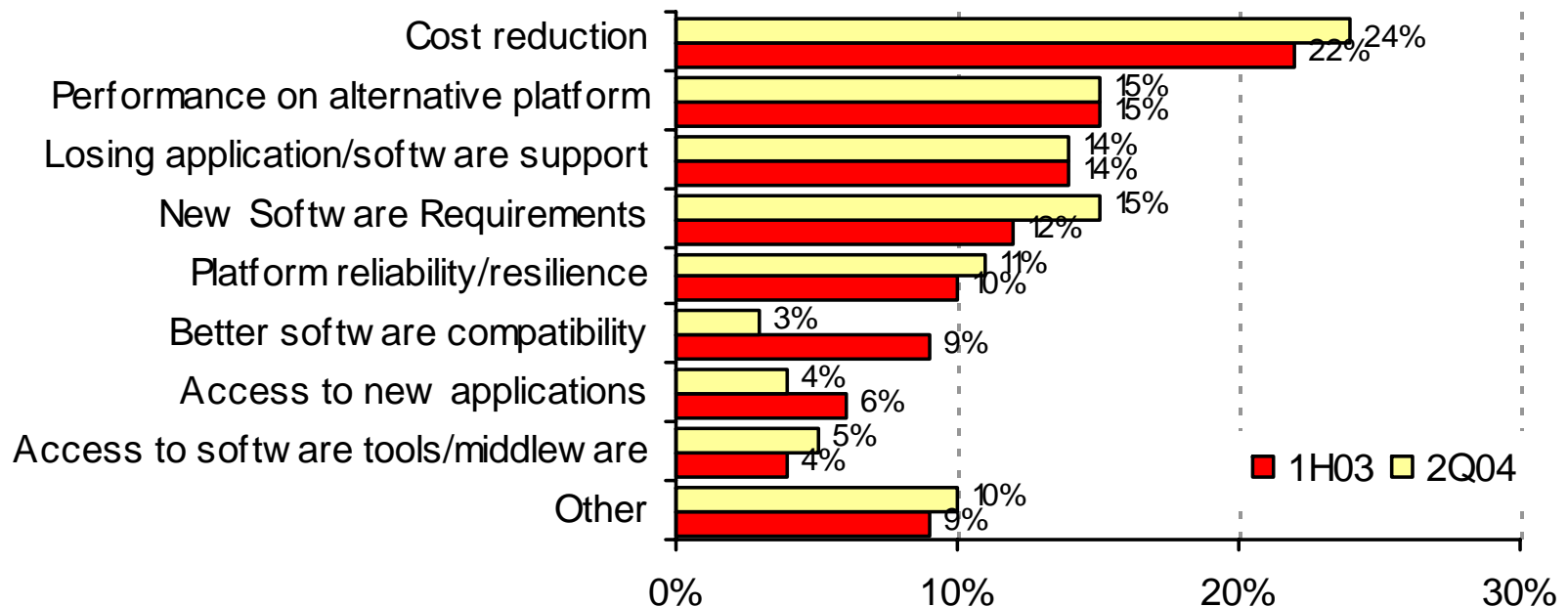| Category		
Data Integration	24% / 14% / 6% / 9% / 47%	combining data from different sources into a single repository for central management/control
Physical consolidation	21% / 16% / 7% / 9% / 47%	replacing several small servers with a fewer number of larger, more powerful servers
Network Integration	21% / 14% / 5% / 8% / 52%	virtualizing the network and network access to enable central management and control
Application Integration	21% / 12% / 6% / 6% / 55%	moving applications and/or data to a new platform to co-locate the application/data
Centralization	15% / 8% / 5% / 11% / 61%	reducing the number of physical locations

Response categories:
- Planned in 2004
- Planned within 18 months
- Planned within two years
- Being considered but no target date set
- No plans

