

Veritas NetBackup with Anzen

Data protection for the quantum
computing age and beyond.



Introduction

As quantum technology progresses, the need to shield data and intellectual property against a range of existing and emerging threats grows more urgent. Anzen's innovative technology combined with Veritas' data protection solutions, brings users unparalleled security paired with efficient data management. The solution stands immune to brute force attacks, including those from quantum computers, ensuring robust and future-proof information security.

Solution Value

Veritas NetBackup is known as a best-in-class data protection solution for enterprises on-premises, hybrid, and cloud environments. NetBackup provides protection for a wide variety of workloads such as files, databases, virtual machines, cloud instances, Kubernetes, and more. It has built-in security features such as immutability, encryption, multi-factor authentication, AI powered anomaly detection, threat hunting, adaptive MFA and MPA, and automated malware scanning to protect and detect data from cyber-attacks. For fast recovery, NetBackup offers features such as instant access and instant rollback for certain workloads as well as an option to recover to an isolated environment to limit risk of recontamination.

NetBackup coupled with Anzen technology as an S3 target storage for backup images provides added security and protection of critical digital assets which includes:

- **Security Hardening:** Mitigate attack surface concentration, data aggregation, and insider breach risk.
- **Futureproofed Anonymization and Data Sharding:** An additional security layer complementing existing protections, ensuring resilience against evolving threats to public cloud backup.
- **Federated, Multi-Cloud Data Protection:** Guard against unauthorized bulk data exfiltration, eradicating single location breach risk.
- **Power Cloud Adoption:** Assure security and sovereignty control and foster confidence in adoption of public cloud services.

Solution Overview

Architecturally, NetBackup backs up data from sources needing data protection and uses the AnzenStore S3 API as a storage target as shown in Figure 1. AnzenStore receives data after which it anonymizes and shards it, distributing those shards to multiple object stores in the cloud (any mixture of AWS S3, S3 compatible, Azure Blob Storage). Utilizing Anzen's modular 'connector' architecture customers can take advantage of hybrid-cloud/multi-cloud storage configurations to further increase security, and reduce risks outlined in the previous section, by distributing shards across vendors. Anzen's storage connectors are used by the Storage Gateway to seamlessly integrate with a range of providers and offer continued opportunities to support new providers in the future.

Anzen technologies has been validated by Veritas labs as an S3 target storage for NetBackup. For specific Anzen versions supported with NetBackup, please refer to [Veritas Hardware and Cloud Storage Compatibility List \(HCL\)](#).

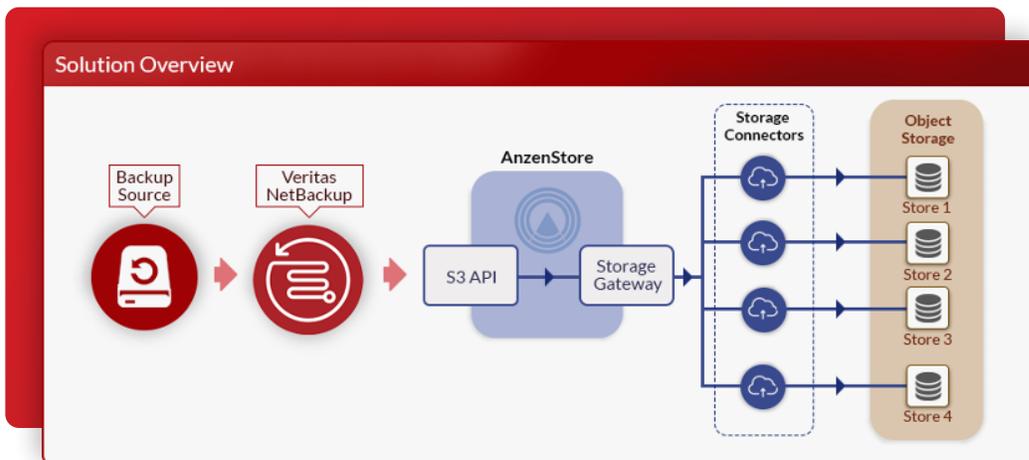


Figure 1 - Veritas NetBackup with Anzen as S3 Target Storage

Solution Deployment

Deployment of Anzen with NetBackup requires connections details from Anzen which include:

- **Secret Key:** Received as outputs from deployment scripts.
- **Access Key:** Received as outputs from deployment scripts.
- **Endpoint Address:** Received as outputs from deployment scripts.

Data can be sent to Anzen either deduplicated using NetBackup media server deduplication pool (MSDP) or direct to Anzen without deduplication. Below are examples of how to configure Anzen with and without deduplication of data. For more details relating to each of the products in this solution, please refer to the product documentation in the references section of this document.

Configuration Files

If using NetBackup versions 10.1 thru 10.4, cloud configuration files package would need to be downloaded and installed as indicated in the [NetBackup Hardware and Cloud Storage Compatibility Lists](#) to use Anzen as an S3 target storage. There is a “Read me” in the [cloud configuration files package](#) download website that describes installation instructions per your platform. For major releases after NetBackup 10.4, the configuration file that has support for Anzen is already included with the release and installation of this package would not be required. Here is an example installation of this package on a Linux platform and using NetBackup version 10.4:

1. Download and copy the cloud configuration file into a temporary directory on the NetBackup primary server.

2. Extract the tar file into the temporary directory

```
# cd /tmp
# tar xvf NB_CloudConfig_v2125.tar
CloudProvider.xml
cacert.pem
```

3. Copy the CloudProvider.xml to /usr/opensv/var/global/cloud directory

```
# cp CloudProvider.xml /usr/opensv/var/global/cloud
```

4. Re-initialize the list of cloud providers.

```
# /usr/opensv/netbackup/bin/admincmd/csconfig R
Reinitialized CloudStore Service Container successfully.
```

5. Verify Anzen is on list of cloud providers.

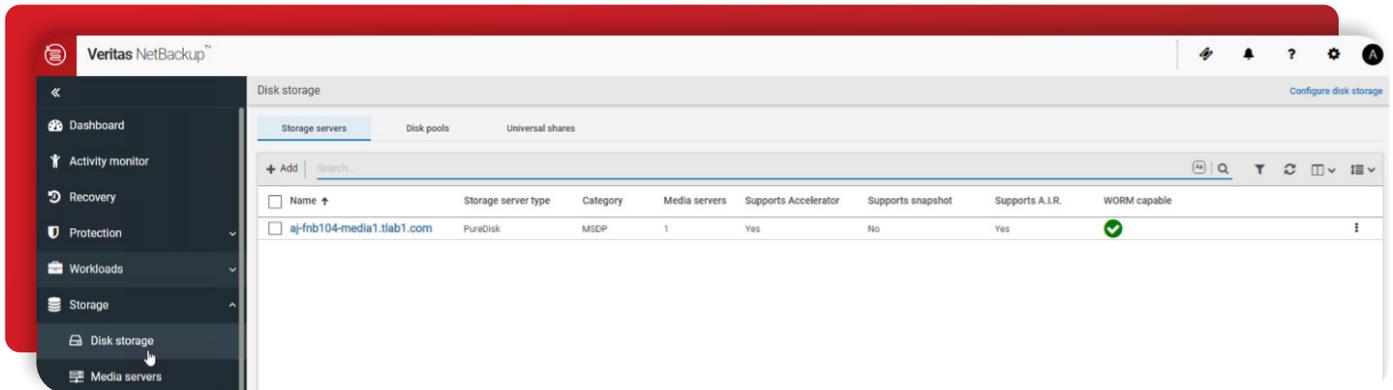
```
# /usr/opensv/netbackup/bin/admincmd/csconfig cldprovider -l
```

```
EMC-ECS (EMC ECS - EMC Elastic Cloud Storage)
QTM-AS (Quantum ActiveScale - Quantum Cold Storage)
QTM-Lattus (Quantum Lattus - Object Storage)
acpcs3 (ACP Cloud Storage - ACP Cloud Storage CS3)
alibaba (Alibaba Cloud - Alibaba Cloud Object Storage Service (OSS))
amazon (Amazon - Simple Storage Service)
amazongov (Amazon GovCloud - Simple Storage Service)
anzenstore (AnzenStore Cloud Storage - Anzen Technology System Ltd)
atmoss3 (EMC ATMOS Private Cloud - ATMOS object storage)
atnt-cs (AT&T S3 - AT&T S3 Cloud Storage (ACS))
azure (Microsoft Azure - Microsoft Azure Storage Service)
```

