



IBM Linux Strategy: Executive Overview



Session 9303

Share 99 - Summer 2002

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IBM Linux Strategy: Executive Overview

Abstract

- **Wondering where IBM is going with their Linux strategy? Funny you should ask. Come listen to John Sarsgard, IBM's Vice President of Worldwide Linux Sales, provide an overview of that very topic. John will cover:**
 - ▶ **Linux Overview, Value and Marketplace:** A brief overview of what Linux is, its value to our customers and trends in the marketplace
 - ▶ **IBM Strategy and Linux Opportunities:** Executive perspective of the strategic plays where we see Linux and the opportunities for its usage today including references
 - ▶ **Linux Misconceptions:** Setting right the facts about Linux and what it is capable of today including some real-life customer examples
 - ▶ **IBM Products and Services Overview:** A short overview of the IBM Linux portfolio (server platforms, middleware and support and services)





Linux Overview, Value and Marketplace

What is Linux?

- **UNIX-like operating system originally developed by Linus Torvalds**
- **Developed / tested by the Open Source community**
 - ▶ **Highly disciplined / structured process**
 - ▶ **High quality code**
 - ▶ **More secure code, more stable systems**
- **Packaged and shipped by distributors**
 - ▶ **Caldera**
 - ▶ **Red Hat**
 - ▶ **SuSE**
 - ▶ **Turbolinux**
 - ▶ **Other regional distributors**
(Conectiva, ESware, Mandrake, Red Flag, ...)



Linux Distributors Combine their Power

UnitedLinux = Open Industry Consortium



■ Concept

- ▶ Binary-compatible Linux distribution, branded "UnitedLinux"
- ▶ Initial members: Caldera, SuSE, Turbolinux, Conectiva
 - Open to others

■ Business model

- ▶ Distributors add software and services
- ▶ Distributors maintain brand names with "UnitedLinux Inside"
- ▶ UnitedLinux promotes the brand, issue memberships, certifications, manages requirements
- ▶ SuSE acts as UnitedLinux systems integrator

■ Implementation

- ▶ Supported by all IBM @server platforms, key middleware
- ▶ Worldwide language support, standards based (e.g. LSB 1.1, LI18NUX)



What is Open Source?

- **Open source**
 - ▶ Community develops, debugs, maintains
 - ▶ Changes must be made available
- **Generally high quality, high performance software**
 - ▶ Good ideas, good developers, disciplined processes
 - ▶ Constant public scrutiny
 - ▶ Superior security - on par with other UNIX, superior to Windows
- **Half dozen widely-accepted licenses**
 - ▶ Grant of intellectual property rights - not just right to use
 - ▶ Recipient has right to redistribute
 - ▶ None of the licenses provide indemnification
- **Business models**
 - ▶ Package with higher value software
 - ▶ Package with hardware
 - ▶ Services
 - ▶ Charge for periodic functional/support updates



Linux Momentum

- Linux will become the dominant server operating system in the United States by 2005.

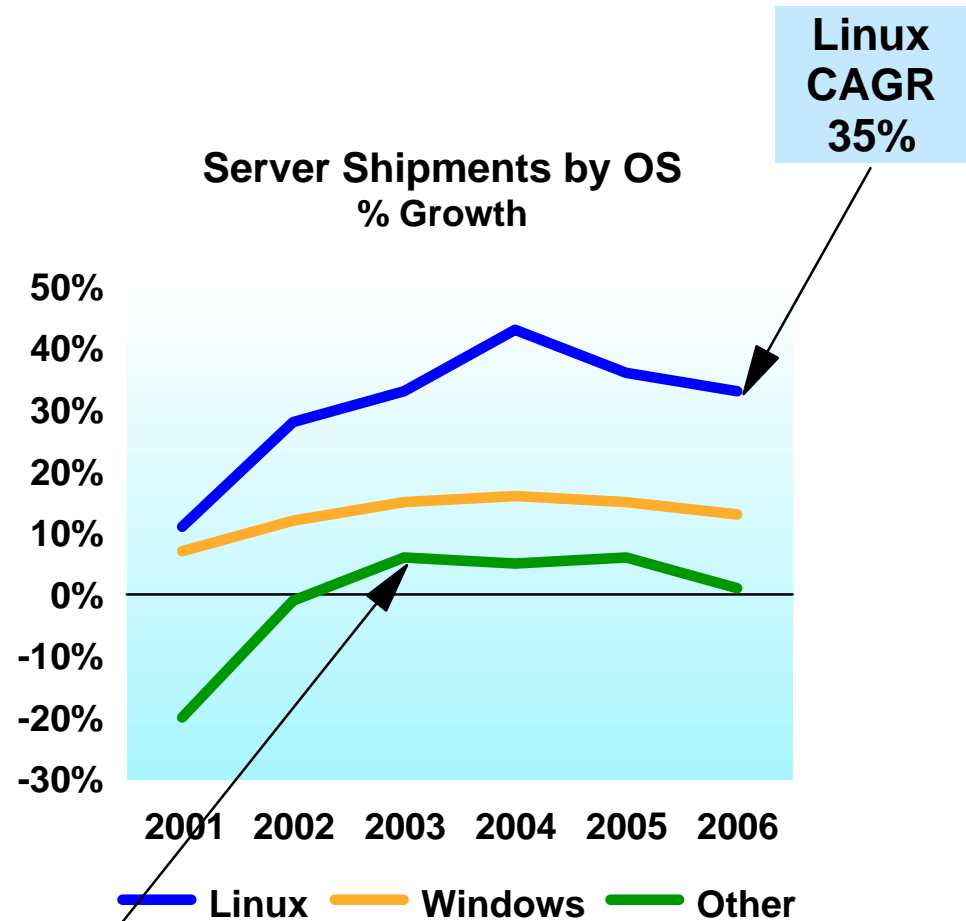
Stacey Quandt, Giga,
Business 2.0, June 17, 2002

- Linux will have a "breakout year" in 2002. Now it seems clear that Linux has become a viable alternative for enterprise use.

IDC, January 2002

- By 2006, Linux will be a key foundation for a strategic, cross development platform environment, accelerating UNIX server consolidation, while creating a powerful alternative to Windows .NET.

Gartner, May 2002



2003 Linux
surpasses
UNIX in server
shipments

IDC, Enterprise Server
Fundamentals, March 2002

IBM



Why Linux

- **Single operating system; desktop to mainframe**
 - ▶ **Less complexity**
 - ▶ **Lower total cost of ownership**
- **Attracting the best technical talent**
- **Ready for prime time**
- **Basis for innovation**

"Sun Microsystems has embraced the Linux operating system, rolling out a multipart program that will significantly broaden the offerings of Linux on low-end Sun servers."

Source: Sun Press Release, Feb. 2, 2002

"We'll be on Linux no later than the summer, so we'll be running our whole business on Linux."