Source: IBM it Trends 1H 04

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Workload Migration

- **35% of customers plan to migrate significant workload to a new platform**

Primary reason to migrate significant workloads
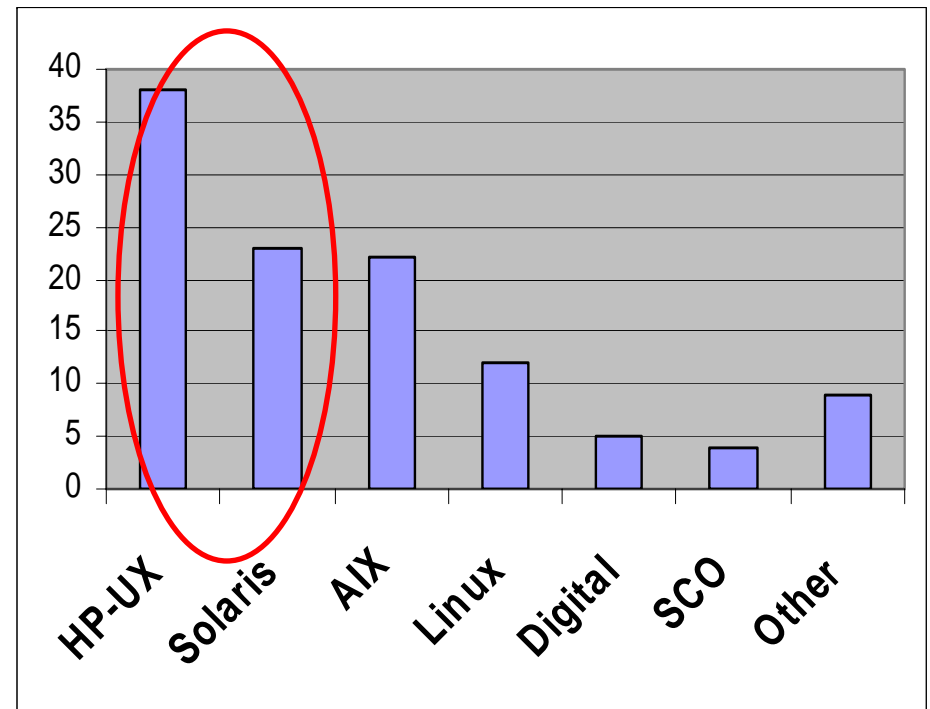

Source: IBM it Trends 1H 04

* IDC: Server Migration 2004: Under standing Platform and Workload Impacts 12/04

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iSeries Customers with UNIX servers

WW Install Base
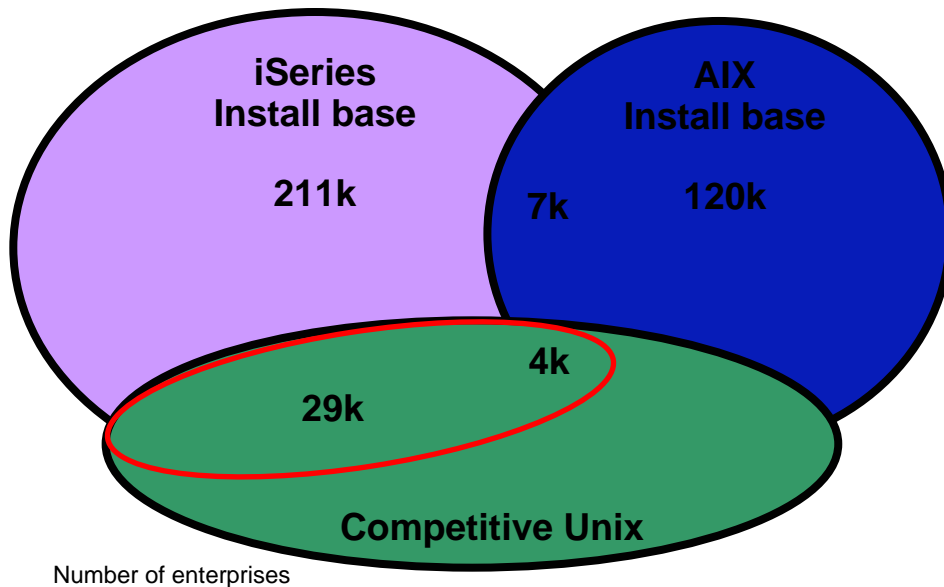
% iSeries Large Ent with Unix

iSeries Install base

211k

AIX Install base

7k **120k**

4k

29k

Competitive Unix

Number of enterprises

Chart values:
- HP-UX: 38
- Solaris: 23
- AIX: 22
- Linux: 12
- Digital: 5
- SCO: 4
- Other: 9

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Two Opportunities for AIX 5L on eServer i5

- **Common Characteristics**
  - Existing iSeries customer
    - Or new customer with i5/OS application requirements
  - Benefits from iSeries value proposition

- **The "Consolidator"**
  - Company Acquisition
  - UNIX servers coming off lease
  - Looking to reduce # of vendor relationships
  - Facing application pain points
 - Vendor forcing migration
  - Software licensing

- **The "Application Selector"**
  - Looking to deploy a new business application
  - Selected UNIX application
  - Now making decision where to deploy application

Value Proposition for AIX 5L on eServer i5: **Simplify Your Infrastructure**

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Simplify your Infrastructure

- **Reduce complexity and costs**
  - Pool your resources by managing multiple environments on a single server

- **Handle constant changes**
  - Automatically respond to changes in processor demand with logical partitioning

- **Save time and money**
  - Simplify management of IT resources with storage virtualization

