

# PHOENIX SERVERS WITH PACKER.IO

BY NILS DE MOOR  
@NDEMOOR

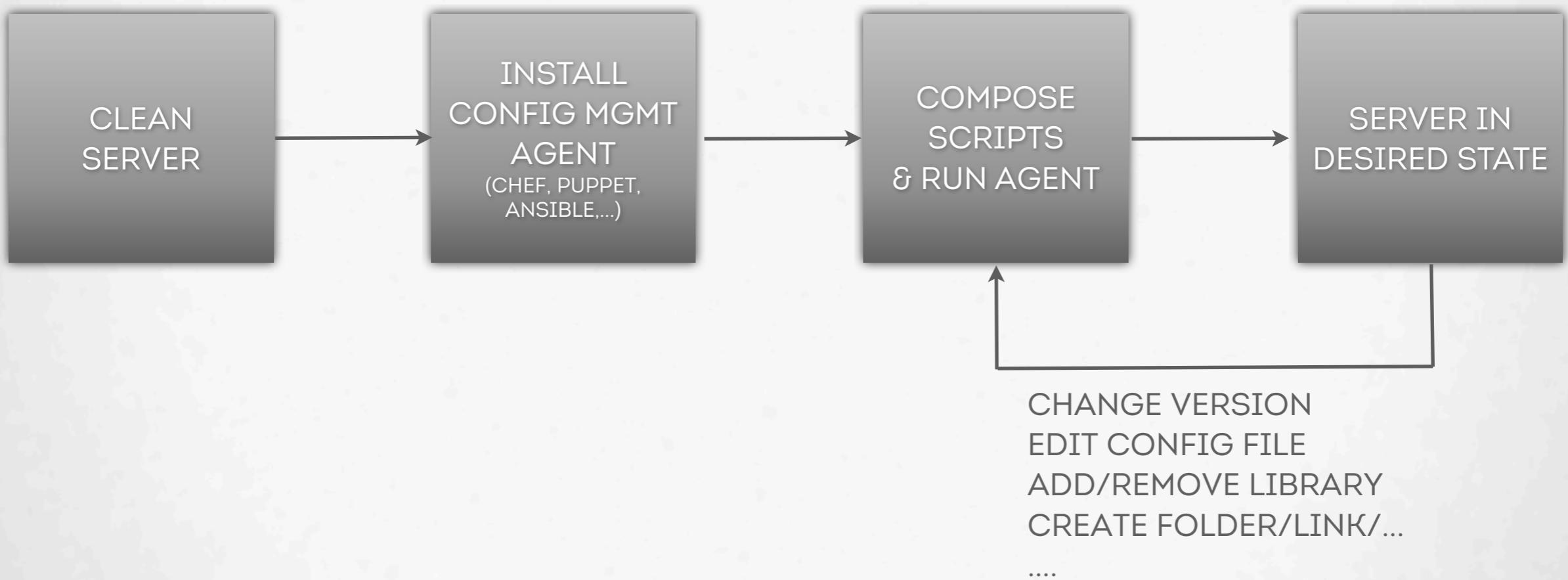


WE TEST EVERY BIT OF OUR SOFTWARE...

