

# Vault Onboarding Program Closing Thoughts

COBRA Team | HashiCorp Customer Success



# Agenda



## Onboarding Program Recap

Look back at what we've accomplished the last 7 weeks



## Production Readiness

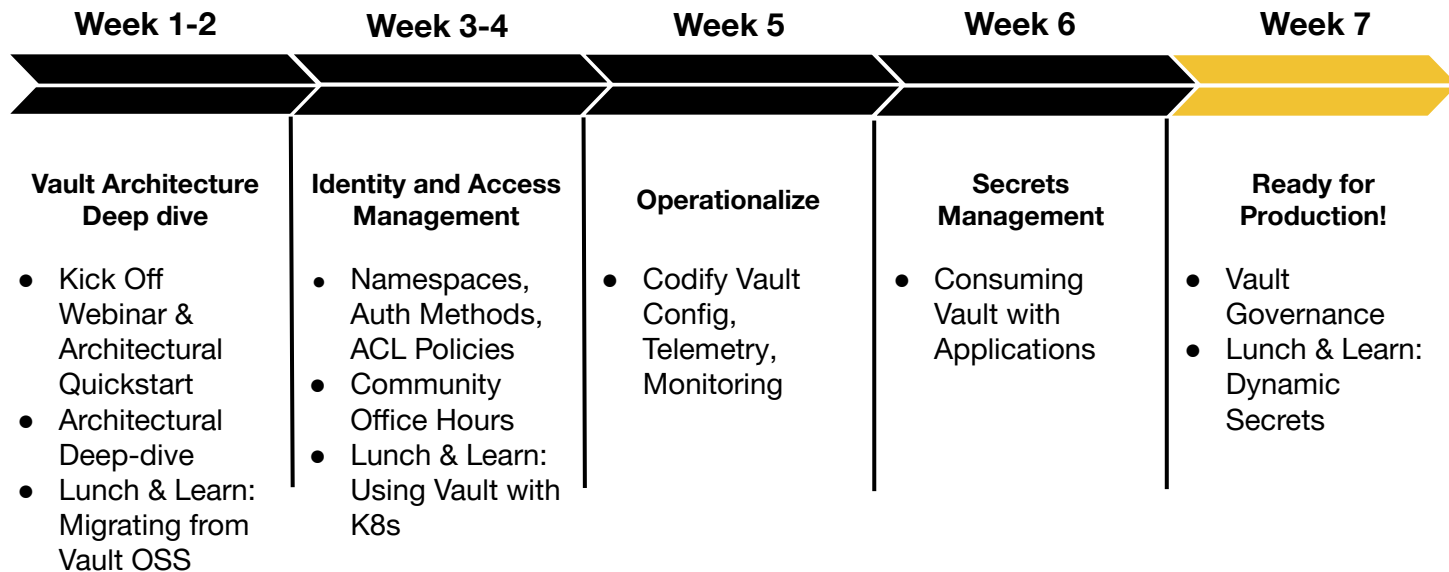
Vault Production Checkpoints



## Exit Program Resources

Resources to support your post-program journey

# Vault Enterprise Path to Production





# Onboarding Checklist

Our objective is to make you successful with our products and see value within 90 days



## **Vault Installed**

- Vault Enterprise installed in your environment
- Basic configuration completed
- Telemetry and Monitoring in place
- Disaster Recovery replication in place



## **Vault Operational**

- Getting the first use case (application) onboarded and consuming secrets stored in Vault
- A roadmap created for onboarding additional use cases.



## **Completed within 90 days**



# **Vault Enterprise Production Readiness**



# Vault Production Readiness



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	lu...@hashicorp.com	[ANN] Nomad 1.2.4, 1.1.10, and 1.0.16 Released — Nomad 1.2.4, 1.1.10, a...	Jan 19	☆
	jba...@hashicorp.com	Terraform CLI v1.1.3 Released — Today we release Terraform CLI v1.1.3. T...	Jan 6	☆
	meg...@hashicorp.com	Vault 1.9.2 released! — Hi folks, The Vault team is announcing the release ...	12/21/21	☆
	meg...@hashicorp.com	Vault 1.8.7 released! — Hi folks, The Vault team is announcing the release ...	12/21/21	☆
	meg...@hashicorp.com	Vault 1.7.8 released! — Hi folks, The Vault team is announcing the release ...	12/21/21	☆
	Krista LaFentes	Terraform CLI v1.1.1 released — Hello everyone! Today we released Terraf...	12/15/21	☆
	tgr...@hashicorp.com	Nomad 1.2.3 released — Nomad 1.2.3 Security Release Nomad 1.2.3 has b...	12/13/21	☆



# Vault Production Readiness



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Security ▾ Security-Vault ▾ | Latest Top

