

## White Paper

SUSE LINUX ENTERPRISE 10

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# SUSE® Linux Enterprise 10 in Government

Government Agencies and Organizations Around the World  
Are Realizing the Big Benefits of Deploying SUSE Linux Enterprise

**Novell.**

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# The New Choice for Government Computing



**“By implementing Linux and open source solutions from Novell, we reduced our hardware costs by 50 percent, software costs by 30 percent, and administration costs by 30 percent—all while improving uptime and overall security. We like that. We like the freedom we get with Novell.”**

**Steve O'Brien**  
*Director of IT Operations*  
Jefferson County, Colorado

**Forty-seven of the top 50 Web sites run on open source servers.**

**In the U.S., 47 states currently run open source technology.**

**On average, government agencies that have moved to open source save 40 percent to 50 percent on hardware and as much as 40 percent on software.**

Around the world, governments at all levels are discovering the advantages of open source technology. They are starting to recognize its extraordinary potential in the age of always-on e-government. This recognition is a critical turning point, one that reshapes how agencies and organizations choose to improve their services. And today, many such groups are rejecting rigid proprietary solutions. In fact, when performance, reliability and world-class support really matter, today's governments are turning to open source solutions, specifically SUSE® Linux Enterprise 10 from Novell®.

SUSE Linux Enterprise delivers powerful capabilities for any government network. For example, only SUSE Linux Enterprise 10 includes Novell AppArmor™, the revolutionary application-level security service that provides ironclad protection for your system and any processes you are running. SUSE Linux Enterprise 10 is also the first enterprise platform to include a fully integrated and supported version of Xen\* 3.0, the emerging open source standard for virtualization services. And, SUSE Linux Enterprise includes access to Novell Customer Center, a centralized online interface where you can obtain software updates, download patches and access Novell technical support.

## Expanding Use of Open Source Solutions in Government

In the United States, 47 of the 50 states currently run open source technology. Some states, such as Massachusetts, are moving toward exclusive use of open source technology in their operations. Moreover, large federal government organizations, such as the Department of Defense, the Department of Energy, the National Institutes of Health

and the Government Accountability Office, have implemented an open source strategy. A study conducted in 2005 by Optaros—an open source consulting and integration firm—noted that more than 50 percent of the U.S. government agencies it surveyed were using at least some open source software, with databases and application servers being the most common.

As government agencies of all sizes embrace SUSE Linux Enterprise and other open source technologies, they are realizing real benefits in the areas of cost, reliability, functionality and ease of use. This paper examines each of those areas and shows how SUSE Linux Enterprise can help government agencies and organizations provide better services to their citizens and constituents.

## Saving Money with SUSE Linux Enterprise

Perhaps the best reason for governments to switch to SUSE Linux Enterprise 10 is its incredible potential to reduce costs. Not only will SUSE Linux Enterprise run on cost-effective commodity hardware, it's also easier and less expensive to support. And licensing open source software is far less expensive than buying and licensing proprietary software such as UNIX\* or Microsoft Windows\*. Jefferson County Colorado reports hardware cost savings of 50 percent and reduced administrative costs by 30 percent since moving to open source. For most government organizations, proprietary hardware support is the largest expense after labor. With open source, it's realistic to imagine opting for several US\$4,000 industry-standard servers to run an enterprise instead of one proprietary server that costs US\$100,000 or more.

On average, government agencies that have adopted open source solutions report 40–50 percent savings on hardware expenses, while software costs are being driven down by as much as 40 percent. According to a July 2005 study by the Robert Francis Group, Linux\* provides savings of 40 percent over UNIX and 34 percent over Microsoft.

