

UNIX to Linux Migration

Solutions based on SUSE® Linux Enterprise

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Agenda

Making A Decision

Reasons to Move

Value Proposition & Partners

Customer Successes

Questions and Answers

Appendix

- Solaris Cost Comparisons

- Integration Pointers

- More Customer Success Stories

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UNIX to Linux Making A Decision

Catalysts to Move

Do You Suffer from Any of These?

Data center space is constrained

Older applications need upgrading

Poor performance/cost ratio

Aging hardware needs refreshing

High maintenance and support costs

Inflexibility to change

Spiraling operational costs (power, cooling, real estate)

Designed for Mission-Critical Workloads Do You Have Any of These?

SAP Workloads

ERP, CRM and other enterprise business applications, **e.g.**, the Oracle applications stack

J2EE applications including the underlying middleware infrastructure – as offered by IBM, Oracle, BEA, Hitachi and others

Enterprise Database environments like Oracle, **DB2**, Sybase, Adabas, Interbase and others

Web, network, and storage infrastructure

When to Move

Specific Opportunities

SAP 4.6 Upgrades – large change to SAP environment and hardware upgrade

Data Center Consolidation – moving from multiple sites; new hardware; EOL old hardware; **application upgrades**; OS upgrades; **reduce operational costs**; cut costs with commodity hardware and **Linux**

OS Consolidation – fewer **skill sets** to maintain (UNIX skills **transfer** well to Linux; Windows requires extensive retraining); less patching/**updates**; less complexity

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UNIX to Linux Reasons to Move

Proof Points

There are more than 200,000 Sun SPARC servers that are more than seven years old running today. (source: IDC)

Maintenance and support for these servers is very expensive, while performance is poor.

Migrating to higher-performing, lower-cost Linux x86 servers is a very viable option.

Linux has entered its third generation and is now a proven platform for mission-critical workloads. (source: Gartner)

Why Move from UNIX to Linux?

Linux has become the reference platform for enterprise databases

Linux is scalable, secure and high performing

Linux hardware costs less, and is more easily maintained

Linux deployments provide IT with more options, **greater** flexibility

- Diverse applications and technology options
- Choice of vendors for software, hardware and support
- Open Source code provides “insurance” ie: stays open

Lower Costs

Where are the savings?



Hardware Purchase

UNIX loads are typically run on Linux using **industry standard hardware** that costs up to **75% less** than **equivalent UNIX systems**



Hardware Maintenance

The move to commodity hardware drives a **reduction** in annual hardware maintenance costs **of up to 90%**



Software License Costs

Commercial Linux maintenance/subscription fees are typically up to **60% less** than the license costs for UNIX operating systems they replace

Linux vs. UNIX

In a Nutshell

Linux

- Lower costs: “UNIX workloads at Intel prices”
- Non-proprietary, and flexible
- “Universal workload platform” – spans many architectures
- Based on UNIX; similar administration
- Huge development & support community
- Nearly all UNIX applications now available for Linux

UNIX

- Expensive to license, support
- Proprietary and inflexible
- Primarily RISC-based; does not span many architectures
- Solaris 10 on x86 has virtually no market share
- Security target
- Less ISV development over time

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UNIX to Linux Value Proposition & Partners

UNIX to Linux Value Proposition

UNIX to Linux Migration combines the reliability, performance and scalability of UNIX with lower total cost of ownership (TCO), better interoperability and greater flexibility.

- Delivers Reliability, Performance, Scalability and Usability Equal to Traditional UNIX
- Designed for Mission-critical Workloads
- Lowers Costs
- Enables Easy Migration

Designed for Mission-Critical Workloads

SAP and SUSE Linux Enterprise Server

Confidently run your SAP applications on SUSE Linux Enterprise Server:

- SUSE Linux Enterprise Server Priority Support for SAP Applications
 - Seamless support from single source
 - Integrated support for SAP customers
- Running SAP on SUSE Linux Enterprise Server with High Availability Storage Infrastructure
 - **Scaling out** improves overall reliability and often drives down the total cost of ownership
- Running SAP Paravirtualized on SUSE Linux Enterprise Server 10 with Xen
 - Increase server utilization levels **to** 70 percent and higher
 - No additional cost