- **Increase business agility**
  - Expand with broad application portfolio

- **Deliver business continuity**
  - Protect consolidation resources
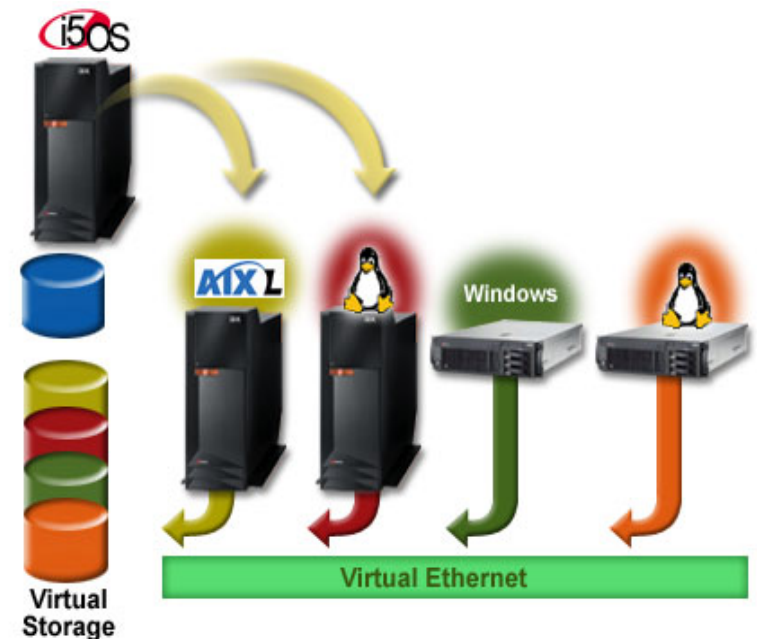
eServer i5 is a UNIX Server

- **Runs same AIX 5L as eServer p5**
  - AIX 5L 5.3 and 5.2

- **For the same Price**
  - AIX 5L is priced Per Active Processor Running AIX 5L

- **At the same Performance**
  - AIX 5L performance on eServer i5 is equivalent to eServer p5 with the same configuration

	License	SWMA (Annual)* 5771-SWM	
	One Time Charge	Standard	24x7 Upgrade
520	$430	$650	$166
550	$430	$650	$166
570	$1,225	$725	$183
595	$2,495	$1,785*	$ 732*

Benchmarks	520 Results	550 Results
SPECfp2000	2138 (1 CPU)	2221 (1 CPU)
SPECfp_rate2000	43.0 (2 CPUs)	84.8 (4 CPUs)
SPECint2000	1248 (1 CPU)	1248 (1 CPU)
SPECint_rate2000	32.9 (2 CPUs)	65.5 (4 CPUs)

* 3 year prices for SMWA via 5773-SM3 US prices and terms Plus a $50 Media charge

Source: http://www.spec.org/cpu2000/results/res2004q3/ on 9/10/04

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Differences between eServer i5 and eServer p5

- **Operating System Flexibility**
  - eServer i5 offers flexibility in supporting i5/OS, AIX 5L, and Linux capacity
  - eServer p5 servers support 1 i5/OS processor's worth of work on a p5-570 and two processors on p5-590 and p5-595

- **Processor Speed**
  - eServer p5 currently offers high end servers with: 1.5 GHz, 1.65 GHz, and 1.9 GHz
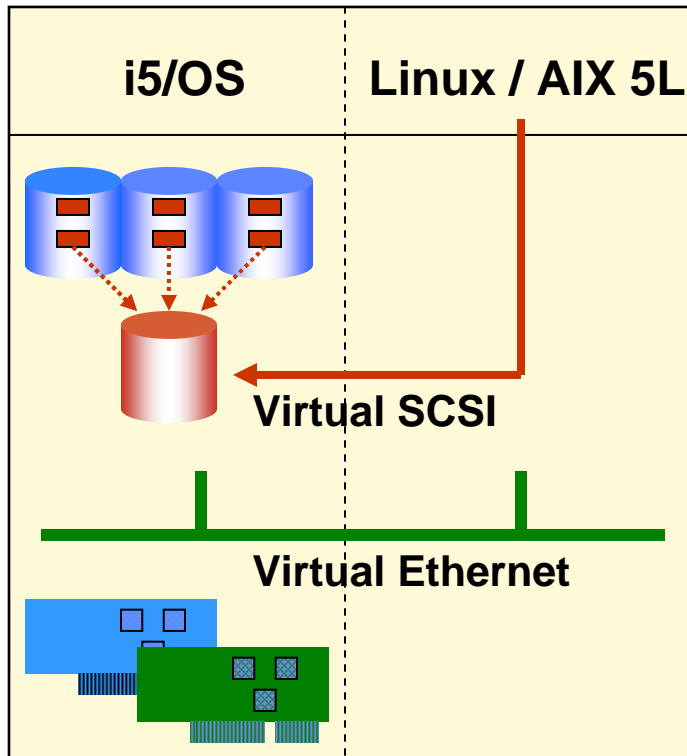
- **Virtual I/O Server**
  - Partition to serve I/O to AIX 5L and Linux partitions
  - Based on AIX 5L, but is only used to serve I/O
  - Currently available on eServer p5 servers

