Nutanix Solution for MEDITECH EHR

Bringing the Power of Web-Scale to MEDITECH Electronic Health Records

Whether your organization is a large practice with multiple locations, a single-facility hospital, or a care network, Nutanix Enterprise Cloud Platform delivers invisible infrastructure to support your MEDITECH EHR deployment.
With Nutanix, you can:

- Consolidate onto a web-scale platform that can serve all of your workloads, including Citrix XenApp, Citrix XenDesktop, and VMware Horizon View, to deliver the efficiency of fully web-based mobile EHR in 80% less space than traditional datacenter infrastructure.

- Start small and linearly scale performance and capacity one node at a time to meet demands—avoiding the overprovisioning inefficiencies common with three-tier infrastructure.

- Use existing networks to keep applications and critical data available with the Nutanix self-healing platform, VM-centric data protection, and affordable business continuity.

- Get a production site up and running in hours and simplify ongoing operations by as much as 50% with a consolidated view into applications, VMs, servers, and storage across different locations.

To make the most of today's innovative EHR offerings, IT teams often find themselves piecing together custom infrastructure solutions using separate servers and storage. With the increased complexity required to handle the large volumes of information EHR systems must store and manage, healthcare organizations also need improved application performance, while simultaneously maintaining comprehensive data security, confidentiality, and high availability.

LARGE PRIVATE HOSPITAL GROUP RUNS MEDITECH EHR ON NUTANIX
One of the top 5 private hospital operators in the world runs their MEDITECH EHR on Nutanix. The deployment consists of eight Nutanix 8000 nodes to run their MEDITECH 6.1 environment, with VMware virtualization reducing the entire production MEDITECH environment into a physical footprint of one-eighth of a rack (8 RU).

Several other customers run the MEDITECH presentation tier on Nutanix, but this particular customer has pushed the boundaries and deployed all MEDITECH 6.1 server VMs on Nutanix, leading to increased performance and enhanced end-user experience with this configuration.

NUTANIX
Your Enterprise Cloud Platform

INNOVATIVE SOLUTION FOR MEDITECH DATABASE BACKUP

Finding an efficient way to back up the MEDITECH database on a virtualized storage system has long been a roadblock for customers. This challenge has been resolved through the use of a simple script (available from Nutanix) that performs the following functions for Nutanix nodes running MEDITECH:

- Quiesce NPR (Non-Procedural Representation)
- Nutanix snapshot of the NPR group
- Unquiesce NPR
- Quiesce MAT (MEDITECH Advanced Technology)
- Nutanix snapshot of the MAT group
- Unquiesce MAT
- After a small wait for snapshots to be fully registered, snapshots are restored as VM copies (with a path and name prefix)
- VM copies are automatically registered in vCenter and NetBackup (or your backup tool of choice) and can then be backed up

This backup process provides complete data protection for MEDITECH VMs, and the snapshot script requires only a few minutes to run.

This backup approach will enable you to:

- Run full VM copies with no restore time to check data integrity, or run as a dev/test environment
- Obtain quick quiescing time
- Back up full VMs, instead of just one partition or LUN
- Dedupe and compresses all stateless servers with no performance impact
- Obtain better storage efficiency
- Achieve compatibility with existing backup tools, including NetBackup

Because quiescing needs to be triggered on servers as a whole and not individually, one server acts as the scheduler (in this case, the main TS server). The MEDITECH Backup Facility (MBF) tool is loaded on this server.

Additional Notes on the customer deployment:

1. All MEDITECH VM's are running on VMware ESX.
2. Dynamic Resource Scheduling (DRS) is set conservatively.
3. Fault tolerance is not in use.
4. 2 protection Domains (on Nutanix) have been created to differentiate NPR and MAT.

ONE EFFICIENT PLATFORM FOR ALL

Nutanix enables you to virtualize and consolidate your entire MEDITECH environment on a single cost-effective, hyperconverged cluster. Scaling is also very simple with Nutanix, allowing you to go from pilot to production and beyond, without redesigning your architecture or incurring any downtime. With Nutanix, you will gain the ability to pay only as you grow your EHR environment.

MISSION-CRITICAL AVAILABILITY

Nutanix enables you to maintain mission-critical levels of availability using a combination of powerful features, including tunable redundancy, integrated data protection, Metro Availability, transparent Controller VM failover, and nondisruptive upgrades. Whether you are running virtualized applications or desktops, or using Nutanix for your backend database, you can be assured that it will meet your stringent uptime, RPO, and RTO needs for MEDITECH.

SIMPLIFIED MANAGEMENT WITH PRISM

The Nutanix web-scale architecture goes well beyond hyperconvergence by offering you the ability to start small and easily scale to tens and hundreds of nodes, while giving you a simple and efficient way to manage your entire environment. With Nutanix Prism, you will get one intuitive console to manage all of your servers and storage, with actionable stats at your fingertips, cutting the time spent managing infrastructure by 50% or more.

Prism Central extends this capability, allowing you to manage your entire infrastructure for EHR across multiple sites from one centralized location. By giving you access to detailed and correlated information for all VMs, compute, and storage, Prism simplifies and speeds troubleshooting, enabling you to locate bottlenecks in minutes, versus hours or even days with traditional server and storage solutions.

Figure 2:
Centralized management for multiple sites, correlated information on VM, compute, and storage

GET STARTED WITH NUTANIX

You can choose to work directly with Nutanix or take advantage of third-party partner services for your infrastructure, EHR solutions readiness, and complete site configuration. With Nutanix, you will get the peace-of-mind that comes from working with a single point of contact for all of your needs.

For further information on Nutanix healthcare solutions, visit:
www.nutanix.com/
solutions/healthcare/
http://www.nutanix.com/
MEDITECH

If you're interested in learning more about MEDITECH or other healthcare customer deployments on Nutanix, contact your authorized Nutanix representative today to arrange for an assessment of your healthcare IT environment and learn more about the latest solutions that will fit your needs.

NUTANIX™
Your Enterprise Cloud Platform

Nutanix makes infrastructure invisible, elevating IT to focus on the applications and services that power their business. The Nutanix enterprise cloud platform leverages web-scale engineering and consumer-grade design to natively converge compute, virtualization and storage into a resilient, software-defined solution with rich machine intelligence. The result is predictable performance, cloud-like infrastructure consumption, robust security, and seamless application mobility for a broad range of enterprise applications. Learn more at www.nutanix.com or follow us on Twitter@nutanix.