Designed for Mission-Critical Workloads Oracle and SUSE Linux Enterprise Server

Novell and Oracle deliver innovative Linux solutions proven in mission-critical deployments:

- **Grid Computing:** Improve performance and reduce costs with Oracle RAC and SUSE Linux Enterprise Server
- **Run all Oracle technologies:** SUSE Linux Enterprise Server supports OCFS Release 2, Oracle RAC, and Oracle Database 10g, providing a rock-solid platform for data center computing
- **Obtain scalable storage:** SUSE Linux Enterprise Server integrates an enhanced version of OCFS Release 2, and installs with Oracle RAC out of the box

Designed for Mission-Critical Workloads IBM and SUSE Linux Enterprise Server

Novell is Strategic IBM Alliance Partner since December 2005

SUSE Linux Enterprise Server is on IBM's Passport Advantage (PPA) Program

SUSE Linux Enterprise Server is available via the IBM Configurator

SUSE Linux Enterprise Server runs on all IBM hardware platforms

SUSE Linux Enterprise platform: Common Codebase + Autobuild

IBM and SUSE co-developed Linux for Power and System z

IBM Leaders for Linux and Novell PartnerNet aligned programs

IBM support-line for SUSE Linux Enterprise Server

1,300+ IBM staff in EMEA in Novell Linux Champions Club

Migration Made Easy

HP, Transitive and SUSE Linux Enterprise Server

Transitive QuickTransit with SUSE Linux Enterprise Server running on HP ProLiant servers

Benefits

- Accelerate platform migrations
- Extend the useful life of legacy enterprise applications
- Experience immediate hardware cost savings
- Leverage new platform capabilities without incurring software porting costs
- Broaden data center consolidation projects to cover multiple platforms

Migration Made Easy

Heck No, We Won't SCO

Santa Cruz Operation (SCO) decided to sue IBM, Autozone and other customers over supposed copyright infringements in the Linux Source Code:

- Unfortunately for SCO, they never produced a single stitch of disputed code
- Unfortunately for their customers, they lost any focus on providing Enterprise UNIX service, sales or support
- Fortunately for the Open Source world, SCO's case was dismissed in a summary judgment
- Oh, and Novell still owns the rights to the UNIX source code, obviating any further challenges

Migration Made Easy

Novell and Partner Services

Similarity to traditional UNIX leverages existing skills

Migration planning

World-class services to support the migration

Partners to provide migration assistance

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UNIX to Linux Customer Success Stories

Office Depot

UNIX to Linux, Interoperability

Workloads

- Applications: ERP (HR & Payroll), Oracle Financials, JDA Software
- Databases: Oracle RAC
- Middleware: Oracle

Business Issues

- Rapid growth globally both organically and through acquisitions
- Applications running on UNIX, Windows, Linux and AS/400 systems
- Need to streamline IT environment

Novell Solution

- SUSE Linux Enterprise Server
- Oracle RAC and Oracle middleware and e-business modules
- Mission-critical ERP applications, including PeopleSoft HR and its payroll system
- Moving Oracle Financials and JDA software to the Linux platform

Results

- Simplified and standardized IT environment, while maintaining superior performance
- Reduced hardware costs with ability to run on commodity hardware
- Reduced IT costs by moving many of its global ERP applications to SUSE Linux Enterprise Server

Ohio EPA

UNIX to Linux

Workloads

- HR applications
- BEA WebLogic Server
- Apache Web server
- Oracle databases

Business Issues

- 1,250 employees across seven locations
- Work within tight state IT budget
- Reduce costs of managing proprietary UNIX servers and software
- Reduce training costs

Novell Solution

- SUSE Linux Enterprise Server
- PolyServe Matrix Server
- Dell and HP servers, several running AMD processors

Results

- Completed seamless transition from UNIX to Linux
- Reduced server costs by nearly 75 percent
- Can purchase more Intel-based servers within budget to strengthen disaster recovery plan
- Reduced training costs by 35 percent

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UNIX to Linux Questions and Answers

