

Configuration management for vendor workloads



Current approaches for applying Day1..N configuration

“K8s-native”

- **Uses ConfigMaps**
- **Holding JSON/XML/.. Data**
 - Supported by the vendor
 - Can be synced from Git

```
{  
  "cimConfig": {  
    "lmaas": {  
      "max_file_size_in_mb": 50,  
      "max_backup_files": 20,  
      "max_age": 7,  
      "max_size_in_mb": 10000  
    }  
  }  
}
```

configMapGenerator:

```
- name: amf-mgmt-cfg  
  namespace: mvnr-amf-01  
  options:  
    labels:  
      configType: mgmt-cfg  
      nfId: amf1  
  files:
```

```
volumes:  
- configMap:  
    defaultMode: 420  
    items:  
    - key: cim.json  
      path: cim.json  
    name: amf-mgmt-cfg  
  name: cim-config-volume
```

Current approaches for applying Day1..N configuration

“Non k8s-native”

- Not using a k8s object
- XML files
 - To be applied by a config management tool (1*), or the user (2*)
 - Automation to be provided by the user

▪ (1*) Online Config

🏠 > Configuration ▾ > Online Config ▾

```
apiVersion: batch/v1
kind: CronJob
metadata:
  name: apply-day1-job
```

▪ (2*)

```
<config xmlns="http://tail-f.com/ns/config/1.0">
  <interfaces xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces">
    <interface>
      <name>cre:ipfw_media</name>
      <type xmlns:pcift="urn:rdns:com:ericsson:oammodel:ericsson-if-typ
      <enabled>true</enabled>
      <encapsulation xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces
        <dot1q-vlan xmlns="urn:ietf:params:xml:ns:yang:ietf-if-l3-vlan"
      <outer-tag>
```

Each approach has problems

“K8s-native”

- **Rolling upgrades**
- **Size constraint of k8s ConfigMaps**
 - Vendor/App involvement in case this size is exceeded
- **Validation** of the configuration

“Non k8s-native”

- **Creating&maintaining the automation**
- **Vendor-specific**
 - N vendors => N ways
- **Validation** of the configuration
- **Is the app really k8s-native?**

Thank you