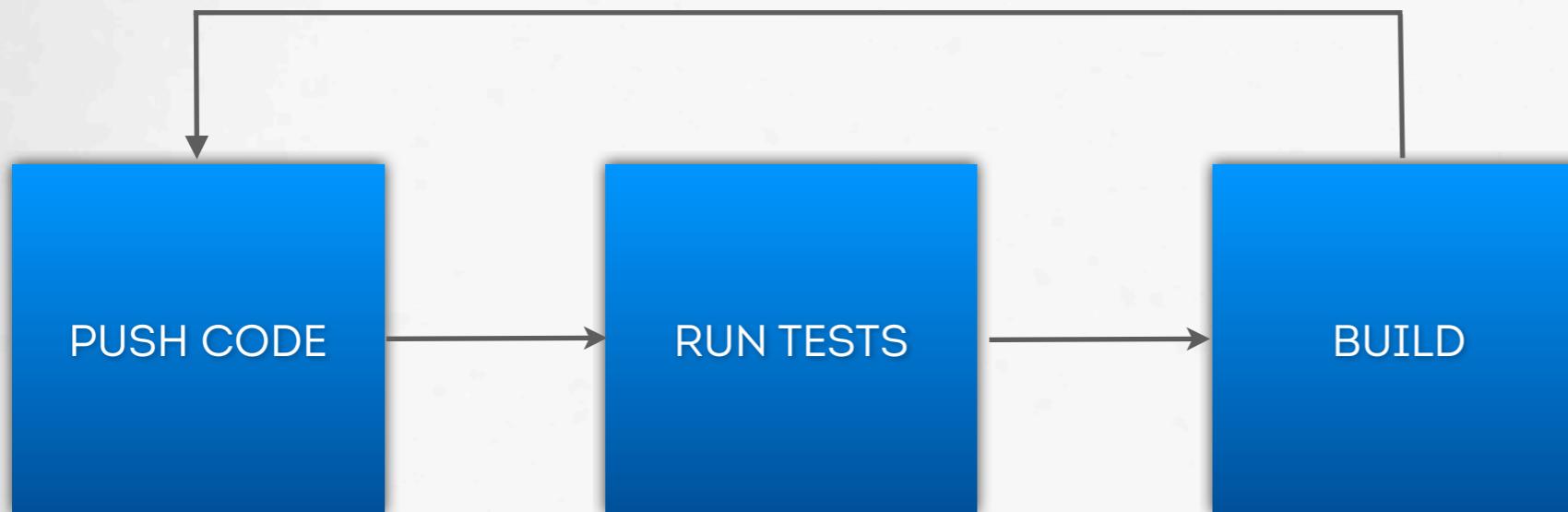
...SO WHY NOT TESTING OUR SERVERS



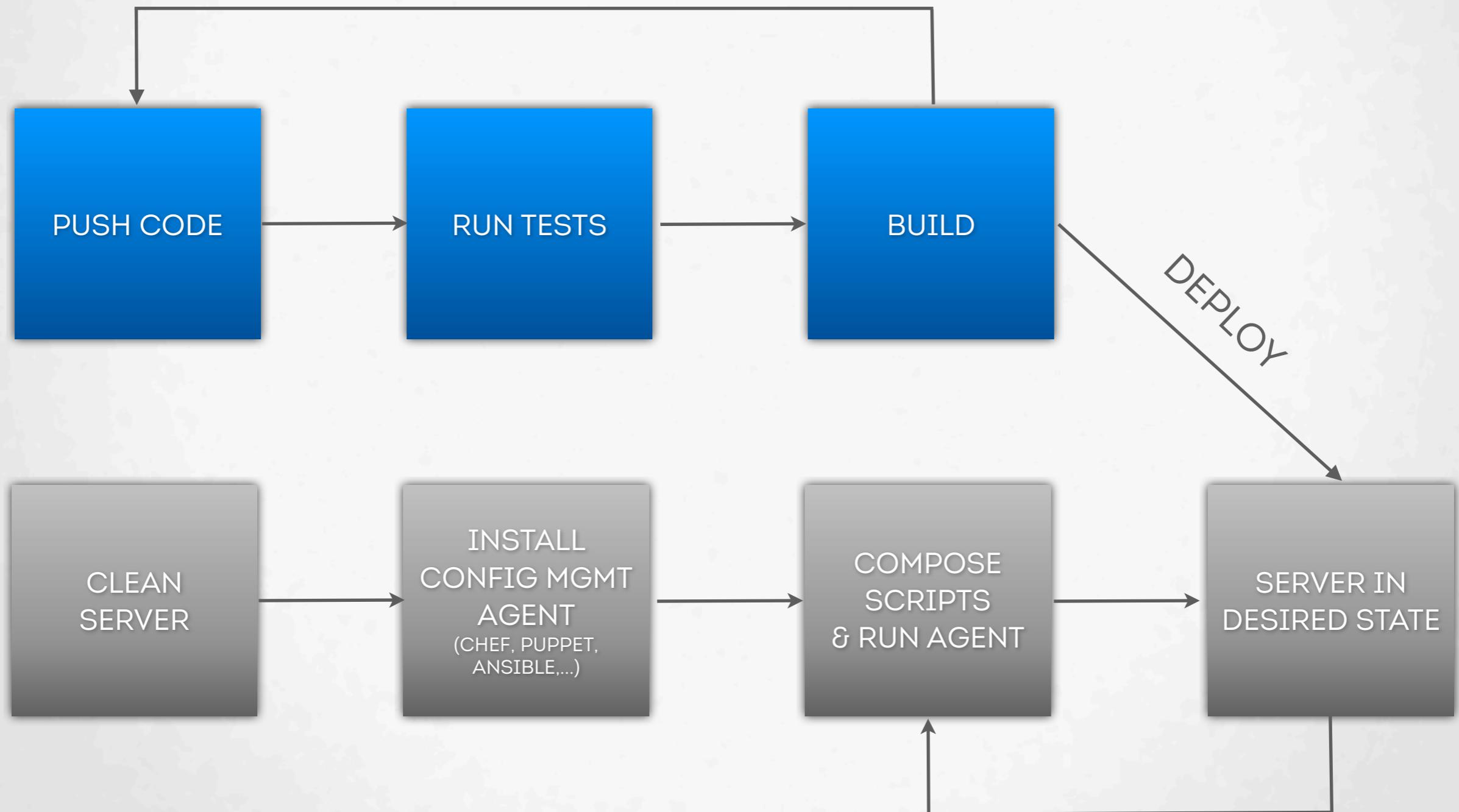
# CONFIG MANAGEMENT



# CONTINUOUS DEPLOYMENT



# CONTINUOUS DEPLOYMENT



# PITFALLS

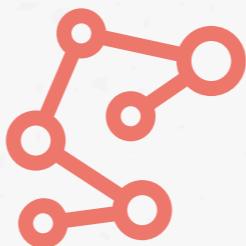
WHAT IF...

- IDEMPOTENCE IS NOT GUARANTEED?
- NOT EVERY PIECE IS REMOVED ON DELETE?
- MY CONFIG SERVER IS DOWN?
- REPOSITORIES ARE UNAVAILABLE?
- AGENT WORKS LONG WHEN AUTOSCALING UP?



“THE RESULT IS A UNIQUE SNOWFLAKE.  
GOOD FOR A SKI RESORT,  
BAD FOR A DATA CENTER.”

MARTIN FOWLER



“A SERVER SHOULD BE LIKE A PHOENIX,  
REGULARLY RISING FROM THE ASHES.”

