

# Multi-cloud golden image pipelines with HCP Packer and Terraform Cloud

## The Challenge

Tracking base images, their iterations, and their build artifacts across downstream builds and provisioning pipelines can be challenging, particularly when using multiple clouds. The manual work of maintaining images across teams can be redundant and error prone, and takes time away from projects that are core to your business.

## Product Integration

HCP Packer is a multi-cloud artifact registry that tracks images and their iterations, and makes this information available through an API. By codifying commonly used base images as golden images, they can be standardized, secured, and updated using automation.

### Define golden images using channels

Producer teams can choose a preferred iteration of an image for testing and production.

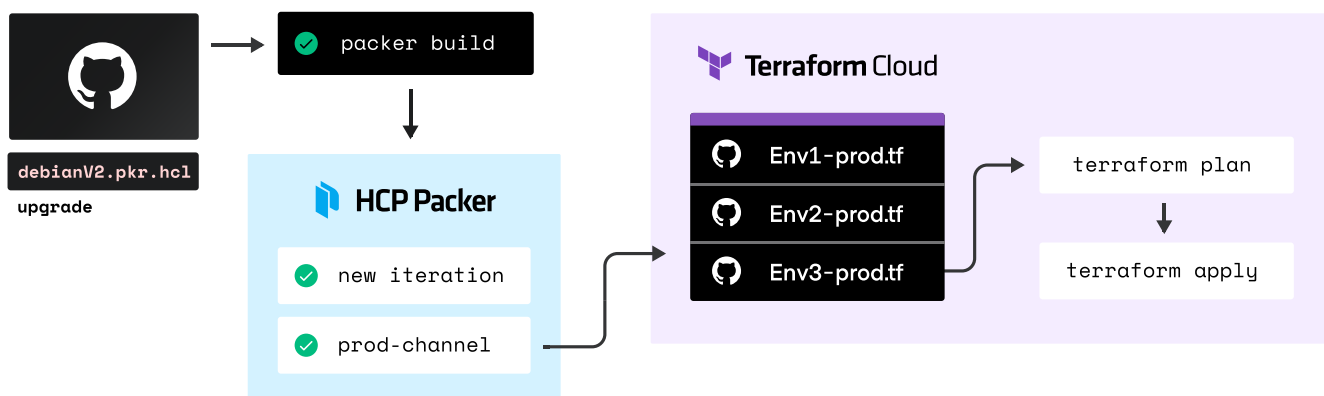
### Configure downstream images

Create one security and compliance workflow for images that are provisioned across multiple clouds, and even private infrastructure.

### Integrate with Terraform

Using the HCP Provider for Terraform, the Packer data source allows you to codify images in your Terraform configuration files rather than hard-coding them.

HCP Packer integrates directly with Terraform Cloud, enabling your organization to integrate image security and compliance processes into the Terraform Cloud workflow.



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## How It Works

- Packer OSS enables teams to define multi-cloud images across single or parallel builds as code.
  - By setting up environment variables to use with Packer OSS, the HCP Packer artifact registry starts to track information about images, downstream builds, and image iterations in a user interface, and makes this data accessible to query via an API.
  - Producer teams can clearly designate which image iterations are appropriate for test and production environments using channels, as well as which ones should be revoked.
  - The HCP Packer/Terraform Cloud integration enables teams to consolidate to a single security and compliance workflow for both virtual machines and operating environments. By integrating HCP Packer with Terraform Cloud using run tasks, any infrastructure that Terraform Cloud provisions can be checked for images that are marked for revocation in HCP Packer.
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## Use Cases

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### Build Automation

By codifying golden images, DevOps teams can trigger updates across downstream builds and provisioning pipelines.

### Multi-cloud Security and Compliance

Create one security and compliance workflow for images that are provisioned across multiple clouds, and even private infrastructure.

### Terraform Cloud Integration

HCP Packer integrates with Terraform Cloud workflows, and streamlines managing images across provisioning pipelines.

### About HashiCorp

**HashiCorp** provides infrastructure automation software for multi-cloud environments, enabling enterprises to unlock a common cloud operating model to provision, secure, connect, and run any application on any infrastructure. It is the company behind Terraform Cloud and Terraform Enterprise, which are used by hundreds of thousands of DevOps practitioners to manage infrastructure on AWS, Azure, Google Cloud Platform, Cisco, and over 1400 different cloud services.