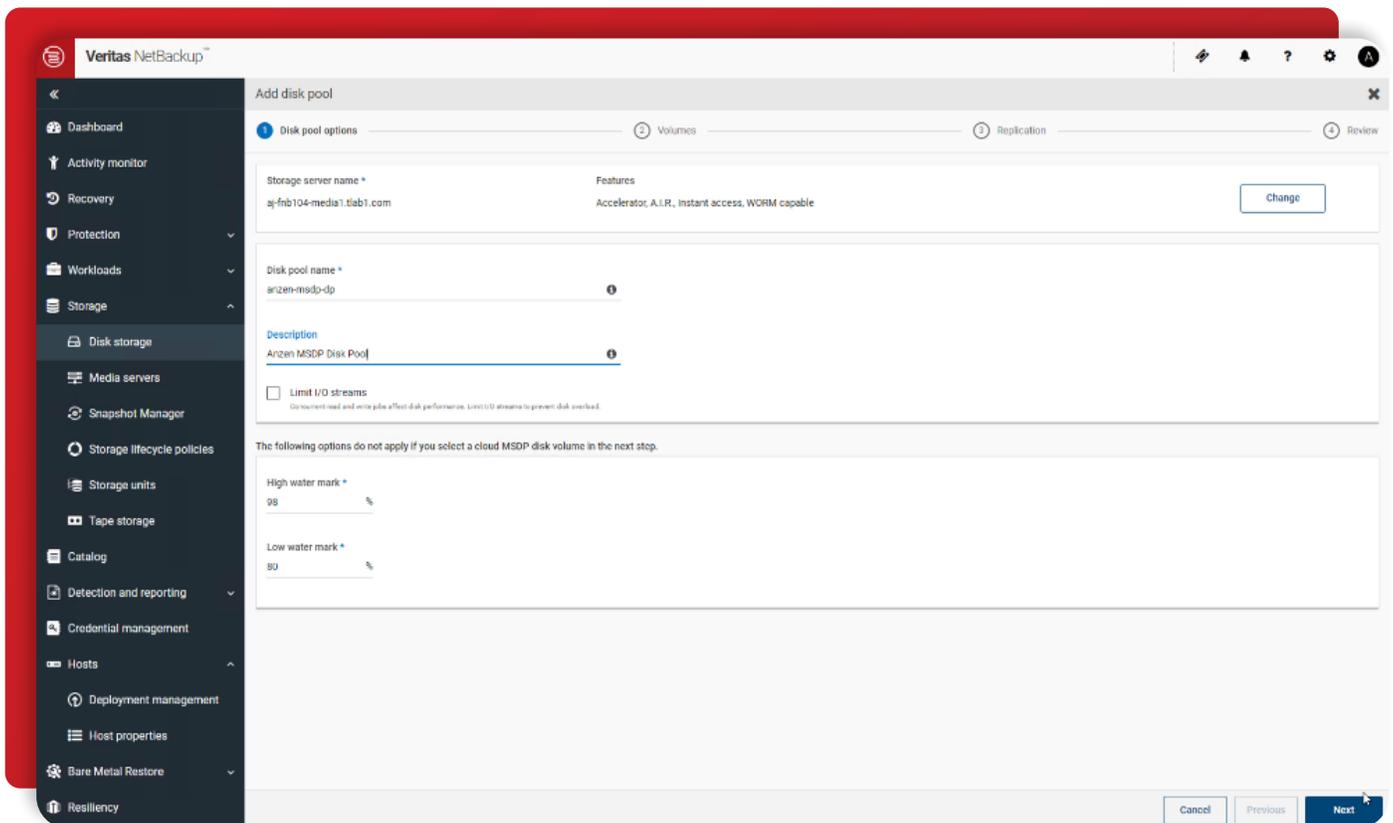
Configuration of NetBackup with MSDP (deduplication) and Anzen

The steps described below is an example of how to configure NetBackup version 10.4 with Anzen as an S3 target storage. The data is first deduplicated by NetBackup using MSDP prior to sending it to Anzen.

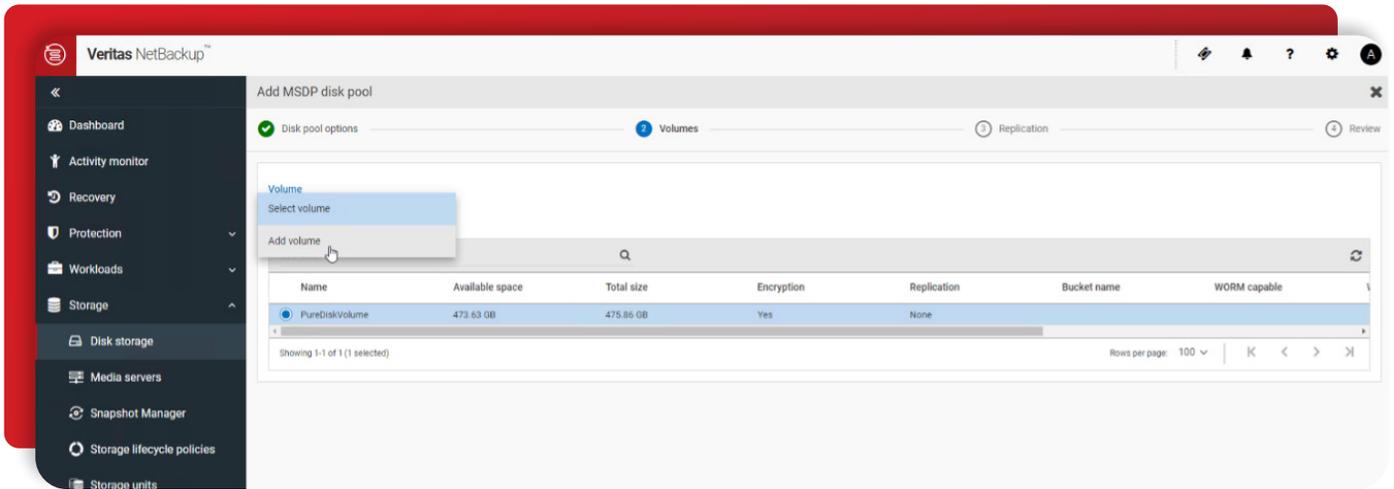
1. Verify that you already have an MSDP Storage Server defined as shown below.



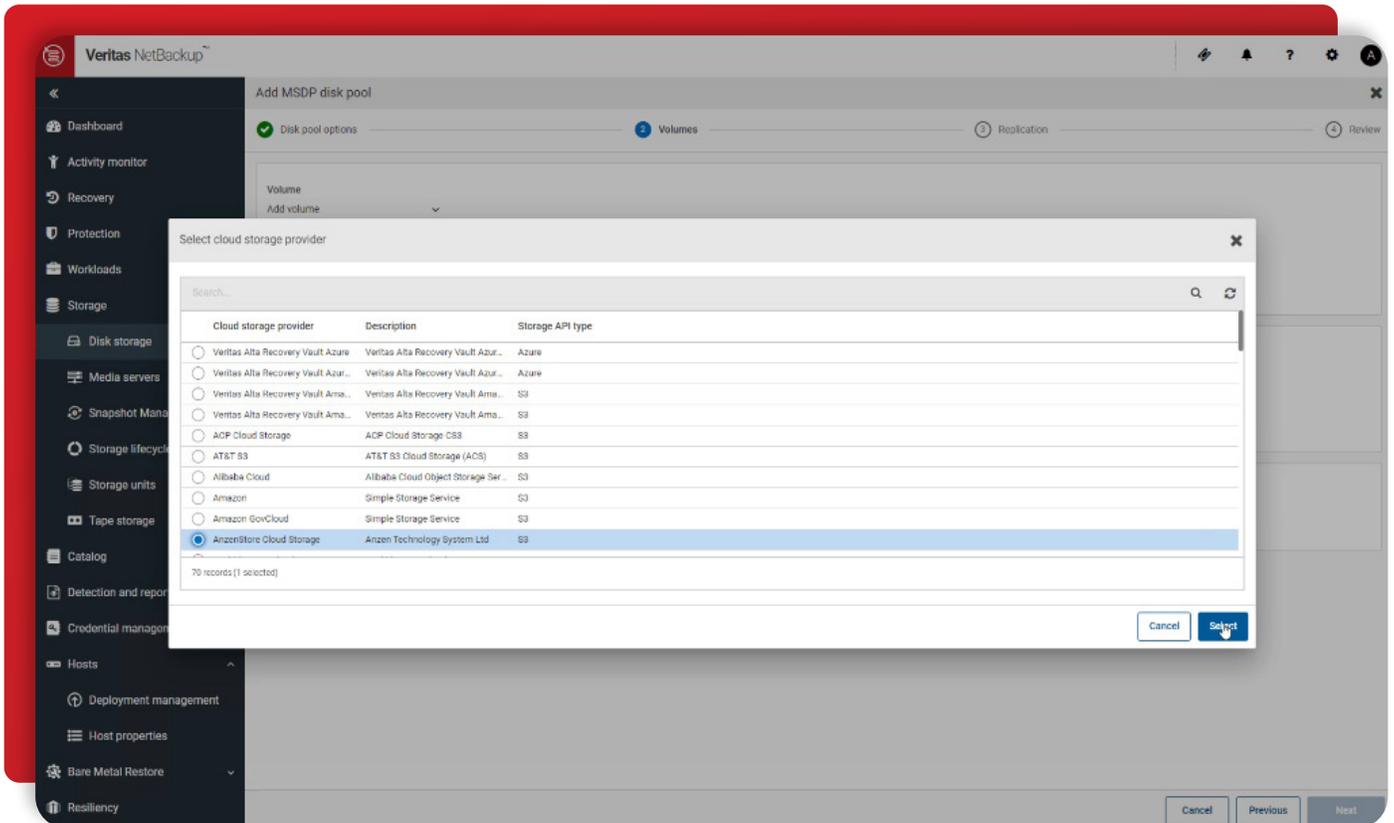
2. Select the **Disk Pools** tab, press **Add** and **change** the Storage Server to the MSDP storage server configured. Specify a unique name to the disk pool and provide a description if needed. Then click **Next**.