Larry Ellison, Oracle Chairman and CEO

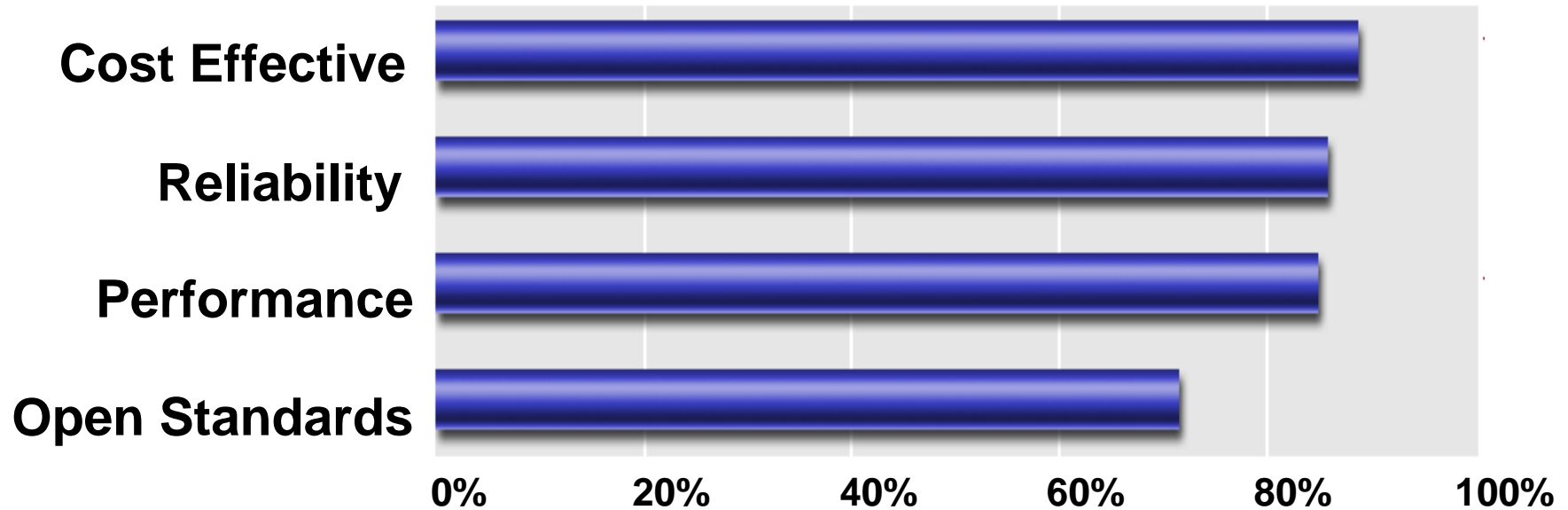
Source: IDG News Service, Jan. 31, 2002

IBM has been working with Linux for five years. IBM hardware, software and services are fully Linux enabled.

IBM



Linux Value



Source: IBM Market Research 2001

"It's going to be almost 30 times cheaper to run and maintain" (than Sun systems)

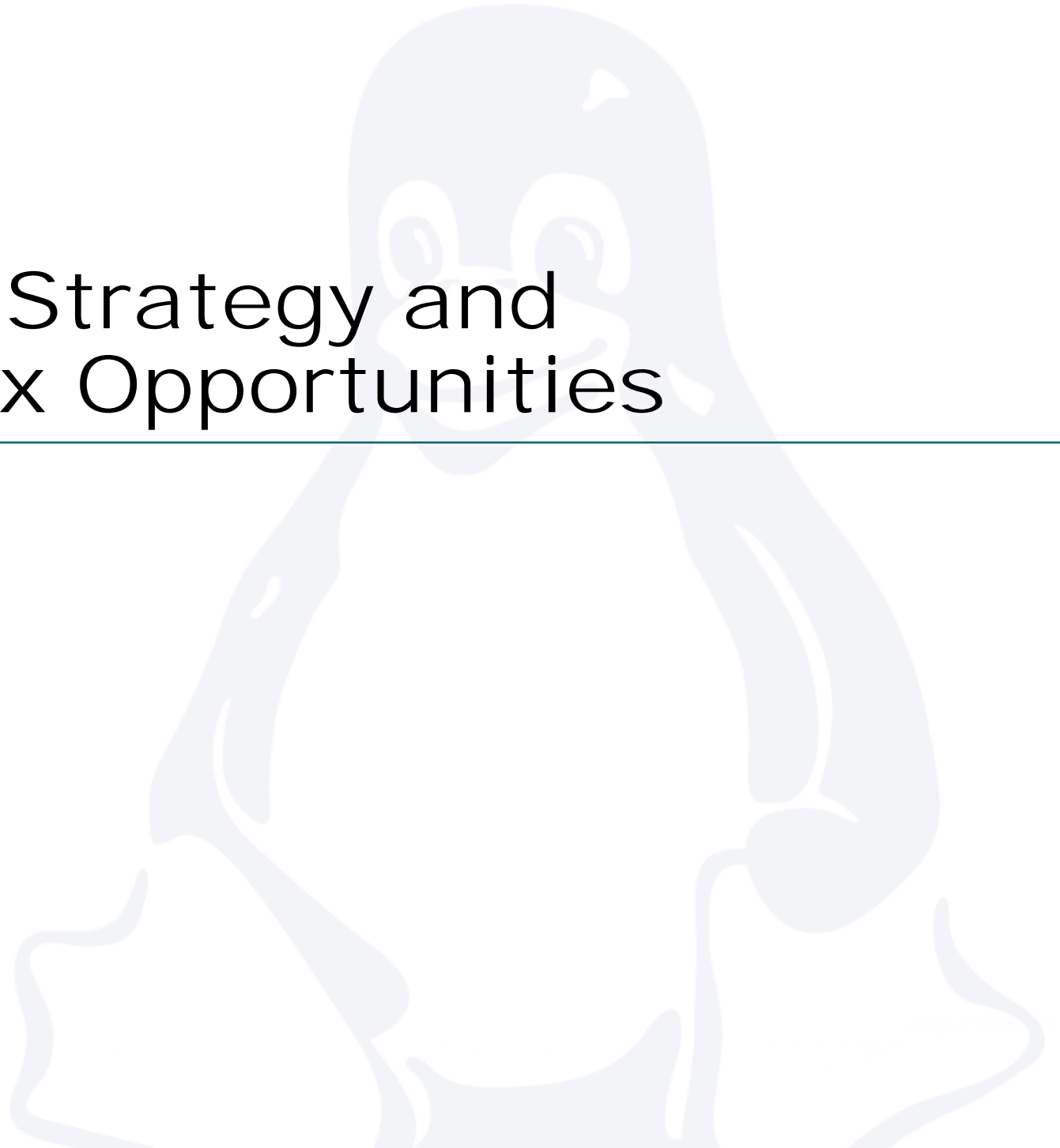
**Josh Levine - Chief Administrative Officer
and President, e*Trade Technologies**