For more information



www.novell.com/linux

www.novell.com/unixtolinux

www.novell.com/whynovell

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UNIX to Linux Appendix

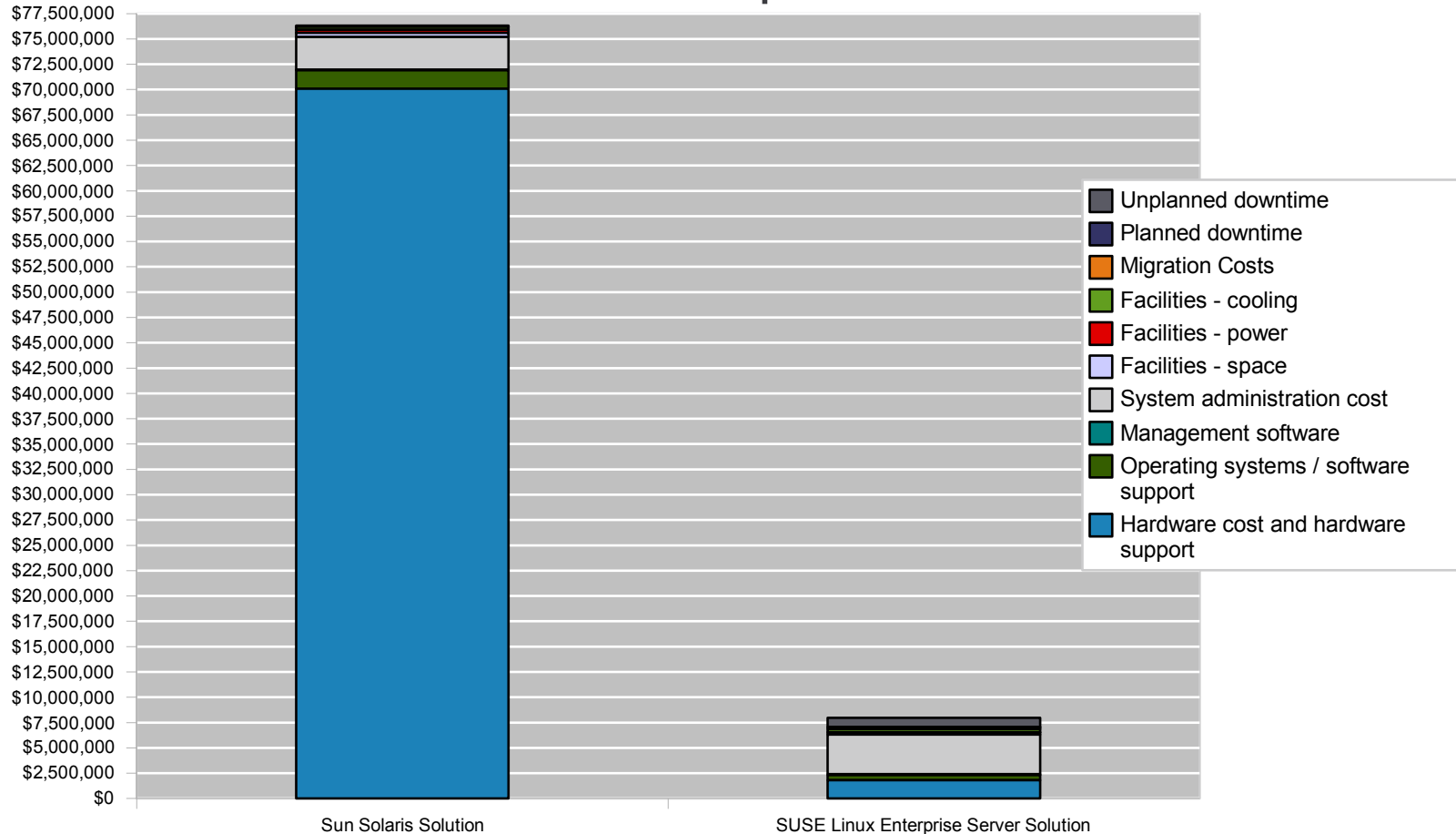
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UNIX to Linux

