IETF Network Slice

Deployment Status and Considerations

draft-ma-teas-ietf-network-slice-deployment-00

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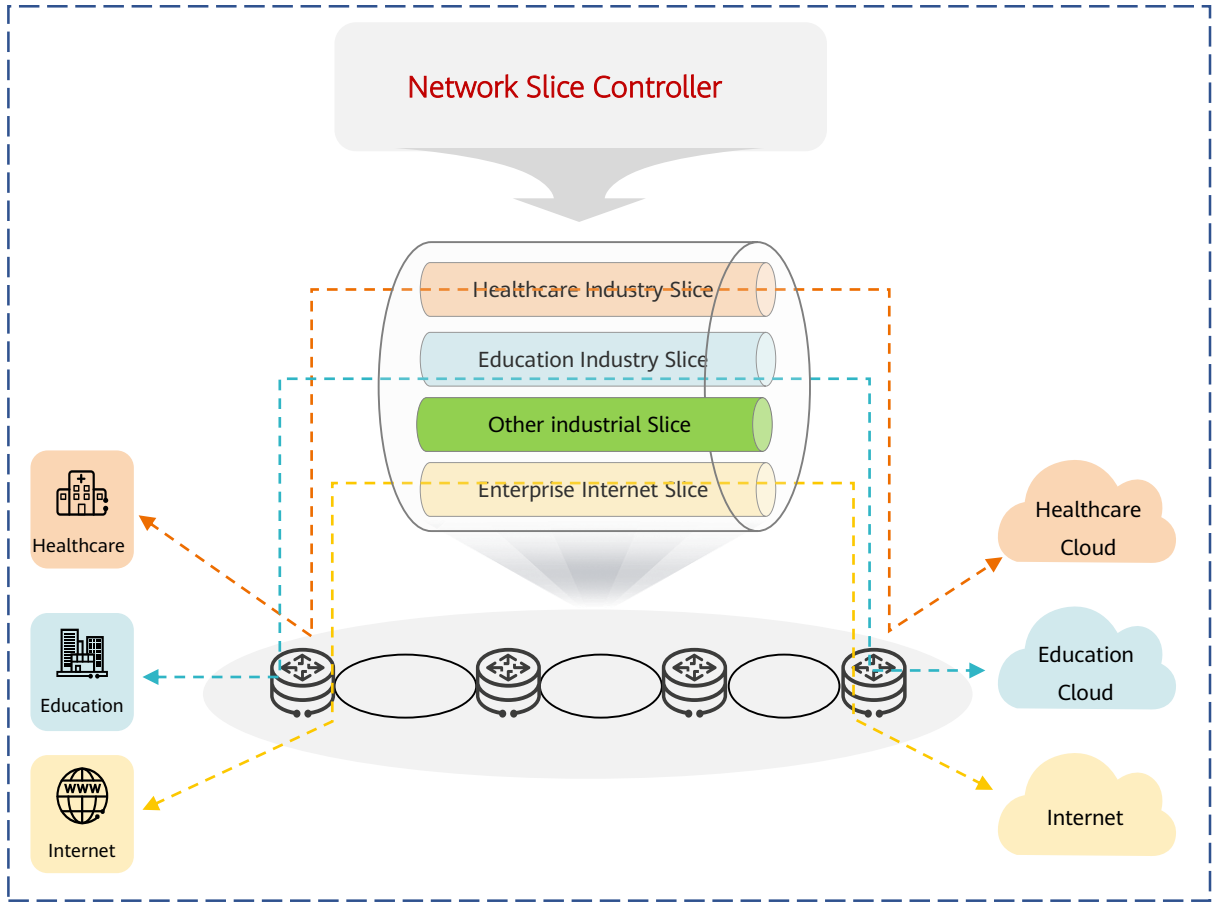
Introduction