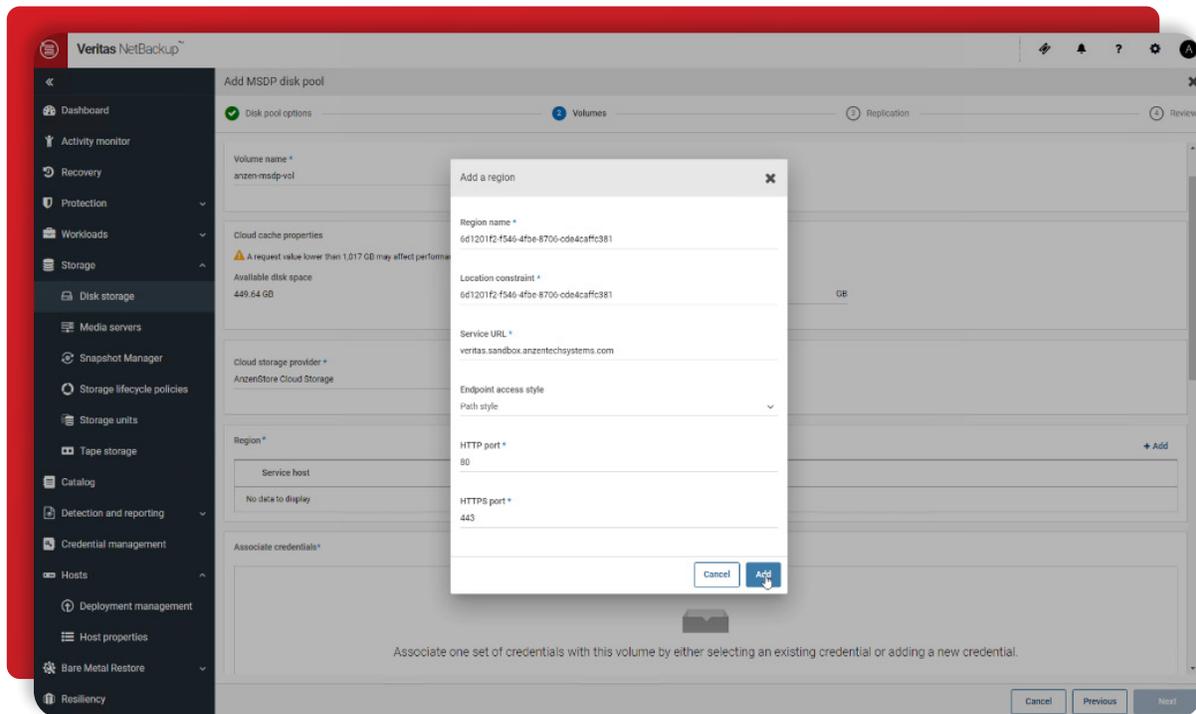
3. In next screen, select **Add volume**.



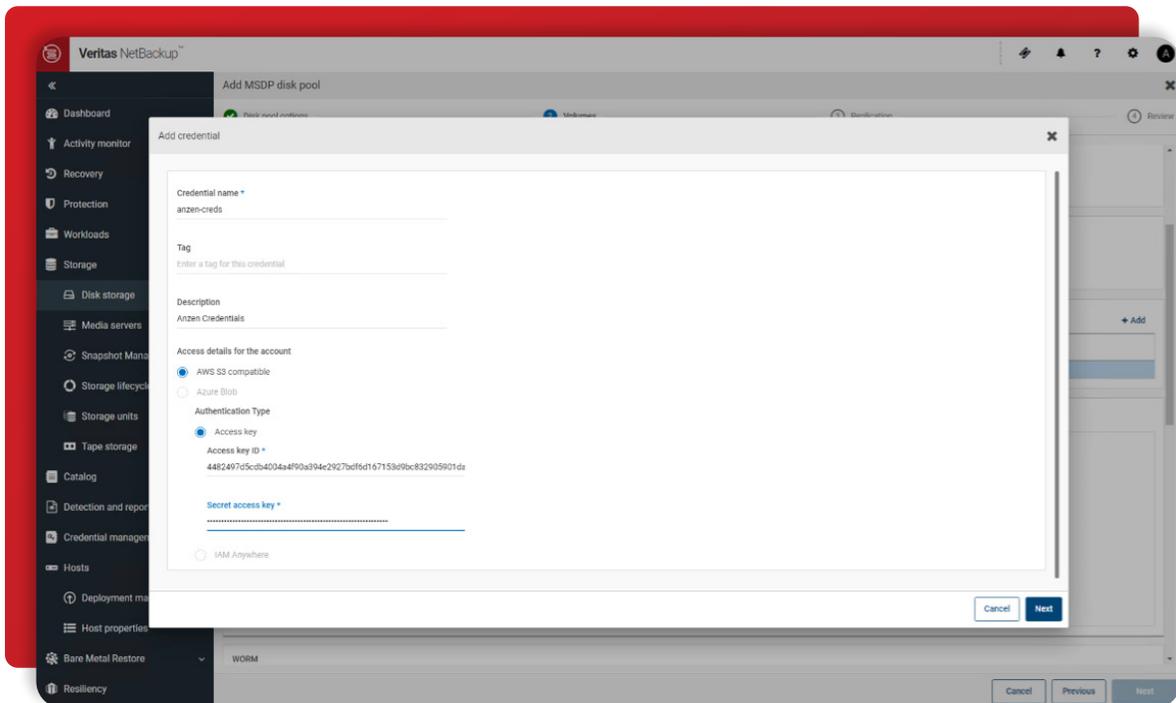
4. At the next screen, enter the desired volume name and once you click the line under **Cloud storage provider** a dialog box will pop-up and select **AnzenStore Cloud Storage**.



- Continue to scroll down to **Region** section and click **Add** to add a region. From the connection details that Anzen provided, specify the region name, location constraint (also the region name), the Anzen endpoint as the Service URL and use default values for the HTTP and HTTPS ports. NetBackup with Anzen supports both path and virtual hosted styles. Then, click **Add**.

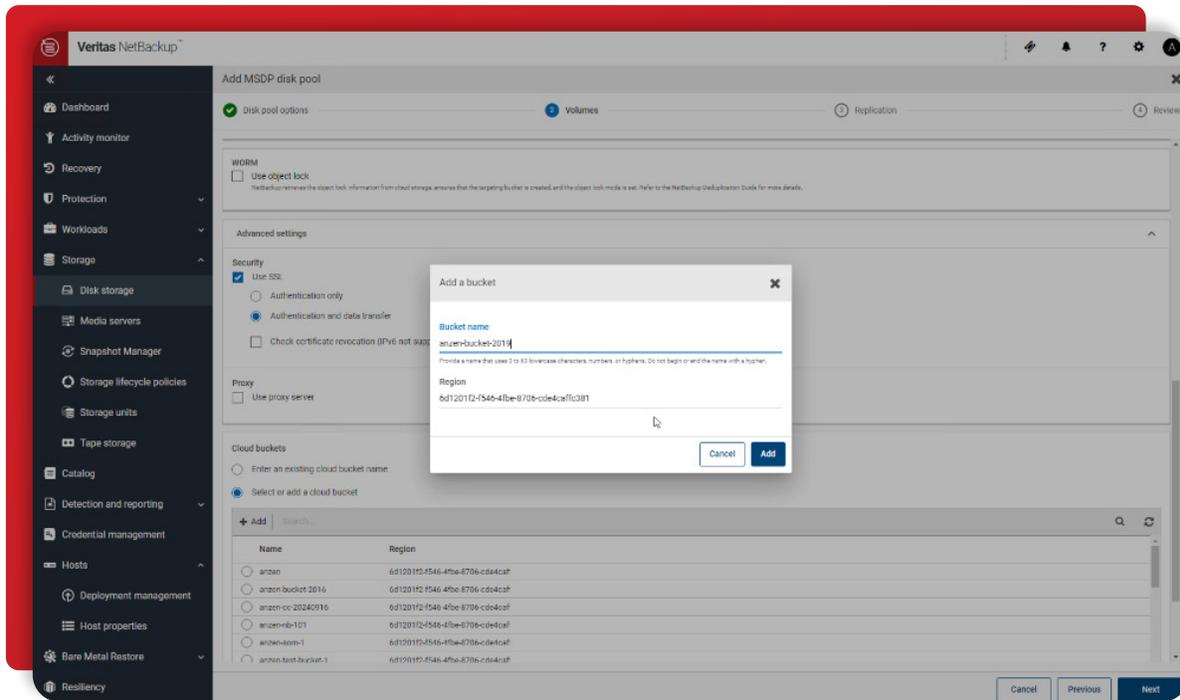


- Under **Associate credentials**, click **Add** a new credential, specify desired name for the credential and enter the secret key and access key provided by Anzen, click **Next** and **Save**.

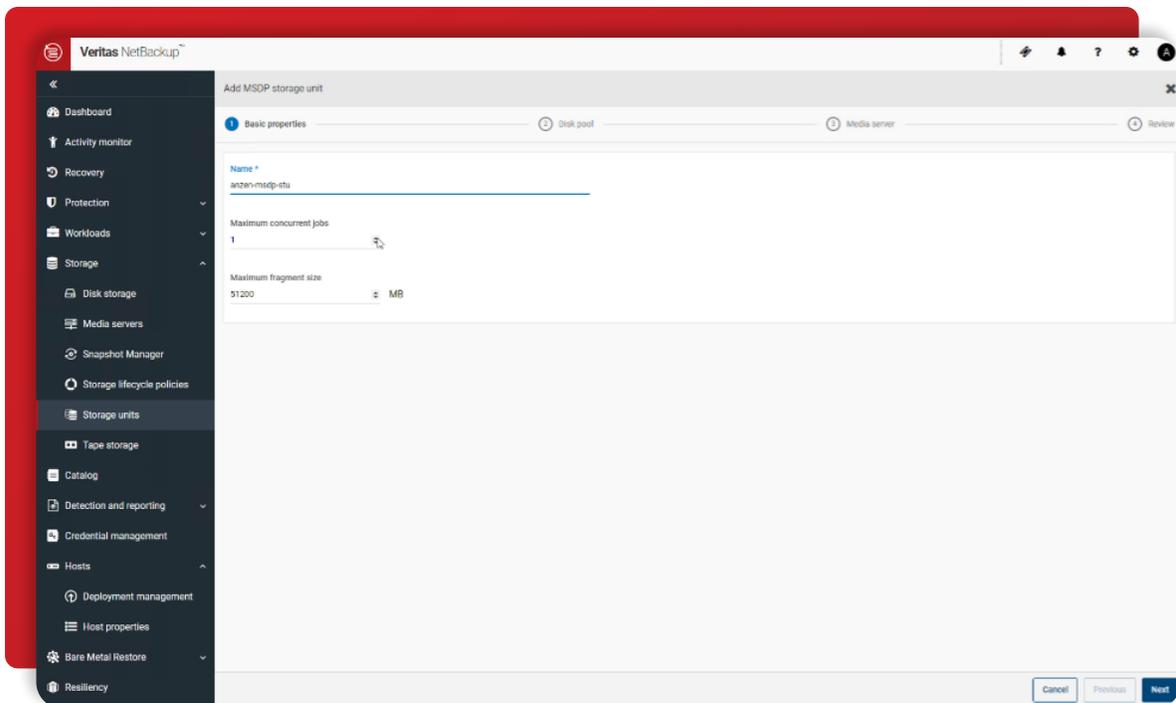


- Under **Advanced settings**, uncheck **Check certificate revocation**.

