Overview
SUSE® technologies are helping Daimler AG, one of the world’s most successful automotive companies, to migrate mission-critical servers from proprietary UNIX operating systems to the open and flexible Linux platform.

Challenge
To make, deploy, run and update applications as easily as possible, Daimler AG aimed to define and maintain a flexible, cost-effective virtual and physical infrastructure.

Historically, a number of proprietary UNIX distributions had been used for various purposes and workloads. Managing multiple environments increased the costs, and required the company to maintain different skill sets to accomplish very similar tasks on different platforms. It also was a significant challenge to determine which machines had the latest updates and which still needed to be patched.

The idea was to create a Linux Platform-as-a-Service (PaaS) solution for internal users based on SUSE Linux Enterprise Server. Based on the use of standardized operating system images, the company expected to accelerate deployments and updates, thereby reducing costs and enabling better compliance with corporate governance directives. This approach would also reduce the ongoing operational work involved in keeping systems patched and secure.

A key target for the new project was to migrate away from UNIX on proprietary hardware towards Linux on commodity x86 servers. The objective was to standardize on SUSE Linux Enterprise Server as a single distribution of Linux wherever practical. The openness and ease of customization of SUSE Linux Enterprise Server, as well as its closeness to UNIX, made it the ideal starting point for this virtual platform concept.

Solution
As the project would include the migration of mission-critical applications, it was necessary to have a Linux distribution with proven stability in enterprise environments, backed by professional vendor-led support.

Building on positive experience with SUSE solutions in its primary data center for several years, the company knew firsthand that the platform was simple to manage. Through SUSE’s focus on mission-critical workloads, the company was confident that SUSE Linux Enterprise Server would offer the right level of support for its business-critical applications. In addition, for those parts of its business that required SAP applications, SUSE offered the assurance of high availability and performance with SUSE Linux Enterprise Server for SAP Applications—a bundle of highly optimized software and services.

Working together with SUSE, the company defined its global corporate standard for Linux based on SUSE Linux Enterprise Server.

Case Study
Server

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<tr>
<th>Client Industry and Location</th>
<th>Automotive, Germany</th>
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<tr>
<td><strong>SUSE Products and Services</strong></td>
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<td>SUSE Linux Enterprise Server</td>
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**Results**
- SUSE software cuts time taken to provision IT services to 20 minutes, simplifying administration and minimizing business disruption
- SUSE Manager boosted security and efficiency with the ability to patch hundreds of servers at once
- The SUSE solution enabled the migration of thousands of instances from UNIX to SUSE Linux Enterprise Server ahead of the original plan
Server. Where appropriate, SUSE Linux Enterprise Server for SAP Applications would be used.

The company deployed SUSE Manager with 28 distributed SUSE Manager proxy servers for comprehensive Linux lifecycle management. SUSE Manager acts as a single, trusted repository for all Linux applications and operating system builds.

Using SUSE Linux Enterprise Server, the company offers a simple process for migrating UNIX applications to Linux. As part of the migration process, SUSE Manager builds a tailored image with the requested packages and features. This part of the process is very fast, requiring just 20 minutes from beginning to end to compile a customized operating system image.

These operating system images may include SUSE Linux Enterprise Server subscriptions with 24x7 Priority Support, a disaster-recovery tool, the SUSE Manager client and SUSE Linux Enterprise Server for SAP Applications with the SUSE Linux Enterprise High Availability Extension. This customization ensures that when migrating SAP-based systems, the optimal environment and support will be configured automatically out of the box.

In the past, certifying internal infrastructure versions for multiple UNIX distributions required a considerable investment of time and effort. Rather than repeating certification tasks for multiple operating systems, procedures are now defined once for the SUSE Linux Enterprise Server platform. SUSE Manager is being used to ensure that all servers within the SUSE landscape meet the agreed standards. This demonstrates how the standardization of the software stack helps reduce costs, accelerate processes and simplify IT governance.

Almost every SUSE Linux Enterprise Server environment is now deployed as a virtualized guest operating system. All of them are managed using SUSE Manager, which provides an accurate, granular overview of the applications and patches installed on each instance. SUSE continues to provide on-site expertise as needed, helping to solve any technical issues that arise during complex or time-sensitive migrations.

**Results**

SUSE Linux Enterprise Server and SUSE Manager have enabled the company to successfully migrate a large proportion of its mission-critical workloads from UNIX to Linux. Moving the majority of existing UNIX workloads to a single platform requires a Linux distribution that is optimized for mission-critical applications, and the company sees that SUSE Linux Enterprise Server offers the targeted levels of stability, security and control.

The success of the transition to the SUSE platform is reflected in the growth of the company’s SUSE Linux Enterprise Server landscape. In the last few years, the number of Linux instances has increased by a factor of four. This considerable expansion demonstrates both the successful ongoing project to migrate UNIX applications to Linux and the organic growth in the company’s web applications where SUSE Linux Enterprise Server has become the preferred platform.

Despite significant growth in the SUSE Linux Enterprise Server environment, management remains easy and cost-effective. With SUSE Manager, hundreds of servers may be organized in groups and patched within minutes instead of days or weeks.

Many important applications now run on SUSE Linux Enterprise Server, including SAP solutions for logistics management. The expansion of the Linux environment has naturally coincided with an equally sharp reduction in the size of the UNIX landscape. The company has cut the number of UNIX instances by 40 percent, as it moves crucial applications to SUSE Linux Enterprise Server. Together with ongoing virtualization initiatives, this phasing out of UNIX in favor of Linux is driving major cost efficiencies, both by reducing the number of skill-sets needed to maintain the system landscape and by reducing dependence on costly proprietary hardware.