IBM





IBM Strategy and Linux Opportunities



Linux @ IBM

A Commitment to Linux across the Entire Business

- **Linux Technology Center**
 - ▶ Enterprise enable Linux through development / contribution of utilities, tools, and code
 - ▶ 250+ WW developers in 21 sites working within the open source community
- **Linux Integration Center**
 - ▶ Assist customers with Linux-based applications
 - ▶ Technical consulting, proof of concepts, benchmarks
- **Open Source Development Lab**
 - ▶ Enabling Linux and Linux-based applications for data center and carrier-class deployment
- **Linux Porting Centers**
 - ▶ 11 worldwide centers to assist in porting ISV applications
- **Linux Center of Competency for Finance - NYC**
 - ▶ Assist financial services customers testing and implementing Linux applications



Linux @ IBM

A Commitment to Linux across the Entire Business

- **1200+ production servers worldwide, numerous R&D**
- **Internal Linux projects:**
 - ▶ **www.ibm.com/linux and w3.ibm.com/linux**
 - redundant xSeries Linux servers
 - ▶ **Intranet search engine**
 - xSeries servers; Inktomi search engine
 - ▶ **Internal conferencing system**
 - INN on zSeries under z/VM
 - ▶ **IGS Internet vulnerability security scanning**
 - 54 xSeries scanning 30k IP addresses/ week
 - ▶ **File and print servers**
 - SAMBA on zSeries servers under z/VM and on xSeries
 - ▶ **Performance monitoring**
 - 24 xSeries servers, 75% fewer than NT
 - ▶ **IBM global e-mail anti-virus management**
 - xSeries scans incoming/outgoing mail for viruses
 - ▶ **300mm wafer manufacturing equipment control**
 - 190 xSeries; 300-400 by year end



Linux Web Portal

ibm.com/linux

IBM

Home | Products & services | Support & downloads | My account

→ Select a country

Linux at IBM

Shop the Linux store
Large business (1000+)
Small to midsize
Developers
Embedded systems
Business Partners
Industry watchers
Geographies
Education
Events
Downloads
News
Services
Case Studies
Linux links
Archive

Linux at IBM

LINUX IGNITES

Powered by

IBM at LinuxWorld San Francisco

Redbooks Practical Information from IBM

The Linux Line
Our popular e-newsletter will keep you up to date on the latest Linux developments within IBM and across the industry
→ Previous issues
→ Subscribe today!

Linux vs Solaris
→ IBM/Developer Domain

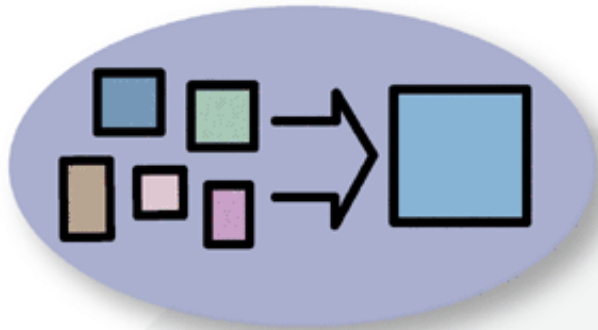
Hardware	Software	Services
→ Intel-based servers xSeries	→ e-business software for Linux	→ Service offerings
→ Integrated application servers iSeries	→ WebSphere	→ Virtual IT services
→ RISC-based servers pSeries	→ DB2	→ Linux Learning Services
→ Enterprise servers zSeries	→ Lotus	And more
→ IBM Cluster 1300	→ Tivoli	→ Linux PowerPC processor
→ Storage products	→ Linux Technology Center Projects	→ Personal systems
	→ Other Open Source Projects	→ Server Consolidation

- Single entry point into all Linux hardware, software and services offerings
- News updated daily:
 - ▶ Features
 - ▶ IBM news
 - ▶ Industry news
- **The Linux Line**
 - ▶ Linux newsletter for customers, business partners, Open Source developers and the Linux Community

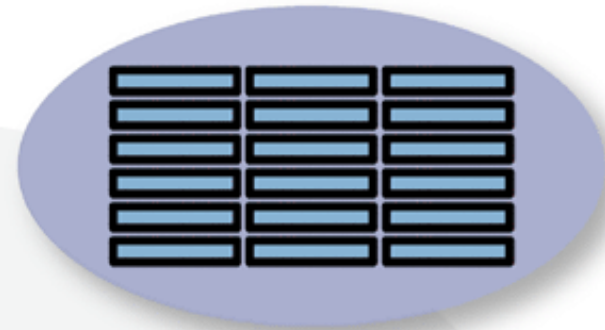
IBM



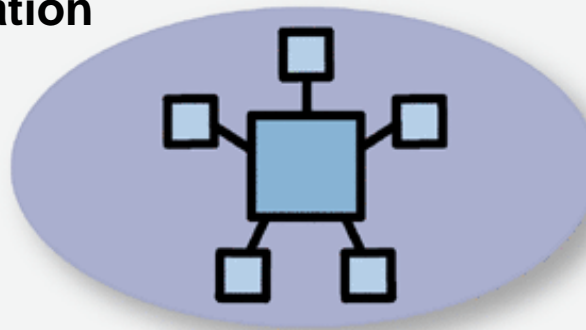
How Customers are Deploying Linux



Workload Consolidation

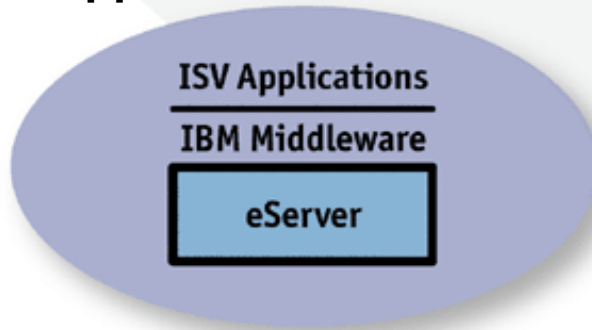


Linux Clusters

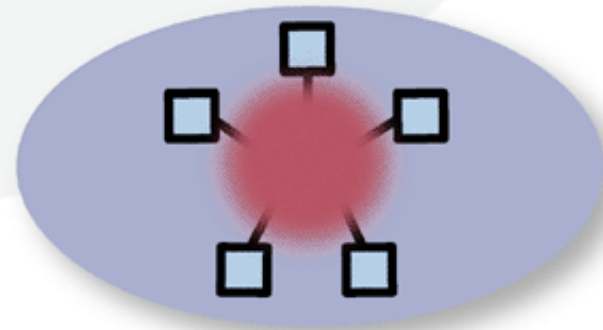


Distributed Enterprise

Application Solutions



Infrastructure Solutions



IBM Infrastructure Solutions

Optimized @server and IBM Software for Linux

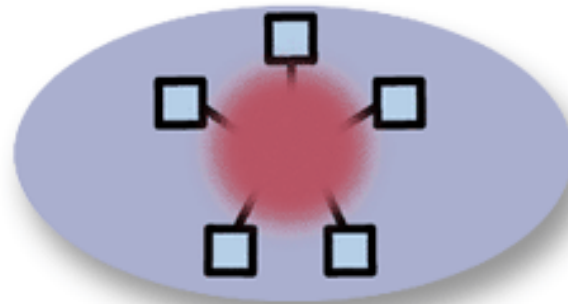
■ Infrastructure Servers

- ▶ File/Print
- ▶ Web/Application
- ▶ Application development
- ▶ Content/Caching
- ▶ Security