- **Machine Type**
  - eServer i5 is a 9406 or 9405
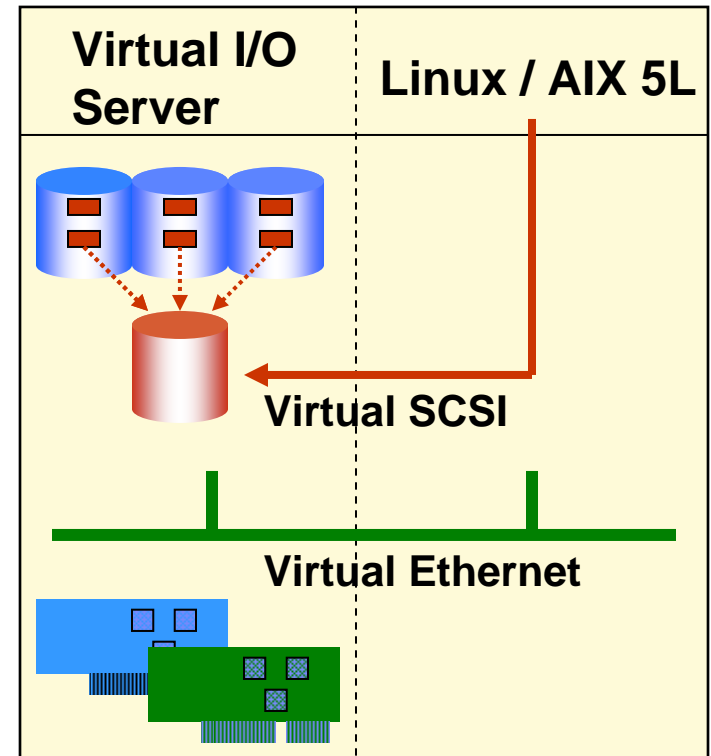 - eServer p5 is a 9111, 9113, 9117, or 9119

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Virtual I/O

eServer i5

i5/OS	Linux / AIX 5L

Virtual SCSI

Virtual Ethernet

eServer p5

Virtual I/O Server	Linux / AIX 5L

Virtual SCSI

Virtual Ethernet

- i5/OS Resources
- Disk, Ethernet, Tape, DVD/CD
- Any i5/OS partition
- Built into every eServer i5

- Resources supported by AIX 5L
- Disk, Ethernet
- Virtual I/O Server partitions
- Add on Partitioning Feature

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eServer i5 Editions

- **Service Voucher**
  - 550 Enterprise and Solution Edition
  - 570/595 Enterprise Edition

- **AIX 5L Service includes**:
  - 2 day IBM service engagement
  - One license of AIX 5L
  - One year SWMA
  - Setup and configuration of AIX 5L
  - Skills transfer on use of HMC

- **Service Voucher requires web registration for redemption**
  - http://www-1.ibm.com/servers/eserver/iseries/hardware/editions/registration_bridge.html

	Extra Processor for AIX 5L	Service Voucher	Education Voucher
520 Enterprise		Yes	
550 Standard	Yes		
550 Solution	Yes	Yes	
550 Enterprise	Yes	Yes	Yes
570 / 595 Enterprise	Yes	Yes	Yes

* Vouchers not applicable for AP

AIX 5L Solution Portfolio

- **AIX 5L 5.2 and 5.3 applications can run unchanged on eServer i5**
  - Experience with Oracle, Baan, SAP, I2, and PeopleSoft

- **Virtual and Direct I/O are implementation options that typically do not impact ISV applications**
  - 100s of engagements with Linux and AIX ISVs
  - There are numerous I/O subsystems used in the server market
    - SCSI, ESS, EMC, FastT, etc
  - Majority of applications are written to be indifferent to I/O

- **Virtual Loaner Program**
  - For ISVs that want to test their application on AIX 5L 5.3 on eServer i5
  - http://www-1.ibm.com/servers/enable/site/vlp/

- **SWG Strategy with AIX 5L is to support products on eServer p5 and eServer i5**
  - Numerous products are supported today
    - DB2 UDB, Informix Dynamic Server, Lotus Domino, Tivoli Clients; TEC, Monitor, CM, TSM, WebSphere Application Server, WebSphere MQ, WebSphere Portal …..

DB2. Information Management Software

Lotus. software

Tivoli. software

WebSphere. software

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Popular AIX 5L Solutions

Cross Industry

Dassault
i2
Oracle
Peoplesoft
SAP
SSA

Automotive

MSC
Rockwell

Electronics

Camstar

Financial Mkt

Algorithmics
Murex
Reuters
SunGard

Govt

Curam
ESRI

Healthcare

Cerner

Insurance

Callidus
FINEOS
IDIT
Koukia

Life Sciences

Accelrys
CCG
deCODE
Documentum
Spotfire

Retail Banking

AFS	Marketsoft
Chordiant	Pegasystems
Cisco	S1
DWL	S2 Systems
Fair Isaac	Searchspace
Fidelity (Alltel)	Swift
i-flex	Temenos
ISBAN	Wincor

Retail

Blue Martini
DemandTec
ProfitLogic
Retek
Unica

Telecom.

