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?