■ Advantages:

- ▶ Low cost
- ▶ Highly reliable
- ▶ Turnkey
- ▶ Rapid setup
- ▶ Innovative packaging



■ Infrastructure Software

- ▶ DB2 Universal Database
- ▶ Domino collaboration
- ▶ Tivoli Systems Management
- ▶ MQSeries messaging
- ▶ WebSphere family for application development

Advantages:

- ▶ Scalable
- ▶ Open standards
- ▶ Industry proven

Weta Digital

New Zealand Special Effects Company

■ Challenge

- ▶ Improve system performance/reliability without increasing costs for special effects company producing effects for the Lord of the Rings movies

■ Solution and Benefits

- ▶ IntelliStation and Linux systems operating as standalone units linked by Gigabit ethernet network
- ▶ Dual Xeon IBM IntelliStation M Pro workstations running Red Hat Linux
- ▶ IBM Linux SupportLine
- ▶ Lower hardware acquisition cost and much higher system performance



IBM



Infrastructure Successes



Hundreds of Successful Customers

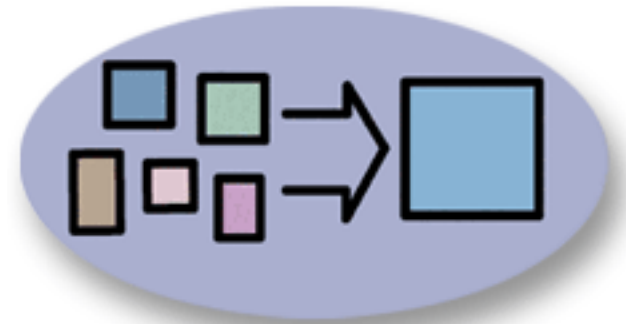


Consolidate Workloads Across the Organization

Simplified Infrastructure with IBM and Linux

- **Workload Consolidation**
 - ▶ Replace many with few
 - ▶ Optimize assets

- **Advantages:**
 - ▶ Reduce costs
 - ▶ @server proven reliability
 - ▶ Virtualize servers
 - ▶ Dynamically manage workloads
 - ▶ Enabled across all @server products



Korean Air

International Air Carrier

- **Challenge**
 - ▶ Consolidate core-business applications (Flight Schedule Inquiry System and Daily Revenue Accounting) running on a variety of different servers
 - ▶ Reduce operation costs, improve performance and efficiency
- **Solution**
 - ▶ Internet and Intranet-based Inquiry System running on Linux on an IBM @server zSeries server using IBM Software and Services
 - ▶ Developed Daily Accounting System using Java / WebSphere Application Server
 - ▶ Asset Management System running DB2 for Linux, DB2 Connect and IMS Connect




SUPERVALU

Leading Food Distributor in the USA

■ Challenge

- ▶ Implement easier, more cost effective system for member stores to place orders
- ▶ Improve customer loyalty and grow customer base

■ Solution and Benefits

- ▶ IBM WebSphere Commerce Suite V5.1 as e-commerce platform
- ▶ zSeries-based Web environment running SuSE Linux V7
- ▶ Reduced software needs from 80 CPU licenses to 3
- ▶ Ability to add IFL engines to LPAR without interruption in service
- ▶ Significant cost savings



Workload Consolidation Success



Hundreds of Successful Customers



Linux Clusters

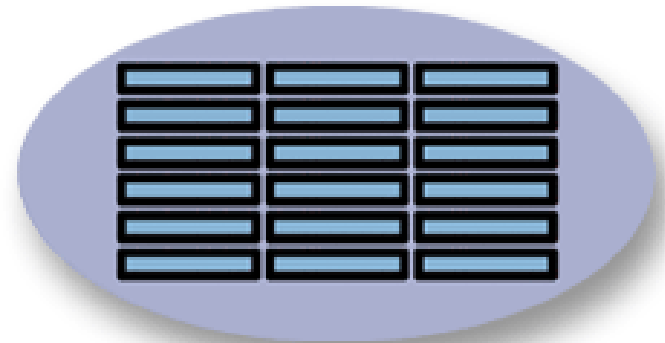
IBM Solutions for Complex Workloads

■ Clusters with Linux:

- ▶ Computationally intensive workloads
- ▶ High performance computing
- ▶ Horizontal scalability

■ Advantages:

- ▶ Supercomputing performance at "mass market" prices
- ▶ Choice of @server architecture
 - IA 32, IA 64 or Power
- ▶ Industry leading IBM cluster software
 - GPFS - General Parallel File System
 - CSM - Cluster Systems Manager
- ▶ IBM factory installed and delivered



Renaissance Technologies

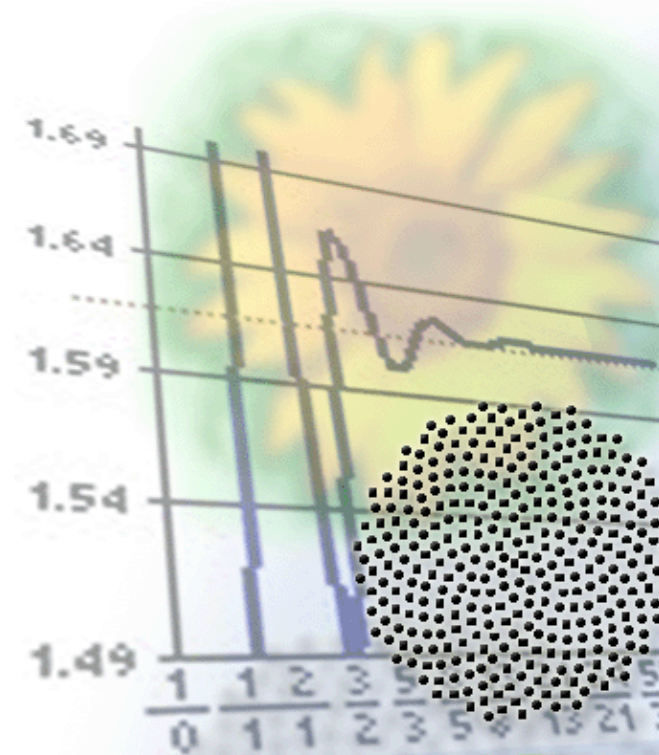
Medallion Fund - Outperforms the Street

■ Challenge

- ▶ Lead Wall Street with the best hedge fund performance, while improving IT price/performance
- ▶ Leverage technology to create a competitive advantage
- ▶ Remain in existing datacenter, without increasing floorspace or system management personnel

