

# Terraform Enterprise Onboarding Program Closing Thoughts



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# Agenda



## Onboarding Program Recap

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



## Production Readiness

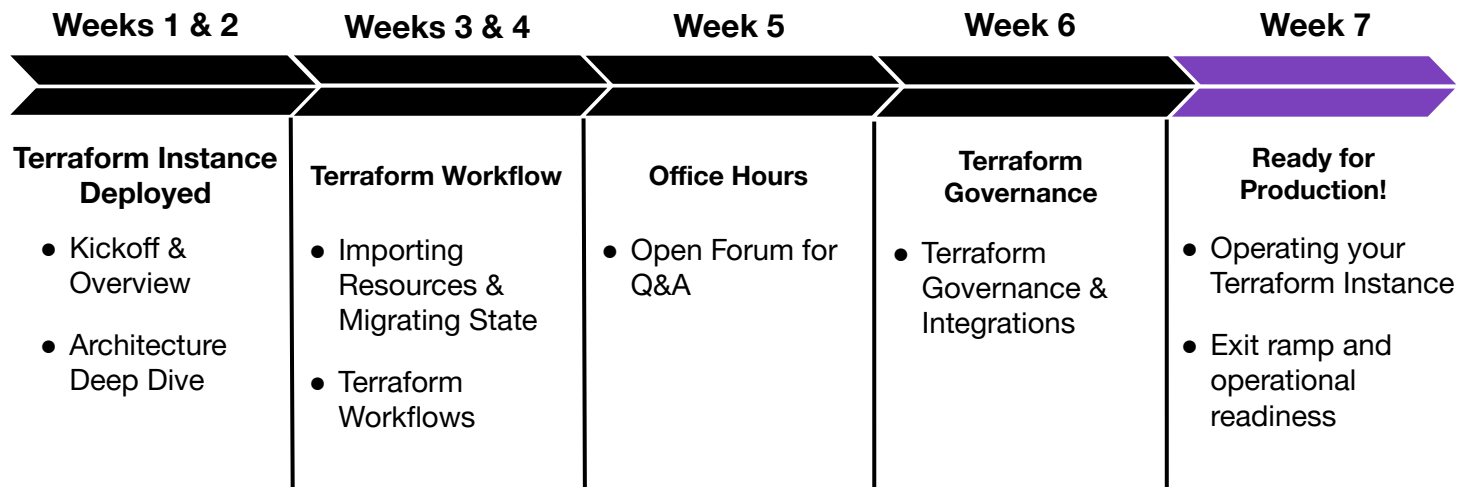
Terraform Enterprise Production Checkpoints



## Exit Program Resources

Resources to support your post-program journey

# Terraform Enterprise Path to Production





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# Onboarding Goal

Our objective is to enable your team to successfully deploy the platform and see value within 90 days



## **Terraform Enterprise Installed**

- Terraform Enterprise installed in your environment(s)
- Basic configuration completed
- Telemetry and monitoring in place
- Deployment and operational patterns established




## **Terraform Enterprise Operational**

- Organizations, Teams, and Users created & SAML integration in place (if being used)
- First team onboarded and consuming Terraform Enterprise
- A roadmap created for onboarding additional teams to the platform