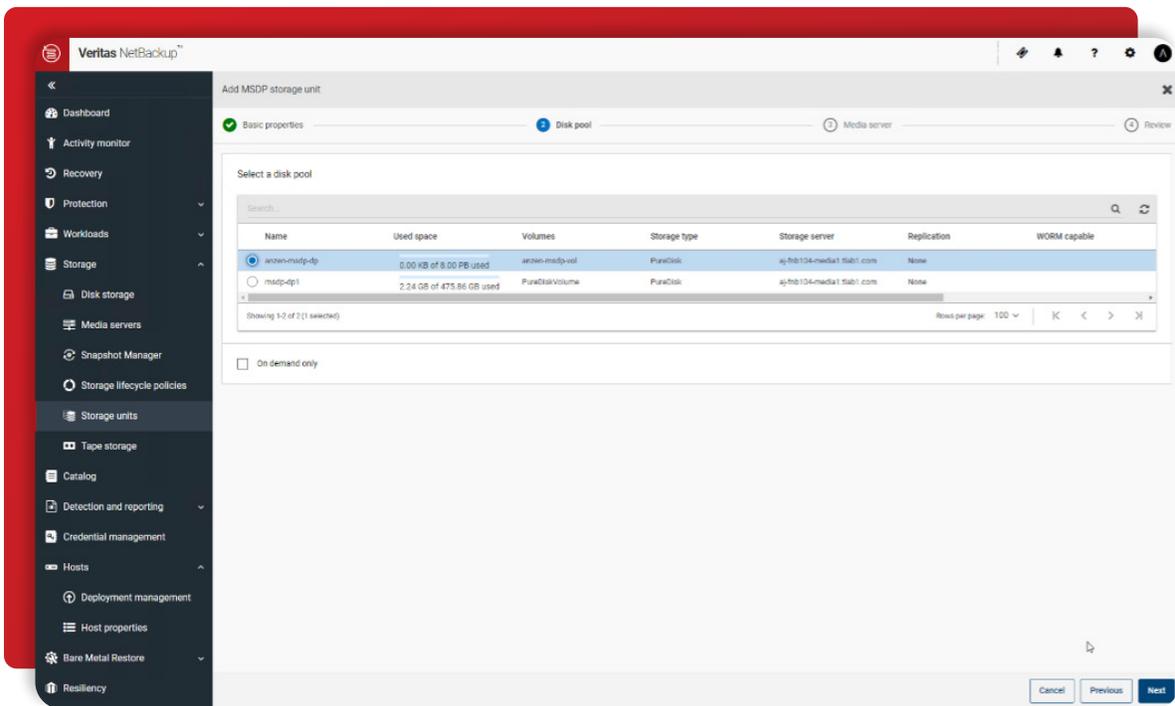
8. Continue to scroll down and under Cloud buckets, select **Add bucket**. In the dialog box, enter desired bucket name and click **Add**. Click on the radio button of the new bucket added to select it. Then click **Next**.



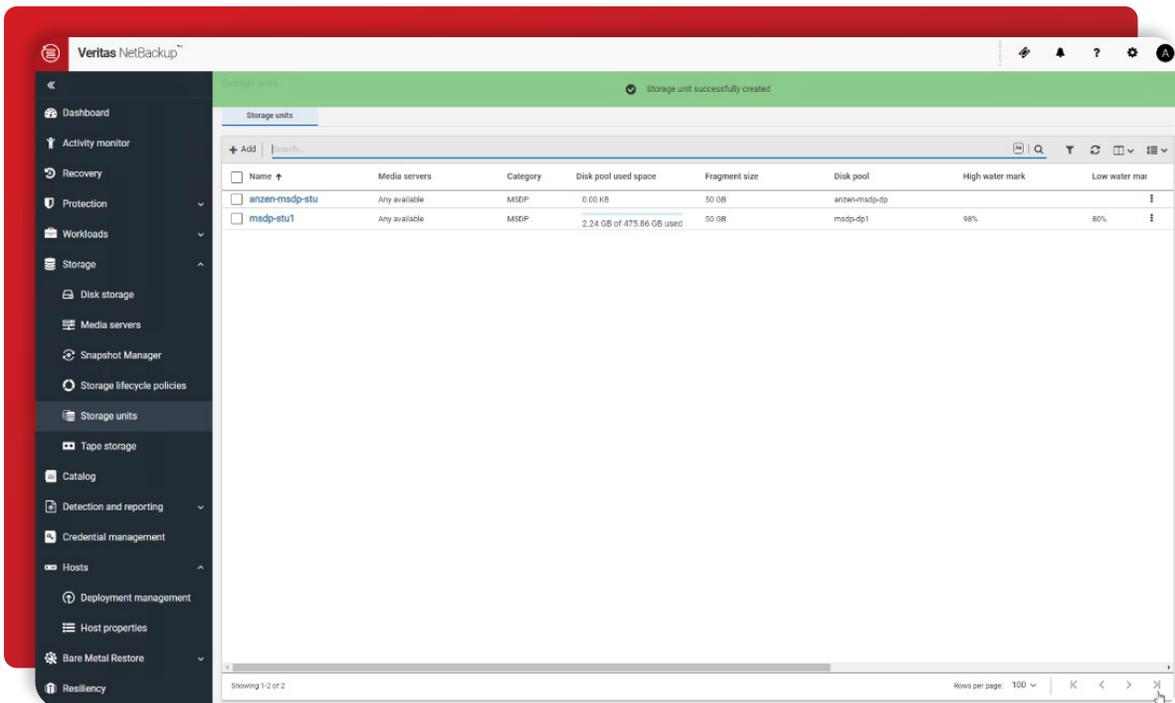
9. After the disk pool has been configured, click **Close** and then click on **Add Storage Unit** at the top green bar that appears. Enter the desired storage unit name and modify the maximum concurrent jobs as appropriate. **NOTE:** If the green banner disappears, you can get to the "Add cloud storage unit" dialog box by navigating to Storage->Storage Units and clicking 'Add'.



10. Select the disk pool created in the previous steps and then click **Next**.



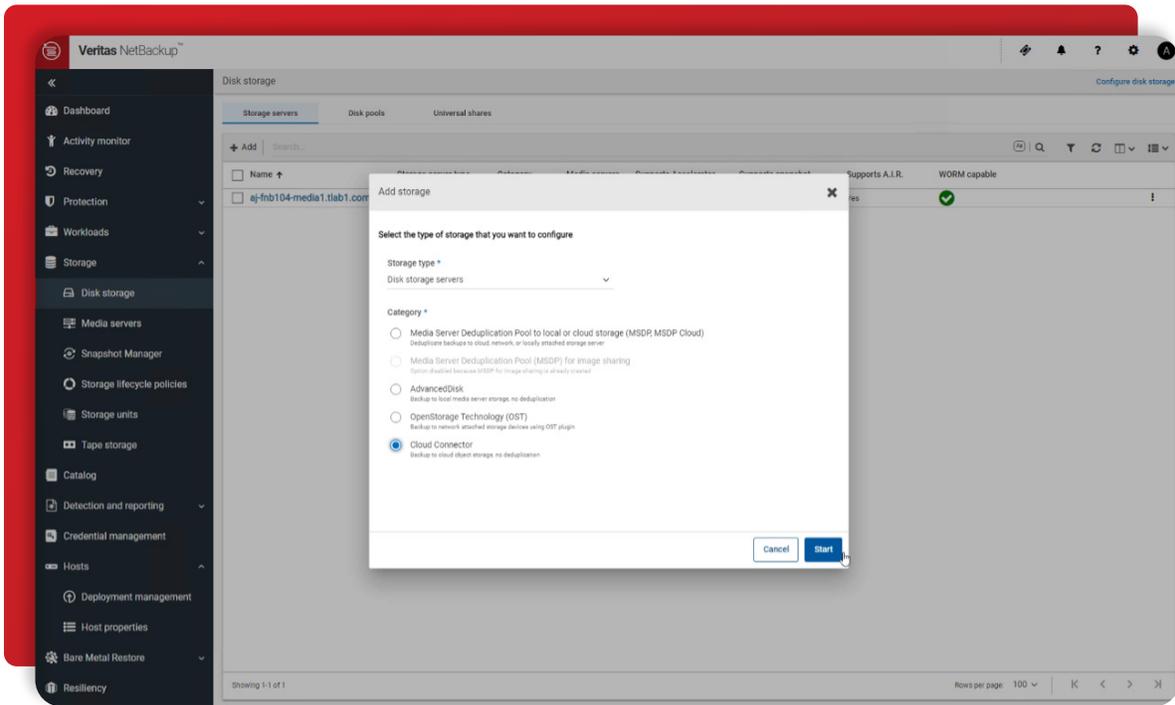
11. In the next couple of screens, select your "Media Server," review the selections and then select **Save**. As shown below, the storage unit has been successfully created.