Solaris Cost Comparisons

Lower Costs: Solaris to SUSE Linux Enterprise Server Calculator

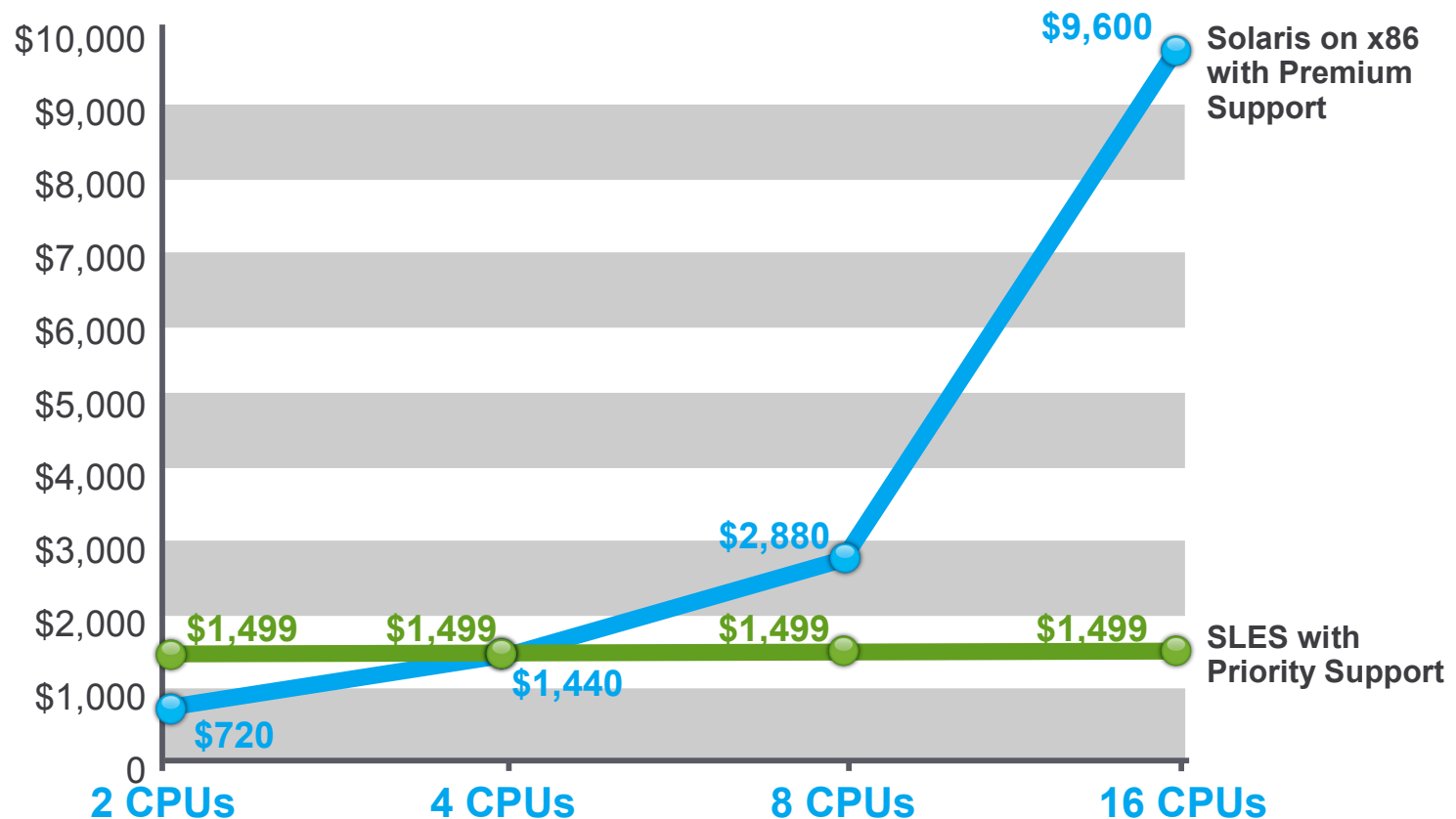
Total Cost of Ownership over 3 Years



Lower Costs

Sun Solaris Pricing Comparison

Figure 1. SUSE Linux Enterprise Server
– Solaris 10 on x86 Price Comparison



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UNIX to Linux Migration Pointers

