

YANG Model for Unified +NVO3 OAM

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draft-tissa-nvo3-yang-oam

Goal

- Create a YANG model that provides a set of unified interfaces across various OAM technologies.
- Facilitate “nested OAM” across layers that deploys different OAM technologies.

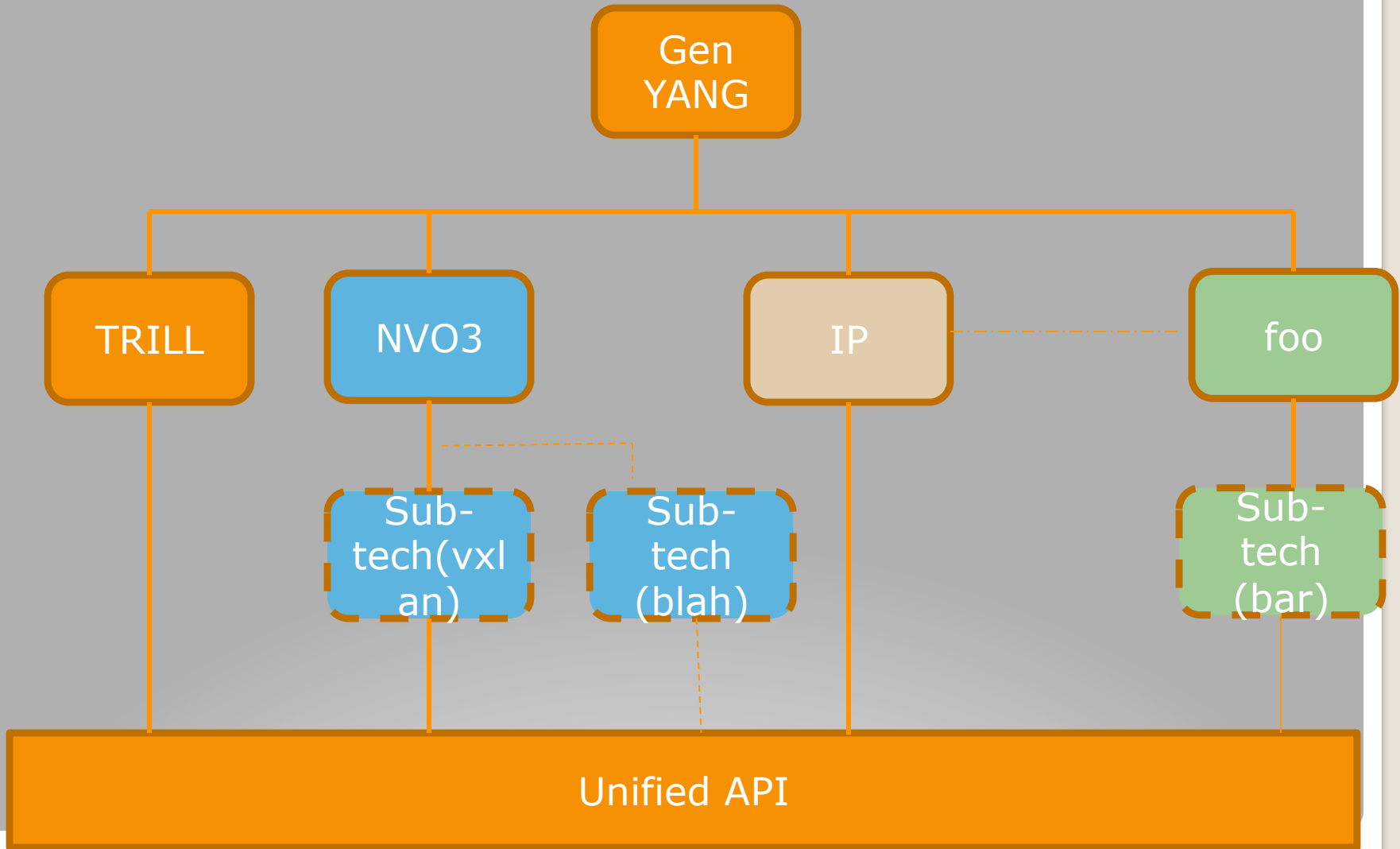
Architecture

- Top Level YANG Model provides the overall framework and setup the structures
- Separate YANG model for each technology area that augments the top level model to include technology specific aspects

