![SUSE logo — We adapt. You succeed.]

Global Healthcare Imaging Equipment Manufacturer

This major provider of healthcare imaging equipment chose SUSE® Linux Enterprise Server to run its leading-edge imaging equipment due to this solution's long-term stability and support, matching the 10- to 15-year expected life of the imaging equipment.

Overview

This leader in medical imaging equipment serves hospitals, clinics and doctor offices worldwide. It has development centers around the globe, generates more than US$15 billion in annual sales and employs more than 40,000 people working in more than 10 divisions. Each division specializes in a particular imaging solution. Products include sophisticated workstations that combine various body-scan images to produce detailed replications of the internal body and equipment that produces complex CT scan analysis in house for same-day diagnosis and recommendations.

Challenge

The manufacturer began building its medical imaging equipment around a Linux platform in the early 1990s because it needed the small footprint and the flexibility that only Linux could offer. The company's solutions consist of imaging devices and software developed in house running on off-the-shelf computer hardware. This arrangement has worked well, but because the company had created several in-house versions of Linux over the years, it was running into a standardization and support challenge. Medical devices in the United States are regulated by the U.S. Food and Drug Administration (FDA), which requires

extensive testing and validation whenever a new device comes on the market. As a result, and because of the high cost of the equipment, the expected life of an imaging device is 10 to 15 years. Linux solutions by design evolve very quickly, with versions becoming obsolete within 18 to 24 months. The company employs highly skilled engineers whose time is best spent developing new solutions, but a significant number of engineers were spending their time supporting, testing and validating the ever-changing operating system platform.

Solution

The company decided that it needed to standardize on a commercial version of Linux that would provide a stable long-term platform and outside support. Each division within the company is responsible for its own solutions, and the workstation division had begun developing its own Linux about 1990. By 2006 it was using many versions of Linux, which had become difficult to manage, and began investigating other options. The division determined that it needed the support only a commercial product could offer. The leaders decided on SUSE Linux Enterprise Server to replace the 12 or more versions of Linux it had been running and supporting and worked with SUSE

Customer at a glance:

Leading provider of healthcare imaging equipment with more than US$15 billion in sales and 40,000 employees

■ **Industry and Location**

Healthcare, Worldwide, United States headquarters

■ **Product and Services**

SUSE Linux Enterprise Server
SUSE Developer Services

■ **Results**

+ *Implemented a stable operating system with a lifespan that matches the 10- to 15-year life of the medical equipment*
+ *Now depends on standardized software*
+ *Moved highly skilled engineers from Linux development to other important projects*
+ *Backed by a knowledgeable support organization rather than depending on a few in-house engineers or a volunteer community*

Developer Services (formerly Novell® Developer Services) to plan and develop the total solution. The company valued the fact that SUSE Linux Enterprise Server met the many technical needs of the division's complex workstation product and that SUSE has a very tight relationship with IBM, HP, Dell and the other companies that supply computer products to the imaging systems maker.

Other divisions in the company then began looking at SUSE Linux Enterprise Server as the best platform for their solutions. The division that produces same-day CT scan analysis and recommendations is now running its sophisticated solution on this stable platform. Another division that builds a high-performance computing system based on an IBM BladeCenter now runs SUSE Linux Enterprise Server as appliances on each of the many blades in the system. A significant benefit may be that because SUSE Linux Enterprise Server runs as an appliance, when the company moves to new hardware it may be able meet FDA requirements without the traditional months-long testing and validation. Because the validated appliance images won't change, they can simply move to the new hardware.

Results

Because of FDA testing and validation requirements, the medical device industry doesn't move as fast as other technology-based industries. Once a manufacturer decides on a platform, and once a hospital or clinic purchases the manufacturer's devices, the provider and customer are locked into their decision for many years, up to 15 in many cases. This makes choosing the right platform from the beginning especially important. After running and trying to support 12 or more versions of Linux simultaneously, this medical imaging maker learned that managing its own Linux is not free. It decided to rely on SUSE Linux Enterprise Server, a commercial version of Linux that offers the small footprint and flexibility the company's solutions require with the stability and support the organization needs. The company was able to free up engineers who had been supporting the many Linux versions to focus on developing new technologies for its customers. And because SUSE Linux Enterprise Server runs as an appliance, the company expects to get its products into the hands of its customers more quickly by avoiding the long testing and validation the FDA requires for new medical solutions.

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