

Towards recursive virtualization and programming for network and cloud resources

[draft-unify-nfvrg-recursive-programming-01](#)

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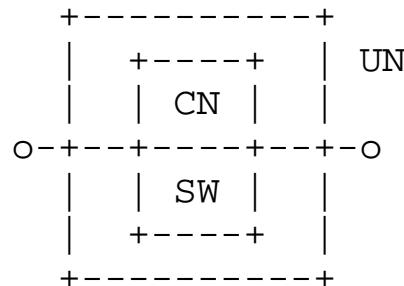
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New in 01

1. Introduction
2. Terms and Definitions
3. Use Cases
 - 3.1. Black Box DC
 - 3.1.1. Black Box DC with L3 tunnels
 - 3.1.2. Black Box DC with external steering
 - 3.2. White Box DC
- 4. Recursive approach**
 - 4.1. Virtualization**
 - 4.1.1. The virtualizer's data model**
- 5. Examples**
 - 5.1. Infrastructure reports**
 - 5.2. Simple requests**

Universal Node

- An innovative element that integrates and manages in a unified platform both compute and networking components and can present also an inner local layer of orchestration, capable to interact with an external one



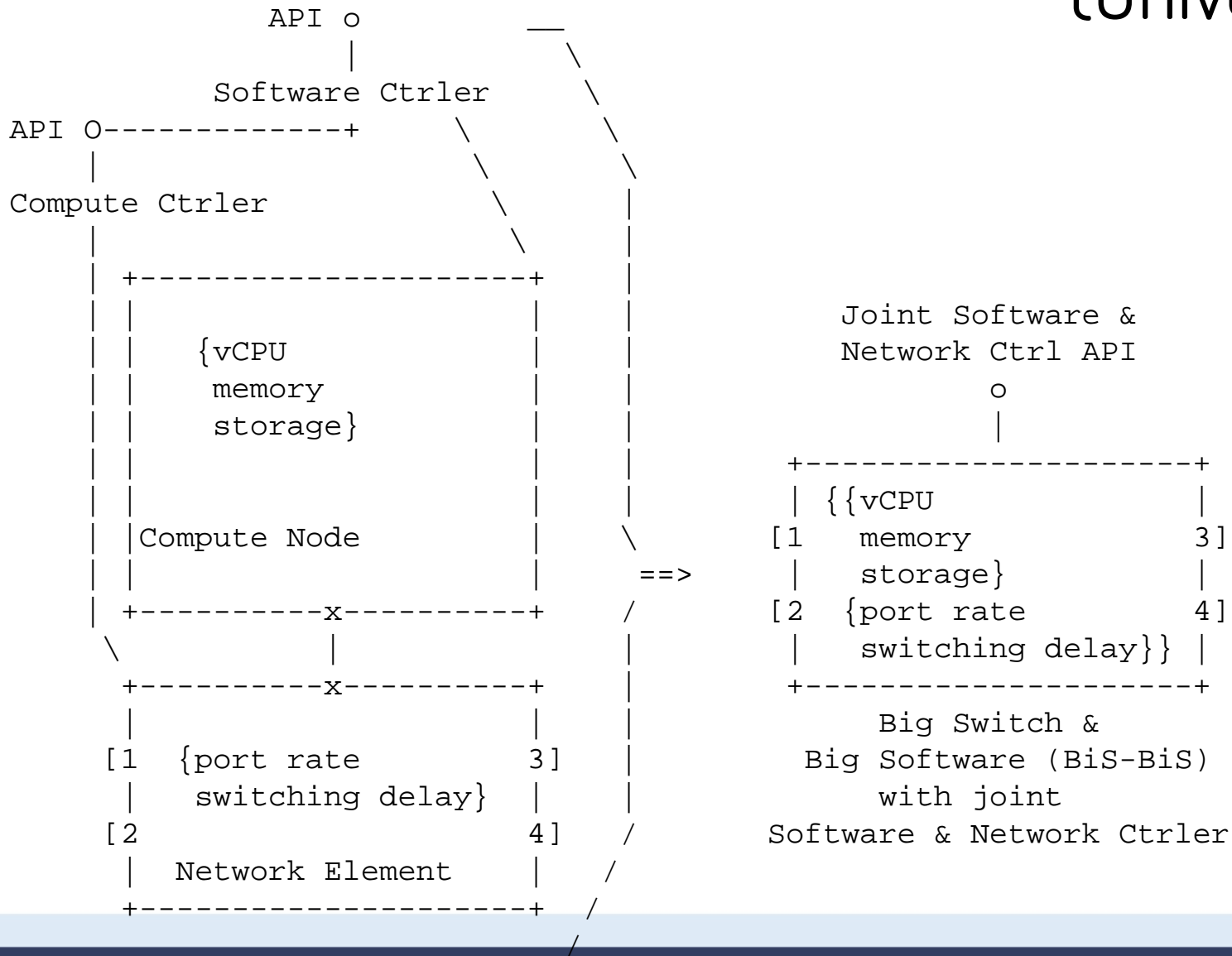
Legend:

Switch (SW)

Compute Node (CN)

Universal Node (UN)

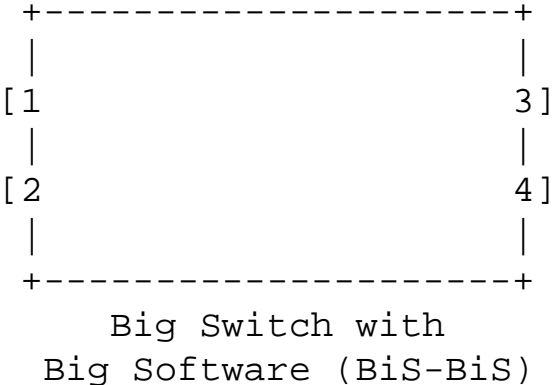
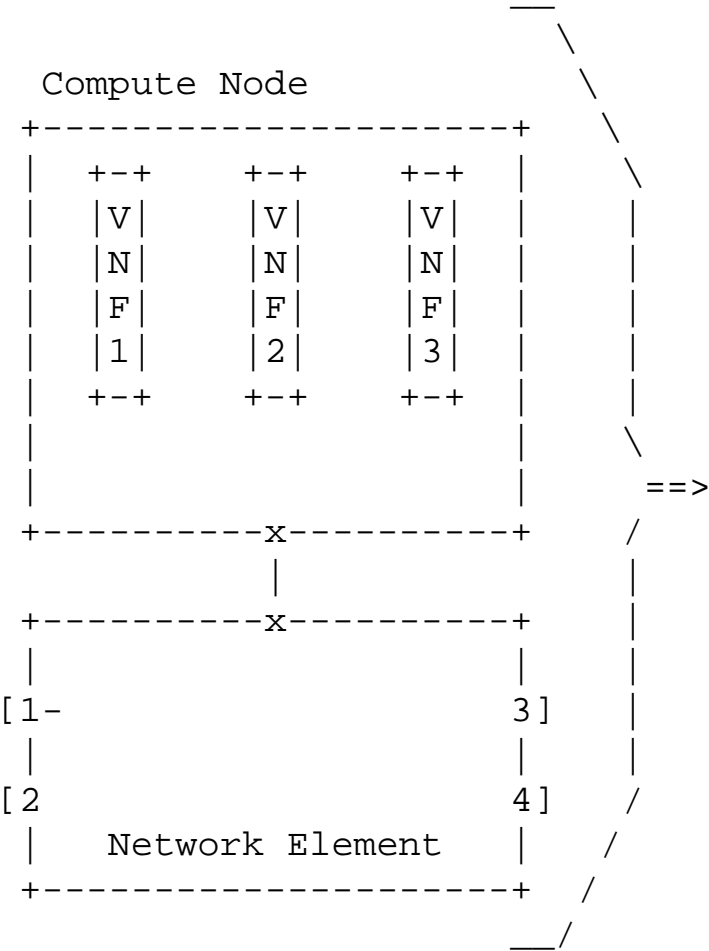
Big Switch with Big Software (BiS-BiS) (Universal Node)



Programming Steps

Step 1: Placement of NFs

Step 1: Placement of NFs with the forwarding overlay definition

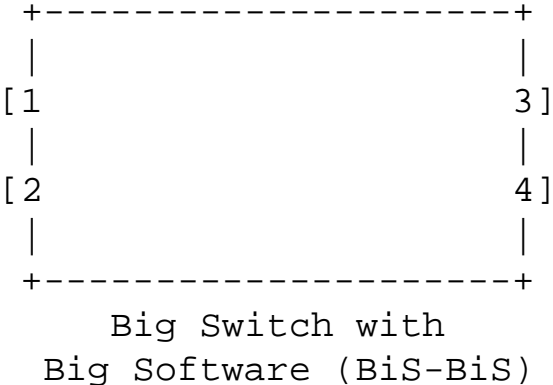
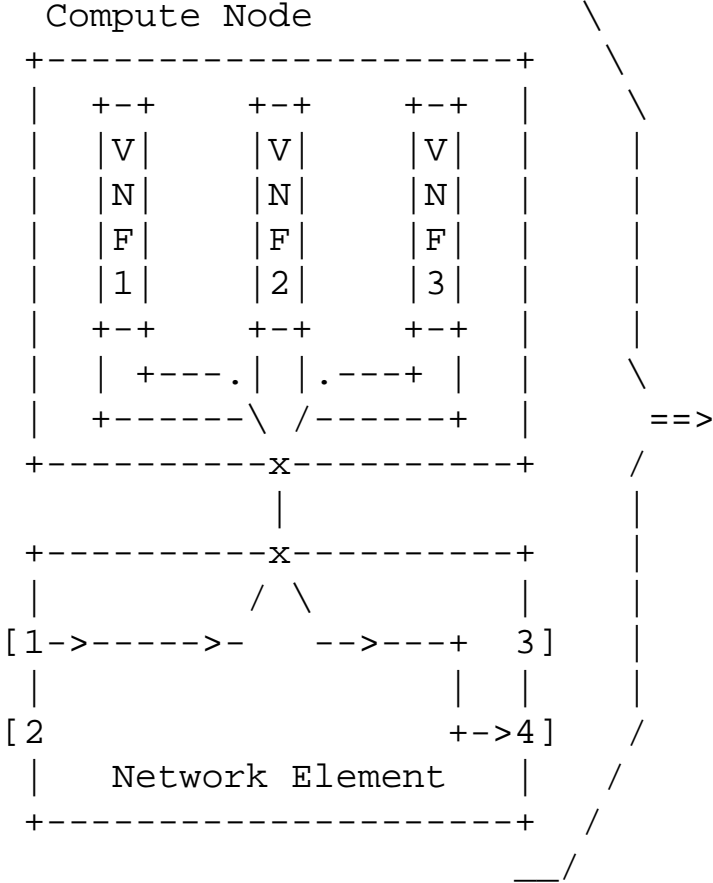


