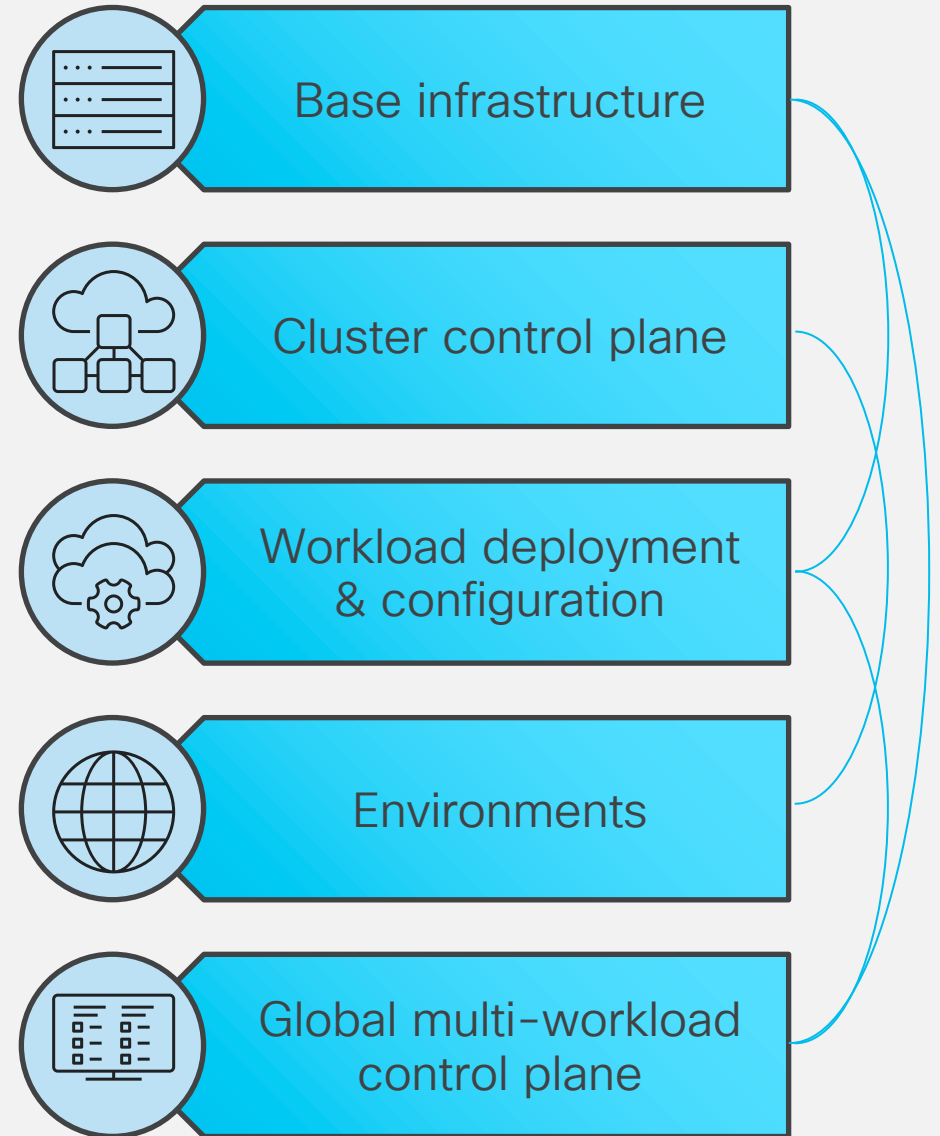


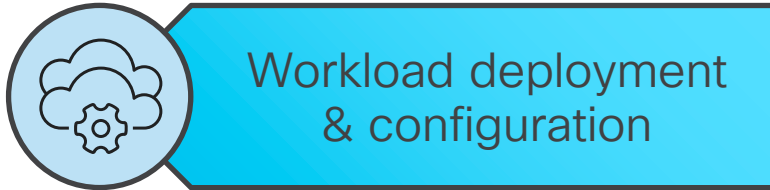


Automated 'Grenade Testing' for Platform Components

Conf42 DevOps 2024

A Comprehensive Platform





manifest / infra templating

- terraform templates / values

kubernetes provisioning

- ansible playbooks

helm / helm-cfg

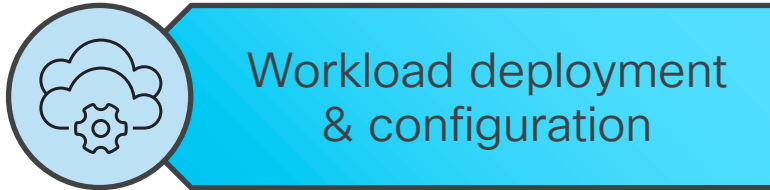
- tiered configuration

C&C

- environment orchestration

application groups

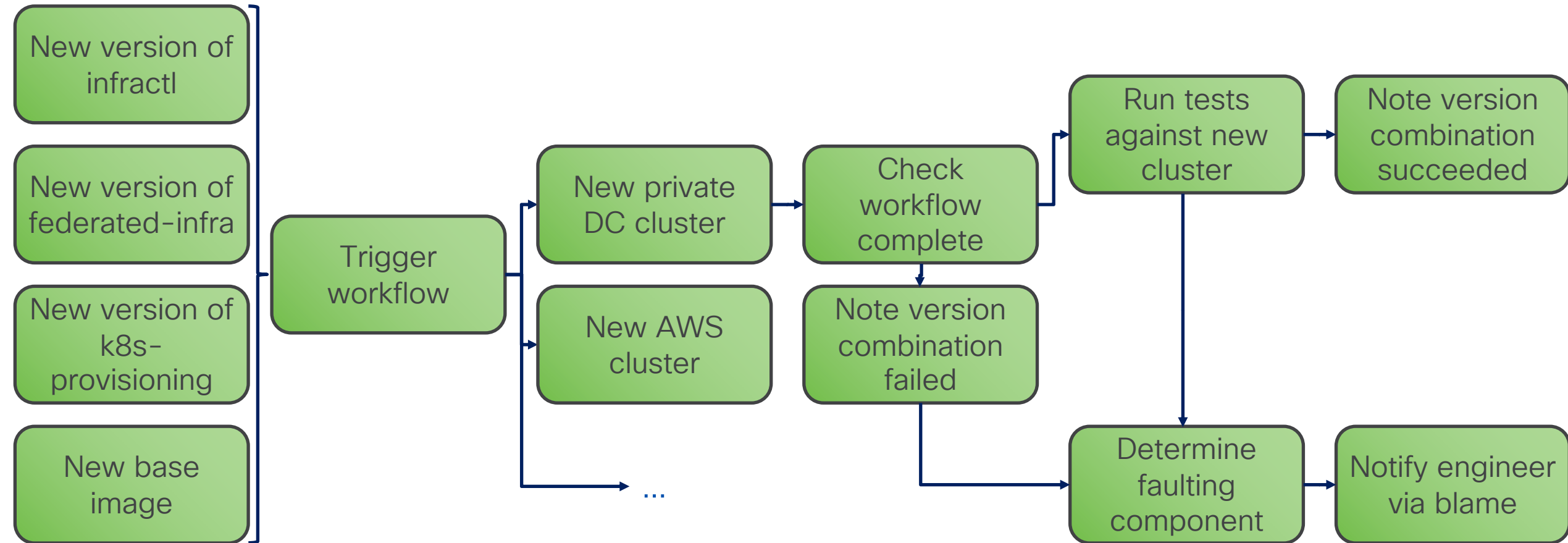
- high-level application spec



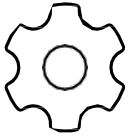
- ✓ Create cluster / environment definition
- ✓ Bring up infrastructure
- ✓
 - Parse infrastructure definition, convert to terraform values
- ✓
 - Provision infrastructure using terraform
- ✓ Create control plane
- ✓
 - Generate PKI engines, secrets etc
- ✓
 - Ansible playbooks
- ✓ Install base apps
- ✓
 - Parse bundles to be installed
- ✓
 - Render values
- ✓
 - Helm
- ✓ Report health, synthetic test status etc.

...

