A Framework for Enhanced Virtual Private Networks (VPN+)

draft-ietf-teas-enhanced-vpn-01

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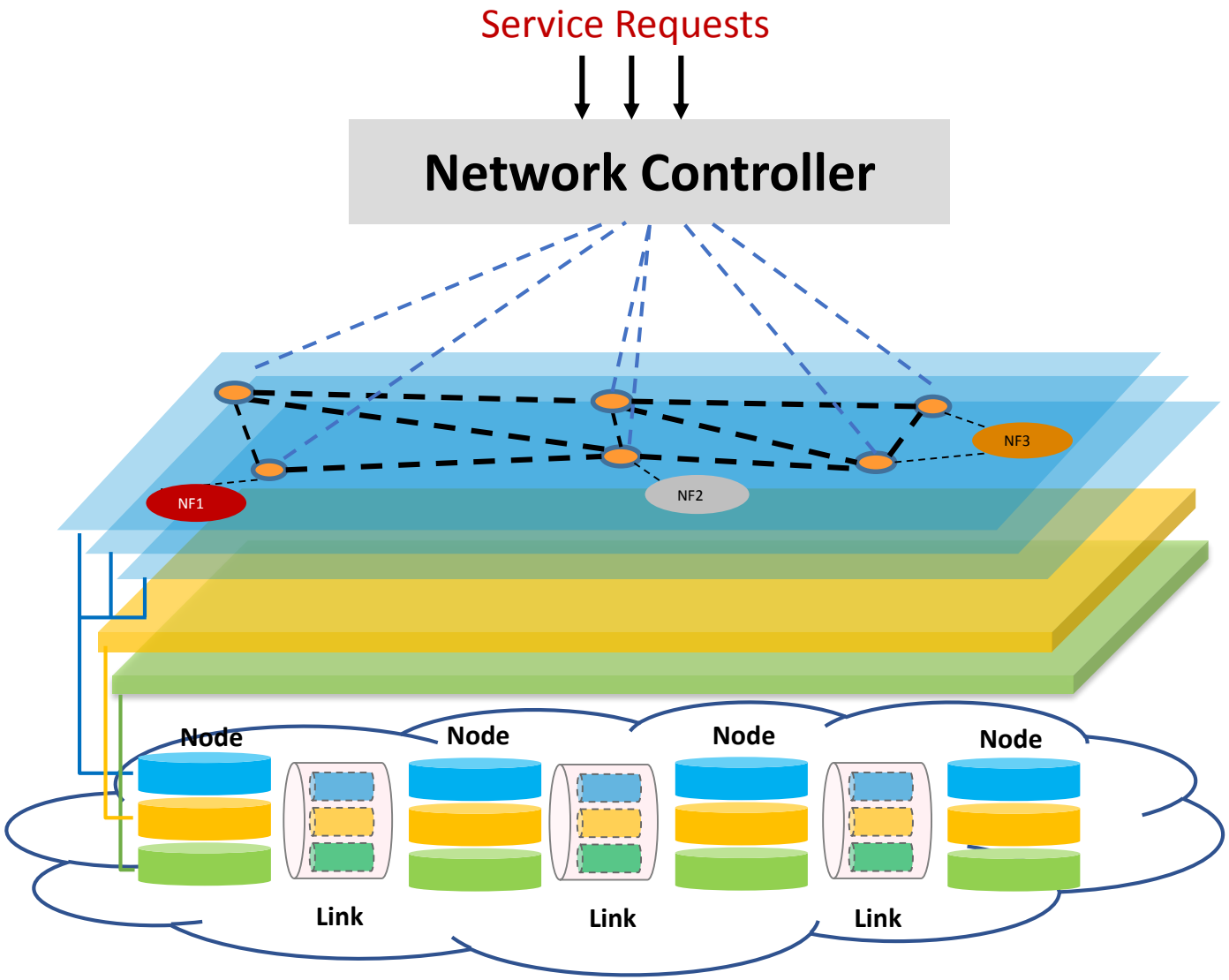
Recap of this Draft

- Describe a framework of enhanced VPN service
  - To support the requirements of emerging services in 5G
- Summarize candidate technologies in different layers
  - Enhanced data-plane
    - Mechanisms to provide different levels of service SLA guarantee
  - Control plane
    - Centralized and distributed
  - Management plane
    - Dynamic creation, modification and deletion of VPN services with required SLA
  - OAM, Resiliency, etc.

Enhanced VPN Architecture



Service Interface/models

Centralized control & management

Integration of overlay & underlay

Enhanced underlay

Updates after IETF 103

- draft-dong-teas-enhanced-vpn-03
  - Merge ACTN enhanced vpn/network slicing into management plane section
    - draft-lee-rtgwg-actn-applicability-enhanced-vpn
    - draft-king-teas-applicability-actn-slicing
  - New coauthors and contributors
  - Some editorial changes

Updates after Adoption

- draft-ietf-teas-enhanced-vpn-01
  - Solve the received comments about scalability
    - Only a subset of VPNs require the enhanced characteristics
    - Aggregation of enhanced VPNs can reduce the state in the network
    - Avoid to introduce per-path state to the network
  - Some editorial changes

Next Steps

- Solve the received comments
- Add descriptions about inter-domain/inter-layer scenarios
- Add operational considerations
- Improve security considerations
- Polish the draft