■ Solution and Benefits

- ▶ IBM xSeries 330 Intel servers rack mounted and clustered
- ▶ Increased price performance over incumbent Sun 6800 servers
- ▶ Manage multiple parallel quantitative analysis with faster response time



Renaissance
Technologies



IBM



DuPont Photomask

Linux Clusters

- **Challenge**
 - ▶ Minimize photomask development by increasing computational speed
 - ▶ 99.9 percent availability
- **Solution**
 - ▶ Linux cluster of 10 xSeries servers
 - ▶ Red Hat V7.1
- **Value**
 - ▶ 3X the processing power of existing NT servers
 - ▶ Reduced run time from days to less than 4 hours
 - ▶ Reduced photomask development/testing cycle



Linux Clusters Success



Renaissance
Technologies



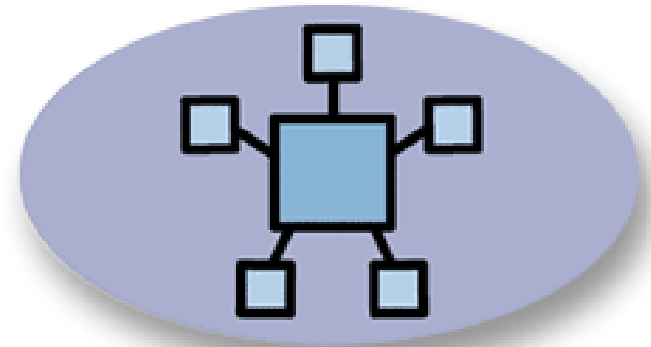
Dozens of successful deployments in all industries



Distributed Applications to Serve Many Locations

Replicate Function Across the Enterprise

- **Distributed solutions with Linux:**
 - ▶ Geographically dispersed
 - ▶ Serve more customers or employees
- **Advantages:**
 - ▶ Low cost, small footprint @server
 - ▶ High reliability and stability
 - ▶ Secure
 - ▶ Easily replicated
 - ▶ Centrally managed
 - ▶ IBM world-wide support and implementation



Sherwin-Williams

Innovative Point of Sale Solution

■ Challenge

- ▶ Major manufacturer with over 2,600 outlets
- ▶ Needed to upgrade point of sale system plus provide e-mail, intranet and Internet capabilities

■ Solution

- ▶ Custom IGS Services for Point of Sale
- ▶ NetVista for in-store processing

■ Benefits

- ▶ New functionality provided for the stores for POS, e-mail and Web
- ▶ Web browser and StarOffice as new capabilities
- ▶ Reduced administrative support
- ▶ Higher availability
- ▶ Redundant servers and diskless POS PCs
- ▶ Improved price/performance



IBM



Distributed Successes



THE *SHERWIN-WILLIAMS* COMPANY



Application Solutions

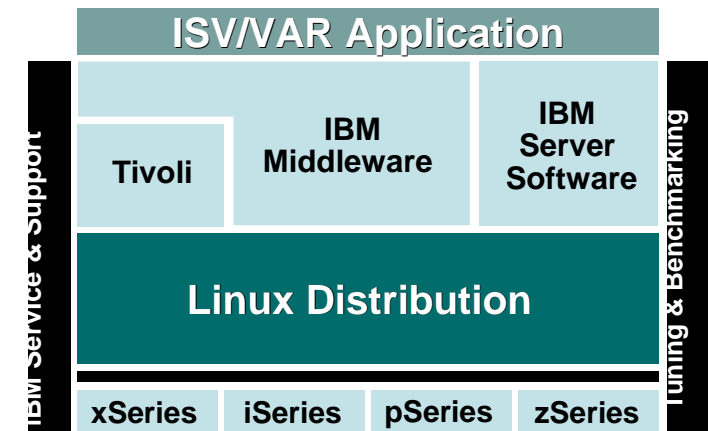
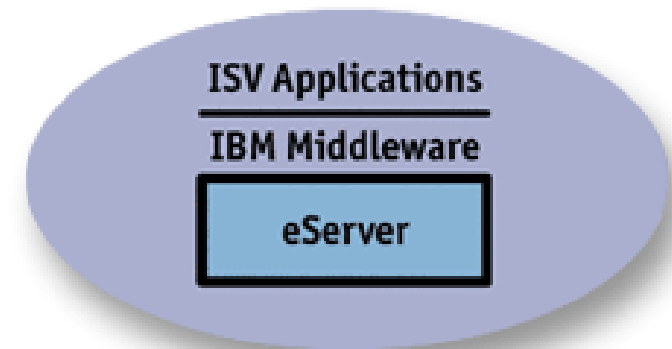
Affordable Integrated Solutions for Linux

- **IBM Business Partner and ISV solutions**

- ▶ Enable e-business initiatives
- ▶ Deliver industry vertical applications
- ▶ Leverage Business Partner and ISV expertise

- **Advantages:**

- ▶ Bundled @server / IBM middleware / ISV application
- ▶ Low cost
- ▶ Optimized solutions
- ▶ Reduced implementation time



Alcatel

SAP on zSeries running Linux

■ Challenge

- ▶ Consolidate systems, improve reliability and systems management

■ Solution

- ▶ mySAP.com on 64-bit Linux for @server zSeries
- ▶ DB2 Universal Database

■ Value

- ▶ Twice as fast as Unix batch processing
- ▶ Higher availability
- ▶ Better system management
- ▶ Improved TCO

"The Linux installation on zSeries was simple and quick. ...we were very pleased with the performance results."

