

PACKER

# Immutable Infrastructure

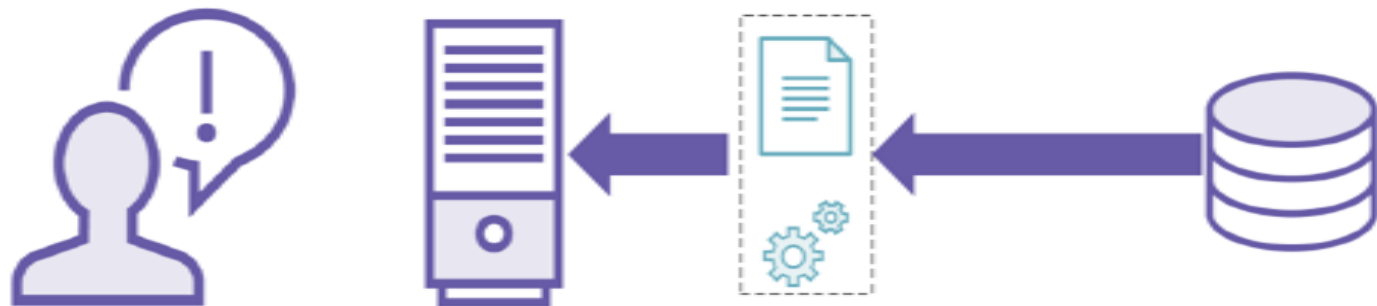
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# Immutable

**Adjective:**

Unchanging over time, or unable to be changed

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# Cats and Cattle, Oh My!



Mittens!



XB306-1

XB306-2

XB306-3

...

# Servers - Cats vs. Cattle

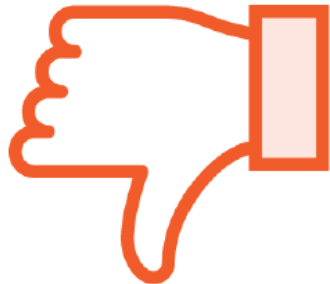
## Cats

Kept alive at all costs

Need manual intervention

Difficult to Scale

High-stress



## Cattle

Expendable

Work “out of the box”

Easy to Scale

Low-stress



## Other Benefits

**Testable Infrastructure**

**Reproduce Production**

**Unit of Deployment**

**Confident Changes**

When To Use It?

\* **ALL THE TIME!**

\* Except at very small scale

# Packer!



Utilize native tools

Integrate with configuration management

Easy to convert to Docker



# A Packer Template

```
{  
  "builders": [  
  ],  
  "provisioners": [  
  ],  
  "post-processors": [  
  ]  
}
```



Template



```
{  
  "type": "amazon-ebs",  
  "name": "MyCowServer-AWS",  
  "region": "us-west-2"  
}
```

## Builders

Generate your image

Provider-specific

Multiple builders = cross-provider builds!

```
{  
  "type": "shell",  
  "script": "makeMyCowAwesome.sh",  
  "only": [ "MyCowServer-AWS" ]  
}
```

## Provisioners

Customize your image

Scripts or configuration management

Can be builder-specific

```
{  
  "type": "compress",  
  "output": "MyCowServer-VirtualBox.tar.gz",  
  "only": ["MyCowServer-VirtualBox"]  
}
```

## Post-Processors

Put on the finishing touches

Integration with other services

Key to Docker conversion

# INSTALLING PACKER

<https://www.packer.io/downloads.html>

# PACKER TEMPLATES

<https://github.com/asquarezone/packer-templates>

<https://github.com/asquarezone/packer-windows>

# BUILD INFRA