Amdocs
CSG
Leapstone
Micromuse
Openwave
Portal
SMARTS
Telcordia

http://www-1.ibm.com/servers/aix/

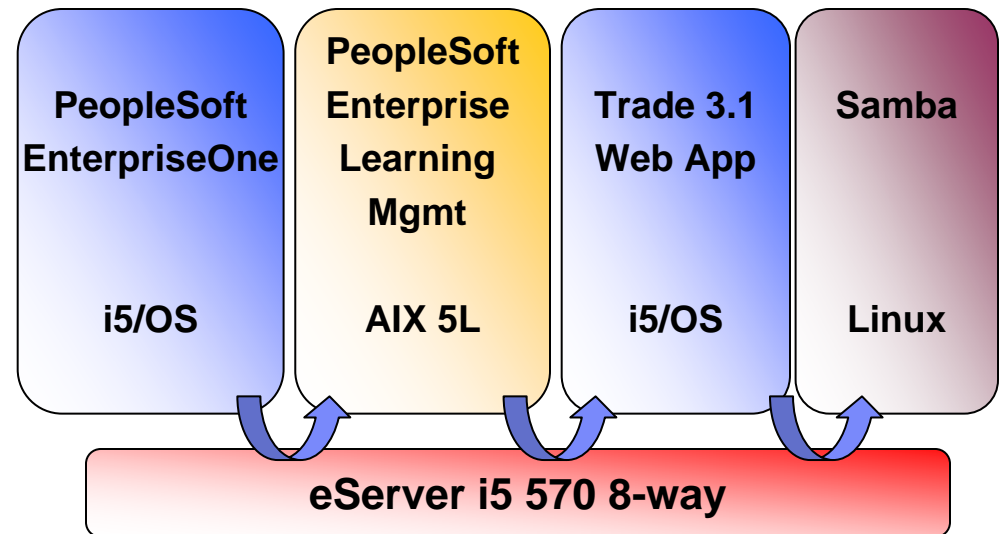**ON DEMAND BUSINESS™**

PeopleSoft

- **EnterpriseOne**
  - Runs on i5/OS
    - Formally J.D. Edwards OneWorld

- **Enterprise**
  - 16 application pillars run on AIX 5L
    - Human Capital Management
    - Customer Relationship Management
    - Learning Management

PeopleSoft EnterpriseOne	PeopleSoft Enterprise Learning Mgmt	Trade 3.1 Web App	Samba
i5/OS	AIX 5L	i5/OS	Linux

eServer i5 570 8-way

- **Virtualization Grand Slam Benchmark**
  - http://www-1.ibm.com/servers/eserver/iseries/hardware/virtualizationgrandslam/
  - Flash Demo is available on Server sales

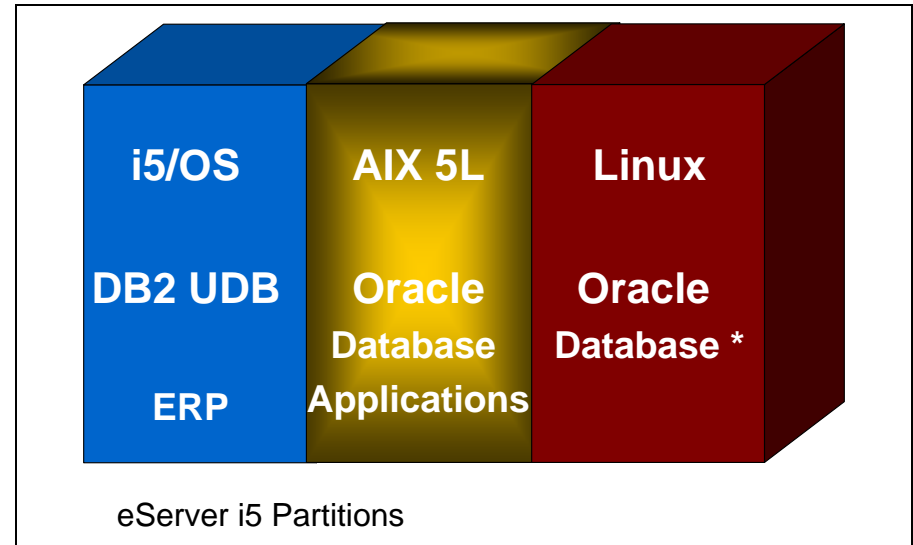PeopleSoft.