Grenade Testing in Detail



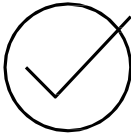
Grenade Testing Features



Automated Workflow



Uses Production Pipelines



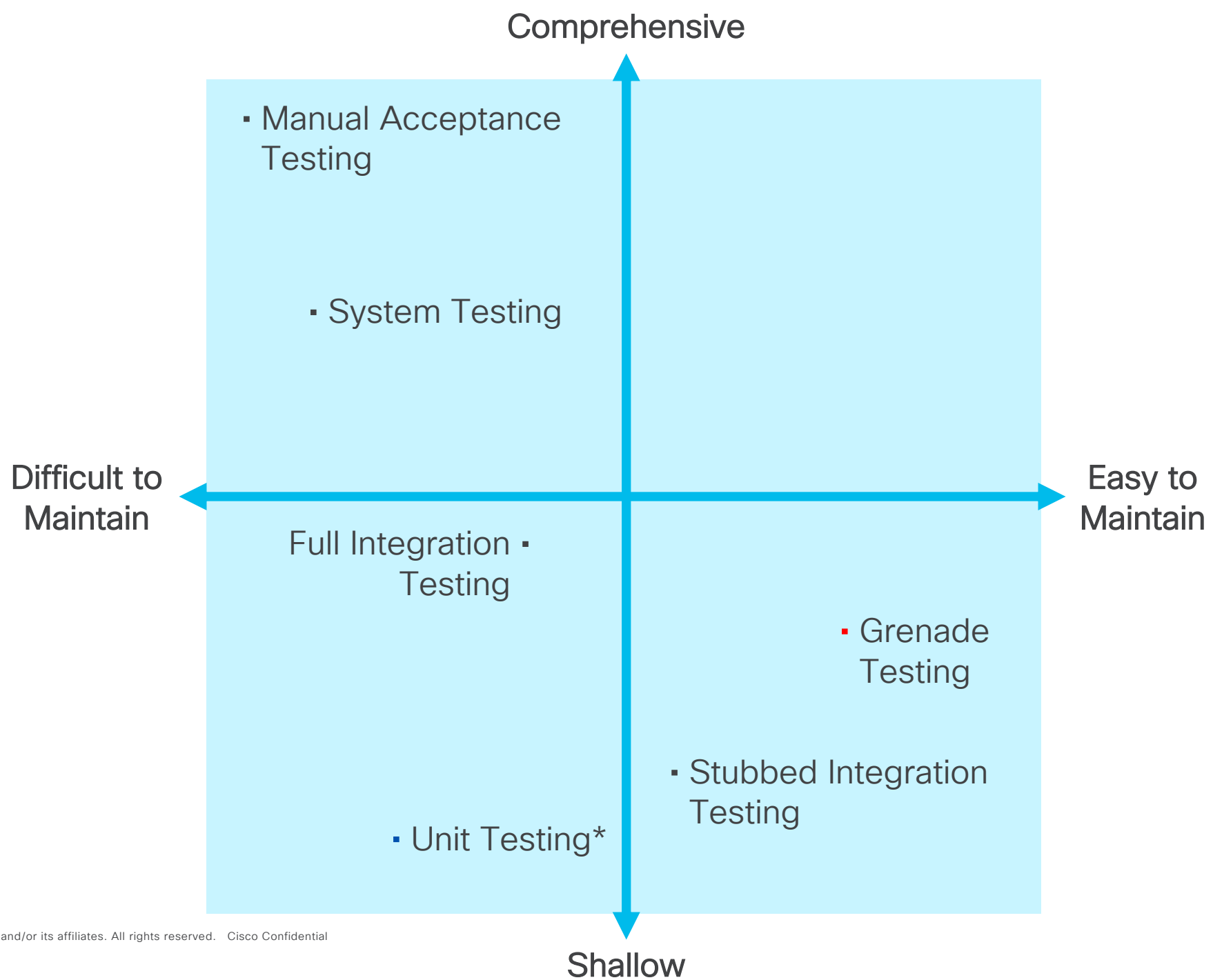
Handles Failure



Triggered by infra
version release



Runs in a mimic of
Production Environment



Current Status

[AWS test] upgraded federated-infra to version v10.1.6 #1194

Edit

Merged webexkubed-jen... merged 2 commits into master from federated-infra_upgrade_v10.1.6_AWS on Nov 7, 2023

