

Vault Single-Node Unseal

Here are instructions on how to unseal a single-node vault cluster.

Vault CLI Comms

For the vault command to communicate with the running service, we must set an env variable for it:

```
export VAULT_ADDR=https://your_domain:8200
```

NOTE: You may have to set the above to http, if you haven't given vault a valid ssl cert, yet.

Initialize the Vault

In order for the vault service to manage secrets, you must initialize its store. To do this, you need to run the following:

```
vault operator init -key-shares=3 -key-threshold=2
```

You can change the key shares and threshold based on your risk profile.

The vault CLI will respond with something like this:

```
Unseal Key 1: eZcJeydRrqeSMZ1zTN+VVII9TFT2KvJy7VInxUgtvuz5
Unseal Key 2: ntmqCKq8rgNnKT1YSLCjVmCCZBAA3NwUeqxlyRpYD4Wm
Unseal Key 3: 3FK1+Hsorh4p8/L9mki3VskaEU2eQhLqGOI/pjkTHMbx

Initial Root Token: s.hY0ieybfDqCadz7JpL88uO3x
```

Save these values in a secure location, as this is the only time you will receive them.

Now, you can run the vault status command, and see it has changed to Initialized=true.

Run this to get vault status:

```
vault status
```

```
glwhite@vault01:/etc$ vault status
Key          Value
---          -
Seal Type    shamir
Initialized   true
Sealed       true
Total Shares  3
Threshold    2
Unseal Progress 0/2
Unseal Nonce  n/a
Version      1.17.6
Build Date   2024-09-24T19:48:40Z
Storage Type  file
HA Enabled   false
glwhite@vault01:/etc$
```

Now, you need to unseal the vault, so it can be used.

Notice the vault status showed an unseal progress of 0/2.

This means, that at least two more unseal tokens must be submitted for it to be available for access.

Enter enough tokens to unlock your vault with this command, and paste in one of the tokens when prompted:

```
vault operator unseal
```

Once the unseal threshold has been met, the Sealed state will become 'false'.

```
glwhite@vault01:/etc$ vault operator unseal
Unseal Key (will be hidden):
Key          Value
---          -
Seal Type    shamir
Initialized   true
Sealed       false
Total Shares  3
Threshold    2
Version      1.17.6
Build Date   2024-09-24T19:48:40Z
Storage Type  file
Cluster Name  vault-cluster-bbl6a7da
Cluster ID    731760f1-f5ad-85ed-5645-bbl53d9632c1
HA Enabled   false
glwhite@vault01:/etc$
```

Your vault is available for access.

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