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Oracle

- **Oracle offers a suite of solutions for AIX 5L**
  - Database
  - Rich Application Portfolio

- **These products are supported in AIX 5L partitions on eServer i5**
  - There is a large ecosystem around Oracle and AIX 5L

- **eServer i5 customers are running Oracle with AIX 5L**
  - Greif, MICO Bosch, Flintshire County Council

- **Oracle offers a Developers Release of their database product for Linux on POWER**
  - No statements about applications

i5/OS	AIX 5L	Linux
DB2 UDB	Oracle Database Applications	Oracle Database *
ERP		

eServer i5 Partitions

ORACLE®

* Oracle Developers Release currently available

http://otn.oracle.com/support/metalink/index.html

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IBM POWER5 Servers are #1

eServer i5 is best in class 4-way server for SAP BW Benchmark

- eServer i5 595 = 8,346,500 rows/hour ***

IBM Shatters Computing Speed Record

- eServer p5 595 = 3.21 million TpmC*

eServer i5 is best in class in SPECjbb2000

- eServer i5 595 = 880,263 operations/sec ***

eServer p5 is Best in Class in Oracle Applications Standard Benchmark

- eServer p5 570 = 15,004 users***

eServer p5 delivers best SAP Two Tier SD results

- eServer p5 520 = 572 Users**

- eServer p5 570 = 5056 Users

- eServer p5 595 = 20,000 Users

eServer i5 is #1 in Notesbench R6Mail

- eServer i5 595 = 175,000 Users**

http://www-1.ibm.com/servers/eserver/pseries/news/pressreleases/2004/nov/annc_1118.html
** http://www.notesbench.org/bench.nsf?OpenDatabase on 11/29/04
*** http://www-1.ibm.com/servers/eserver/pseries/campaigns/benchmarks on 11/29/04

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Win with eServer i5 Virtualization

	eServer i5	HP PA-RISC***	Sun SPARC**
Partitioning			
Type	Logical	Logical/Physical	Physical
Micro Partitions	Yes	No	No
Large Partitions (4, 8, 16-way partitions)	Yes	Yes	Yes
Dynamic Movement of Resources	Yes	Yes	Yes
Automatic movement of processor resources	Yes	Yes#	No
Independent Resource Movement	Yes	Yes/No	No
Hardware Fault Isolation	Partial	Full	Full
Maximum Number of Partitions	254	128/16	18
Virtual I/O			
Storage	Yes	No	No
Ethernet	Yes	No	No
DVD / CD / Tape	Yes	No	No
Operating Systems	i5/OS, AIX 5L, Linux, Windows*	HP-UX	Solaris

• Windows support via IXS/IXA

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Resources

General

– Web Site: AIX 5L on eServer i5

http://www.ibm.com/iseries/aix

– Case Studies

http://www-1.ibm.com/servers/eserver/literature/references.htmlEducation

– AIX 5L Implementation on eServer i5

– Distance Learning Option being added

http://www-306.ibm.com/services/learning/ites.wss/us/en?pageType =course_description&courseCode=as570

Opportunity Discovery

– IT Optimization Assessment Spreadsheet

– CDAT Tool Discovers Windows, NetWare, AIX, Sun Solaris, and HP-UX servers

Implementation

– Redbook: AIX 5L on i5 Implementation

http://www.redbooks.ibm.com/redpieces/abstracts/sg246455.html?Open

– LPAR Validation Tool

http://www-1.ibm.com/servers/eserver/iseries/lpar/systemdesign.htm

Sizing

– Sizing eServer i5 for AIX 5L Workloads

http://www-1.ibm.com/servers/eserver/iseries/aix/pdf/sizing_for_aix5l_apps.pdf

– IBM Workload Estimator

http://www-912.ibm.com/wle/EstimatorServlet

– IBM eServer i5 Consolidation Guide

http://www-1.ibm.com/servers/eserver/iseries/aix/getting_started.html

Server or Partition Name	Server Model or Partition (Number of Processors)	% Utilization	Solution Type Pick One	Operating System Pick One	% CPU Utilizatio SMP
OS/400	IBM AS/400e 730-2067 262MHz-4MB (4)	60.0%	OLTP	i5 OS	18.9%
UNIX #1	HPQ HP 9000 V2600 (4)	30.0%	OLTP	AIX 5.3	7.9%
UNIX #2	SUN Enterprise 6500 464MHz-8MB (6)	40.0%	OLTP	AIX 5.3	15.8%
Server or partition name to consolidate	Select a server to consolidate		OLTP	AIX 5.2	
Server or partition name to consolidate	Select a server to consolidate		OLTP	i5 OS	

◄ ► ►│   Spreadsheet Use and Disclaimer \ Change History \ i5Consolidation /

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EMEA Sales	Arno van Driel	arno_van_driel@nl.ibm.com
AG Sales	Mike Martin	mpmartin@us.ibm.com