### Relying on SUSE Linux Enterprise

SUSE Linux Enterprise 10 is the only enterprise-class Linux platform on the market today. It's a solution you can rely on because it's been through months of regression testing—including test cases with applications like Oracle\* and SAP\*, and hardware tests on all the major architectures. Open source systems in general are more stable and reliable than proprietary operating systems. Indeed, studies and surveys show that LAMP (Linux, Apache, MySQL, PHP) software packages, open source servers and open source databases are more resistant to crippling crashes than proprietary solutions. According to a comprehensive 2004 report†, the top proprietary server could claim an average uptime of only 59 days, whereas open source servers reported hundreds—even thousands—of continuous days up. Jefferson County, Colo. reports that some of its Linux servers have been running without a reboot for more than three years. Clearly such reliability leads to improved service delivery and significantly lower costs.

Furthermore, open source applications are proving themselves in a wide array of international deployments. In the Czech Republic, for example, the government relies on APOST, a customized system used by all 20,000 of its postal employees. To upgrade performance and reliability, Czech Post moved to the SUSE Linux Enterprise Server operating system. The transition and rollout happened with zero downtime. And with the system up and running, APOST boasts nearly 100-percent uptime. And that's typical. An Enterprise

Management Associates study from February 2006 showed that 89 percent of open source users reported 99.95-percent uptime. Only 2.5 percent reported less than 98-percent availability.

### Government Certifications

In February 2005, Novell announced that SUSE Linux Enterprise Server successfully completed Controlled Access Protection Profile under the Common Criteria for Information Security Evaluation, also referred to as CAPP/EAL4+. Government agencies can adopt SUSE Linux Enterprise Server with confidence, knowing that their mission-critical applications and command-and-control operations are backed by CAPP/EAL4+ certification.

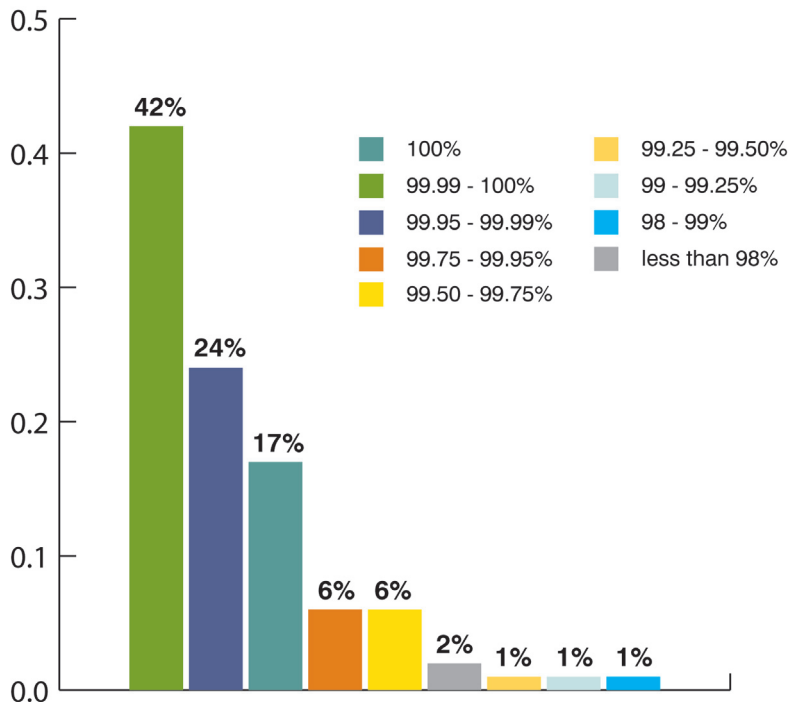


**“We could not risk putting mission-critical applications on Linux without the right enterprise support. With Novell, we knew we had the right backing to move to Linux.”**

**Sommers T. (Skip) Holler**  
 Network Administration Manager  
 Ohio EPA

† Nicholas Petreley, published by the UK-based The Register

### Linux Availability / Uptime\*\*



\*\*shown as a percentage of 200 Linux-run enterprises

Source: Get the Truth on Linux Management, Enterprise Management Associates, February 2006

# Government agencies switching from legacy systems to SUSE Linux Enterprise can be confident about storing crucial data and running mission-critical processes.