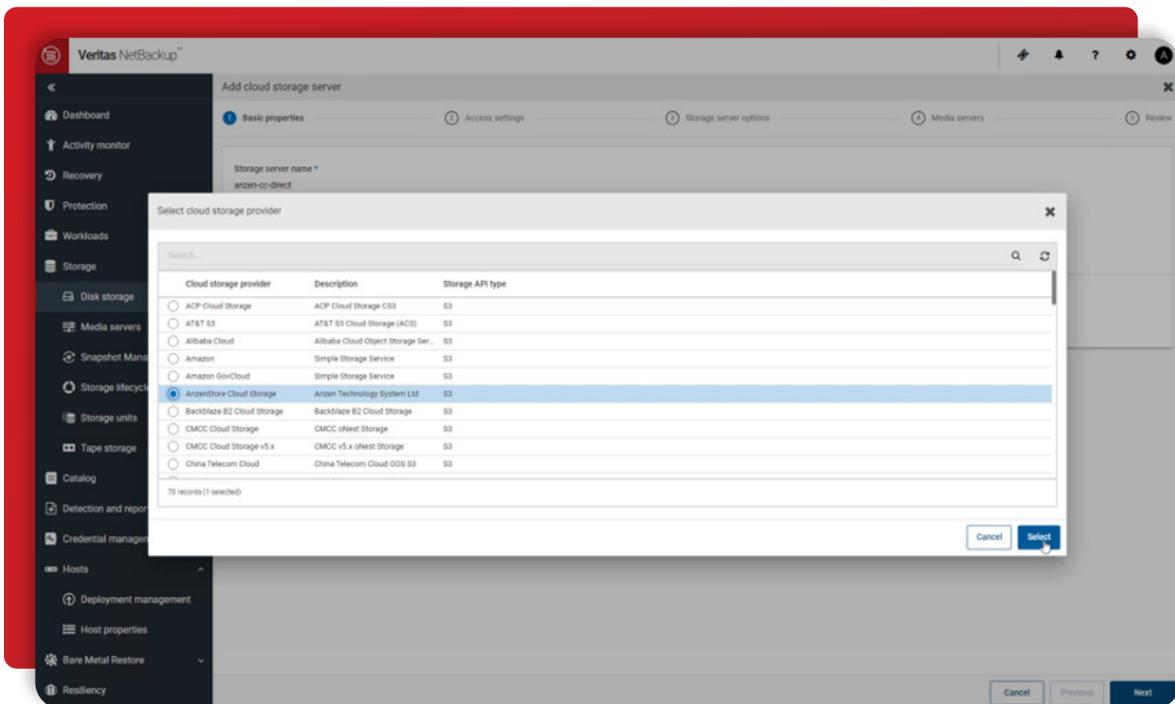
Configuration of NetBackup Direct to Anzen without Deduplication

Some data may not benefit from deduplication and thus there is an option to send data directly to Anzen target storage without deduplication. The following steps describes how to configure NetBackup to send directly to Anzen.

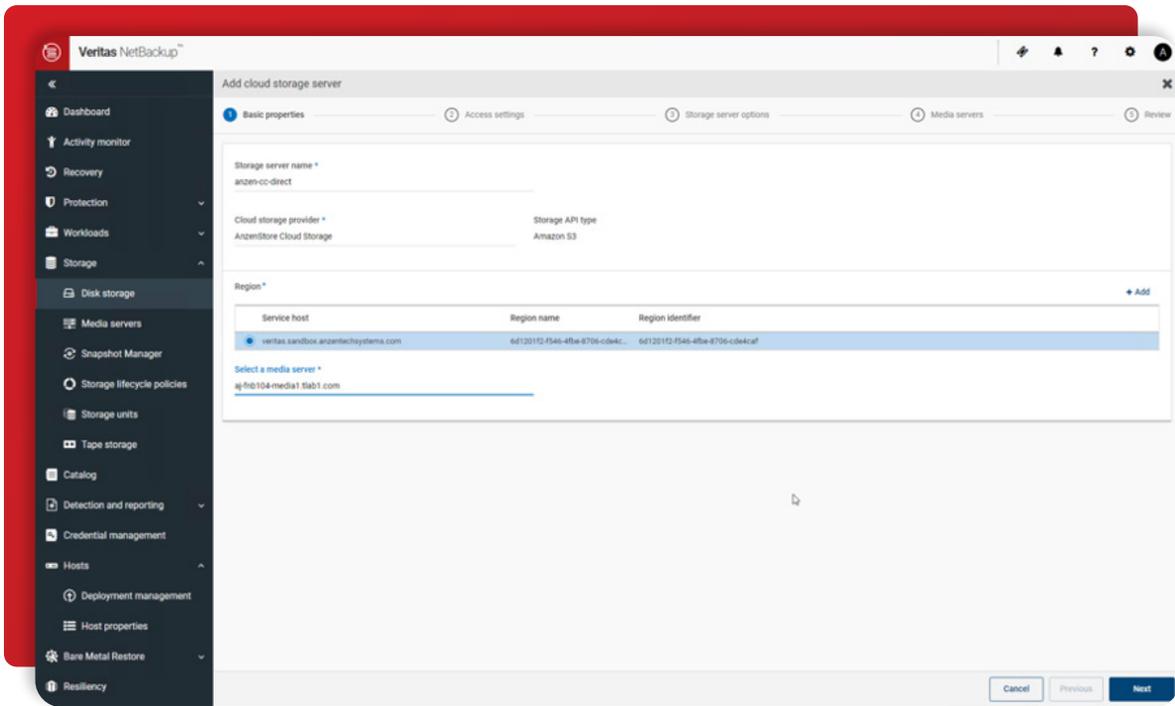
1. Under **Storage Server** tab, click **Add** and select **Cloud Connector** in the pop-up dialog box.



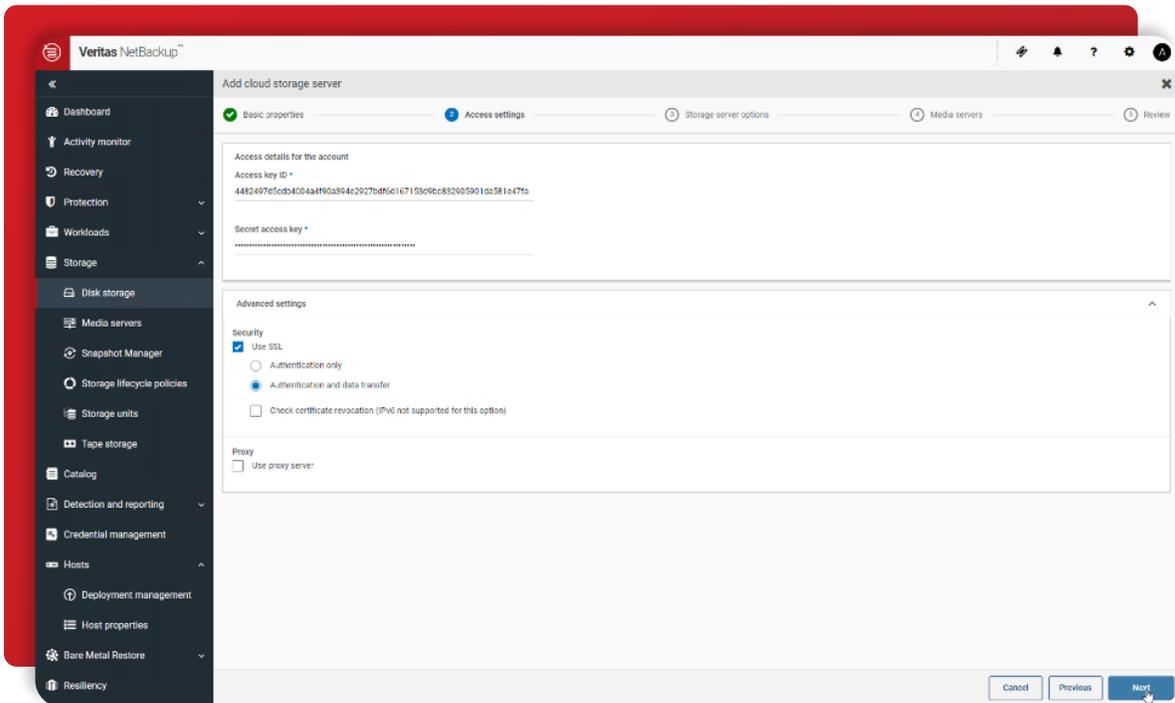
2. In the next screen, specify desired storage server name. Click on **Cloud Storage provider** and select **AnzenStore Cloud Storage**.