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AIX 5L Sales Strategy

- **Infrastructure Simplification - Value Proposition**

- **Why is AIX 5L important to iSeries**

- **Approaching the customer**

- **Objection handling**

- **2005 Sales Strategies**

- **2005 BP requirements to sell**
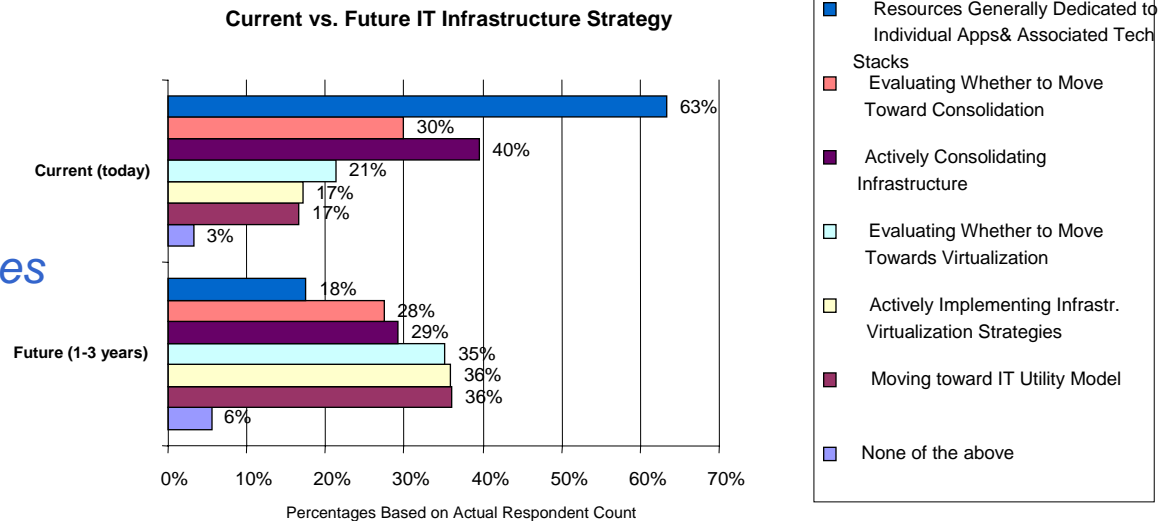
- **Resources**

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Infrastructure Simplification

Infrastructure Simplification helps to reduce complexity and costs, improve resource utilization, and helps simplify the management of the IT resources to increase business flexibility, productivity and help enable business growth.

It is about simplifying and optimizing end-to-end IT infrastructure

- *Servers*
- *Databases*
- *Applications*
- *Networks*
- *Systems management processes*
- *Business Continuity*

Current vs. Future IT Infrastructure Strategy

Current (today):
- 63%
- 30%
- 40%
- 21%
- 17%
- 17%
- 3%

Future (1-3 years):
- 18%
- 28%
- 29%
- 35%
- 36%
- 36%
- 6%

Percentages Based on Actual Respondent Count

Legend:
- Resources Generally Dedicated to Individual Apps & Associated Tech Stacks
- Evaluating Whether to Move Toward Consolidation
- Actively Consolidating Infrastructure
- Evaluating Whether to Move Towards Virtualization
- Actively Implementing Infrastr. Virtualization Strategies
- Moving toward IT Utility Model
- None of the above

The goals of Infrastructure Simplification

- Reduction of costs and complexity
- Delivering a rational, stable IT foundation that enables growth

Summit Strategies 10/04

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Why is AIX 5L important to iSeries

- **Capture customer Wallet Share**
  - ❑ OS400 CPW Capacity upgrades are not driving enough eServer i5 volume
  - ❑ iSeries customers are running UNIX solutions
  - ❑ Need to introduce additional workloads/solutions to drive POWER5 cycles

- **Significant Opportunity**
  - ❑ UNIX is a mature OS with significant solution set
  - ❑ SUN continues to struggle in the industry

- **Differentiating value proposition**
  - ❑ Focus on Server Consolidation, eServer, & On Demand messages vs speeds and feeds of UNIX
  - ❑ Approach customer with "Infrastructure Simplification Solution"

at iSeries* sites			
	1H02	1H03	1H04
Windows	89%	90%	↑95%▲
UNIX	49%	52%	↑58%▲
Linux	24%	32%▲	↑38%▲
Mainframe	26%	25%	29%