Migration Made Easy

Migration Plan Overview

Planning

Preparation

Implementation/Migration

Post-Migration



Migration Made Easy

Consulting and Training Services

Linux Consulting Offerings

- “Fast Tracks”
http://www.novell.com/consulting/fastracks/data_center_practice.html
- Open Source Strategy and Planning
- Systems Management
- Migration Services
- Application Development
 - Additional Services (HA, Clustering and HPC, Asset Utilization, Security Assessment, Performance)

Linux Training Offerings

- Only Linux vendor to offer full range of Linux training and certification globally
- Linux Technical Skills Assessments for entire IT Staff
- Comprehensive curriculum from end user to advanced engineers/architects
- Flexible learning options from classroom to self-paced to live, online instruction
- Personalized skills assessments and customized, on-site training programs

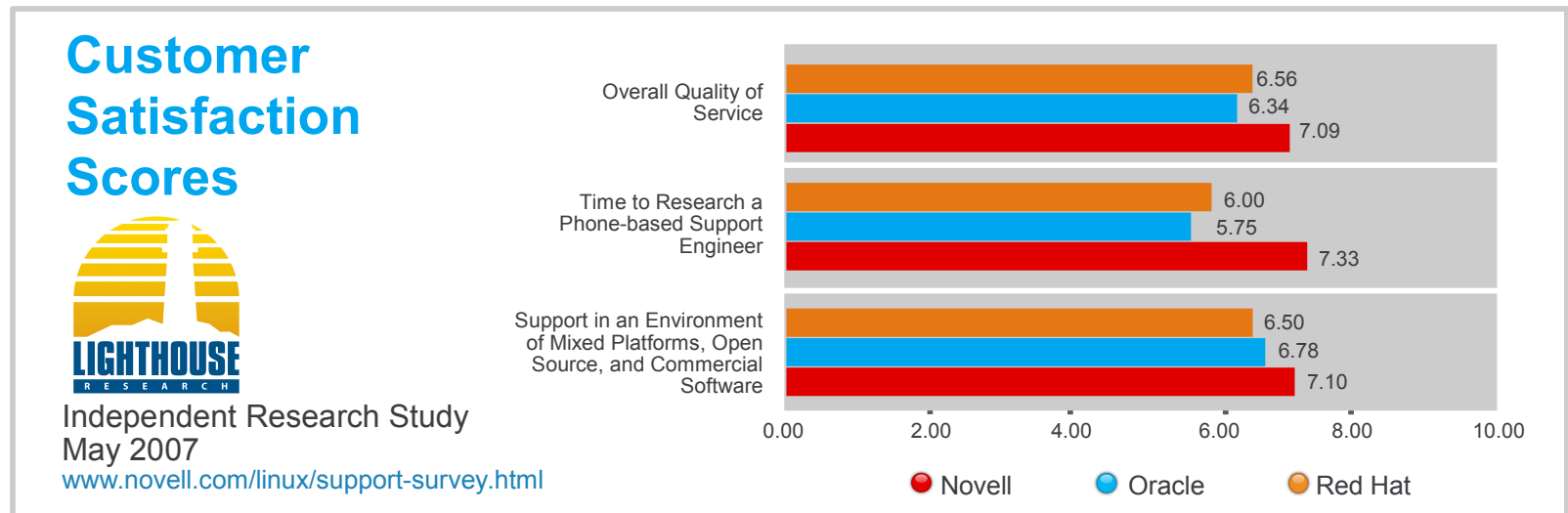
Migration Made Easy

Unmatched Linux Technical Support

Novell leads the Industry:

Customers rated Novell performance significantly higher than Red Hat or Oracle in the following areas:

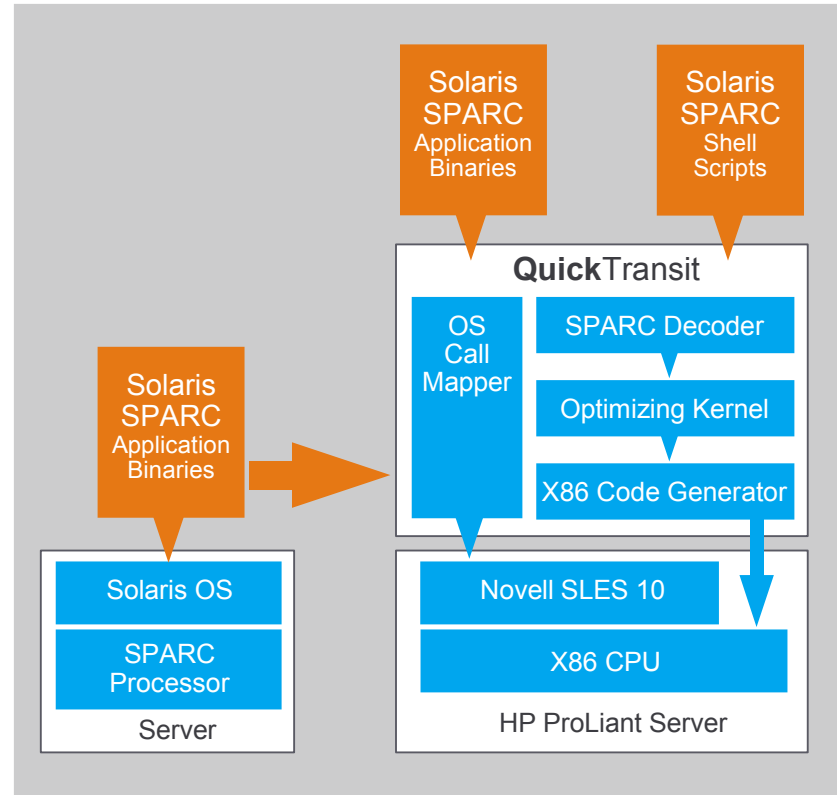
- Overall Quality of Service
- Time to Reach a Phone-based Support Engineer
- Support in an Environment of Mixed Platforms, Open Source, and Commercial Software



Migration Made Easy Transitive: Run UNIX Applications on SUSE Linux Enterprise Server

With QuickTransit, native Solaris/SPARC applications and scripts can run unmodified on industry-standard 64-bit x86 servers running SLES 10

Download the QuickTransit and experience Solaris/SPARC applications running on SLES x86-64 systems first-hand



<http://www.transitive.com/evaluate/index.html>

Migration Made Easy

HP, Transitive and SUSE Linux

Enterprise Server

Transitive QuickTransit with SUSE Linux Enterprise 10 running on HP ProLiant servers

Benefits

- Accelerate platform migrations of key enterprise applications
- Extend the useful life of legacy enterprise applications
- Experience immediate hardware cost savings
- Leverage new platform capabilities without incurring software porting costs
- Broaden data center consolidation projects to cover multiple platforms
- Extend platform coverage of enterprise applications

Migration Made Easy

SUSE Linux Enterprise Server, SAP and IBM DB2

Simplified deployment and management of IT infrastructure

Higher performance at lower cost

Better utilization of IT assets

Integrated and tested solutions with minimal risk, reduced complexity resulting in lower TCO

Open, flexible and reliable platform

Deliver Seamless Support from a Single Source,
One-stop-shop for entire stack — applications through
Operating System (OS)

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UNIX to Linux Customer Success Stories

DFS Deutsche Flugsicherung

(German Air Traffic Control)

Workloads

- Radar data processing system PHOENIX
- All Air traffic control systems
- SUSE Linux Enterprise Server as strategic platform

Business Issues

- Move mission-critical radar processing system from UNIX to Linux
- Deploy high-availability clustering for failover
- Utilize virtualization to consolidate servers
- Accelerate development cycles

Novell Solution

- SUSE Linux Enterprise Server
- Heartbeat2 cluster software
- Xen virtualization software

Results

- Millions of Euros saved in hardware and software license fees, and removed vendor lock-in
- Outstanding stability and availability
- Reduction of many man-months of development effort
- Further HW savings anticipated from virtualization-driven server consolidation

