DevOps for Software-Defined Telecom Infrastructures
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Introduction

- Significant work on network virtualization technologies and their management in both academia and industry fora (several WGs in IETF, ETSI NFV ISG, TMForum)

- Purpose of the document: discussion opener in NFVRG
  - describe a set of principles that are relevant for applying DevOps ideas to managing software-defined telecom network infrastructures
  - identify challenges related to developing tools, interfaces and protocols that would support these principles and leverage standard APIs for simplifying management tasks

DevOps principles

- Deploy with repeatable, reliable processes
- Develop and test against production-like systems
- Monitor and validate operational quality
- Amplify feedback loops

Challenge areas

- Stability of the software-defined infrastructure versus continuous changes, and implications on consistency, availability and partitioning

- Observability: scalability, distribution, automation

- Verification: when to do, what to check, scalability

- Troubleshooting: automated workflows

Next steps

- Comments and feedback are welcome
- Refine the DevOps principles and their application in the NFVRG context
- Improve the description and positioning of the challenges
- Aim for follow-up discussion at IETF 92