Source: IBM it Trends 1H 04

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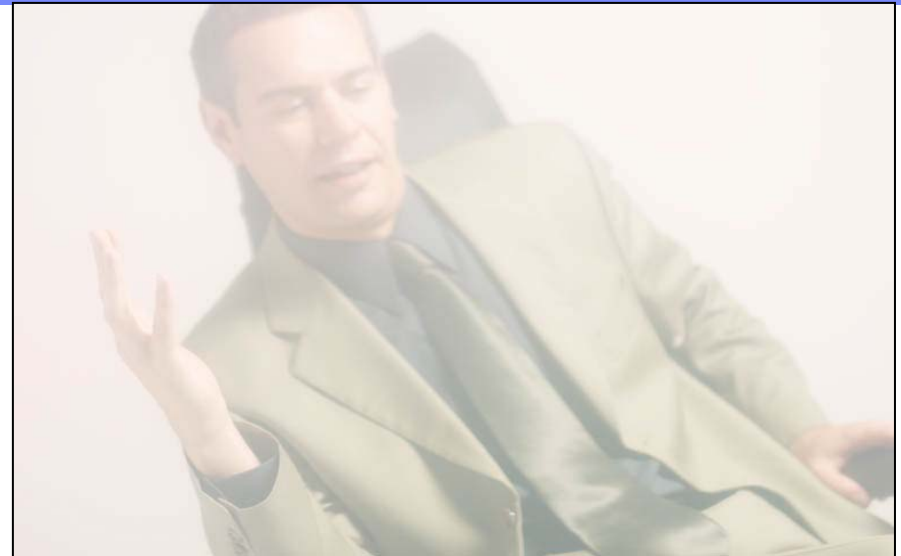
Sales Approach

- **AIX 5L on eServer i5 is an install base play**

- **Ideal customer has less than 5 UNIX servers to consolidate**

- **Understanding your customer IT/Server eco-system**
  - OS Strength
    - Lead with appropriate eServer Offering
  - Application flexibility
  - Leverage iSeries Strengths
    - Storage
    - Backups
    - Extend HA to UNIX solutions
      - Vision, Lakeview
  - iSeries Upgrade path
  - iSeries Migration Path

Customer	Messages
iSeries Guy	▪Extend OS400 benefits to other key applications (be the hero)
UNIX Guy	▪Power5 Sales Specialist ▪Virtualization engine
Executive	▪On Demand business benefits ▪Business Continuity ▪iSeries Delivers easy to manage cost structure ▪Investment protection

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Success Plan for 2005

1. **Assess your customers**

   - Open your eyes to the entire application ecosystem

   - Open your ears to all the influencers in the customer

   - Ask open ended questions

     - What UNIX applications are you using today?
     - What are your plans for deploying new Unix applications?
     - What are the applications that are critical to your business?
     - How do you backups?
     - What is your high availability strategy?

2. **eServer i5 AIX 5L Focus Opportunities**

   - Competitive take-out (HP & SUN).

   - Server consolidation (iSeries and pSeries workloads (secondary focus)

   - NET NEW apps that are only supported in AIX 5L that can supplement an i5/OS solution

3. **Get tactical**

   - Develop a targeted list of iSeries customers (potentially) leveraging UNIX today
     - Sell to CXX
     - Review eServer i5 AIX 5L capabilities and business benefits
   - Define complimentary UNIX solutions for your eServer i5 customer

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Sales Tools & Resources

AIX Migration Factory – Specializes in rehosting applications and databases from competitive platforms to IBM platforms. Migrates applications from Linux, HP Tru64, Sun Solaris, HP HP-UX, DG DG-UX, Sequent DYNIX/ptx, SGI IRIX, SCO, NCR, AT&T

Assessment

> Ho do I do this?
> What will it cost?
> How long will it take?
> What are the risks to my business?

CDAT (Customer Data Analysis Tool**)** – A network sniffer like tool that can gather customer's Intel and **Unix** server performance data:

❑4 day class

❑Gain access and training to CDAT Tool

❑Education & labs on how to analyze data and build iSeries SCON proposals

http://www-306.ibm.com/services/learning : course XTR80

Napkin Sale - Sell the concept of iSeries Infrastructure Simplification:

❑Server consolidation

❑Application Integration

❑Simplified Backup & Recovery

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ATTENTION IBM and Business Partner SALES SPECIALISTS!!!
Monthly Selling iSeries Solutions calls continue beginning Feb '05!

Join the top IBM Subject Matter Experts for <u>monthly sales updates</u> **on:**

AIX

AIX, Linux, Integrated xSeries

Craig Johnson, iSeries Linux Mktg Mgr

George Gaylord, iSeries Integrated xSeries Mktg Mgr

Third Wednesday monthly!

Linux

Integrated xSeries

Lotus

WebSphere

WebSphere / Lotus

Kevin Larsen, iSeries WebSphere Mktg Mgr

Jelan Heidelberg, eServer Lotus Business Dev. Mgr

Third Thursday monthly!

All calls feature up to the minute <u>Announcements</u> specific to solution area, REAL Customer Examples and live Q&A opportunity!

IBMers: w3-1.ibm.com/sales/systems/portal/_s.155/254?navID=f340s260&geoID=All&prodID=iSeries&docID=iseriessolutions
BPs: www-1.ibm.com/partnerworld/sales/systems/myportal/_s.155/250?navID=f340s260&geoID=All&prodID=iSeries&docID=iseriessolutions

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