Burghart Pohler
Manager, Alcatel



ALCATEL

IBM

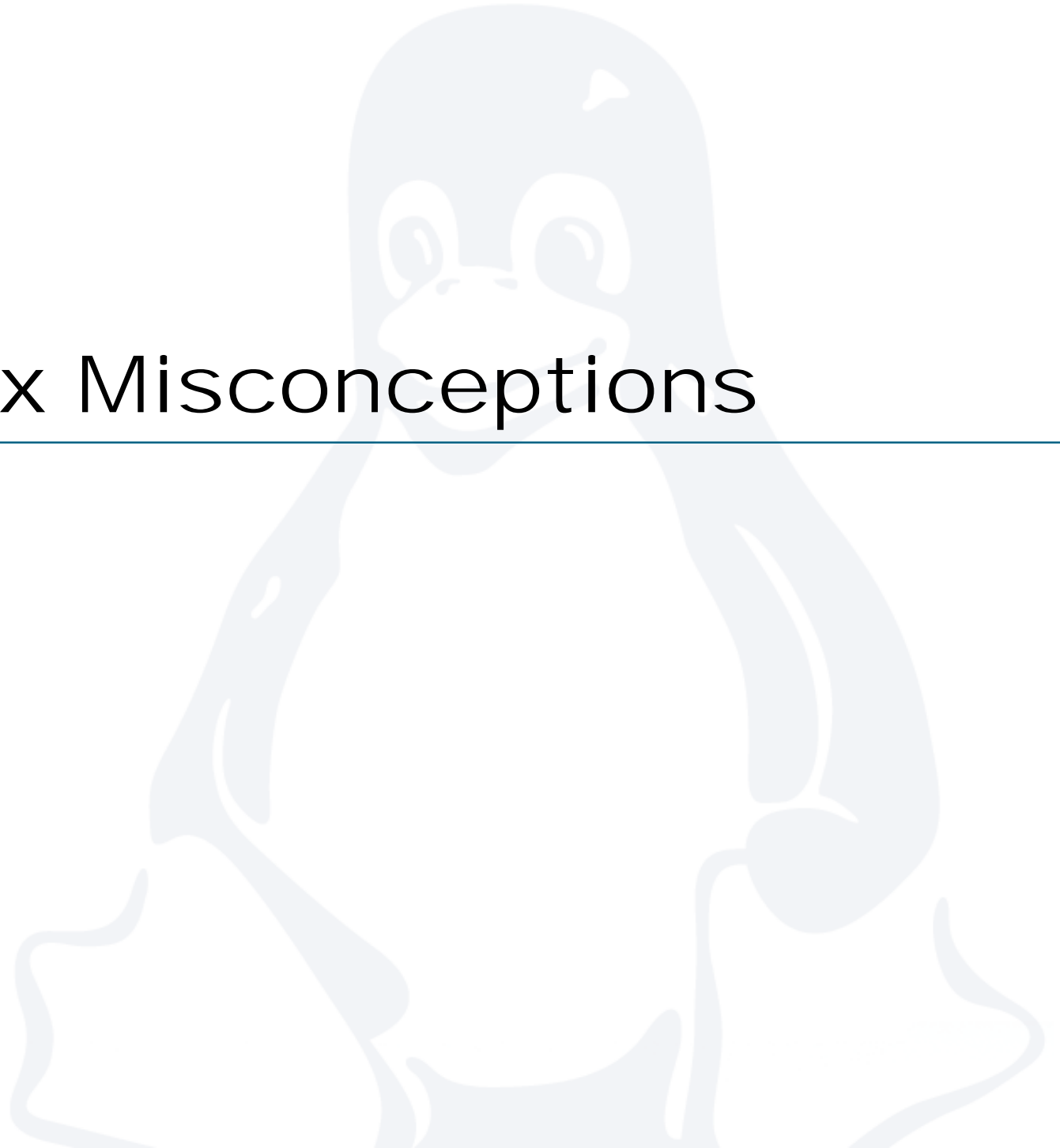


Application Solution Successes





Linux Misconceptions



Is It Real?

The Myths of Linux

- **Linux doesn't scale**
- **Linux isn't ready for the Enterprise**
- **Linux lacks business applications**
- **Linux isn't secure**
- **Linux skills are scarce**



Linux Scales

Myth: Linux doesn't scale

- **Database - world record TPC-H benchmark**
 - ▶ DB2 v7.2; 4 Intel® 900MHz Pentium III Xeon processors
 - ▶ 74% faster than the best Windows-based result
- **File Serving**
 - ▶ PC Mag's performance tests for file servers ... Linux with Samba significantly outperformed Windows 2000, 11/01
 - ▶ ...on the fastest HW while handling largest number of clients, Linux's throughput was 78% faster
- **xSeries - record ECperf Linux performance**
 - ▶ WebSphere v4.03; 9 node xSeries 330 cluster with 2 x 1.266 GHz Pentium III processors
 - ▶ Near linear scalability from 1 to 9 servers
 - ▶ 86% of the performance; 29% of cost of top HP-UX/BEA benchmark
- **zSeries Servers - Linux vs. Solaris**
 - ▶ 12 zSeries Linux partitions equaled 9 x 4 CPU Sun 420R servers
 - ▶ Linear scalability for multiple Linux instances and multiple users

"We chose DB2 running on Linux based on its stability, scalability and performance. There's almost no end to DB2's advantages, which include high efficiency, fast querying and search speed, and the ability to store very large amounts of data."

Dr. Napthali Rische, Director, Florida International University High Performance Database Research Center



Linux is Rock Solid

Myth: Linux isn't ready for the Enterprise

- **In a Cluster Environment Peak Operation Downtime Per Year***
 - ▶ Microsoft.....30 hours
 - ▶ Linux.....14 hours
- **Google runs on Linux**
 - ▶ 100+ million queries per day
 - ▶ Average response times less than half a second
- **IBM service/support**
 - ▶ Level 1-2-3 support for all eServer platforms running Linux

*Standish Research Group 2001

IBM®



ISVs are Adopting Linux

Myth: Linux lacks business applications

- **3,800 Linux applications in IBM Global Solutions Directory**
 - ▶ SAP, Sendmail, jBASE, Relavis, Sanchez, MissionCritical Linux, QAD, SAS, Steeleye, SecureWorks, Fluent
- **Eclipse: open-source, integrated foundation for app development**
 - ▶ Supported by 150+ ISVs
- **48% of developers WW (40% in North American) plan to target most of their apps to Linux***
 - ▶ 39% of Int'l (34% of NA) developers have written Linux applications
 - ▶ 50%+ have confidence in Linux for mission-critical apps
- **WW IBM Porting Centers for Linux**
- **developerWorks Linux and Open Source Zones = 1M page**

Speed-start your Linux app



*Evans Study March 2001

ibm.com/software/solutions/isv

IBM




ISVs Adopting Linux



developerWorks Linux Zone

ibm.com/developerworks/linux


All of dW
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Linux


Tools and products
 Code and components
 Projects and patches
 Education
 Articles, columns & tips
 News
 Forums
 Events
 Related links

More technologies

Product domains

Linux zone





Lightweight Web techniques

Teach your Web server some new tricks! Scripting guru Cameron Laird shows you how to implement [bar charts](#) and [remote monitors](#) -- in almost any server-side language. (Articles)

- ➔ **Matrix libraries for C and C++:** If you have matrices to crunch, one of these tools might be for you. Researcher and writer Andrew Blais compares the features and speed of Meschach, Cooperware Matrix, and Blitz. (Articles)
- ➔ **Living in Emacs:** Learn your way around Emacs, the powerful and flexible text editor that many programmers and Web developers rely on to increase productivity. (Education)
- ➔ **Developing command-line utilities:** Take command of the command line! Our inside look at a command-line utility and review of programming best practices will help you roll your own. (Articles)
- ➔ **Graphics programming with libtiff, Part 2:** Get some color! Use libtiff, a standard implementation of the TIFF specification, to build custom color and grayscale capabilities into your apps. (Articles)
- ➔ **Speed-start your Linux app:** Accelerate your Linux apps with IBM's middleware for Linux, including WebSphere, DB2, and more. Get a free CD of evaluation code, along with free tech support and training!

