

FetchIt

GitOps tool for Podman



Problem

Managing container deployments at scale can be difficult especially with the movement to push early and push often. Tooling and platforms may force organizations to choose a solution based on availability rather than one that fits the exact workload.



Why FetchIt?

- GitOps driven deployment
- Host interacts directly with Git rather than through an intermediary
- Podman Go bindings
- Not Kubernetes dependent
- Lift and shift hardware



How does Fetchit Happen?

- Pull in git/image assets
- Cron based scheduling
- Podman socket
- Dynamic reload of FetchIt configuration



Methods

```
28 lines (28 sloc) 611 Bytes
                                                                                                                                        Blame
                                                                                                                                   Raw
  1 targetConfigs:
     - name: fetchit
       url: http://github.com/containers/fetchit
  3
  4
       raw:
  5
        - name: raw-ex
         targetPath: examples/raw
  6
         schedule: "*/1 * * * *"
  7
  8
          skew: 10000
         pullImage: false
  9
 10
        systemd:
        - name: sysd-ex
 11
         targetPath: examples/systemd
 12
         root: true
 13
         enable: false
 14
         schedule: "*/1 * * * *"
 15
          skew: 1000
 16
 17
        ansible:
 18
        - name: ans-ex
 19
         targetPath: examples/ansible
 20
         sshDirectory: /root/.ssh
         schedule: "*/1 * * * *"
 21
        filetransfer:
 22
        - name: ft-ex
 23
         targetPath: examples/filetransfer
 24
         destinationDirectory: /tmp/ft
 25
         schedule: "*/1 * * * *"
 26
          skew: 3000
 27
 28
        branch: main
```

Configuration Reload

```
16 lines (16 sloc)
                     558 Bytes
                                                                                                                                            Blame
                                                                                                                                      Raw
     # for this test, start with this config, then wait to be sure the
        targetConfigs from .fetchit/config.yaml are populated
        and for follow-up test, push a change to the config and confirm
      # new targetConfigs are fetched & run
      configReload:
        configURL: https://raw.githubusercontent.com/containers/fetchit/main/examples/config-reload.yaml
        schedule: "*/2 * * * * "
      targetConfigs:
      - name: fetchit
        url: https://github.com/containers/fetchit
 10
 11
        raw:
 12
        - name: raw-ex
          targetPath: examples/raw
 13
          schedule: "*/1 * * * *"
 14
          pullImage: false
 15
        branch: main
 16
```



Clean Up

```
4 lines (4 sloc) 61 Bytes

1 prune:
2 All: true
3 Volumes: true
4 schedule: "*/1 * * * *"
```



What's next?

- GitSign to verify commits
- Image verification cosign or similar solution
- Ansible-pull



Demos

- Scale Up
- Podman Kube + Clean up
- Podman Systemd



Where's the code?

https://github.com/containers/fetchit

