Network DevOps & E2E Automation

OSM in netOps.ai

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Network DevOps - Need

**Development Time**
Duration from feature requests until RFA

FROM Several Months
TO <1 Month

**Release Cycle**
Combined Network Functions, Infra and tools Release Cycle

FROM <2
TO >12

**SW Quality**
# of Change delivery attempts required to reach RFA -> RFP

FROM Several Months
TO <1 Month

**Integration & Validation**
Duration of Systems integration and validation in Lab

FROM Weeks
TO Hours/Days

**Usable Working Hours**
Requirement of a late night maintenance window

FROM 0000
TO 0400
TO 24x7

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CSP’s Network Software Release Process
Too Complex & Too Time consuming

Community Source → Design → Develop → Integrate → Test → Deploy → Validate → Rollout

- Design
- Develop
- Integrate
- Test
- Deploy
- Validate
- Rollout

Health Check and Functionality Monitoring in Production

Unit Test Results

- Fully Automated Sub System Regression Testing on Development Lineup
- Fully Automated & Integrated Regression Testing on TEST Lineup
- HOST Release on STAGING Lineup
- E2E Systems Regression on Systems Test Lineup

Cut Rework
Cut Idle Time

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TechM netOps.ai Telco Cloud Solution Architecture

End2End 4G/5G VNF/CNF, Orchestration, Deployment & Certification

Self Service Portal

TM CCF
Continuous Change

TM CTF
Continuous Test

TM COF
Continuous Orchestration

TM CAF
Continuous Assurance

TM CIF
Continuous Intelligence

5G CNF

5G/4G VNF

Application Layer

Platform Layer

Any Cloud Infra Layer

Any HW INFRA Layer

LAB
Pre-Prod
Prod

Powered By
User Uploads/checks-In an artefact

A Super Release gets created

Artefact gets committed into a repo

Artefact Sanity Check

Release Artefacts get deployed on target lineup

Testing gets carried out

Tested Release gets deployed in Production
OSM APIs Exercised

- Authenticate OSM
- Upload VNFD on OSM
- Delete VNFD on OSM
- Query information about multiple VNF package resources
- Read information about an individual VNF package resource
- Upload a NS package by providing the content of the NS package
- Query information about multiple NS package resources
- Read information about an individual NS package resource
- Modify an individual NS package resource
- Delete an individual NS package resource
- Create a new NS instance
- Query information about multiple NS instances
- Read an individual NS instance resource
- Delete an individual NS instance resource
Thank You