➔ **Developing with Linux?**
 Learn how to build dynamic Web apps on Linux that interact with the IBM DB2 7.2 database or the Lotus Domino 5.0 collaboration server. [Learn more and register](#) to attend the Webcast July 31 at 10:00 a.m. Central.

Discussion forum

- ➔ **New! Speed-start your Linux app:** This [technical discussion forum](#) will help you install and use IBM middleware for Linux (WebSphere, DB2, Lotus, etc.). Get the middleware for Linux on a [free CD](#) -- training as well as ongoing tech support via this forum are also free.




Linux is Secure

Myth: Linux isn't secure

- **The Open Source development process**
 - ▶ Darwinian -- structured/disciplined
 - ▶ Exposed vs. hidden
- **"World Governments Choosing Linux", AP, 12/1/01**
 - ▶ "Chinese, French and German govts ... adopting Linux over MS "
 - ▶ "Security experts ... agree computers are less prone to hacking and viruses when running open-source software like Linux"
- **The US National Security Agency embracing Linux**
 - ▶ Investing to develop Linux security enhancements
- **"...Window's inherent instability and susceptibility to hacks are now becoming major issues to corporate and government buyers."**

Microsoft's Global Insecurity Complex, Business2.0, June 17, 2002

"Gartner recommends that enterprises continue to weigh open source review as a positive factor in the security of software."

Gartner, "Microsoft Sends Mixed Signals About Software Security", May 13, 2002

IBM



Linux Skills are Widely Available

Myth: Linux skills are scarce

- **IBM Linux Scholars Challenge**
 - ▶ 1,462 students entered
 - ▶ 664 colleges represented
- **IBM Learning Services**
 - ▶ 40 courses
 - ▶ www.ibm.com/training/spotlight/linux
- **Porting Solaris applications to Linux**
 - ▶ 80+% of APIs are identical
 - ▶ Less than 15% require simple translations or masks
 - ▶ Less than 5% of the APIs may require application rework

"Several large projects of moving Unix-based applications from 100 KLOC to 600 KLOC have been completed. Most were completed in about two months and only required a small percentage (1% or so) of the code to be modified in any way."

SoundView Technology Group, "Linux Momentum in Europe Appears to be Strong", June 13, 2002

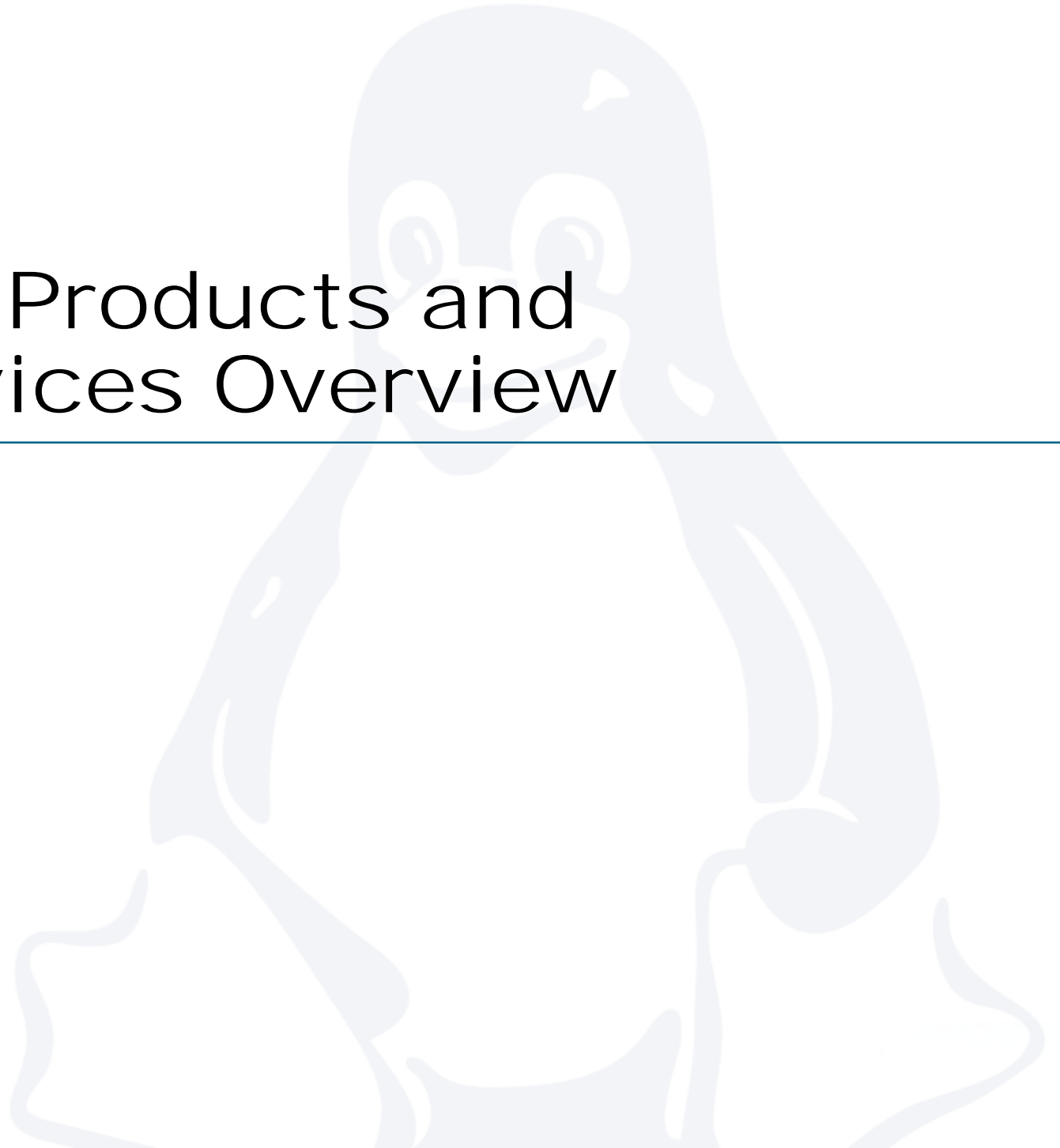
"If your IT organization supports UNIX today, you are well positioned to support Linux. UNIX skilled programmers can easily and quickly develop into Linux programmers."

Harry Roberts - SVP and CIO, Boscov's, Inc.





