

CASE STUDY

EvergreenHealth Uses Tintri IntelliFlash™ to Provide World-Class Health Care

IntelliFlash



EvergreenHealth is a premier Seattle-area hospital providing advanced medical and surgical services, minimally invasive joint replacement, maternity care, primary care and cancer care in partnership with Seattle Cancer Care Alliance. The hospital has over 5,000 employees and serves more than 400,000 residents. For over 30 years, EvergreenHealth has offered extensive community health outreach and education programs.

The Challenge: Finding an Affordable Solution that Could Keep up with Performance Demands

Having fast, reliable data storage is one of the most crucial, and often overlooked, elements of what makes a hospital successful. In today's world, with the amount of data only increasing, this task is becoming harder for hospitals to manage. "The amount of storage we need is going up each year, quite rapidly," said Kirill Kuzishchin, Systems Administrator at EvergreenHealth. "Each year, we used to build new servers that had a 100 gigabyte capacity. Now 500 gigabytes is the bare minimum. We expect this number to continue increasing indefinitely."

Prior to IntelliFlash, EvergreenHealth was using block storage systems from two of the largest legacy vendors in the market. While these products met their needs initially, the technology became outdated fast. Suddenly, storage was unable to keep up with the impressive growth of the hospital, both in terms of patient data and overall infrastructure. When EvergreenHealth sought out a price quote to expand its storage, the organization knew it was time to explore new options.

The Solution: Tintri IntelliFlash

"We initially asked for a quote from the largest database application vendor, but it was just too expensive. We knew we could spend our money more wisely and elsewhere," said Kuzishchin. "We did quite a bit of research and talked to several other vendors, including Tegile [now Tintri]. When we invited Tegile [now Tintri] in to show us their solutions, we were sold on it instantly. It was a great product for a fantastic price, one that none of the vendors were even close to matching."

EvergreenHealth purchased both IntelliFlash all-flash and hybrid systems. The setup was smooth and easy for the hospital, which was extremely important since any system downtime can have a serious impact on the patient and doctor experience. "The Tegile [now Tintri] representative who handled our system installation was great," said Michael Buck, Network Support Engineer at EvergreenHealth. "Even when we purchased three more systems, the process was quick and straightforward. The last thing we need is any technical drama – the whole setup was incredibly easy."

IntelliFlash systems are fully redundant with no single point of failure. All media are dual-ported and accessible through a pair of active/active controllers. Users can also take instantaneous, space-efficient snapshots that can be replicated for disaster recovery.

Real-time compression and deduplication on SSD and hard disk throughout the system helps significantly reduce storage acquisition and operational costs. Redundant operating system images in a virtual server platform are reduced to a single instance stored in flash. Hundreds of thousands of persistent VDI instances are shrunk down to one single boot image that can launch in seconds.

Challenges

- EvergreenHealth was unable to scale affordably or strategically due to the high costs associated with its block storage solutions.

Solution

- Tintri IntelliFlash

Results

- Extremely low latency
- 9x improvement in performance
- 60 percent overall data reduction rate
- 70 percent VM data reduction rate



The Results: Low Latency, High Data Reduction and a Smaller Footprint

The transition from spinning disk to IntelliFlash has been smooth. EvergreenHealth still has about a year left in its transition to IntelliFlash, and has been impressed with the results.

“A good data storage solution is critical in a hospital. The entire patient and doctor experience depends on low latency, easy accessibility to files and infrastructure that is always up and running. With IntelliFlash, our patients wait less and our doctors get a faster response time from the system,” said Kuzishchin. “For example, we just switched over our database service to our IntelliFlashSystem, and we’ve seen a significant improvement in response time. The system has improved a lot and everyone notices.”

Using IntelliFlash’s sophisticated dashboard and analytics features, EvergreenHealth is also able to conduct historical analysis and also peek instantly into the health of its systems – something that they could not do before. The organization can also build charts for historical analysis to get a complete understanding of how its systems are performing. If there are any issues, the team knows they can count on Tintri support. “Customer support is always great and extremely responsive. We never lose sleep over any issues,” said Buck. “Tegile [now Tintri] has our back.”

Data reduction and backup speeds have also been quite impressive. “We can backup our databases nine times faster now. We used to have to wait 36 hours – now we do it in four,” said Kuzishchin. “With data reduction, we’re getting a 60 percent rate, and on the VM side, reduction has hit 70 percent. We didn’t realize until we switched to IntelliFlash how much faster, more efficient storage can help our IT environment.”

EvergreenHealth’s whole data center experience has improved. “Three IntelliFlash shelves are the equivalent to a whole rack from our prior setup,” said Kuzishchin. “We’re saving lots of space and costs. Overall, the experience is great – we’ve got a lot more freedom to set up our infrastructure the way we like.”

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Kirill Kuzishchin, Systems Administrator at EvergreenHealth

Experience Different! For more information on how Tintri IntelliFlash can turbo-charge your business success through a simple, Intelligent Infrastructure, visit tintri.com/intelliflash.