**“With SUSE Linux and access to open source tools, we can implement far more services than we thought possible. Without it, running our environment would be significantly more expensive, and we would be forced to spend most of our time putting out fires rather than implementing new and better technologies.”**

**Jim Gignac**

*IT Administrator*  
Essex County, Ontario, Canada

SUSE Linux Enterprise Server also achieved U.S. Department of Defense Common Operating Environment (COE) compliance, a Defense Information Systems Agency (DISA) requirement for military computing products. This certification assures that SUSE Linux Enterprise Server meets DISA's stringent requirements for interoperability, performance and standards compliance.

## Expanding Functionality and Security

Press articles and analyst reports indicate that the open source adoption rate is growing across all levels and sizes of government. Agencies such as the Department of Defense, the Oregon Department of Transportation, and numerous local governments use Linux. Open source is supported by virtually all major application vendors.

Recently Oregon's Driver and Motor Vehicle Services (DMV), part of the Department of Transportation, had to upgrade its IT infrastructure. The agency initially opted to replace its old UNIX systems with more modern UNIX systems. The DMV found that open source tools were readily available, and it avoided the inflexible and expensive licensing requirements that often accompany proprietary software. After evaluating its options, the DMV chose to deploy Linux instead of UNIX. The result was a brand-new system that was up and running in 80 hours. In addition, the DMV experienced more uptime and better functionality, all at a significantly lower cost.

Additionally, open source solutions permit governments to develop and share their own customizable applications. Many agencies

have similar IT needs, and it makes sense to develop systems for common use that deliver substantial cost savings.

Government agencies switching from legacy systems to SUSE Linux Enterprise can be confident about storing crucial data and running mission-critical processes. Whether it's driver's license records, defense systems, criminal justice information, Social Security data, tax documents or court records, SUSE Linux Enterprise offers a safer alternative to proprietary solutions. It provides dramatically enhanced security to protect sensitive data such as license numbers and home addresses—and it does so with virtually zero downtime and at significantly reduced costs. Furthermore, open source systems are less vulnerable to viruses and are steadily improved by the growing open source community.

## Improving Ease of Use

There's no denying e-government is becoming more vital to agency success. Whether that means internal solutions for employees or simple Web portals for the public, government must adopt and implement e-government services. SUSE Linux Enterprise 10 and other open source technologies ensure that problems are more easily and quickly patched than they might be through a proprietary vendor. Easy patching means better service for constituents and lower costs for government. Quick repair times and greatly reduced downtime help government agencies avoid the chaos that ensues when proprietary systems crash and need rebooting.

In a February 2006 Enterprise Management Associates survey of 200 Linux-run enterprises, 95 percent of respondents said they spent less than half an hour per week managing viruses and spyware. Nearly 90 percent reported they spent less than 30 minutes on patch management for servers.

## Supporting SUSE Linux Enterprise

Novell has developed extensive, worldwide support structures to ensure that SUSE Linux Enterprise and other open source projects live up to their promise. Novell customers can turn to more than 700 support technicians across the globe, who are available 24 hours a day, seven days a week. In fact, open source inherently presents much more support than traditional, proprietary technology. There is an entire community of open source users who can quickly discover, isolate and repair bugs in an application. This community does not have to work around corporate bureaucracy and red tape to get a patch out. Instead, they simply fix the problem, and the solution is usually free.