Topic	Replies	Views	Activity
<b>HCSEC-2021-34 - Vault, Consul, Boundary, and Waypoint Affected By Denial of Service in Golang's net/http (CVE-2021-44716)</b> <a href="#">Security security-vault, security-consul, security-waypoint, security-boundary</a>	0	487	Dec '21
<b>HCSEC-2021-33 - Vault's KV Secrets Engine With Integrated Storage Exposed to Authenticated Denial of Service</b> <a href="#">Security security-vault</a>	0	487	Dec '21
<b>HCSEC-2021-30 - Vault's Templated ACL Policies Matched First-Created Alias Per Entity and Auth Backend</b> <a href="#">Security security-vault</a>	1	983	19d



# **Vault Production Readiness**



- Architecture and Infrastructure
- Vault Operations and Infrastructure Security
- Business Continuity
- Vault Policy and Configuration





# Vault Production Readiness



## ● Architecture and Infrastructure

- Is the cluster architecture aligned with the reference architecture?
  - [Consul Storage Reference Architecture](#)
  - [Integrated Storage Reference Architecture](#)
  - Are the nodes configured across multiple AZs / failure zones to provide resilience in accordance with your uptime requirements?
  - Are the [nodes sized appropriately \(RAM and CPU\)](#)?
  - Does the cluster have provisioned IOPS (Integrated Storage)?
- Is there less than 8 milliseconds of latency between Vault servers?



# Vault Production Readiness



## Architecture and Infrastructure - continued

- Have high availability best practices been followed?
  - Has a process been identified and implemented to handle the lifecycle of the TLS certificates used on Vault Server listeners and load balancers?
  - How is DNS Implemented? Are appropriate TTL's configured that allow for failover that meet RTO Objectives
  - What is the validity period of TLS certificates? Is it rational?
  - Does the load balancer configuration follow [best practices](#)? Is TLS terminated on the Vault cluster?
  - Is the renewal reminder for TLS certificates a scalable process, i.e. more than a calendar entry in a single location?



# Vault Production Readiness



## ● Vault Operations and Infrastructure Security

- Is root token creation restricted and monitored?
- Does the team managing Vault have runbooks and processes for all key administrative tasks?
  - Upgrading Vault
  - Executing DR failovers in Vault
  - Reissuing unseal/recovery key shares
  - Rotating Vault's master encryption key
  - Rotating any auto-unseal/seal-wrap mechanism's key (if applicable)
  - Generating root tokens
- Have the [production hardening recommendations](#) been reviewed and implemented in the environment?
- Is the running version of Vault currently supported? N-2 window from [latest release](#)?



# Vault Production Readiness



## ● Business Continuity

- Have runbooks been created and tested to validate the ability to meet the Recovery Time Objective?
  - Have [snapshots been enabled](#) in alignment with the desired Recovery Point Objective?
  - Has [recovery from a snapshot](#) been tested and the process documented?
  - Is there alerting in place if snapshots fail?
- Have alerts been created on the following parameters?
  - Disk space alerting on instance
  - Disk space alerting on audit points
  - Log monitoring/alerting for warn/errors
  - Draught/absence alerts on log outages/stoppages
  - RAM utilization alerting
  - CPU utilization alerting



# Vault Production Readiness



## ● Vault Policy and Configuration

- Are policies least-privilege?
- Are policies tested in a negative fashion, ie, ensure that a token with this policy can do what it allows but also prevents more access than intended?



# Content & Resources

# COBRA Vault Onboarding Journey



- [Kickoff & Architectural Quickstart](#) - password: t62h8wj9
- [Webinar - Architectural Deep Dive](#) - password: h7d2gZjq39
- [Webinar - Namespaces, Authentication, and Policies](#) - password: X8ajf3uQ
- [Lunch and Learn - Migrating from OSS](#) - password: C7d2gZjq39
- [Webinar - Operating Vault](#) - password: F7d2gZjq39
- [Webinar - Consuming Vault](#) - password: P8ajf3uQ
- [Lunch and Learn - Dynamic Secrets](#) - password: P8ajf3uQ
- [Lunch and Learn - Using Vault with Kubernetes](#) - password: E8ajf3uQ
- [Webinar - Vault Governance](#) - password: C7d2gZjq39

[All program materials](#)



# Additional Resources

- [Production Readiness Checklist](#)
- [HashiCorp Vault Adoption Guide](#)
- [How to Adopt a Producer-Consumer Model for Vault](#)
- [Running Vault in Production \(book\)](#)
- [HashiCorp Academy \(Training\)](#)







# Additional Training Resources

Wanting to Learn More? A Topic Not Covered? See these

## **Learn.Hashicorp.com**

Tutorials on just about everything

## **Discuss for Vault** - <https://discuss.hashicorp.com/c/vault>

Great place for best practices, finding similar configuration questions

## **HashiCorp Vault Certification**

Even if you don't want the certification, the [Study Guide](#) is a relevant and useful curriculum to follow especially for folks new to Vault.

## **HashiCorp Instruct Labs**

Want more hands-on experience? Visit our Instruct page

<https://play.instruct.com/hashicorp>



# Thank You

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