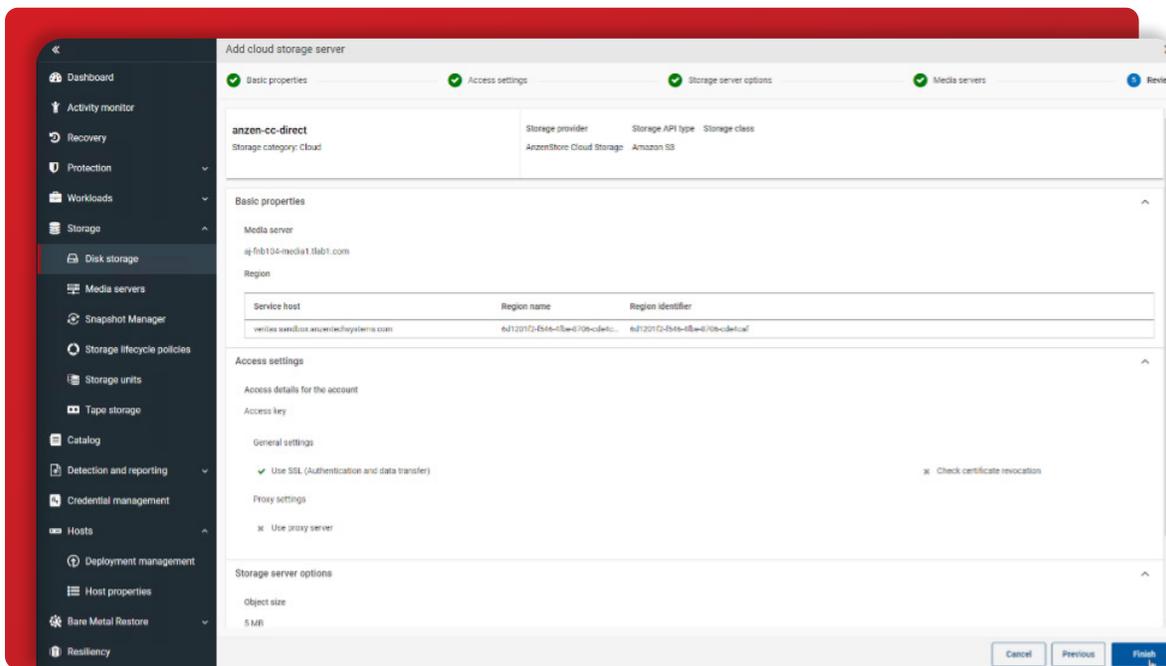
3. Select the discovered Anzen region, select the media server and click Next.



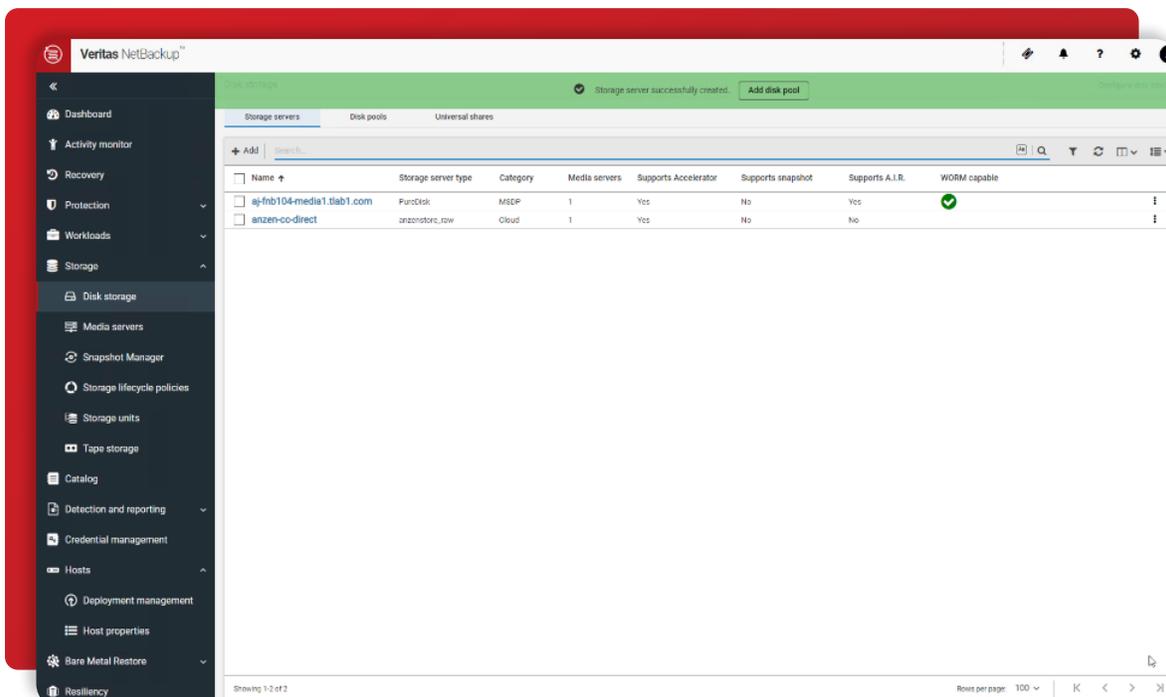
4. Enter the access and secret keys provided by Anzen, uncheck the Check certificate revocation and click Next.



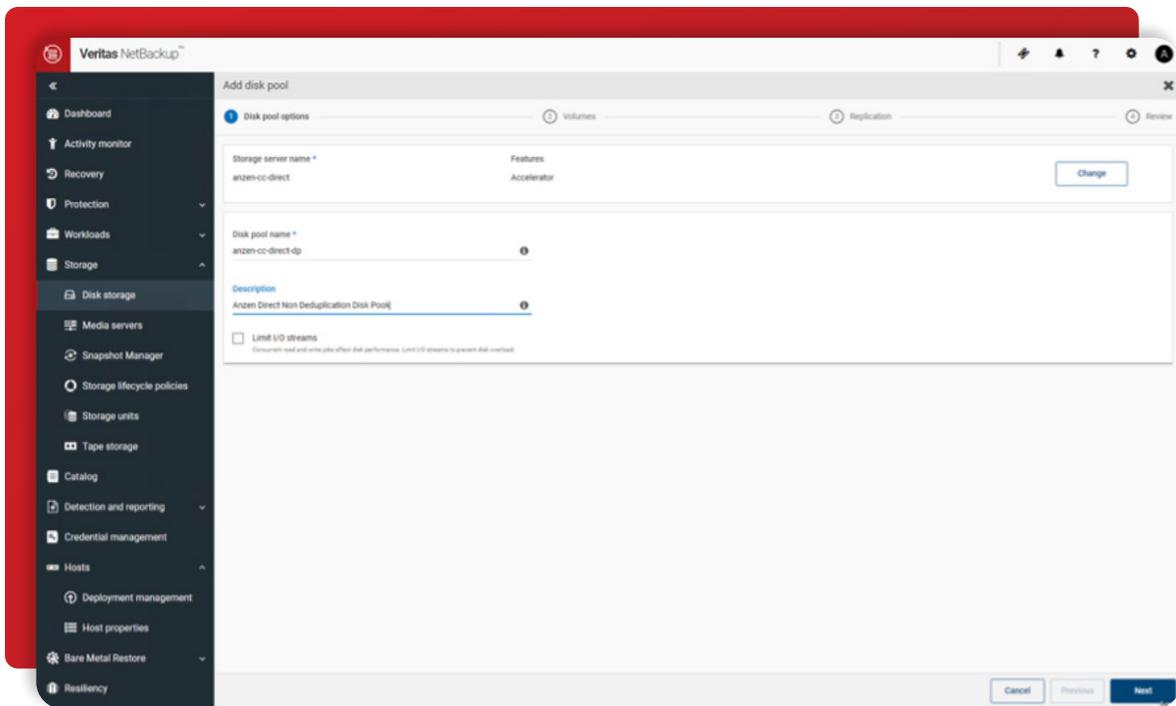
- For the next couple of screens, under default Storage server properties use defaults or modify as appropriate, add additional media servers if needed, click **Next**, review, and click **Finish**.



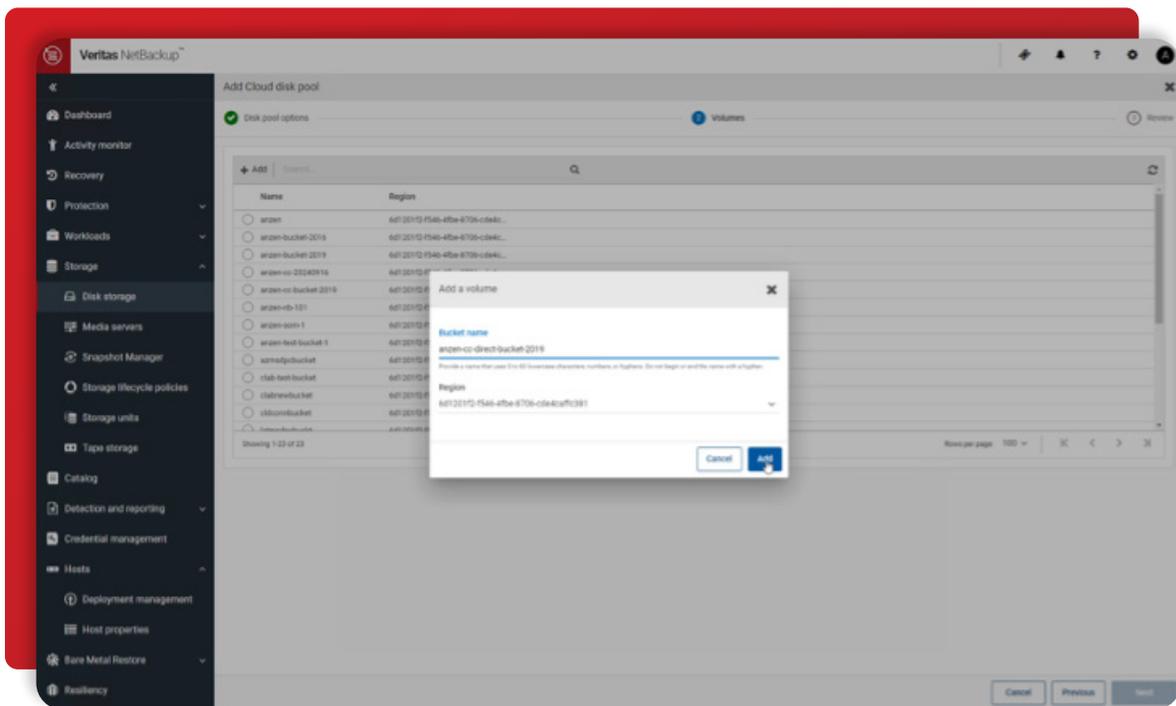
- After Storage server succeeds, in the green banner click on **Add disk pool**. NOTE: If banner disappears, just click on **Disk pools** tab, and click on **Add**.