Conversation 2 Commits 2 Checks 0 Files changed 2

+2 -1

webexkubed-jenki-gen commented on Nov 6, 2023

Notifying the grenade testing repository that a new version of federated-infra has been released, so it can run appropriate tests

[AWS test] upgraded federated-infra to version v10.1.6

webexkubed-jenki-gen added federated-infra grenade_test labels on Nov 6, 2023

webexkubed-jenki-gen commented on Nov 7, 2023

Grenade Testing Success:

Grenade testing has succeeded, while testing the following version combination:

Repository	Version tag
infractrl	v7.18.2
k8s-provisioning	v5.11.3
federated-infra	v10.1.6
image_name	wbx3-focal-1.25.6-containerd-c30fb90
terraform	v1.5.4
cloud_type	aws
provision_pr	
provision_status	
teardown_pr	
teardown_status	

Developer @tiaguo created the tag v10.1.6 of federated-infra.

Reviewers

wbx3-grenade-tst-gen

Assignees

No one—assign yourself

Labels

federated-infra grenade_test

succeeded_grenade_test

Projects

None yet

Milestone

No milestone

Development

Successfully merging this pull request may close these issues.

None yet

Notifications

Subscribe

You're not receiving notifications from this thread.

2 participants

Lock conversation



Current Status

Grenade testing for {'infractl': 'v7.18.2', 'federated-infra': 'v10.1.6', 'k8s-provisioning': 'v5.11.3', 'image_name': 'wbx3-focal-1.25.6-containerd-c30fb90', 'terraform': 'v1.5.4', 'cloud_type': 'aws'} #4629

Merged atlantis-gen merged 2 commits into `master` from `provisioning-grenade-testing-aws-4` on Nov 6, 2023

Conversation 31 | Commits 2 | Checks 0 | Files changed 3 | +310 -0

webexkubed-jenki-gen commented on Nov 6, 2023

Provisioning a cluster for grenade testing.

Grenade testing for {'infractl': 'v7.18.2', 'federated-infra': 'v10.1.6', 'k8s-provisioning': 'v5.11.3', 'image_name': 'wbx3-focal-1.25.6-containerd-c30fb90', 'terraform': 'v1.5.4', 'cloud_type': 'aws'} #4629 ✓ 480e926

webexkubed-jenki-gen requested a review from **WebexPlatform/cnp-kubed-non-prod-infra** as a code owner 2 months ago

webexkubed-jenki-gen added the `grenade_test` label on Nov 6, 2023

wbx3-grenade-tst-gen approved these changes on Nov 6, 2023 [View reviewed changes](#)

webexkubed-jenki-gen commented on Nov 6, 2023 [View reviewed changes](#)

webexkubed-jenki-gen left a comment

argo provision cluster grenade-testing-aws-4 no_unsilence

argo-dev-gen commented on Nov 6, 2023

Workflow: [provision-cluster-zpsbv](#) (archive, external)
Type: provision
Target resource: cluster-grenade-testing-aws-4

