

The background is a deep purple space scene. In the top left is a large planet with horizontal stripes. To its right is a smaller planet with a ring. In the bottom left, an astronaut floats with a coiled tether. In the bottom right is a large, cratered moon. The sky is filled with white stars and soft, wavy nebulae in shades of blue and purple.

# NAVIGATING TERRAFORM'S BSL OPENTOFU AND BEYOND FOR AWS USERS



# HELLO!

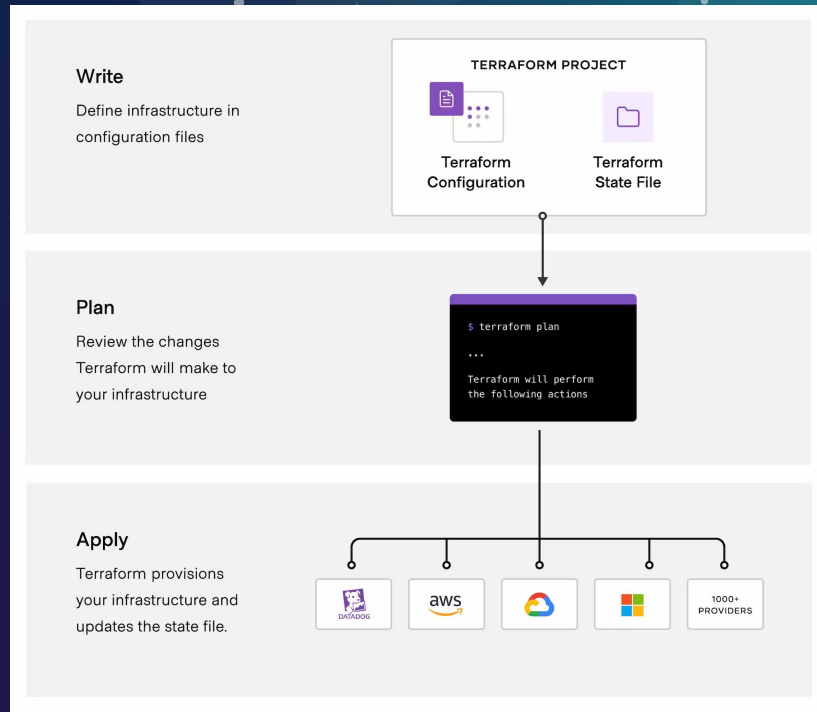
**I AM EVE BRENNAN**

I am a Cloud Engineer III at Business Insider

I also organise DevOps Belfast

# ★ WHAT IS TERRAFORM?

- ★ Infrastructure as Code (IaC) tool.
- ★ Released in 2014.
- ★ Owned by HashiCorp.

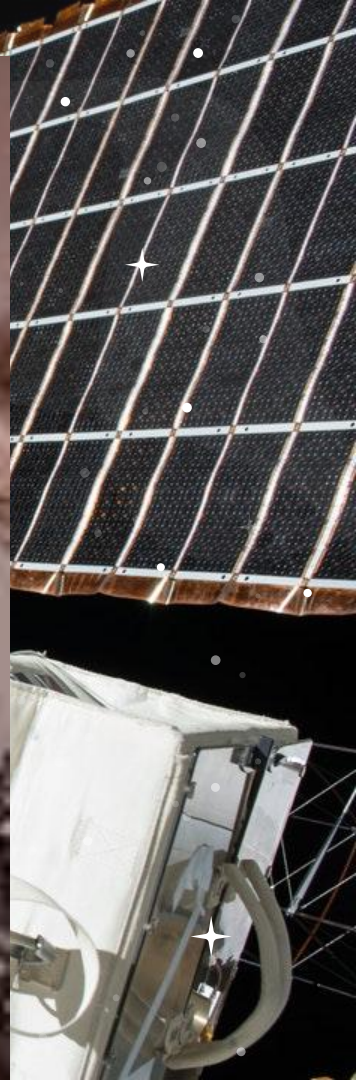


# THE INTRODUCTION OF BSL

Terraform initially launched under the Mozilla Public License, aligning with Hashimoto's open-source philosophy.

On August 10th, 2023, HashiCorp announced a shift in licensing to the Business Source License (BSL) for Terraform version 1.5.5 onwards, restricting commercial usage.

This unexpected change sparked concern within the user community, leading to the formation of a fork named OpenTofu.



# THE LAUNCH OF OPENTOFU

- ★ OpenTofu is a fork of Terraform v1.5.5.
- ★ It is supported by the Linux Foundation.
- ★ It is compatible with existing providers and modules in the Terraform registry.

OpenTofu reached General Availability (i.e. its first stable release) On 10th January, 2024.



# ROADMAP DIVERGENCE

## Terraform

- ★ issensitive function
- ★ Dynamic provider-defined functions
- ★ `decode_tfvars`, `encode_tfvars`, and `encode_expr` functions
- ★ `terraform test`

## OpenTofu

- ★ State encryption
- ★ Dynamic provider-defined functions
- ★ `tofu test`
- ★ Loopable import blocks
- ★ Variables as module sources