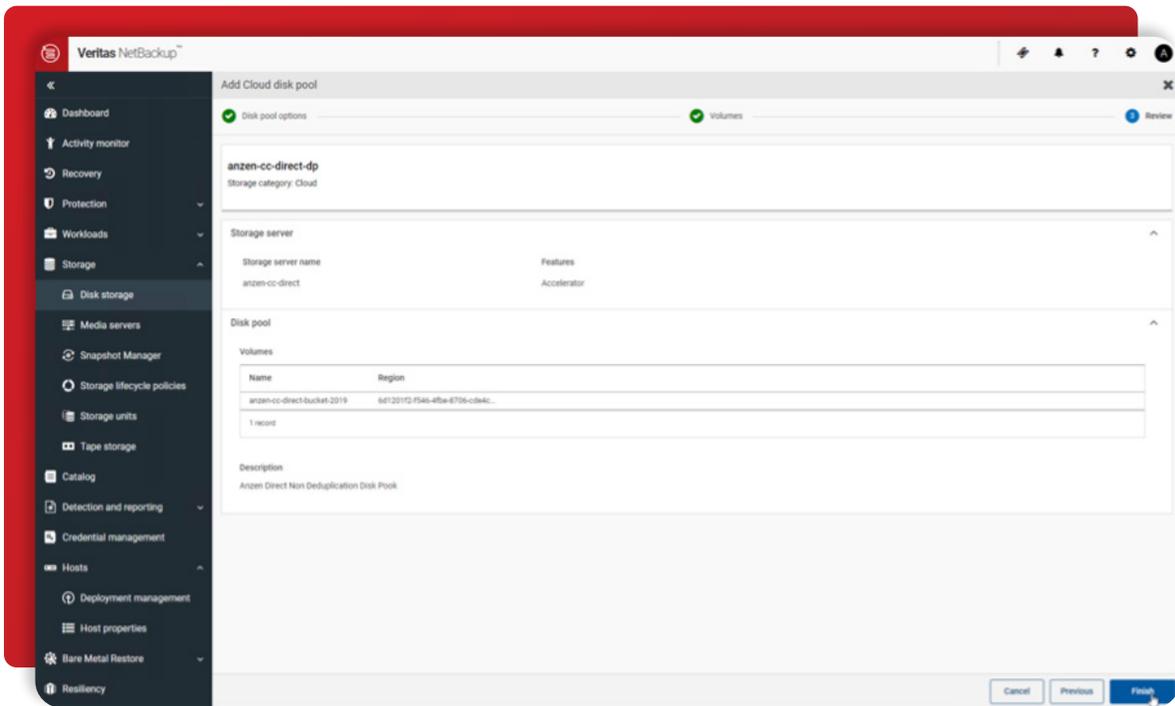
7. In the add disk pool screen, **change** Storage server name to the storage server created in previous step, enter desired disk pool name, and click **Next**.



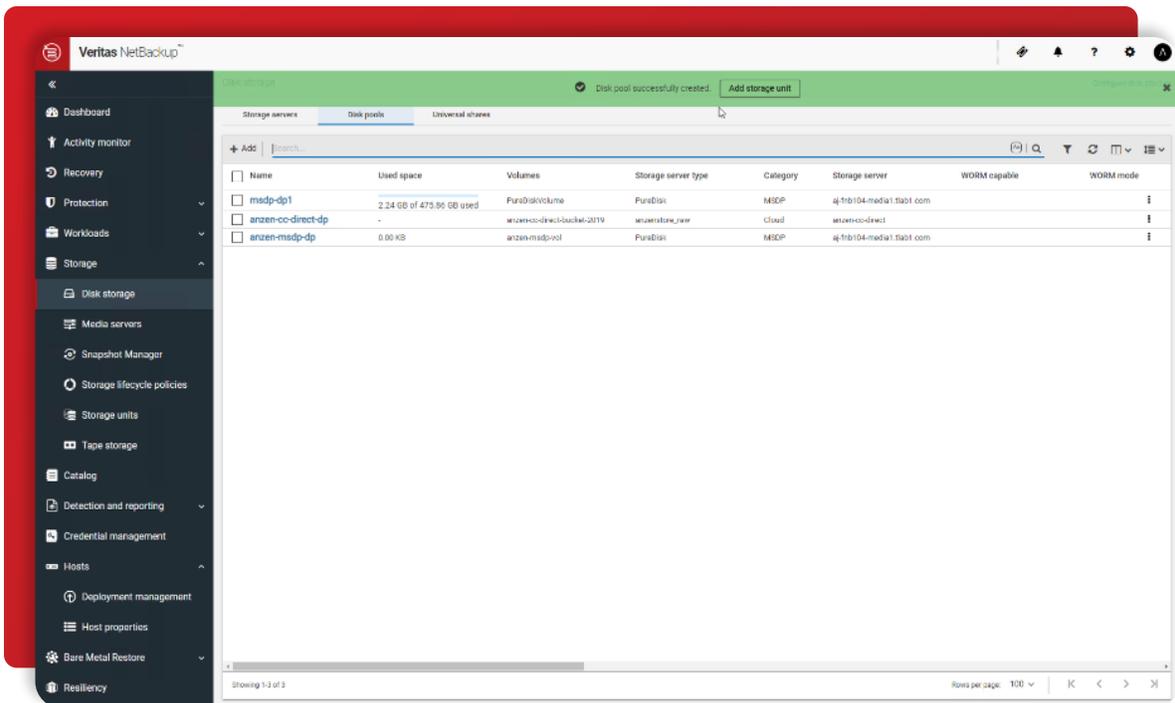
8. In the next screen, click **Add** and specify new bucket name and click **Add**. Select the newly added bucket from list and click **Next**.



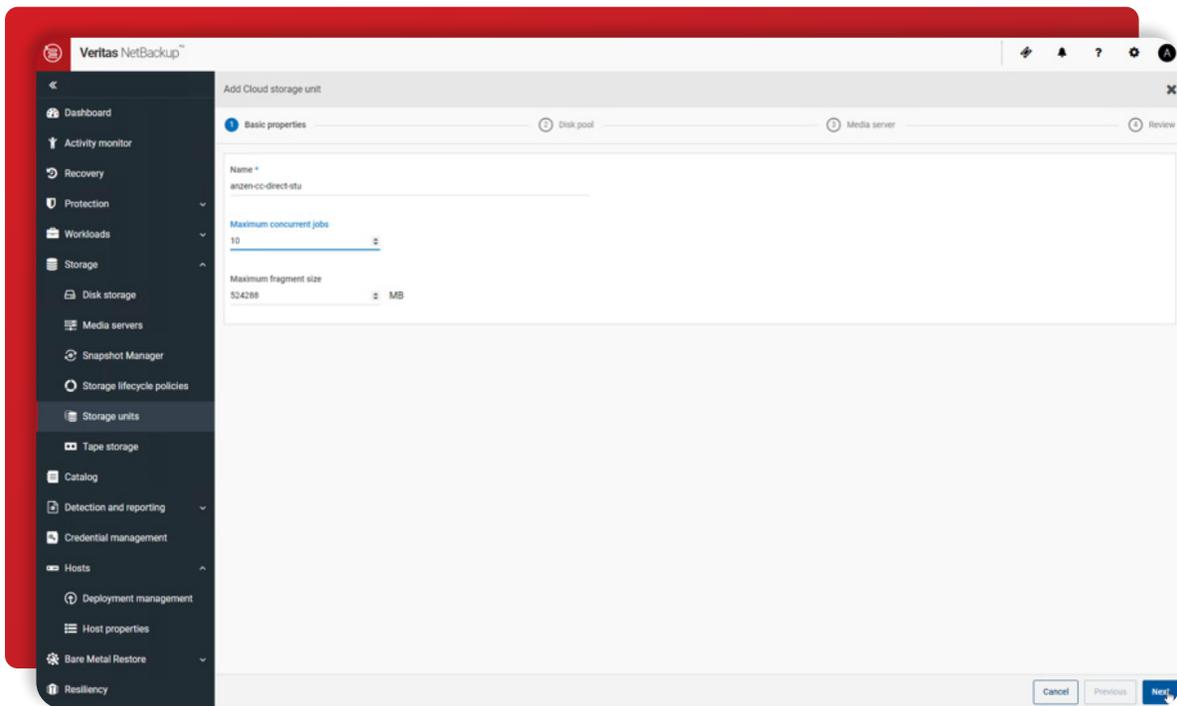
9. Review and click **Finish**.