MARTIN FOWLER



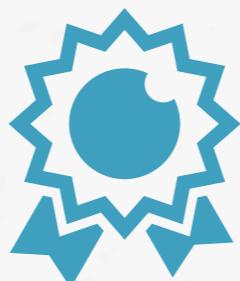
# PACKING IMAGES

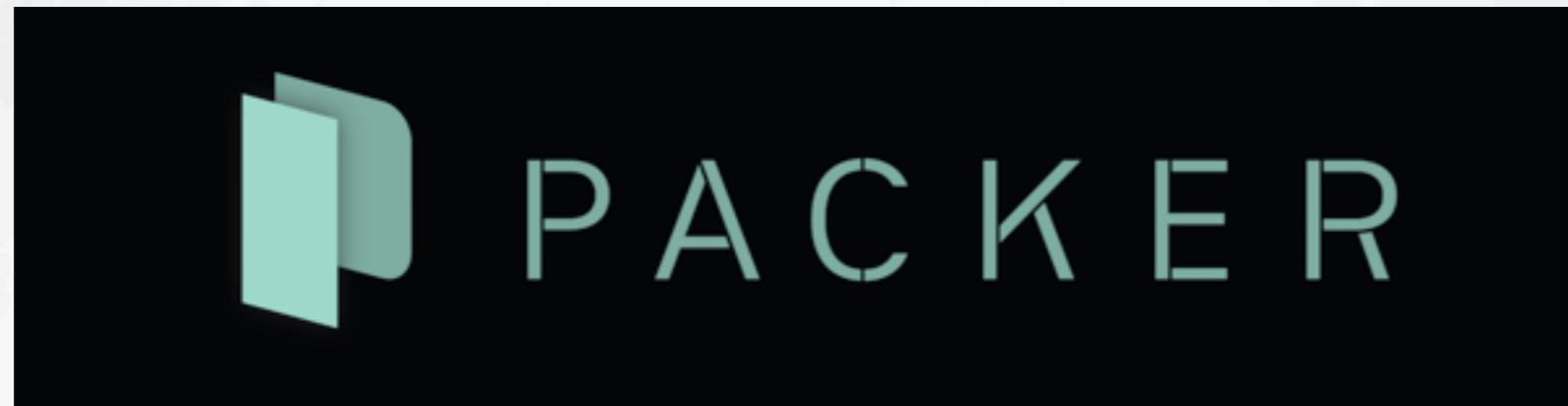
- APPLY CONFIG AGAINST BASE IMAGE
- BAKE NEW IMAGE OF FINAL STATE
- BOOT FROM FULLY OPERATIONAL IMAGE



# BENEFITS

- PLATFORM AGNOSTIC
- SAME CONFIG TOOLS
- FRESH SERVER ON EVERY DEPLOY
- TESTABLE IMAGE
- TEST VS. PROD PARITY
- SERVER GROUP PARITY
- FASTER BOOT



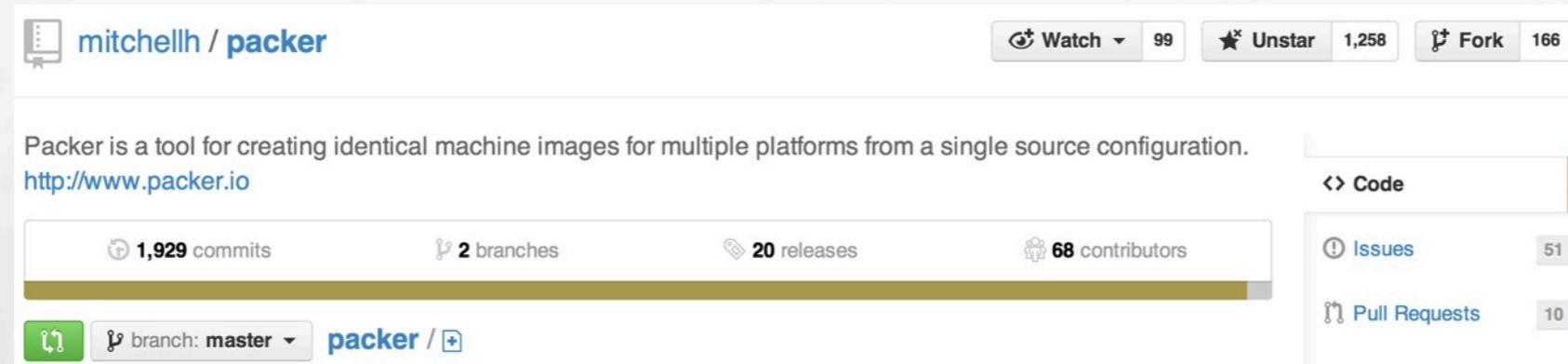


“PACKER IS AN OPEN SOURCE TOOL FOR CREATING IDENTICAL MACHINE IMAGES FOR MULTIPLE PLATFORMS FROM A SINGLE SOURCE CONFIGURATION.”