<https://github.com/opentofu/opentofu/issues/1496>



## removed.go

OpenTofu  
MPL-2.0

```
// Removed represents a removed block in the  
configuration.
```

```
type Removed struct {
```

```
    From *addr.RemoveEndpoint
```

```
    DeclRange hcl.Range
```

```
}
```

```
func decodeRemovedBlock(block *hcl.Block)  
(*Removed, hcl.Diagnostics) {
```

```
    var diags hcl.Diagnostics
```

```
    removed := &Removed{
```

```
        DeclRange: block.DefRange,
```

```
    }
```

```
    content, moreDiags :=
```

```
    block.Body.Content(removedBlockSchema)
```

```
    diags = append(diags, moreDiags...)
```

```
    if attr, exists :=
```

```
    content.Attributes["from"]; exists {
```

```
        from, traversalDiags :=
```

```
        hcl.AbsTraversalForExpr(attr.Expr)
```

```
        diags = append(diags,
```

```
        traversalDiags...)
```

```
        if !traversalDiags.HasErrors() {
```

```
            from, fromDiags :=
```

```
            addr.ParseRemoveEndpoint(from)
```

```
            diags = append(diags,
```

```
            fromDiags.ToHCL()...)
```

```
            removed.From = from
```

```
        }
```

```
    }
```

## moved.go

OpenTofu/Terraform  
MPL-2.0

```
type Moved struct {
```

```
    From *addr.MoveEndpoint
```

```
    To *addr.MoveEndpoint
```

```
    DeclRange hcl.Range
```

```
}
```

```
func decodeMovedBlock(block *hcl.Block)  
(*Moved, hcl.Diagnostics) {
```

```
    var diags hcl.Diagnostics
```

```
    moved := &Moved{
```

```
        DeclRange: block.DefRange,
```

```
    }
```

```
    content, moreDiags :=
```

```
    block.Body.Content(movedBlockSchema)
```

```
    diags = append(diags, moreDiags...)
```

```
    if attr, exists :=
```

```
    content.Attributes["from"]; exists {
```

```
        from, traversalDiags :=
```

```
        hcl.AbsTraversalForExpr(attr.Expr)
```

```
        diags = append(diags,
```

```
        traversalDiags...)
```

```
        if !traversalDiags.HasErrors() {
```

```
            from, fromDiags :=
```

```
            addr.ParseMoveEndpoint(from)
```

```
            diags = append(diags,
```

```
            fromDiags.ToHCL()...)
```

```
            moved.From = from
```

```
        }
```

```
    }
```

## removed.go

Terraform  
BUSL-1.1

```
// Removed describes the contents of a "removed"  
block in configuration.
```

```
type Removed struct {
```

```
    // From is the address of the configuration  
    object being removed.
```

```
    From *addr.RemoveTarget
```

```
    // Destroy indicates that the resource  
    should be destroyed, not just removed
```

```
    // from state. Defaults to true.
```

```
    Destroy bool
```

```
    DeclRange hcl.Range
```

```
}
```

```
func decodeRemovedBlock(block *hcl.Block)  
(*Removed, hcl.Diagnostics) {
```

```
    var diags hcl.Diagnostics
```

```
    removed := &Removed{
```

```
        DeclRange: block.DefRange,
```

```
    }
```

```
    content, moreDiags :=
```

```
    block.Body.Content(removedBlockSchema)
```

```
    diags = append(diags, moreDiags...)
```

```
    if attr, exists :=
```

```
    content.Attributes["from"]; exists {
```

```
        from, traversalDiags :=
```

```
        hcl.AbsTraversalForExpr(attr.Expr)
```

```
        diags = append(diags,
```

```
        traversalDiags...)
```

```
        if !traversalDiags.HasErrors() {
```

```
            from, fromDiags :=
```

```
            addr.ParseRemoveTarget(from)
```

```
            diags = append(diags,
```

```
            fromDiags.ToHCL()...)
```

```
            removed.From = from
```

```
        }
```

```
    }
```

# IBM to Acquire HashiCorp, Inc. Creating a Comprehensive End-to-End Hybrid Cloud Platform

*\$6.4 billion acquisition adds suite of leading hybrid and multi-cloud lifecycle management clients grappling with today's AI-driven application growth and complexity*

*HashiCorp's capabilities to drive significant synergies across multiple strategic growth areas*

HashiCorp

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COMPANY

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HashiCorp joins IBM to accelerate the mission of multi-cloud automation and the products to a broader audience of users and customers.

APR 24 2024 | ARMON DADGAR

Today we announced that HashiCorp has signed an agreement to be acquired by IBM to accelerate the multi-cloud automation journey we started almost 12 years ago. I'm

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Deals

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By Arsheeya Bajwa

April 23, 2024 8:43 PM GMT+1 · Updated 2 days ago



Employees follow a speech at the booth of IBM at CeBIT computer fair in Hanover March 3, 2009. REUTERS/Hannibal Hanschke/File Photo  
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# THANKS!

ANY QUESTIONS?

You can find the slides and demo resources at  
<https://github.com/evebrennan/terraform-to-opentofu>

# REFERENCES

- ★ <https://www.hashicorp.com/resources/the-story-of-hashicorp-terraform-with-mitchell-hashimoto>
- ★ <https://www.hashicorp.com/blog/mitchell-reflects-as-he-departs-hashicorp>
- ★ <https://blog.gruntwork.io/the-impact-of-the-hashicorp-license-change-on-gruntwork-customers-5fcd096ba86a>
- ★ <https://opentofu.org/blog/opentofu-1-7-0/>
- ★ <https://opentofu.org/docs/intro/migration/terraform-1.5-or-lower/>

# Abstract

In August 2023, HashiCorp's controversial switch to the newly coined Business Source License (BSL) for Terraform ignited discussions in the AWS user community about the future of open source IaC software. This talk dives into the implications for those using Terraform to provision their AWS infrastructure and explores the newly emerged OpenTofu fork. We'll break down the BSL's impact and take a look at what's involved with migrating to OpenTofu. Finally, we'll tackle the key question: is it worth switching to OpenTofu?