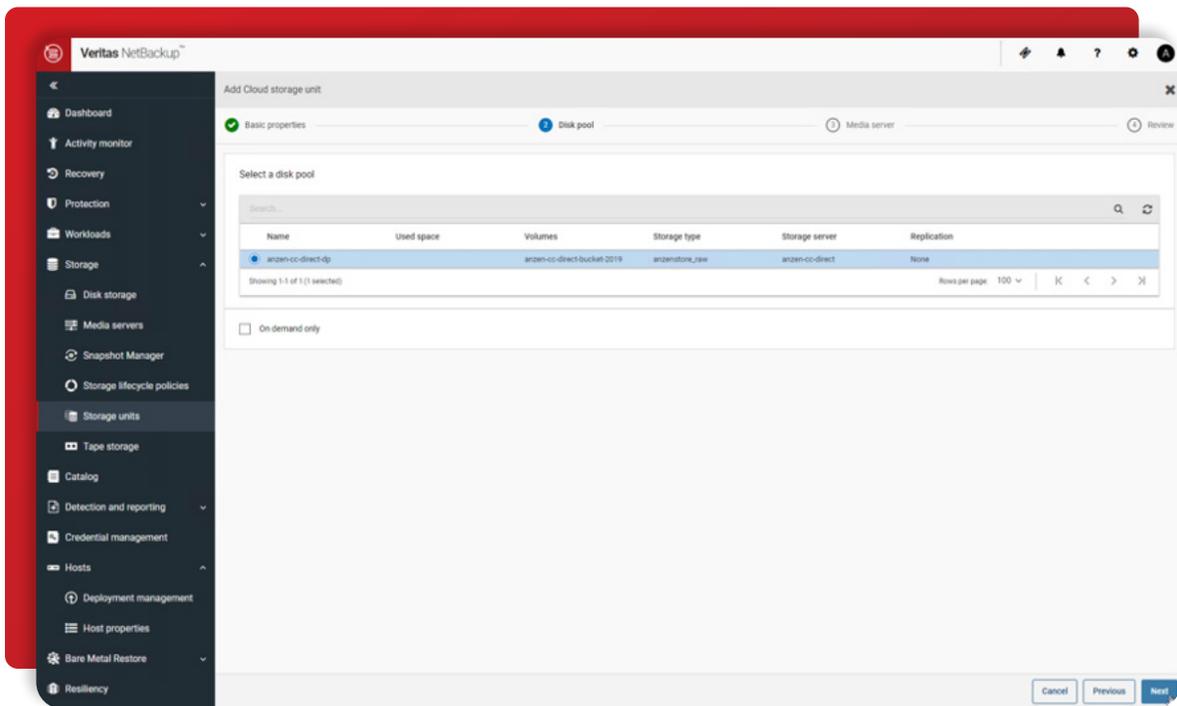
10. After disk pool configuration completes, a green banner appears and click on **Add storage unit**. **NOTE:** If the green banner disappears, you can get to the "Add cloud storage unit" dialog box by navigating to Storage->Storage Units and clicking 'Add.'



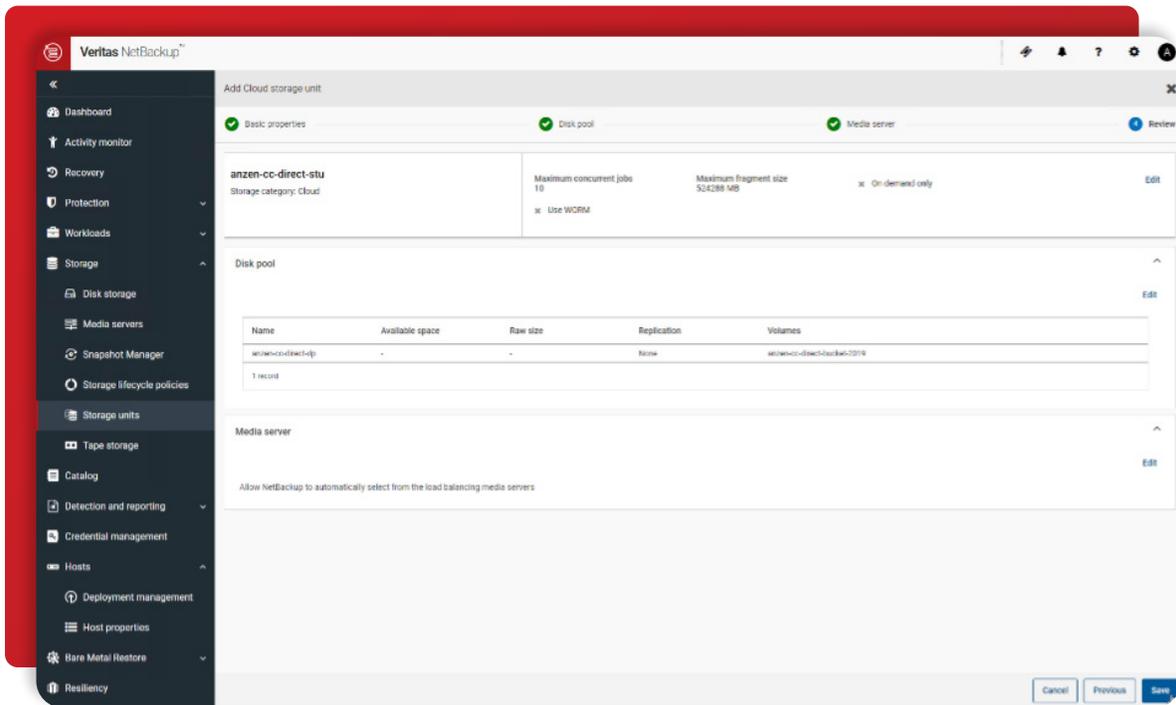
11. In next screen, specify the storage unit name and modify maximum concurrent jobs based on your requirements. Click Next.



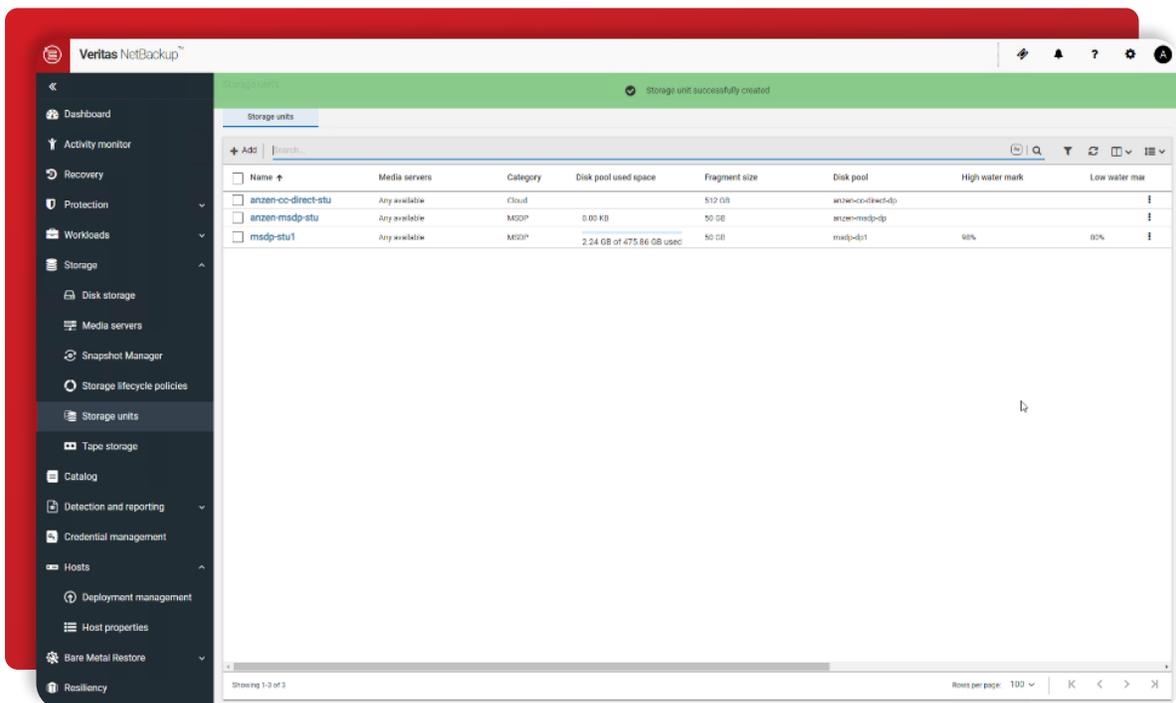
12. Select the disk pool created in previous steps. Click Next.



13. In the next screen, select your "Media Server", review and select Save.



14. As shown below, the storage unit has been successfully created.



After configuration of the storage unit, policies and protection plans can be defined to utilize the storage unit to backup data to Anzen. For more information on how to define policies and protection plans and run backups and restore, please refer to the NetBackup documentation in the reference section.

Conclusion

With the rise of quantum computing and continued cyber-threats, companies are seeking data protection solutions that would safeguard their digital assets that are imperative to run their business. NetBackup with Anzen offers additional data security that makes it ideal for the quantum computing age and beyond. NetBackup can protect a myriad of data workloads and Anzen has features that anonymize and shard data across clouds to be resilient against evolving threats, security hardening that would mitigate attack surface and insider breach risk, and federated, multi-cloud data protection to guard against unauthorized bulk data exfiltration. NetBackup coupled with Anzen provides excellent data protection on-premises, multi-cloud, and hybrid-cloud environments. Reach out to your Veritas or Anzen sales account team to learn more.

References

Veritas NetBackup Product Documentation

- https://www.veritas.com/support/en_US/article.100040093

Anzen Product Documentation

- <https://anzentechsystems.com/work/01-anzen-store>
- <https://api.anzentechsystems.com>

About Veritas

Veritas Technologies is the leader in secure multi-cloud data management. Over 80,000 customers—including 91% of the Fortune 100—rely on Veritas to help ensure the protection, recoverability and compliance of their data. Veritas has a reputation for reliability at scale, which delivers the resilience its customers need against the disruptions threatened by cyberattacks, like ransomware. No other vendor is able to match the ability of Veritas to execute, with support for 800+ data sources, 100+ operating systems and 1,400+ storage targets through a single, unified approach. Powered by Cloud Scale Technology, Veritas is delivering today on its strategy for Autonomous Data Management that reduces operational overhead while delivering greater value. Learn more at www.veritas.com. Follow us on X at [@veritastechllc](https://twitter.com/veritastechllc).

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