

Towards recursive virtualization and programming for network and cloud resources

(draft-unify-nfvrg-recursive-programming-02)

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NFVRG, IETF 94
11/4/2015

Outline

1 Updates

2 Relation to ETSI NFV

3 Extended Examples

4 Summary

Chairs' feedbacks

Ramki and Diego:

Below are our thoughts on the "Unifying Carrier and Cloud Networks: Problem Statement and Challenges" draft. Link to draft:

<https://datatracker.ietf.org/doc/draft-unify-nfvrg-challenges/>

- *This draft lacks detailed implementation example(s)*
- *Our suggestion is to merge this draft with <https://datatracker.ietf.org/doc/draft-unify-nfvrg-recursive-programming> which delves deeper into implementation examples.*

Updates in 02

- New
 - Sec 5: Relation to ETSI NFV

- Revised
 - Sec 6: Examples

Outline

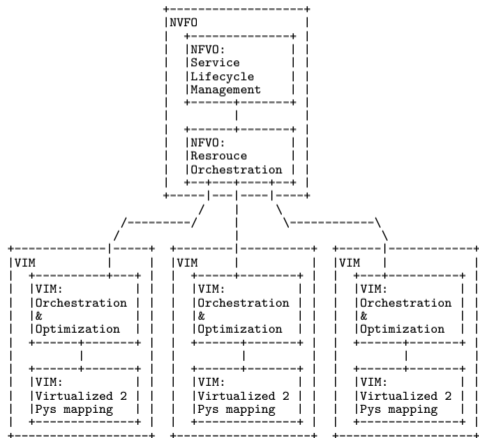
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NFVO's and VIM's Functional Splits



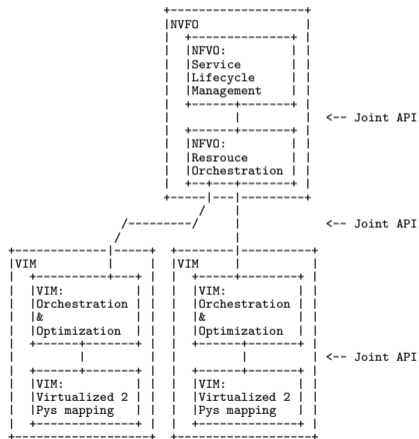
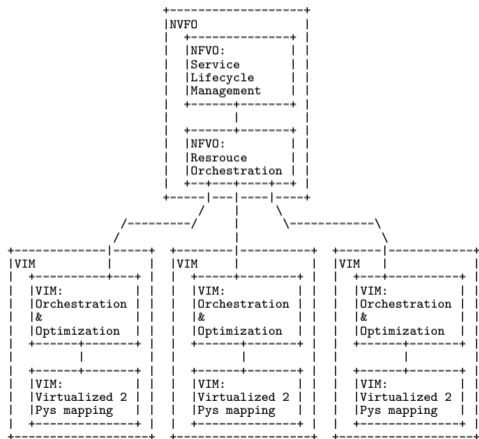
NFVO

- Network service lifecycle management.
- Orchestration of NFVI resources across multiple VIMs, fulfilling the Resource Orchestration functions;

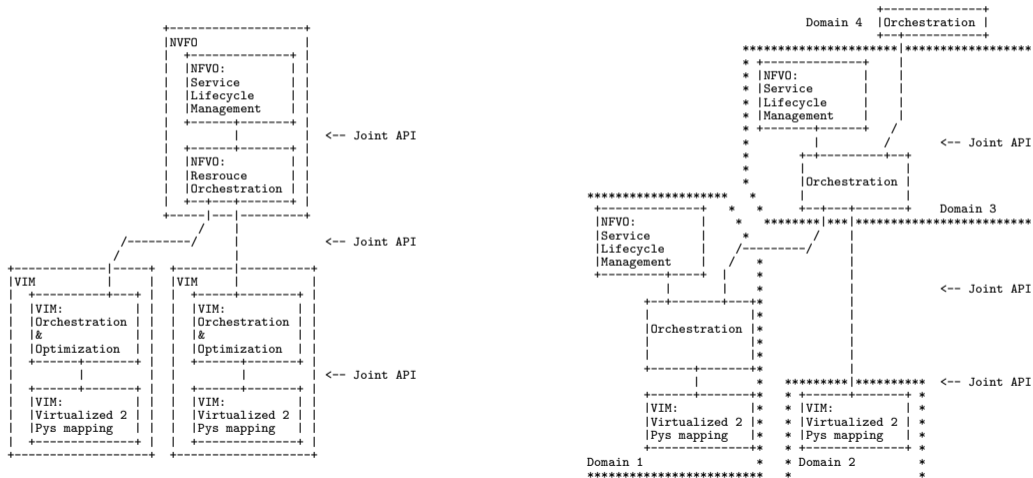
VIM

- Orchestrating the of NFVI resources (including the optimization of such resources usage), and
- managing the association of the virtualised resources to the physical compute, storage, networking resources.

The Recurring Abstraction / API



Orchestration Layouts Enabled by the Recurring Abstraction / API



How and What

The draft contains:

- motivational examples;
- definition of a *joint software and networking abstraction*;
- Yang data model of the Joint API (for virtualization and control);

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Extended Examples

Added virtualization view figures to all the examples

- Infrastructure reports
- Simple VNF Forwarding Graph deployment requests

VNF Benchmarking as a Service (VBaaS) – draft-rorosz-nfvrg-vbaas-00 – contains an example based on the proposal of this draft.

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Status:

- Proof of Concept prototypes demonstrated at SIGCOMM 2015, EWSDN 2015, Globecom 2015 screen-cast **coming**

Next steps:

- Merge some of the remaining Unifying Carrier and Cloud Networks: Problem Statement and Challenges into this draft
- RG adoption?

Acknowledgements

This work is supported by FP7 UNIFY, a research project partially funded by the European Community under the Seventh Framework Program (grant agreement no. 619609). The views expressed here are those of the authors only. The European Commission is not liable for any use that may be made of the information in this document