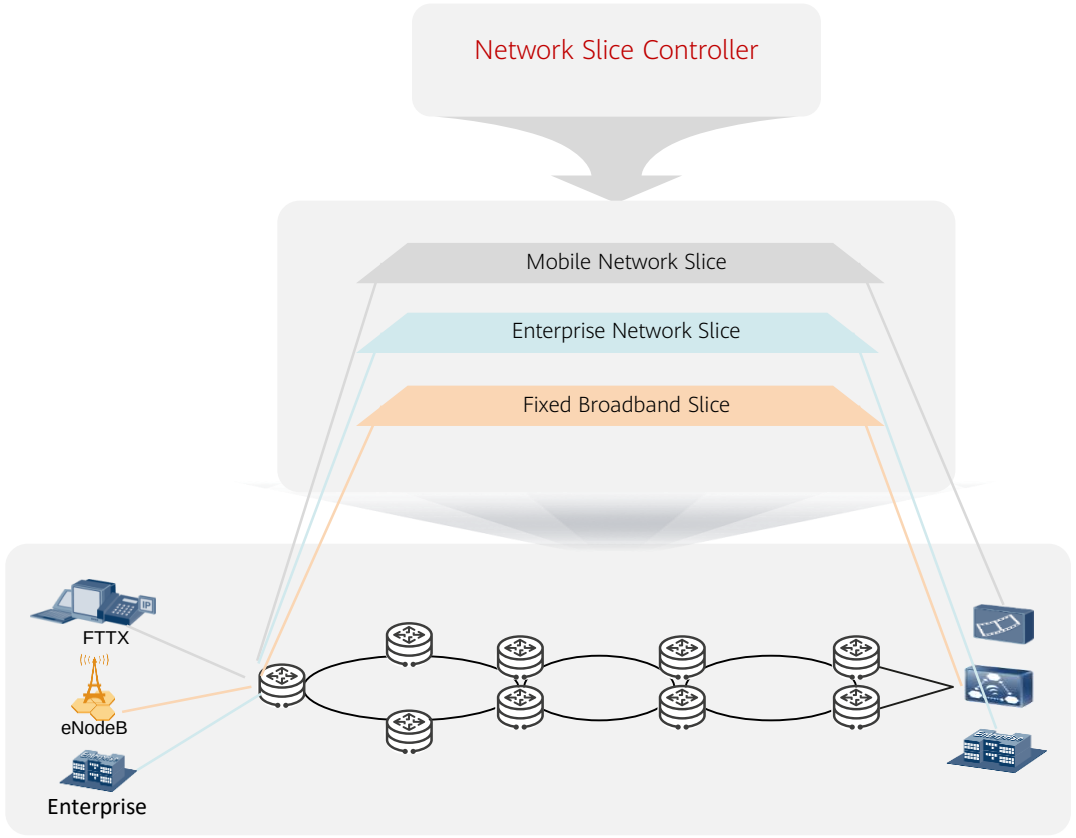
- Network Slicing can be used to provide different services and customers with the required network connectivity, resources and performance characteristics
- draft-ietf-teas-ietf-network-slices describes the concept and general framework of IETF network slices
- draft-ietf-teas-enhanced-vpn (VPN+) describes the framework and candidate technologies which can be used to realize IETF network slices
- This document provides the typical deployment of IETF network slices in operator's networks based on VPN+
- Some considerations about next steps for network slice deployment are also described

Network Slicing for Multi-Industrial Networks



- Service scenario
  - Network for multiple industrial services
    - Healthcare, education, verticals …
- Deployment Technologies
  - Resource partitioning:
    - Virtual sub-interface with dedicated bandwidth
  - Data Plane: SRv6
  - Control plane: SR Policy with link affinity
- Considerations and next steps
  - Optimized mechanism to support network slices with any-to-any connection
  - To improve the scalability, VTN resource ID needs to be introduced to the slice data plane
  - Hierarchical slicing: Industry-level and tenant-level network slices

Network Slicing for Fixed-Mobile Convergence



- Service scenario
  - Network for fixed-Mobile convergence service
    - Mobile, enterprise, broadband…
- Deployment Technologies
  - Resource partitioning:
    - Flexible Ethernet interface
    - Virtual sub-interface with dedicated bandwidth
  - Data Plane: SR-MPLS
  - Control plane: SR Policy with link affinity
- Considerations and next steps
  - Automatic network slice management and operation
  - Evolution towards high scalability network slicing

Next steps

- Collect comments and feedbacks from the WG
- Plan to add more network slice deployment information to the draft

Thank You