DEVOPS FOR SOFTWARE-DEFINED TELECOM INFRASTRUCTURES

DRAFT-UNIFY-NFVRG-DEVOPS-06

IETF 96

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Motivation and outline

- Discuss principles related to applying DevOps concepts to VNF lifecycle management in software-defined infrastructure for telecom networks
- Identify a set of challenges addressable by research
- Major areas
  - Continuous integration and delivery
  - CAP and stability
  - Observability
  - Verification
  - Testing
  - Programmability of management

Updates in the -05 and -06 versions

- Following discussions at IETF95 and the new RG charter

- -06 corrected affiliation of one co-author
- -05 updated the technical content:
  - New section on testing: Pierre Lynch
  - Further clarifications on the roles, as well as considerations on continuous delivery from lifecycle perspective: Steven Wright
  - Removed the Troubleshooting and DevOps Metrics sections in order to improve alignment with the new RG charter

Research challenges for Testing

- Testing is a key DevOps activity

- Challenges
  - isolation of the VNF Under Test: complex management environment and sets of resources employed
  - Noisy neighbors
  - Sharing of infrastructure between the testing functions and the VNF Under Test
  - Dynamic Scaling
  - Testing of fault recovery and combination of VNF and SDI

Next steps

- Further alignment with the RG charter
  - discuss real-time properties relationship with stability
- Suggestions from the meeting participants?