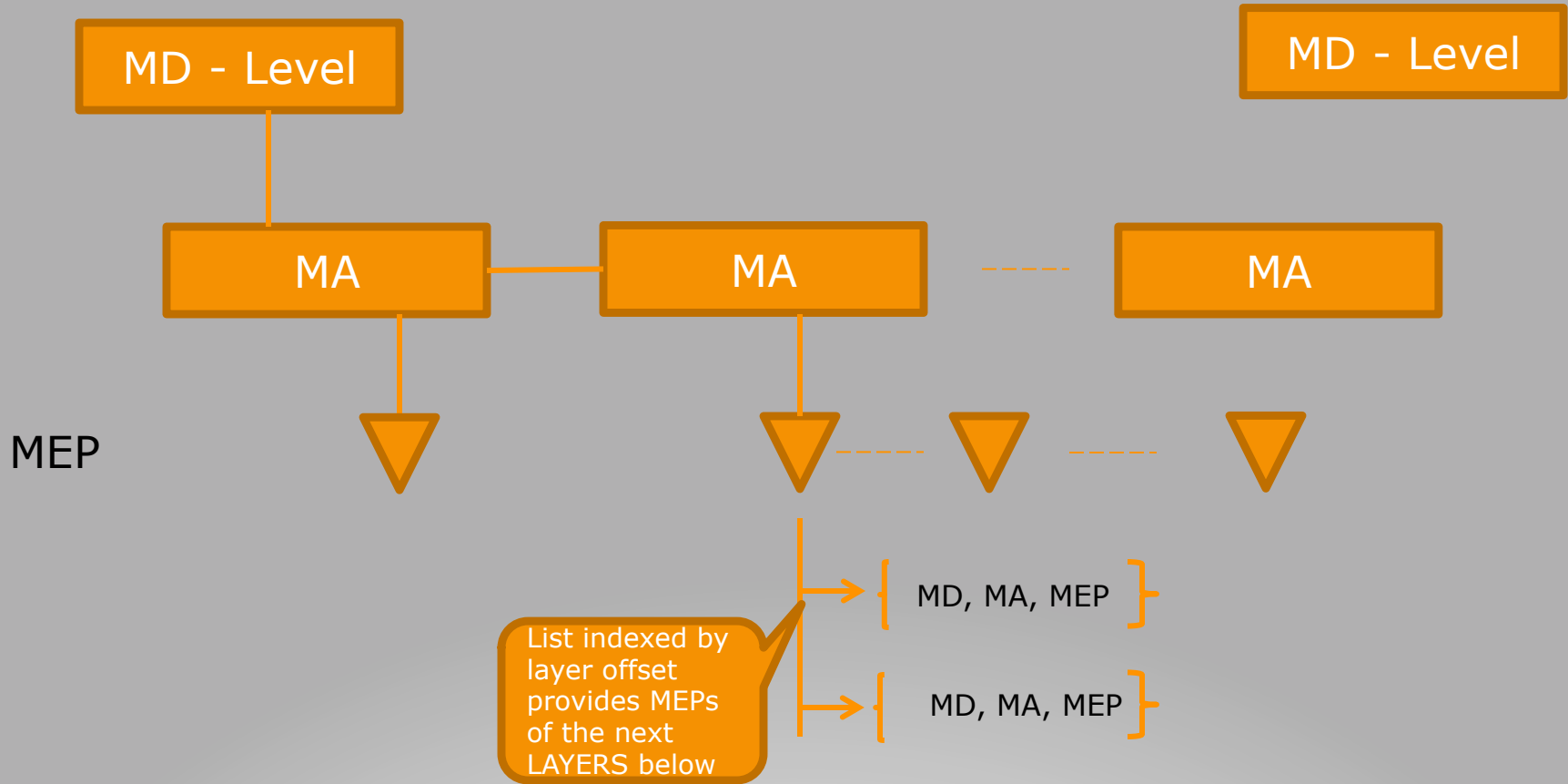
Application

- draft-tissa-netmod-oam-01 – presents the top level YANG model
- draft-tissa-trill-yang-oam-00 and draft-tissa-nvo3-yang-oam provide extensions for TRILL and NVO3

YANG Model



Flow of the Model



Application to NVO3

- We augment the nodes with NVO3 specifics
 - Flow-entropy , MEP addressing, context-id

Application to NVO3 continued

```
identity nvo3 {  
  base goam:technology-types;  
  description "nvo3 type";  
}
```

```
augment "/goam:domains/goam:domain/goam:MA/goam:MA" {  
  leaf technology-sub-type {  
    when "/goam:domains/goam:domain/goam:technology='nvo3'";  
    type identityref {  
      base technology-sub-type;  
      Augment based on technology  
    }  
  }  
}
```

```
augment "/goam:domains/goam:domain/goam:MA/goam:MA/goam:flow-  
entropy" {  
  case flow-entropy-vxlan {  
    leaf flags-vxlan {  
      when "/goam:domains/goam:domain/goam:technology-sub-type='vxlan'";  
      type flags-vxlan;  
    }  
    leaf flow-entropy-vxlan {  
      when "/goam:domains/goam:domain/goam:technology-sub-type='vxlan'";  
      type flow-entropy-vxlan;  
    }  
  }  
}
```

```
augment "/goam:domains/goam:domain/goam:MA/goam:MA/goam:context-id"  
{  
  case context-id-nvo3 {  
    leaf vni {  
      when "/goam:domains/goam:domain/goam:technology-type='nvo3'";  
      type vni;  
    }  
  }  
}
```


MEP Addressing for NVO3

Proposal - 1

MEP address is a list [Dst IP , VNI]

Within NVE multiple VNI

NVE can have multiple IP addresses, shared between multiple VNI

(ref:draft-ietf-nvo3-arch)

Proposal - 2

Overlay MEP: VNI

Underlay MEP:IP

Preferred

References

- High level YANG model
 - <https://datatracker.ietf.org/doc/draft-tissa-netmod-oam/>
- Technology dependent
 - TRILL:
<http://tools.ietf.org/html/draft-tissa-trill-yang-oam-00>
 - NVO3:
<http://tools.ietf.org/html/draft-tissa-nvo3-yang-oam-00>

Q&A

- Reviews and feedback - is the YANG model extensible ?
 - Based on feedback received so far some of the technology specific nodes e.g. CCM removed from gen-oam
- Next steps
 - Request WG to expand charter to include related YANG models and management and OAM in general.
 - Adopt OAM YANG model as part of the WG