Network Function Virtualization: Orchestration Challenges

draft-caszpe-nfvrg-orchestration-challenges-00

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Draft Background

- Merged two drafts based on the Chairs' suggestions
  - [draft-unify-nfvrg-challenges-02](#)
  - [draft-felix-nfvrg-recursive-orchestration-00](#)
  - Each draft has its strong points, we aimed to maintain all of those
  - In addition, aiming for RG adoption, we have added certain aspects where we expect that the community would like to contribute
- Draft available on the datatracker momentarily (finishing touches pending)

Draft Abstract and Scope

- Abstract—Network function virtualization (NFV) promises improved operations in terms of flexibility, efficiency, and manageability, but orchestration, in general, and recursive orchestration, in particular, is still an item of ongoing research. We summarize the current state of the art in open-source initiatives in this area and present current directions of research and development in terms of orchestration, resource decomposition and federation, policy-based resource management, measurement and analytics, and virtual network function (VNF) elasticity.

- Scope—orchestration of heterogeneous virtual resources and functions which can, in general, a) be programmed in a recursive manner, b) be shared based on policies, and c) reside across different administrative domains

Draft Outline

- Terminology
- Orchestration Review
  - An Illustrated Example
  - OpenStack
  - OpenMANO
  - Federated Experimentation Infrastructures
- Challenges
  - Resource description
  - Dependencies (de-composition)
  - Elastic VNF
  - Measurement and analytics
  - <your challenge here>

Way Forward

- The author team will be publishing the merged individual draft
- We would like to ask RG adoption soon after that