



TR-4774: FlexPod for MEDITECH Directional Sizing

FlexPod

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In partnership with:



This report provides guidance for sizing FlexPod for a MEDITECH EHR application software environment.

Purpose

FlexPod systems can be deployed to host MEDITECH EXPANSE, 6.x, 5.x, and MAGIC services. FlexPod servers that host the MEDITECH application layer provide an integrated platform for a dependable, high-performance infrastructure. The FlexPod integrated platform is deployed rapidly by skilled FlexPod channel partners and is supported by Cisco and NetApp technical assistance centers.

Sizing is based on information in MEDITECH's hardware configuration proposal and the MEDITECH task document. The goal is to determine the optimal size for compute, network, and storage infrastructure components.

The [MEDITECH Workload Overview](#) section describes the types of compute and storage workloads that can be found in MEDITECH environments.

The [Technical Specifications for Small, Medium, and Large Architectures](#) section details a sample Bill of Materials for the different storage architectures described in the section. The configurations given are general guidelines only. Always size the systems using the sizers based on the workload and tune the configurations accordingly.

Overall solution benefits

Running a MEDITECH environment on the FlexPod architectural foundation can help healthcare organizations improve productivity and decrease capital and operating expenses. FlexPod provides a prevalidated, rigorously tested, converged infrastructure from the strategic partnership of Cisco and NetApp. It is engineered and designed specifically for delivering predictable low-latency system performance and high availability. This approach results in faster response time for users of the MEDITECH EHR system.

The FlexPod solution from Cisco and NetApp meets MEDITECH system requirements with a high performing, modular, prevalidated, converged, virtualized, efficient, scalable, and cost-effective platform. FlexPod Datacenter with MEDITECH delivers several benefits specific to the healthcare industry:

- **Modular architecture.** FlexPod addresses the various needs of the MEDITECH modular architecture with customized FlexPod systems for each specific workload. All components are connected through a clustered server and storage management fabric and use a cohesive management toolset.
- **Simplified operations and lowered costs.** You can eliminate the expense and complexity of legacy platforms by replacing them with a more efficient and scalable shared resource that can support clinicians wherever they are. This solution delivers better resource usage for greater return on investment (ROI).

- **Quicker deployment of infrastructure.** The integrated design of FlexPod Datacenter with MEDITECH enables customers to have the new infrastructure up and running quickly and easily for both on-site and remote data centers.
- **Scale-out architecture.** You can scale SAN and NAS from terabytes to tens of petabytes without reconfiguring running applications.
- **Nondisruptive operations.** You can perform storage maintenance, hardware lifecycle operations, and software upgrades without interrupting the business.
- **Secure multitenancy.** This benefit supports the increased needs of virtualized server and shared storage infrastructure, enabling secure multitenancy of facility-specific information. This benefit is important if you are hosting multiple instances of databases and software.
- **Pooled resource optimization.** This benefit can help reduce physical server and storage controller counts, load balance workload demands, boost utilization, and simultaneously improve performance.
- **Quality of service (QoS).** FlexPod offers quality of service (QoS) on the entire stack. Industry-leading QoS storage policies enable differentiated service levels in a shared environment. These policies enable optimal performance for workloads and help in isolating and controlling runaway applications.
- **Storage efficiency.** You can reduce storage costs with NetApp 7:1 storage efficiency.
- **Agility.** The industry-leading workflow automation, orchestration, and management tools offered by FlexPod systems allow IT to be far more responsive to business requests. These business requests can range from MEDITECH backup and provisioning of more testing and training environments to analytics database replications for population health management initiatives.
- **Productivity.** You can quickly deploy and scale this solution for optimal clinician end-user experiences.
- **Data Fabric.** The NetApp Data Fabric architecture weaves data together across sites, beyond physical boundaries, and across applications. The NetApp Data Fabric is built for data-driven enterprises in a data-centric world. Data is created and used in multiple locations, and is often shared with applications and infrastructures. Data Fabric provides a way to manage data that is consistent and integrated. It also offers IT more control of the data and simplifies ever-increasing IT complexity.

Scope

This document covers environments that use Cisco UCS and NetApp ONTAP based storage. It provides sample reference architectures for hosting MEDITECH.

It does not cover:

- Detailed sizing guidance using NetApp System Performance Modeler (SPM) or other NetApp sizing tools.
- Sizing for nonproduction workloads.

Audience

This document is intended for NetApp and partner systems engineers and NetApp Professional Services personnel. NetApp assumes that the reader has a good understanding of compute and storage sizing concepts as well as technical familiarity with Cisco UCS and NetApp storage systems.

Related Documents

The following technical reports and other documents are relevant to this Technical Report, and make up a complete set of documents required for sizing, designing, and deploying MEDITECH on FlexPod infrastructure.

- [TR-4753: FlexPod Datacenter for MEDITECH Deployment Guide](#)
- [TR-4190: NetApp Sizing Guidelines for MEDITECH Environments](#)
- [TR-4319: NetApp Deployment Guidelines for MEDITECH Environments](#)



Login credentials for the NetApp Field Portal are required to access some of these reports.

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