

SPRING-OpenFlow Interworking (Use cases and Requirements)

<https://datatracker.ietf.org/doc/draft-khc-spring-openflow-interworking-req/>

<https://datatracker.ietf.org/doc/draft-khc-spring-openflow-interworking-use-cases/>

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IETF-91, SPRING WG Mtg.(9 AM - 11:30AM)

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Outline

- **Background** Information
- **What** are we MISSING in IETF ?
- **What** are we Proposing ??
- **How** does this proposal differ from others ???
- **Request** for Comments, Thoughts, Suggestions, Guidance, Volunteers, etc.
- **Q & A**, and **THANKS!**

Background Information

- **SPRING**: Steering packet thru an explicit route using information attached to the packet without requiring per-path state information at the transit nodes
- **OpenFlow**: How to communicate forwarding information to the Network Elements, or any type of control
- **Common denominator**: Removal of Routing and states from the transit nodes, and simplicity

What are we Missing?

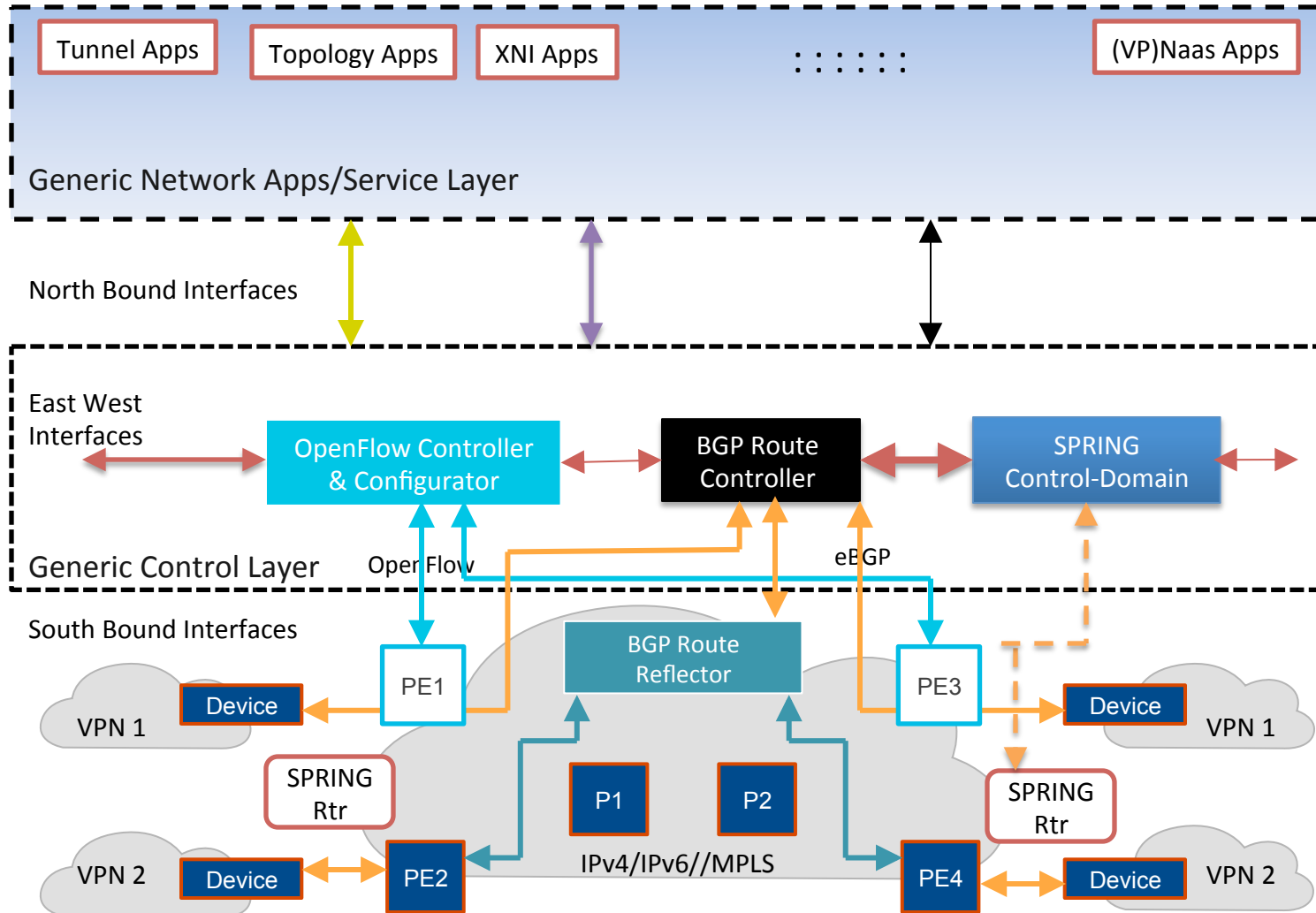
- Leveraging OpenFlow and OF Controller for more effective Routing
- A Generic Control Layer where SPRING and OpenFlow controller create synergy (instead of trying to use existing control plane architecture)
- New OAM Techniques
- Efficient Programmability
- Higher Availability
- More Effective Virtualization and Load Balancing

What are we Proposing Here?

- SDN-Based SPRING OpenFlow Interworking architecture
 - Generic Network Apps/Service Layer
 - Generic Control Layer and Orchestration
 - Simple Holistic view of the Network
- Use cases that leverage the synergy between SPRING and OpenFlow
 - Data Center (DC) Inter-connection
 - OpenFlow Based WAN Control
 - Interworking of OpenFlow and BGP Edge Routers
- List of Requirements that need to be addressed for effective end-to-end Operations, Management and Orchestration

What's the Difference?

[SDN-Based SPRING OpenFlow Interworking (Generic Architecture)]



What's Next?

- Soliciting Comments and Suggestions
- Inviting Thoughts on
 - Control domain and other Interface(s)
 - Exchange of configuration information
 - Exchange of control information
- Looking for Contributors and Reviewers
 - Develop option(s) and a recommendation

Q & A,

THANKS.