Office Depot

UNIX to Linux, Interoperability

Workloads

- Applications: ERP (HR & Payroll), Oracle Financials, JDA Software
- Databases: Oracle RAC
- Middleware: Oracle

Business Issues

- Rapid growth globally both organically and through acquisitions
- Applications running on UNIX, Windows, Linux and AS/400 systems
- Need to streamline IT environment

Novell Solution

- SUSE Linux Enterprise Server
- Oracle RAC and Oracle middleware and e-business modules
- Mission-critical ERP applications, including PeopleSoft HR and its payroll system
- Moving Oracle Financials and JDA software to the Linux platform

Results

- Simplified and standardized IT environment, while maintaining superior performance
- Reduced hardware costs with ability to run on commodity hardware
- Reduced IT costs by moving many of its global ERP applications to SUSE Linux Enterprise Server

Sesame Workshop

UNIX to Linux, Virtualization

Workloads

- Web Applications
- Hosts nearly 50 consumer Web sites
- Thousands of concurrent users and more than one million unique visitors a month

Business Issues

- Preparing to re-launch many of its Web sites
- Replacing Sun Solaris, Microsoft Windows and Debian servers with SUSE Linux Enterprise Server

Novell Solution

- SUSE Linux Enterprise Server with Xen Virtualization
- ZENWorks Asset Management
- Novell Access Manager
- Novell Identity Manager
- Novell eDirectory

Results

- Easy configuration of virtual Web servers to run multiple Web sites
- Reduced Web server footprint by 80% and hardware costs by 30%
- Overall IT budget reduced by 18%

Ohio EPA

UNIX to Linux

Workloads

- HR applications
- BEA WebLogic Server
- Apache Web server
- Oracle databases

Business Issues

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- Reduce costs of managing proprietary UNIX servers and software
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Results

- Completed seamless transition from UNIX to Linux
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- Reduced training costs by 35 percent

Wehmeyer

UNIX to Linux

Workloads

- Enterprise Resource Planning (ERP) and information management
- Oracle Real Application Cluster (RAC) 10g
- Oracle databases
- Oracle Forms

Business Issues

- Improve performance of core ERP applications, based on OracleForms 6i and Oracle databases version 8i
- Replace outdated DEC Alpha servers on UNIX
- Eliminate system failures, often lasting 30 minutes or more

Novell Solution

- SUSE Linux Enterprise Server
- Intel-based Systems

Results

- Created reliable, scalable and cost-effective platform for core store management and sales applications
- Implemented Oracle Real Application Cluster on SUSE Linux Enterprise to reduce any potential downtime to a few seconds
- Reduced annual hardware costs by 80 percent

Etos

UNIX to Linux

Workloads

- Oracle databases
- Apache webserver
- Order processing and administrative transactions
- IT infrastructure

Business Issues

- Reduce downtime for centralized distribution center that delivers inventory to all stores
- Outdated RS/6000 machines running AIX
- Create simplified, more cost-effective Intel-based infrastructure

Novell Solution

- SUSE Linux Enterprise Server
- Dell PowerEdge machines

Results

- Moved mission-critical systems from UNIX to SUSE Linux Enterprise Server for greater performance
- Reduced HW costs by 80 percent, SW costs by 20 percent, reduced administration costs
- Overall IT cost savings of 650,000 Euros
- New opportunities with open source development

ITV

UNIX to Linux

Workloads

- Mission critical applications
- Oracle databases and applications
- Mail, File and Print Services

Business Issues

- Variety of platforms as a result of a merger with Carlton TV and Granada, including 50 different UNIX systems
- Reduce costs of managing disparate systems
- Establish consistent uptime for continuous programming, watched by 45 million people each week

Novell Solution

- SUSE Linux Enterprise Server
- Novell Open Enterprise Server
- SUSE Linux Enterprise Desktop
- Intel-based hardware

Results

- Standardized infrastructure to reduce administration costs
- Consolidated servers to reduce hardware and software costs
- Achieved 99.999 percent uptime for production environment
- Simplified IT training with a Linux skill set
- Enhanced network services on Linux with Novell Open Enterprise Server Enterprise Server for greater performance