## **Completed within 90 days**



# **Terraform Enterprise**

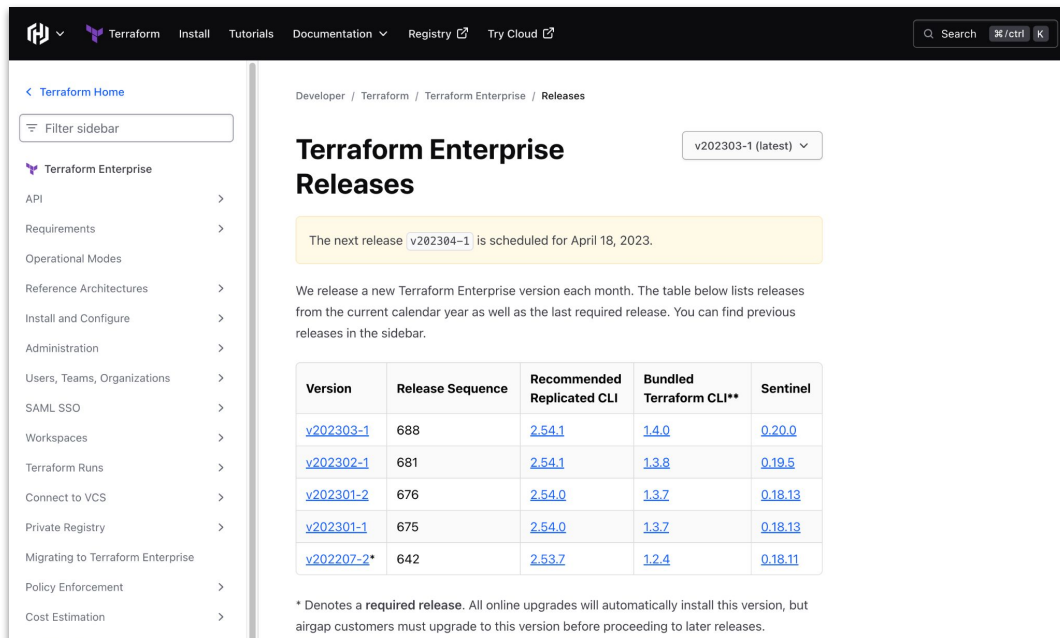
## **Production Readiness Checkpoint**



# Terraform Production Readiness

Bookmark TFE releases page:

<https://developer.hashicorp.com/terraform/enterprise/releases>



The screenshot shows the Terraform Enterprise Releases page. The left sidebar contains a navigation menu with links to Terraform Home, Terraform Enterprise, API, Requirements, Operational Modes, Reference Architectures, Install and Configure, Administration, Users, Teams, Organizations, SAML SSO, Workspaces, Terraform Runs, Connect to VCS, Private Registry, Migrating to Terraform Enterprise, Policy Enforcement, and Cost Estimation. The main content area is titled "Terraform Enterprise Releases" and features a dropdown menu for the current version, "v202303-1 (latest)". A yellow banner indicates that the next release, "v202304-1", is scheduled for April 18, 2023. Below this, a paragraph explains the release schedule and provides a table of releases. The table has five columns: Version, Release Sequence, Recommended Replicated CLI, Bundled Terraform CLI\*\*, and Sentinel. The table lists releases from v202207-2\* to v202303-1. A footnote at the bottom states that the version marked with an asterisk denotes a required release.

| Version                    | Release Sequence | Recommended Replicated CLI | Bundled Terraform CLI** | Sentinel                |
|----------------------------|------------------|----------------------------|-------------------------|-------------------------|
| <a href="#">v202303-1</a>  | 688              | <a href="#">2.54.1</a>     | <a href="#">1.4.0</a>   | <a href="#">0.20.0</a>  |
| <a href="#">v202302-1</a>  | 681              | <a href="#">2.54.1</a>     | <a href="#">1.3.8</a>   | <a href="#">0.19.5</a>  |
| <a href="#">v202301-2</a>  | 676              | <a href="#">2.54.0</a>     | <a href="#">1.3.7</a>   | <a href="#">0.18.13</a> |
| <a href="#">v202301-1</a>  | 675              | <a href="#">2.54.0</a>     | <a href="#">1.3.7</a>   | <a href="#">0.18.13</a> |
| <a href="#">v202207-2*</a> | 642              | <a href="#">2.53.7</a>     | <a href="#">1.2.4</a>   | <a href="#">0.18.11</a> |

\* Denotes a **required release**. All online upgrades will automatically install this version, but airgap customers must upgrade to this version before proceeding to later releases.



# Terraform Production Readiness

Subscribe to release notifications:

<https://groups.google.com/g/hashicorp-announce>

☆ HashiCorp Announcements [Join group](#) 1-30 of 282 < >

Welcome to the HashiCorp Announcement list!

On this list you will receive high-priority, low-volume announcements about HashiCorp products, including release information and security bulletins. Posting is reserved for HashiCorp staff only; for discussion about specific tools, please use the corresponding list.

As a reminder, if you wish to contact us regarding any security-sensitive matter, please responsibly disclose by emailing [security@hashicorp.com](mailto:security@hashicorp.com). PGP information can be found at <https://www.hashicorp.com/security.html>.

|                          |                      |  |            |
|--------------------------|----------------------|--|------------|
| <input type="checkbox"/> |                      |  |            |
|                          | 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...  | Vault 1.9.2 released! — Hi folks, The Vault team is announcing the release ... | 12/21/21 ☆ |
|                          | meg...@hashicorp...  | Vault 1.8.7 released! — Hi folks, The Vault team is announcing the release ... | 12/21/21 ☆ |
|                          | meg...@hashicorp...  | Vault 1.7.8 released! — Hi folks, The Vault team is announcing the release ... | 12/21/21 ☆ |
|                          | Krsta LaFentes       | Terraform CLI v1.1.1 released — Hello everyone! Today we released Terraf...    | 12/15/21 ☆ |
| <input type="checkbox"/> | tgr...@hashicorp.com | Nomad 1.2.3 released — Nomad 1.2.3 Security Release Nomad 1.2.3 has b...       | 12/13/21 ☆ |