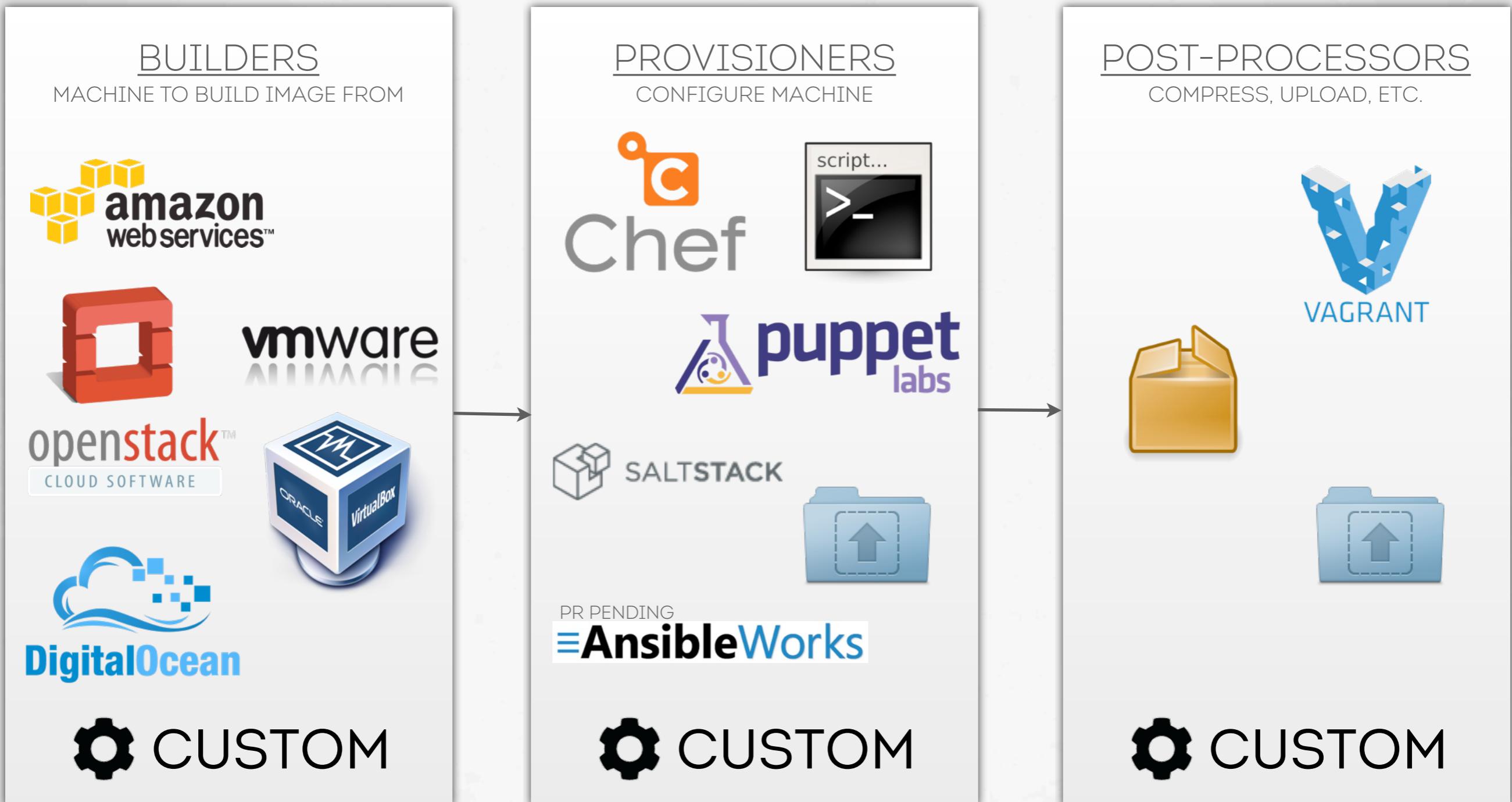
MITCHELL HASHIMOTO  
CREATOR OF PACKER AND VAGRANT

# IN SHORT

- RUNS ON EVERY MAJOR OS
- CREATES IMAGES FOR MULTIPLE PLATFORMS...
- ... IN PARALLEL
- CHEF, PUPPET, ETC. TO CONFIGURE IMAGE
- EXTENDABLE THROUGH PLUGINS
- OPEN SOURCE (GO LANG), WELL-MAINTAINED