Programming Steps

Step 1: Placement of NFs

Step 2: Interconnect NFs

Step 1: Placement of NFs
with the forwarding
overlay definition

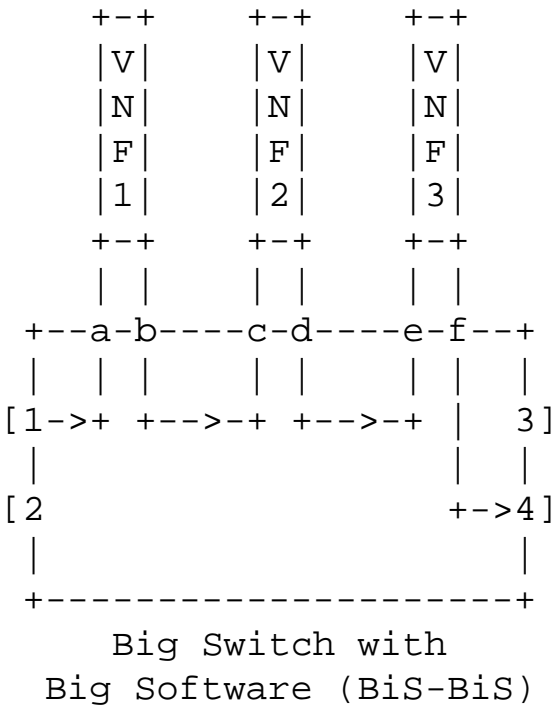
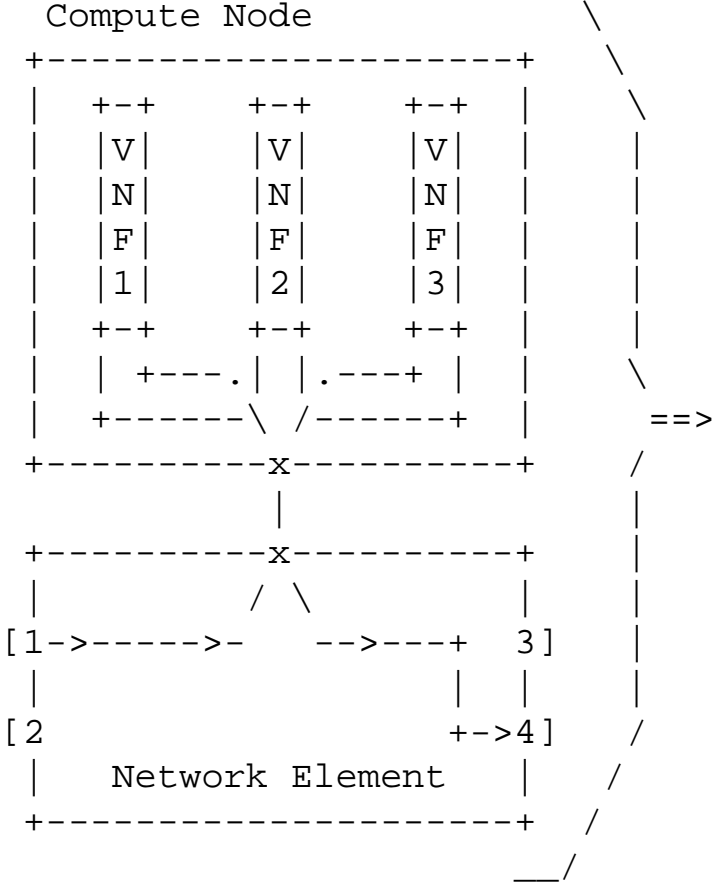


Programming Steps

Step 1: Placement of NFs

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Step 1: Placement of NFs
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overlay definition



Summary

“Towards recursive virtualization and programming for network and cloud resources” [draft-unify-nfvrg-recursive-programming-01](#)

- YANG data model
 - For netconf operations
- Examples
 - Simple infrastructure report
 - Simple request: VNF Forwarding Graph

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