Volume configuration

FlexPod

NetApp
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Volume provisioning

MEDITECH volumes that are dedicated for MEDITECH hosts can be either thick or thin provisioned.

Default volume-level Snapshot copies

Snapshot copies are created as part of the backup workflow. Each Snapshot copy can be used to access the data stored in the MEDITECH LUNs at different times. The MEDITECH- approved backup solution creates thin-provisioned FlexClone volumes based on these Snapshot copies to provide point-in-time copies of the MEDITECH LUNs. The MEDITECH environment is integrated with an approved backup software solution. Therefore, NetApp recommends that you disable the default Snapshot copy schedule on each of the NetApp FlexVol volumes that make up the MEDITECH production database LUNs.

Important: FlexClone volumes share parent data volume space, so it is vital for the volume to have enough space for the MEDITECH data LUNs and the FlexClone volumes that the backup servers create. FlexClone volumes do not occupy more space the way that data volumes do. However, if there are huge deletions on the MEDITECH LUNs in a short time, the clone volumes might grow.

Number of volumes per aggregate

For a NetApp FAS system that uses Flash Pool or NetApp Flash Cache caching, NetApp recommends provisioning three or more volumes per aggregate that are dedicated for storing the MEDITECH program, dictionary, and data files.

For AFF systems, NetApp recommends dedicating four or more volumes per aggregate for storing the MEDITECH program, dictionary, and data files.

Volume-level reallocate schedule

The data layout of storage becomes less optimal over time, especially when it is used by write-intensive workloads such as the MEDITECH Expanse, 6.x, and C/S 5.x platforms. Over time, this situation might increase sequential read latency, resulting in a longer time to complete the backup. Bad data layout or fragmentation can also affect the write latency. You can use volume-level reallocation to optimize the layout of data on disk to improve write latencies and sequential read access. The improved storage layout helps to complete the backup within the allocated time window of 8 hours.

Best practice
At a minimum, NetApp recommends that you implement a weekly volume reallocation schedule to run reallocation operations during the allocated maintenance downtime or during off-peak hours on a production site. NetApp highly recommends that you run the reallocation task on one volume at a time per controller.

For more information about determining an appropriate volume reallocation schedule for your production database storage, see section 3.12 in NetApp TR-3929: Reallocate Best Practices Guide. That section also guides you on how to create a weekly reallocation schedule for a busy site.

Next: LUN Configuration.