# PACKER.JSON



# DEMO APP

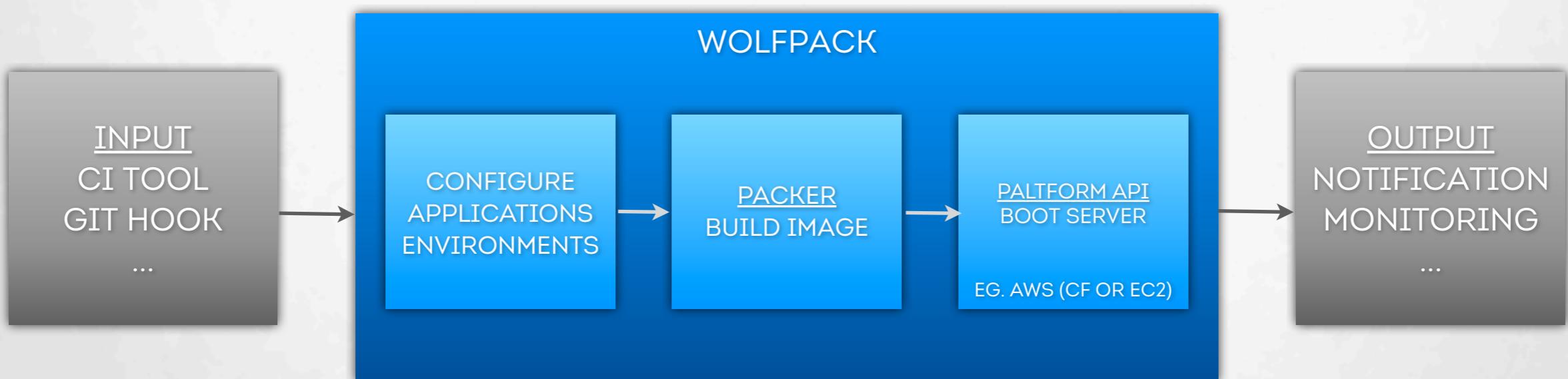
- BUILD AMI IMAGE
- PROVISION SOFTWARE
- INSTALL AND RUN APPLICATION

SOURCE: GIT CLONE [HTTPS://GITHUB.COM/NDEMOOR/PACKER-IO-DEMO](https://github.com/ndemoor/packer-io-demo)



# WOLFPACK

- DEPLOYMENT UI
- BUILT ON TOP OF PACKER
- SUPPORTS AWS API
- INPUT/OUTPUT API
- OPEN SOURCED BY END 2013



**APPLICATIONS**

Front  
Middlelayer  
Manycontacts  
ManyContacts  
Manycontacts (Try 3)  
shotgun  
Socket Report Gen  
SocketGen  
Create new App

**ACCOUNT**

Settings  
Log out

**Create new Environment for SocketGen****Branch****EndPoint****Access Key Id****Access Secret****Region** **Create Environment****APPLICATIONS**

Front  
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Manycontacts  
ManyContacts  
Manycontacts (Try 3)  
shotgun  
Socket Report Gen  
**SocketGen**  
Create new App

**ACCOUNT**

Settings  
Log out

```
        "dependsOn": "environment"
    },
    "cfParams": {
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        "value": [
            {
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            {
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                "default": "ami-7341101a"
            },
            {
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                "default": "woo-key"
            },
            {
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                "default": "m1.small"
            }
        ],
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        "dependsOn": "environment"
    },
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        "value": "",
        "type": "string",
        "editable": false,
        "dependsOn": "environment"
    }
}
```

**Load CloudFormation Template and Params from the location provided****Deploy cloudfomration****Deploy**

# QUESTIONS?



FEEDBACK OR REMARKS?

@NDEMOOR

# REFERENCES

- PACKER.IO

<HTTP://WWW.PACKER.IO/DOCS>

- MARTIN FOWLER

<HTTP://MARTINFOWLER.COM/BLIKI/PHOENIXSERVER.HTML>

<HTTP://MARTINFOWLER.COM/BLIKI/IMMUTABLESERVER.HTML>

<HTTP://MARTINFOWLER.COM/BLIKI/SNOWFLAKESERVER.HTML>