

Security and data encryption

Cloud Volumes ONTAP

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Security and data encryption

Encrypting volumes with NetApp encryption solutions

Cloud Volumes ONTAP supports NetApp Volume Encryption (NVE) and NetApp Aggregate Encryption (NAE). NVE and NAE are software-based solutions that enable FIPS 140-2—compliant data-at-rest encryption of volumes. Learn more about these encryption solutions.

Both NVE and NAE are supported with an external key manager.

New aggregates will have NAE enabled by default after you set up an external key manager. New volumes that aren't part of an NAE aggregate will have NVE enabled by default (for example, if you have existing aggregates that were created before setting up an external key manager).

Cloud Volumes ONTAP doesn't support onboard key management.

What you'll need

Your Cloud Volumes ONTAP system should be registered with NetApp support. A NetApp Volume Encryption license is automatically installed on each Cloud Volumes ONTAP system that is registered with NetApp Support.

- Adding NetApp Support Site accounts to BlueXP
- Registering pay-as-you-go systems



BlueXP doesn't install the NVE license on systems that reside in the China region.

Steps

- Review the list of supported key managers in the NetApp Interoperability Matrix Tool.
 - (Q)

Search for the **Key Managers** solution.

- 2. Connect to the Cloud Volumes ONTAP CLI.
- Configure external key management.
 - · AWS: Go to the ONTAP documentation for instructions

Improving protection against ransomware

Ransomware attacks can cost a business time, resources, and reputation. BlueXP enables you to implement the NetApp solution for ransomware, which provides effective tools for visibility, detection, and remediation.

Steps

- 1. On the Canvas page, double-click the name of the system you configure to ransomware protection.
- On the Overview tab, click the Features panel and then click the pencil icon next to Ransomware Protection.

Informati	ion Features	
Working Environm	nent Tags Tags	0
Scheduled Downti	me Off	0
S3 Storage Classes	Standard-Infrequent Access	0
Instance Type	m5.xlarge	0
Write Speed	Normal	0
Ransomware Prote	ection Off	0
Support Registrati	on Not Registered	0
CIFs Setup		0

- 3. Implement the NetApp solution for ransomware:
 - a. Click **Activate Snapshot Policy**, if you have volumes that do not have a Snapshot policy enabled.

NetApp Snapshot technology provides the industry's best solution for ransomware remediation. The key to a successful recovery is restoring from uninfected backups. Snapshot copies are read-only, which prevents ransomware corruption. They can also provide the granularity to create images of a single file copy or a complete disaster recovery solution.

b. Click **Activate FPolicy** to enable ONTAP's FPolicy solution, which can block file operations based on a file's extension.

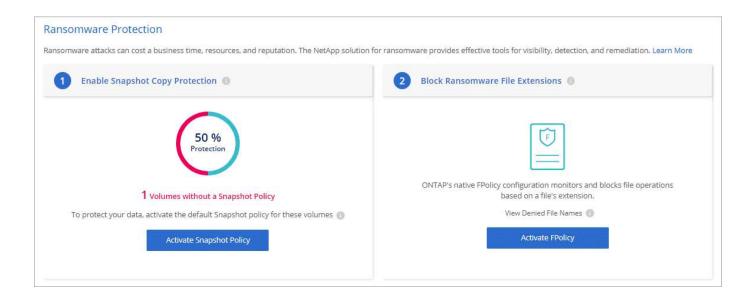
This preventative solution improves protection from ransomware attacks by blocking common ransomware file types.

The default FPolicy scope blocks files that have the following extensions:

micro, encrypted, locked, crypto, crypt, crinf, r5a, XRNT, XTBL, R16M01D05, pzdc, good, LOL!, OMG!, RDM, RRK, encryptedRS, crjoker, EnCiPhErEd, LeChiffre



BlueXP creates this scope when you activate FPolicy on Cloud Volumes ONTAP. The list is based on common ransomware file types. You can customize the blocked file extensions by using the *vserver fpolicy policy scope* commands from the Cloud Volumes ONTAP CLI.



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