An Image of Availability

When Uptime Is Everything

LifeMed is a major provider of medical imaging systems to public and private health care providers plus educational institutions in Finland. Medical imaging exams are transforming patient care delivery as they replace more invasive and costly procedures. LifeMed's diagnostic imaging solutions incorporate best-in-class hardware, software and services to meet the diverse challenges of their clients throughout Finland. This has allowed health care providers to focus on treating people, not managing technology.

As the amount of imaging data generated has increased, so has importance this data plays in completing a patient's medical record. Healthcare providers are now investing in next-generation imaging solutions to capture, share, view, and exchange medical images. Continuous data availability improves patient care, safety and administrative efficiency.

"The Anvil allows us to provide a highly available, secure, scalable and cost-effective service to our healthcare network clients."
Jukka Korkiakoski Project Manager

Executive Summary

LifeMed turned to the *Anvil!* to guarantee on demand access to critical clinical and administrative applications. The *Anvil!* platform hosts several applications that capture, store and distribute medical images. Half of all the digital images in Finland's heath care network are stored on the *Anvil!*.

The *Anvil!* has enabled LifeMed to:

- Ensure on demand (no downtime) access to patient records throughout medical practices, clinics and hospitals.

- Prevent the loss of clinical data due to technology lapses or server outages

- Meet compliance requirements for data protection and reliability.

- Easily scale to allow for changing organizational requirements.

Challenges

LifeMed was facing challenges on two fronts – the rapid growth of image data from an ever expanding customer base; and managing their existing IT infrastructure that wasn't designed with the necessary scalability, security and reliability. Medical professionals in multiple locations required access to patient records – including medical images – over a secure Web interface on a 24/7 basis. It was a priority that the system have the uptime to ensure information access for timely patient care and clinical decision support.

Initially, simple single servers hosted all their imaging/medical record data. As the business started to grow – and with it, the amount of data stored - these servers could not provide sufficient protection against downtime. Without redundant servers/components, the infrastructure had many points of failure. Also, a lot of system administration resources was required to recover from downtime.

How The *Anvil!* Helped

The *Anvil!* keeps LifeMed's imaging applications running without interruption or data loss even in event of a component failure.

The *Anvil!* protects servers and applications from downtime in a way that other availability solutions can't. Its software converges compute, virtualization and storage into a single, intelligent server platform that thinks and acts for itself with virtually no IT team interaction. The software identifies and addresses issues before they cause downtime, ensuring that IT resources are there when they are needed. This is what Alteeve builds toward: catching it before you have to call. It's also allowed the IT team to focus on the applications and services that power their organizations instead of system administration/infrastructure management.

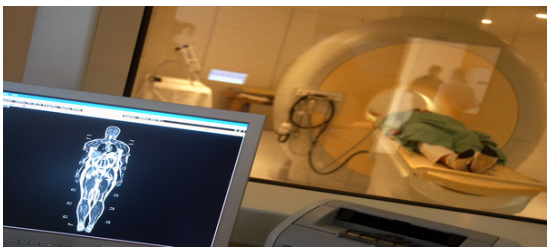
Most importantly, the *Anvil!* solves several important healthcare availability gaps. There is no single point of failure (e.g. no SAN), the system runs autonomously, data is synchronously replicated between the nodes and failover is automated. These are just a few of the features that make a difference for the *Anvil*! compared to other availability solutions.

The flexibility of the *Anvil!* system has allowed LifeMed to offer their diagnostic image solutions as a highly reliable platform service to their medical professional clients.

Results, ROI and Future Plans

The amount of image records stored on the system has increased and the *Anvil!* has been able to easily accommodate the workload growth.

With appliance-like simplicity and full stack redundancy, the *Anvil!* has provided unmatched reliability and predictable performance. This very flexible platform has reduced system administration, eliminated costly downtime and lowered total cost of IT infrastructure ownership.

The *Anvil!* has allowed LifeMed to meet the diverse challenges of their medical imaging strategy today - and to support imaging innovations of tomorrow.

LifeMed have come to appreciate that when uptime is everything, everything must be perfect. When it comes to reliability backed by proven technology, the *Anvil!* stands out from the field as the perfect solution for imperfect conditions.