

ACTN Requirement and Framework

[draft-ietf-teas-actn-requirements-03.txt](#)

[draft-ietf-teas-actn-framework-01.txt](#)

Young Lee (Huawei)

Dhruv Doddy (Huawei)

Sergio Belotti (Nokia)

Khuzema Pithewan (Infinera)

Daniele Ceccarelli (Ericsson)

Daniele Ceccarelli (Ericsson)

Young Lee (Huawei)

Daniel King (Lancaster-University)

Sergio Belotti (Nokia)

Luyuan Fang (Microsoft)

Dhruv Dhody (Huawei)

Diego Lopez (Telefonica)

Gert Grammel (Juniper)

Since Berlin meeting

- Requirement draft is stable and ready to WG last call.
- Framework draft has been updated
 - Terminology alignment and refinement
 - Among this draft and companion ACTN WG drafts (Requirements and Framework)
 - With RFC 7926 [Interconnected-TE]
 - Abstraction
 - Abstraction Link
 - Virtual Network (next page)

Virtual Networks

- A Virtual Network is a client view (typically a network slice) of the transport network. It is presented by the provider as a set of physical and/or abstracted resources.
- Depending on the agreement between client and provider various VN operations and VN views are possible.
 - VN Creation
 - VN Dynamic Operations
 - VN View

VN Creation

- VN could be pre-configured and created via static negotiation between customer and provider.
- In other cases, VN could also be created dynamically based on the request from the customer with given SLA attributes which satisfy the customer's objectives.

VN Dynamic Operation

- VN could be further be modified and deleted based on customer request to require changes in the network resources reserved for the customer.
- The customer can further act upon the virtual network resources to perform E2E tunnel management (set-up/release/modify). These changes will incur subsequent LSP management on the operator's level.

VN View

- (a) VN can be seen as an (or set of) e2e tunnel(s) from a customer point of view where an e2e tunnel is referred as a VN member. Each VN member (i.e., e2e tunnel) can then be formed by recursive aggregation of lower level paths at a provider level. Such end to end tunnels may comprise of customer end points, access links, intra domain paths and inter-domain link. In this view VN is thus a list of VN members.
- (b) VN can also be seen in terms of topology comprising of physical and abstracted nodes and links. The nodes in this case include physical customer end points, border nodes, and internal nodes as well as abstracted nodes. Similarly the links includes physical access, inter-domain and intra-domain links as well as abstracted links. The abstracted nodes and links in this view can be pre-negotiated or created dynamically.

Next Steps

- ACTN requirement is ready for WG last call
- ACTN framework is also stable
 - ready for document shepherd to be assigned.