Reviewers

- wbx3-grenade-tst-gen** ✓
- cnp-kubed-non-prod-infra** ⏸

Assignees

No one—assign yourself

Labels

- `grenade_test`

Projects

None yet

Milestone

No milestone

Development

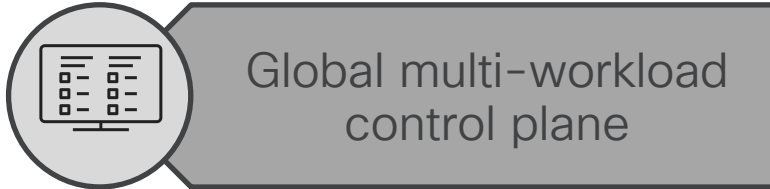
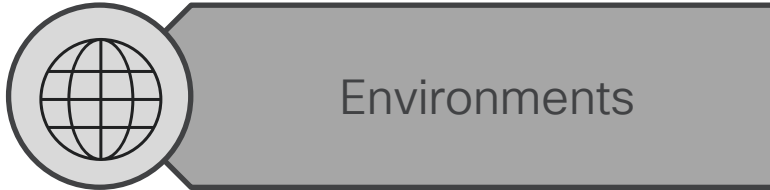
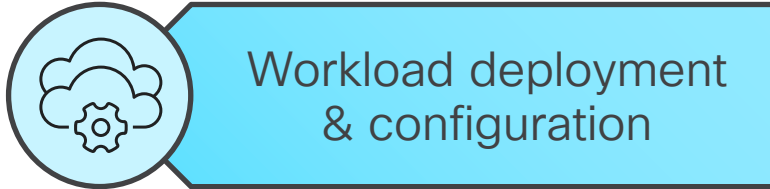
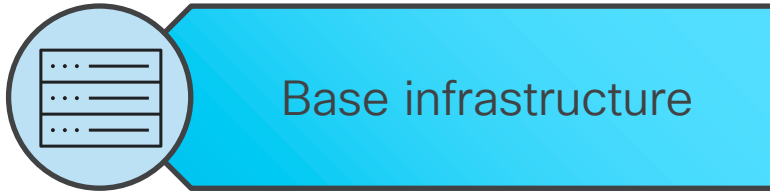
Successfully merging this pull request may close these issues.

None yet

Notifications [Customize](#)

[Unsubscribe](#)

You're receiving notifications because your review was requested.

