IETF Network Slice use cases

draft-cheng-teas-network-slice-usecase-00

Authors: Weiqiang Cheng, Wenying Jiang, Ran Chen, Liyan Gong, Chi Fan, Shaofu Peng

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Motivation

• The definition of IETF Network Slice describes a number of use-cases benefiting from network slicing and clearly stated services that might benefit from the network slices include but not limited to the above use-cases.

• This document supplements two use-cases from the perspective of operators.
Use cases in the draft

• This document mainly includes two types of the network slice customers from the perspective of operator
  • End-to-end slicing cloud-network collaboration
  • The branch departments that use slices within the operator.
End-to-end slicing cloud-network collaboration

- involve several domains, each with its own controller.
- MAN, Edge Cloud, IP Backbone and DC domains need to be coordinated in order to deliver a cloud-network service for enterprise.
The branch departments that use slices within the operator

- multiple sub-company network and a IP Backbone network in an operator IP network.
- each with its own slice controller. 
- IP Backbone network and sub-company network need to be coordinated in order to control and calculates the end-to-end path.
- Role-based user rights management uses the role template to quickly allocate user rights, and provides network resources and sub-network slice resources for different users.

Domain governance of network slice
The branch departments that use slices within the operator (cont.)

- Network Slice resource management:

<table>
<thead>
<tr>
<th>Resource Type</th>
<th>Orchestrator resource management</th>
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</thead>
<tbody>
<tr>
<td>Slice ID</td>
<td>Unified resource orchestration and planning, plan Slice ID by sub-company. The orchestrator</td>
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<tr>
<td></td>
<td>ensures that the IDs do not conflict with each other.</td>
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<tr>
<td>Node SID</td>
<td>Unified resource orchestration and planning. A unified coding mode is recommended.</td>
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<tr>
<td>SR Policy Color</td>
<td>Unified resource orchestration and planning, and resource pool allocation.</td>
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<tr>
<td>VPN name</td>
<td>Unified resource orchestration and planning. Perform unified resource conflict detection.</td>
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<td></td>
<td>VPN name within the same network element shall not be repeated.</td>
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<tr>
<td>VLAN sub-intf</td>
<td>Unified resource orchestration and planning: Resources are divided for VLAN sub-interfaces</td>
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<td>under the same physical interface.</td>
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</table>
Next Steps

• Comments & questions