DEVOPS FOR SOFTWARE-DEFINED TELECOM INFRASTRUCTURES

DRAFT-UNIFY-NFVRG-DEVOPS-04
IETF 95

C. Meirosu – Ericsson

A. Manzalini – Telecom Italia

R. Steinert – SICS

G. Marchetto – Politecnico di Torino

I. Pappafili – OTE

K. Pentikousis – EICT

S. Wright – AT&T

with contributions from W. John (Ericsson), J. Kim (Deutsche Telekom), S. Sharma (iMinds)

Motivation and outline

- Discuss principles related to applying DevOps concepts to software-defined infrastructure of telecom networks
- Identify a set of challenges regarding
  - Developing and operation tools
  - Interfaces
  - Protocols
- Major areas addressed
  - Continuous integration and delivery
  - CAP and stability
  - Observability
  - Verification
  - Troubleshooting
  - Measuring DevOps success
  - Programmability of management

Updates in the -04 version

- Following comments received on the mailing list (Ramki Krishnan), as well as at IETF94

- New roles
  - **System Integrator** - develops the software that makes the system components interact with each other. Might face additional challenges due to the fact that they might not have access to the source code of some of the components
  - **Customer** - contracts a telecom operator to provide one or more services. may define changes to their own service instance only in accordance to policies defined by the Service Developer.

- Further clarifications to the Continuous Integration and Delivery sections

New in the -04 version

- Paragraph on challenges for Data Virtualization
  - Traditional deployments: one master copy of production data available to Operators, no connection to test environments
  - DevOps deployments: production data needs to be available to Developers
  - Challenges:
    - Fine-granular access control
    - Defining "right" datasets relevant for a particular task
    - Scalability for data copy to slave repositories
    - Scalability and trust for automatically disposing of data copies

Next steps

- Investigate CAP relation to sections 6-10
- Add new section on testing
- Any proposals from the room?