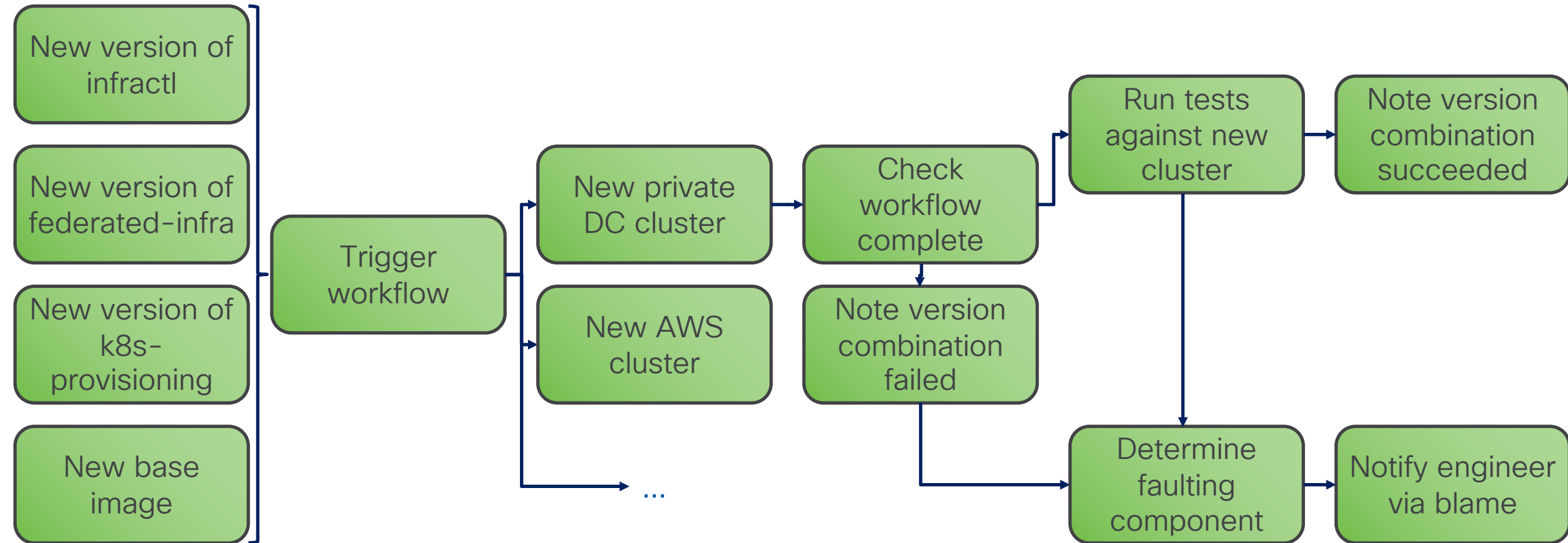


Use latest grenade testing clusters as testing targets

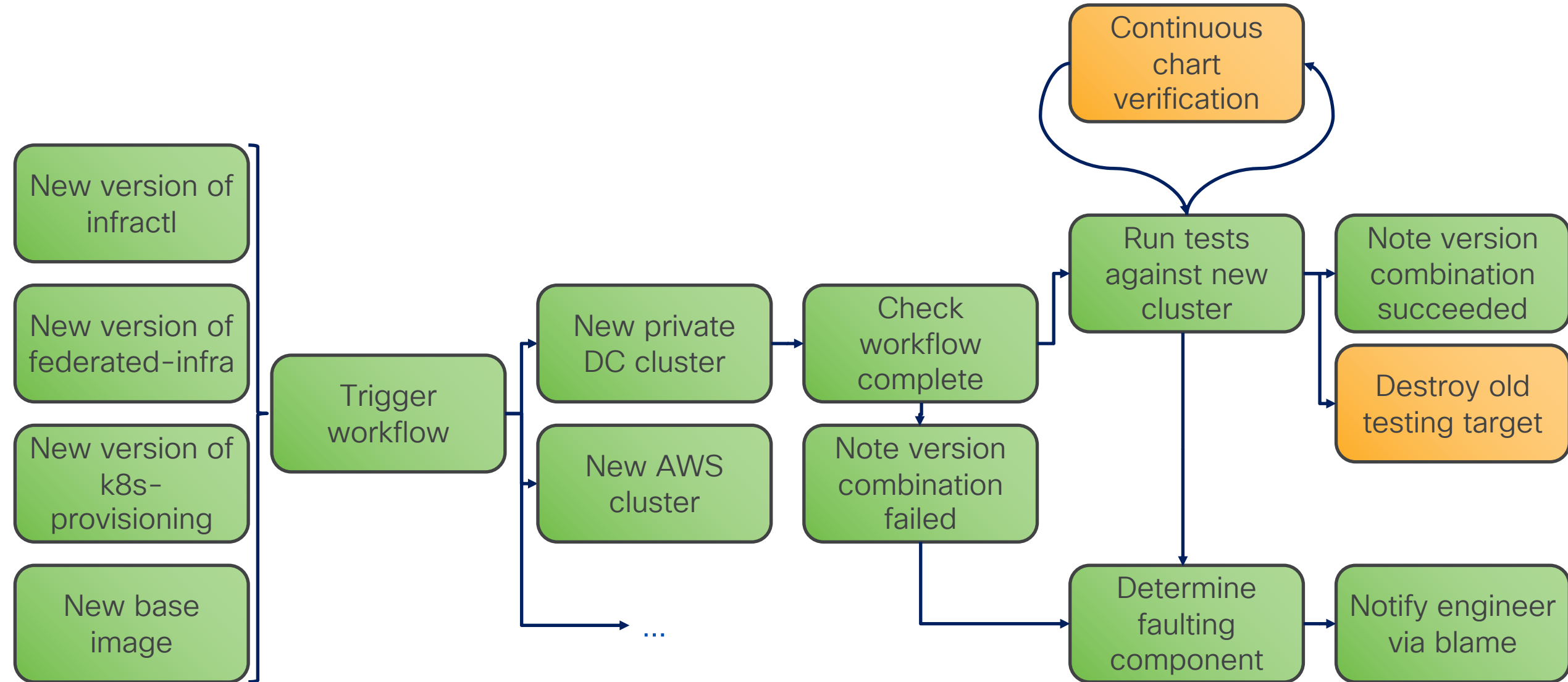
Automatic deploys based on chart version changes

Optional auto config bump

Grenade Testing in Detail



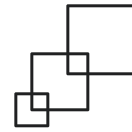
Grenade Testing in Detail



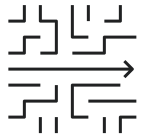
Challenges



Figuring out who to blame



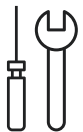
End-user application compatibility



Doesn't catch everything



Environment configuration



System maintenance



Multiple cloud providers

The Result

- More confidence in platform releases
- Automatically generated compatibility information
- Reduced time-to-detect interdependency issues with components from weeks to hours
- Data gathering
- Reasonably cost effective



The bridge to possible

Acknowledgements

Jon-Paul Sullivan
Lorne Hyde