### World-class Support

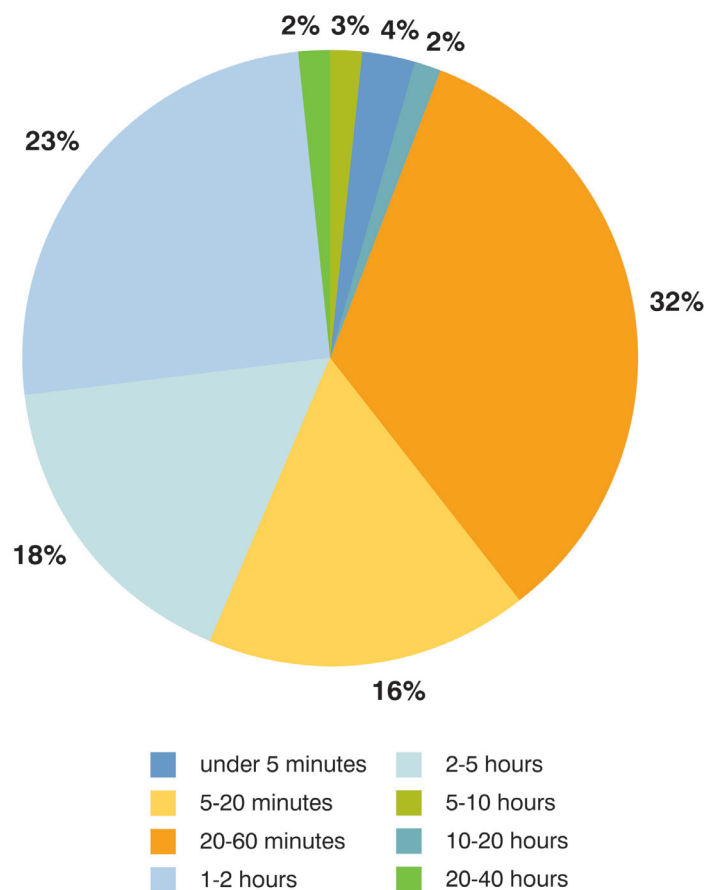
SUSE Linux Enterprise 10 is backed by world-class Novell technical support. Novell is the only Linux vendor to receive Support Center Practice (SCP) Certification, an internationally recognized standard developed by the Service & Support Professionals Association (SSPA) and a consortium of IT companies. In addition, the VARBusiness Annual Report Card ranked Novell number one in server operating system support, primarily because Novell Technical Support meets more than 99 percent of its Service Level Agreements.

### Hardware Support

All leading hardware vendors support SUSE Linux Enterprise. Whether you want to run it on servers, clients, single-processor whitebox systems, blades or the largest mainframes, you'll find that SUSE Linux Enterprise is certified on the architectures you need. Novell works closely with chip manufacturers like Intel and AMD, and supports 32-bit and 64-bit architectures as well as the latest single- and dual-core processors.

SUSE Linux Enterprise is fully certified on the latest servers, workstations, desktops and laptops from IBM, Dell, Fujitsu, HP, Lenovo, Silicon Graphics, Sun, Unisys and others. These vendors have partnered closely with Novell engineering teams throughout the design and creation of SUSE Linux Enterprise. Such tight collaboration enables SUSE Linux Enterprise to take full advantage of the platforms where it is deployed, giving you the best possible performance from your desktops to your data center.

**Linux Operating System Deployment Time\*\***



\*\*shown as a percentage of 200 Linux-run enterprises

Source: Get the Truth on Linux Management, Enterprise Management Associates, February 2006

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### **Novell Customer Center**

Novell Customer Center is an intuitive online interface that makes it easy to manage all your business and technical interactions with Novell. From one location, your organization can review the status of all its Novell products, subscriptions and services—and obtain critical Linux updates and support. Novell Customer Center combines the innovative tools and automated services needed to ensure licensing compliance, simplify patch management and update processes, and reduce systems-management costs.

### **Lifecycle Support**

SUSE Linux Enterprise 10 is backed by a seven-year lifecycle guarantee. During that time, you can access all available security patches and bug fixes through Novell Customer Center with an active subscription.

### **Conclusion**

SUSE Linux Enterprise addresses many of the challenges facing government agencies, policymakers, and IT staffs. It is a more secure, more cost-effective, and more reliable way to run an enterprise. Government agencies around the world are discovering the many benefits of switching to open source solutions like SUSE Linux Enterprise. The time is now and your Linux is ready™—discover the difference SUSE Linux Enterprise can make.

For more information about deploying SUSE Linux Enterprise in your government agency or organization, please call 800-583-2900.



Contact your local Novell Solutions Provider, or call Novell at:

1 888 321 4272 U.S./Canada  
1 801 861 4272 Worldwide  
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