# Terraform Production Readiness



Join security & vulnerability announcements list

<https://discuss.hashicorp.com/c/security/52>

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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><br><small>Security security-vault, security-consul, security-waypoint, security-boundary</small> | 0       | 487   | Dec '21  |
| <b>HCSEC-2021-33 - Vault's KV Secrets Engine With Integrated Storage Exposed to Authenticated Denial of Service</b><br><small>Security security-vault</small>   | 0       | 487   | Dec '21  |
| <b>HCSEC-2021-30 - Vault's Templated ACL Policies Matched First-Created Alias Per Entity and Auth Backend</b><br><small>Security security-vault</small>   | 1       | 983   | 19d      |





# **Terraform Enterprise Production Readiness**

- Architectural Decisions
- Production Deployment Timeline
- Use Case Implementation
- Baseline Operations



# Terraform Enterprise

## Readiness Checklist



### Architectural Decisions

- Network access (Online or Air-Gapped install)
- Installation location(s) determined
- Operational mode determined
  - VMWare - Mounted Disk
  - Cloud Install - External Services
- Primary Operational Mode(s) Selected
  - VCS Driven
  - CLI
  - API
  - Agents
- SSO Configured
- VCS Configured



# Terraform Enterprise

## Readiness Checklist



### Production deployment

- Deployed in non-production environment(s)
- Production deployment planned & completed
- Testing plan established
- Plan for migration of existing OSS, state, variables, & applicable resources to the new platform



# Terraform Enterprise

## Readiness Checklist



### Use Case Implementation

- First use case implemented
- First team consuming the platform and deploying IaC with Terraform Enterprise
- Usage of Private Module Registry (PMR) and migration of existing reusable code to PMR to create standard modules
- Plan for implementation of policy and governance



# Terraform Enterprise

## Readiness Checklist

### ● Baseline Operations

- Backup & Restore strategy implemented
  - Backup strategy defined
  - Backup strategy tested
  - Cold standby implementation plan in place
  - Installation of TFE codified
- Upgrade cadence established
  - Minimum 4X per year upgrade cycle
  - Plan for testing in non-prod environments prior to upgrade
- Terraform code version upgrade plan
  - Lifecycle management plan established for TF code version(s) being used
  - Lifecycle management plan established for modules

The background is a solid dark blue. In the top-left corner, there is a square area containing a pattern of parallel diagonal lines and a grid of small dots. In the bottom-right corner, there is a rectangular area containing a grid of small dots.

# **Content & Resources**



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## Additional Resources

- [Terraform Enterprise Adoption Guide](#)
- [Terraform Enterprise Recommended Practices and Workflows](#)
- [Recommended Terraform Enterprise Patterns](#)
- [Terraform Enterprise Production Readiness](#)
- [Terraform Tutorials Page](#)
- [Terraform Enterprise Homepage](#)

# TFE Onboarding Journey



## Custom Learn Collections

- [Week 1 - Welcome to TFE](#)
- [Week 2 - TFE Pre-Install Checklist](#)
- [Week 3 - Define Infrastructure with TFE Resources](#)
- [Week 4 - Office Hours](#)
- [Week 5 - TFE Backups and Restore](#)
- [Week 6 - Run Workflows](#)
- [Week 7 - Active Active Reference Architecture](#)
- [Week 8 - TFE Governance](#)



# Additional Training Resources



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

- **HashiCorp YouTube Page** <https://www.youtube.com/hashicorp>  
Training videos, Beneath the covers, Past conferences, etc
- **HashiCorp User Groups (HUGs)** - <https://www.meetup.com/pro/hugs/>  
With over 50 countries, and 155 user groups, find a HUG located near you
- **HashiCorp Certification**  
Even if you don't want the certification, the [Study Guide](#) is a relevant and useful curriculum to follow especially for team members new to Terraform
- **HashiCorp Enterprise Academy**  
<https://www.hashicorp.com/customer-success/enterprise-academy>  
Live instructional courses from HashiCorp Certified Instructors that deliver hands-on product curriculum



# HashiCorp Events

Visit our events page for future events to live webinars, virtual workshops and other training courses

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Join us in San Francisco for HashiCorp's community conference. Get 20% off your HashiConf pass for a limited time.

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APR 6 | WEBINAR

## Boundary 0.12 GA Release Brings Multi-Hop Sessions and more

Learn more about the features of Boundary's latest GA release, including multi-hops sessions, SSH Certificates, hosting IP address on targets and workflow approval integration.

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APR 11 | WEBINAR

## From Code To Cloud: Modernizing and Securing with Palo Alto Networks & HashiCorp

Join this webinar to learn more about how Terraform and Prisma Cloud Code Security enable event driven network automation

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# Thank You

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