Assuring availability of your Epic healthcare applications with FlashStack and Veeam
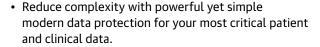
Business challenges

Today, healthcare IT has never been more essential to the outcomes of modern patient care. The world's leading healthcare providers are increasingly turning to the Epic Electronic Medical Records (EMR) platform for efficient and effective delivery of quality patient care. With increased reliance on Epic, it is vital that clinical data and systems are always available, protected and compliant with industry regulations for data security.
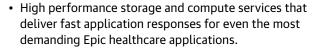
Patient care depends on application availability

Behind the scenes, Epic is a complex platform: Components of a complete Epic solution include InterSystems Caché (now Iris) database, Hyperspace client, Cognito Clarity reporting and analytics, as well as web, print, communication and file services. Maintaining data service performance and availability in complex infrastructure is more vital than ever. With budgets stretched, reducing complexity, reducing costs and remaining compliant while also meeting Epic Honor Roll compliance is now a relevant challenge for healthcare IT.

As healthcare organizations introduce, expand or upgrade Epic, they find that legacy infrastructures and data protection can't keep up with the growing number of users. Slow information exchange puts pressure on clinicians and everyone else who interacts with patients and may negatively impact patient care. Yet, upgrading existing storage solutions can be prohibitively expensive and lead to a cycle of "rip and replace" every few years, interfering with business operations and clinical care. Legacy data protection systems also can't keep up with the growing environments and put you at risk of potential downtime or data loss. Given the need for a fast-performing data infrastructure that's scalable over time and a Modern Data Protection solution that can assure availability, healthcare organizations are evaluating new infrastructure and data protection solutions.

Business benefits

- Reduce complexity with powerful yet simple modern data protection for your most critical patient and clinical data.

- High performance storage and compute services that deliver fast application responses for even the most demanding Epic healthcare applications.

- Cloud-like infrastructure management and simplicity, including automated deployment and management that's provided through Cisco Intersight software.

- Reduce IT and storage costs as Pure Storage, Cisco and Veeam leverage deduplication, compression and native object storage integrations with Amazon S3, Azure Blob Storage and S3-compatible service providers to deliver up to 10x savings on long-term data retention costs.

- Protects and provides long-term retention for the critical Intersystems Caché and Iris database that stores all persistent Epic EHR clinical data while providing Honor-Roll-Compliant data availability.

The combination of FlashStack and Veeam boost Epic performance and assures application and data resiliency

Gain the speed, reliability, resiliency and performance to deliver the highest levels of patient care.

FlashStack: A proven infrastructure for Epic

FlashStack, a Cisco and Pure Storage infrastructure solution, meets and exceeds all these attributes. FlashStack is an AI-based and software-defined hybrid-cloud infrastructure, that combines compute, network and storage components into a single, integrated solution that is highly valued by data-intensive organizations. FlashStack is rated as "High Comfort" for all Epic applications, the highest-level rating awarded by Epic's quarterly Storage Product and Technology Status (SPATS) guide. This guide is measured through rigorous testing and customer feedback. Pure Storage has maintained this rating since 2017. Additionally, FlashStack also ranks as "Very Common" in Epic's prevalence dimension, which is the highest ranking in that category.

Fast and reliable to support care delivery

FlashStack's latency is consistently less than a millisecond, so clinicians always have quick access to the clinical information that's needed to support patient care. Pure customer experience shows that FlashStack performance can fulfill three times the demand of Epic's largest customers.

Patient care depends on application availability

Veeam: Proven data protection for Epic

Veeam® protects clinical applications for more than 20,000 healthcare providers worldwide who run every major EMR including Epic, Cerner, Allscripts and MEDITECH. These providers trust Veeam to provide proven protection and recovery of their clinical applications. Veeam delivers reliability with simplicity and flexibility, at a low total cost of ownership, which allows staff to focus on building new clinical solutions and facilitating their journey to the cloud.

The digital revolution is transforming the healthcare industry, bringing new opportunities for innovation while introducing the challenges of explosive data growth and criticality. While every industry is undergoing the trials and tribulations of modernization, the stakes for healthcare are particularly high. Healthcare IT teams are inundated from all sides with demands for non-stop access for every user on every type of device with no tolerance for downtime. On top of this, the requirement for data management across hybrid environments that span on-premises, private cloud and public cloud resources.

Veeam Epic EHR system data protection

Veeam delivers simple, agile and reliable solutions for Epic's suite of applications, protecting workloads across all clinical environments while simplifying data protection operations. Meeting Epic's Honor Roll Compliance is easy with Veeam's integration with FlashStack to efficiently create a 3-2-1-1-0 model of data protection. This means there's three copies of your data on two different storage systems with one off-site data copy, with one ultra-resilient or immutable copy and with no errors after automated backup testing and recoverability verification. In addition, multi-year data retention for compliance does not need to break the ever-stretched budget, since Pure Storage, Cisco and Veeam seamlessly deliver deduplication, compression and native object storage integrations with Amazon S3 and Azure Blob and can protect your backups against ransomware with immutable repositories both on- and off-site.

Business benefits

- **Lower costs, superior scalability**
  FlashStack keeps pace with all the ways healthcare organizations choose to expand Epic while delivering data storage that's highly efficient, resilient and cost-effective.

- **Software-defined**
  Reduce IT costs while improving outcomes. Easily scale across on-premises and hybrid cloud environments. Upgrade without disruptions and focus on your business, not on IT.

- **Cloud managed**
  Improve visibility, control and responsiveness with a single, integrated management solution for the entire stack, both on-premises and in the cloud.

- **AI-enabled**
  FlashStack management is now AI-enabled. Pure1 and Intersight can recognize and respond to the status of each layer, taking proactive action to respond to business needs instantly.

- **Always available**
  FlashStack delivers 99.9999% availability and requires no planned downtime for maintenance or upgrades, so there's no disruption to patient care or business processes. System components can be easily replaced (i.e., hot-swapped) while FlashStack is running.

- **Secure and resilient**
  Pure Storage's SafeMode Snapshots create secure snapshots every time a full backup is performed. These snapshots can't be altered, encrypted, or deleted even if admin credentials have been compromised. SafeMode, combined with FlashStack's rapid restore capabilities, helps organizations recover quicker from ransomware attacks.

Benefits:

- Epic-validated fast backup of Caché
- Protect hyperspace infrastructure as well as web- and service-tier workloads
- Protect Clarity Analytics Databases and WebBlob on NAS; Veeam delivers high-performance, agentless backups for Caché on Linux at three to five times the speed of other methods.

Veeam works closely with Epic to validate our methodologies, and Epic has no concerns with using Veeam to protect Caché on Linux. In addition, by automating the "right to be forgotten" process with Veeam, organizations can ensure compliance and successful audits and save time and resources while maintaining compliance as requests grow.

Epic Electronic Medical Records

FlashStack

Backup from Storage Snapshots

Snapshot Orchestration

Explorers™ for Storage Snapshots

On-Demand Sandbox™
for Storage Snapshots

Conclusion

Pure Storage, Cisco and Veeam deliver complete end-to-end infrastructure and data protection for Epic, assuring availability for all virtualized and physical workloads. On-premises enterprise or hybrid-cloud application and infrastructure automation has increased agility with a scalable architecture that supports growth with new Epic releases or applications. Protect your data no matter the location or workload type while reducing complexity and cost with Cisco, Pure Storage and Veeam.

Veeam Backup & Replication

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