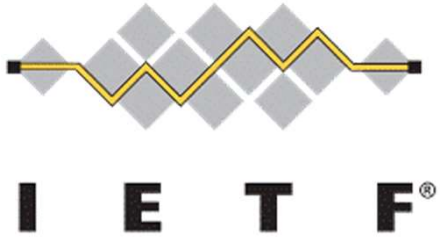

DC aware TE topology model

draft-llc-teas-dc-aware-topo-model-00

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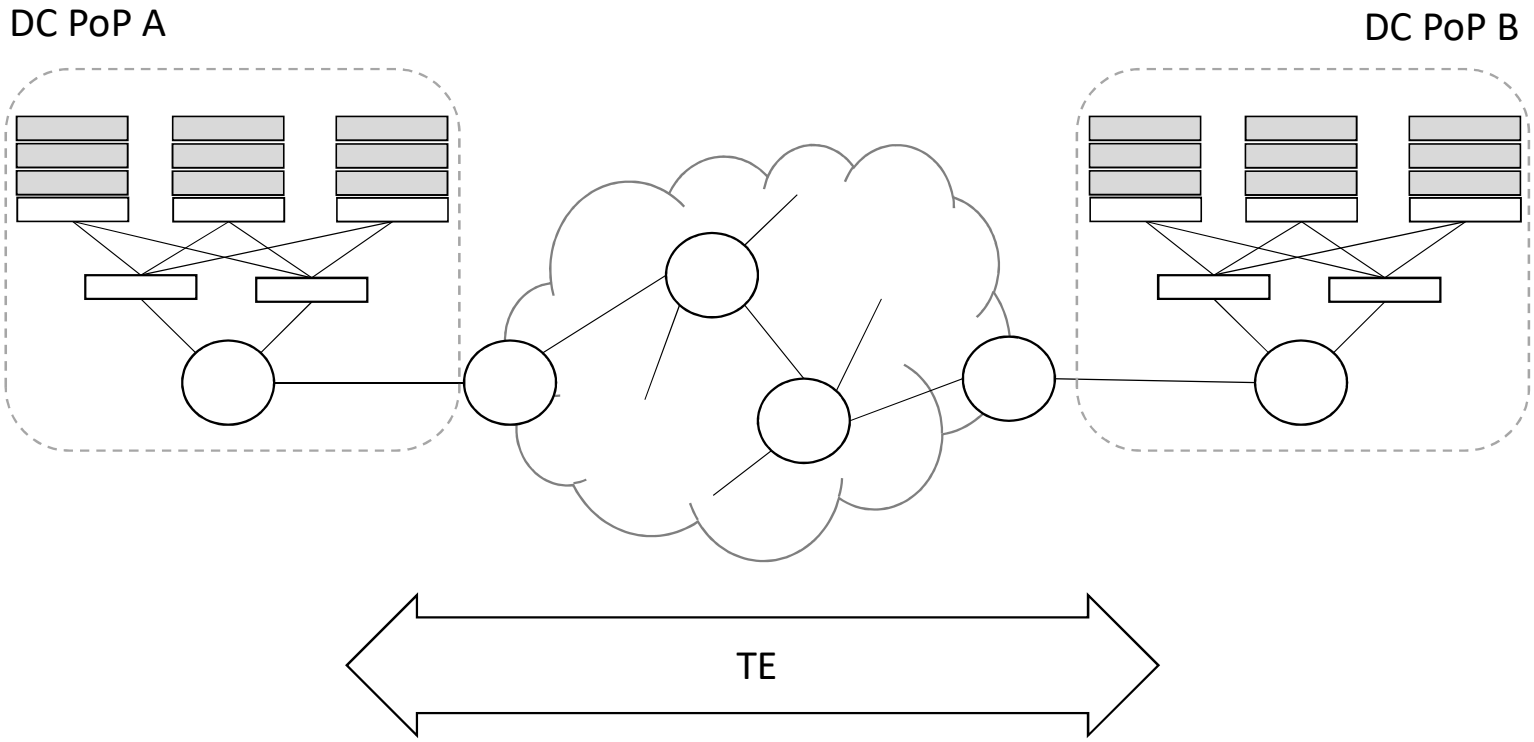
Problem statement

- Wide deployment of computing facilities across service provider's Networks, in the form of DC PoPs
- Interesting to have joint topological view of both networking and computing resources available
  - It can assist on TE decisions that could require combined awareness of network and compute domains
- Similar approach as the one followed in *draft-ietf-teas-sf-aware-topo-model* but concentrated on available resources instead of functions

Scenario



- DC PoPs described in terms of resource capabilities such as CPU, memory, storage, etc
- Alternatively, they could be described in terms of resource bundles (quotas, flavors), e.g. CNTT

CNTT -- Common Network Function Virtualisation Infrastructure Telecom Taskforce (https://cntt-n.github.io/CNTT/doc/ref_model/)

Proposal

- To provide a model for characterizing the compute domain information per DC PoP, integrated with the topological information of the network

```
module: ietf-dcpop-dc
    +--rw dcpop
       +--rw dc* [id]
       |  +--rw hypervisor* [id]
       |  |  +--rw ram
       |  |  |  +--rw total?   uint32
       |  |  |  +--rw used?    uint32
       |  |  |  +--rw free?    uint32
       |  |  +--rw disk
       |  |  |  +--rw total?   uint32
       |  |  |  +--rw used?    uint32
       |  |  |  +--rw free?    uint32
       |  |  +--rw vcpu
       |  |  |  +--rw total?   uint16
       |  |  |  +--rw used?    uint16
       |  |  |  +--rw free?    uint16
       |  |  +--rw instance*   -> /dcpop/dc/instance/id
       |  |  +--rw id          string
       |  |  +--rw name?       string
       |  +--rw instance* [id]
       |  |  +--rw flavor
       |  |  |  +--rw disk?    uint32
       |  |  |  +--rw ram?     uint32
       |  |  |  +--rw vcpus?   uint16
       |  |  |  +--rw id?      string
       :  :  :
```

Next steps

- Adapt the model to different ways of exposing DC capabilities
- Work on the YANG modules accompanying such model

- Any feedback / comment is more than welcome