IBM Products and Services Overview



IBM @server Family Supports Linux

▪ @server zSeries

- ▶ Hundreds of Linux servers on a single hardware platform
- ▶ Unmatched scalability
- ▶ Large applications portfolio
- ▶ Simplified systems management
- ▶ Runs in an LPAR or on z/VM
- ▶ Native Linux 32-bit & 64-bit
- ▶ Reduced cost of ownership



▪ @server iSeries

- ▶ Reliable / scalable
- ▶ Up to 31 Linux Partitions
- ▶ Integration with OS/400
- ▶ Resource sharing and management
- ▶ I/O Flexibility

▪ @server xSeries

- ▶ X-architecture innovation
- ▶ Operating system freedom of choice
- ▶ Affordable, Scalable, Reliable
- ▶ Appliances
- ▶ Rack-optimized servers

▪ @server Clusters

- ▶ Integration and testing of IBM and OEM
- ▶ Speed to market
- ▶ xSeries rack optimized servers

▪ @server pSeries

- ▶ Native Linux 32-bit & 64-bit
- ▶ Linux virtual servers on p690 and p670
- ▶ Linux affinity on AIX 5L
- ▶ I/O Bandwidth and RAS
- ▶ Multiplatform flexibility



IBM Middleware is Ready Today!

■ Solutions available across all product lines

WebSphere® - Transaction Integration

DB2® - Leverage Information

Lotus® - Leverage Collaboration

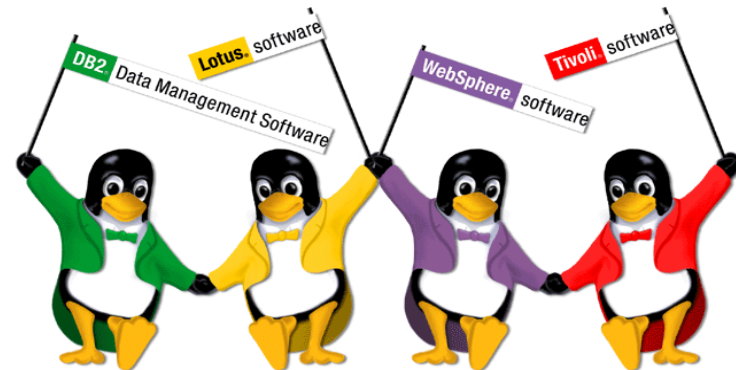
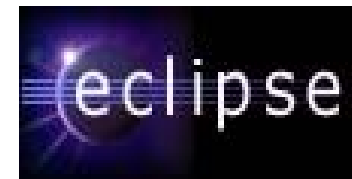
Tivoli® - Systems Management

- ▶ Scalable
- ▶ Modular
- ▶ Flexible
- ▶ Standards based
- ▶ Reliable

■ Open is the world's new direction

- ▶ Eclipse: An open tool platform contributed by IBM to an independent open source organization

■ Solutions at lowest TCO



IBM®



DB2 for Linux

DB2[®]

IBM Middleware for Linux

- **DB2 Universal Database products**
 - ▶ DB2 Universal Database Personal
 - ▶ DB2 Universal Database Workgroup Edition
 - ▶ DB2 Universal Database Enterprise Edition
 - ▶ DB2 Universal Database Enterprise-Extended Edition
- **Connectors**
 - ▶ DB2 Connect
 - ▶ IMS Connect
 - ▶ CICS Transaction Gateway
- **DB2 application development**
 - ▶ DB2 Personal Developer's Edition
 - ▶ DB2 Universal Developer's Edition
 - ▶ DB2 XML Extender
 - ▶ DB2 Net Search Extender
 - ▶ DB2 Intelligent Miner Scoring
- **Informix**
 - ▶ Informix Dynamic Server, C-ISAM

IBM[®]

WebSphere for Linux

WebSphere®

IBM Middleware for Linux

- **Foundation products**
 - ▶ **WebSphere Application Server Advanced Edition**
 - ▶ **WebSphere MQ**
 - ▶ **WebSphere MQ Everyplace**
- **Foundation extension products**
 - ▶ **WebSphere Studio Application Developer**
 - ▶ **WebSphere Transcoding Publisher**
 - ▶ **WebSphere Personalization**
 - ▶ **WebSphere Edge Server**
 - ▶ **WebSphere Host On-Demand**
 - ▶ **IBM Screen Customizer**
- **Application accelerators**
 - ▶ **WebSphere Commerce**

IBM®

Tivoli for Linux

IBM Middleware for Linux

- **Security**
 - ▶ IBM Tivoli Access Manager for e-business
 - ▶ IBM Tivoli Access Manager for Operating Systems
 - ▶ IBM Tivoli Identity Manager
- **Storage**
 - ▶ IBM Tivoli Storage Manager
 - ▶ IBM Tivoli Storage Manager Enterprise Edition
- **Performance and availability**
 - ▶ IBM Tivoli Enterprise Console
 - ▶ IBM Tivoli Monitoring
- **Configuration and operations**
 - ▶ IBM Tivoli Workload Scheduler
 - ▶ IBM Tivoli Workload Scheduler for Applications
 - ▶ IBM Tivoli Configuration Manager
 - ▶ IBM Directory Server



Lotus for Linux

Lotus[®]

IBM Middleware for Linux

- **Collaboration solutions**
 - ▶ Lotus Domino
- **Workflow solutions**
 - ▶ Lotus Workflow

IBM[®]

IBM Services for Linux

■ Clusters

- ▶ Support Line
- ▶ 1300 Installations
- ▶ OEM procurement
- ▶ Hardware setup
- ▶ Software installation

■ Managed Operations

■ Middleware enablement

- ▶ DB2
- ▶ WebSphere AS
- ▶ WebSphere MQ
- ▶ ISVs
- ▶ QuickStarts

■ Workload Consolidation

- ▶ File/Print, Webserving
- ▶ Bynari, Sendmail
- ▶ Linux solutions for e-business
- ▶ Application porting
- ▶ Solaris to Linux migration

■ Training

- ▶ 5 languages; 20 countries
- ▶ All eServers
- ▶ Web-based and classroom
- ▶ Cluster workshops

■ Web Hosting

- ▶ xSeries
- ▶ zSeries Linux
- ▶ e-Sourcing

■ Technical Support

- ▶ Support Line
- ▶ Account advocate
- ▶ Advanced Support
- ▶ All eServers including clusters
- ▶ 24/7



IBM



Next Steps

- **Work with your team to provide Linux awareness and opportunity sessions**
- **Identify areas of your business where Linux can add value**
- **Create a list of potential pilots**
- **Work with your team to assess and prioritize the list of pilots**
- **Get started!**

- **Additional information:**
 - ▶ **ibm.com/linux**
 - ▶ **ibm.com/developerworks/linux**





IBM Linux Strategy: Executive Overview



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