



Using customer-managed encryption keys with Cloud Volumes ONTAP

Cloud Manager

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While Google Cloud Storage always encrypts your data before it's written to disk, you can use the Cloud Manager API to create a Cloud Volumes ONTAP system that uses *customer-managed encryption keys*. These are keys that you generate and manage in GCP using the Cloud Key Management Service.

Steps

1. Ensure that the Cloud Manager Connector service account has the correct permissions in the project where the key is stored.

The permissions are provided by the [Cloud Manager YAML file](#) by default, but may not be applied if you use an alternate project for the Cloud Key Management Service.

The permissions are as follows:

```
- cloudkms.cryptoKeyVersions.list
- cloudkms.cryptoKeys.get
- cloudkms.cryptoKeys.list
- cloudkms.keyRings.list
```

2. Ensure that the service account for the [Google Compute Engine Service Agent](#) has Cloud KMS Encrypter/Decrypter on the key.

The name of the service account uses the following format: "service-[service_project_number]@compute-system.iam.gserviceaccount.com".

3. Obtain the "id" of the key by invoking the get command for the `/gcp/vsa/metadata/gcp-encryption-keys` API call or by choosing "Copy Resource Name" on the key in the GCP console.
4. Use the "GcpEncryption" parameter with your API request when creating a working environment.

Example

```
"gcpEncryptionParameters": {
  "key": "projects/project-1/locations/us-east4/keyRings/keyring-1/cryptoKeys/generatedkey1"
}
```

Refer to the [Cloud Manager automation docs](#) for more details about using the "GcpEncryption" parameter.

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