

Status of TRILL OAM

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Current status of OAM

- OAM Requirement document is RFC 6905
- OAM Framework document is RFC 7174
- IANA registry has been setup for OAM code points RFC 7319
- Fault Management and Loss and Delay drafts are in IETF Last call
 - 3 weeks last call with the documents, ending in July 21st.
- Next steps of OAM MIB document need to be determined
 - IETF last call ?
 - Should there be a separate MIB for Loss and Delay or straight go to YANG ?
- YANG Models for OAM
 - Further discussion and scoping and next steps

YANG Model for Unified OAM

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draft-tissa-trill-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.

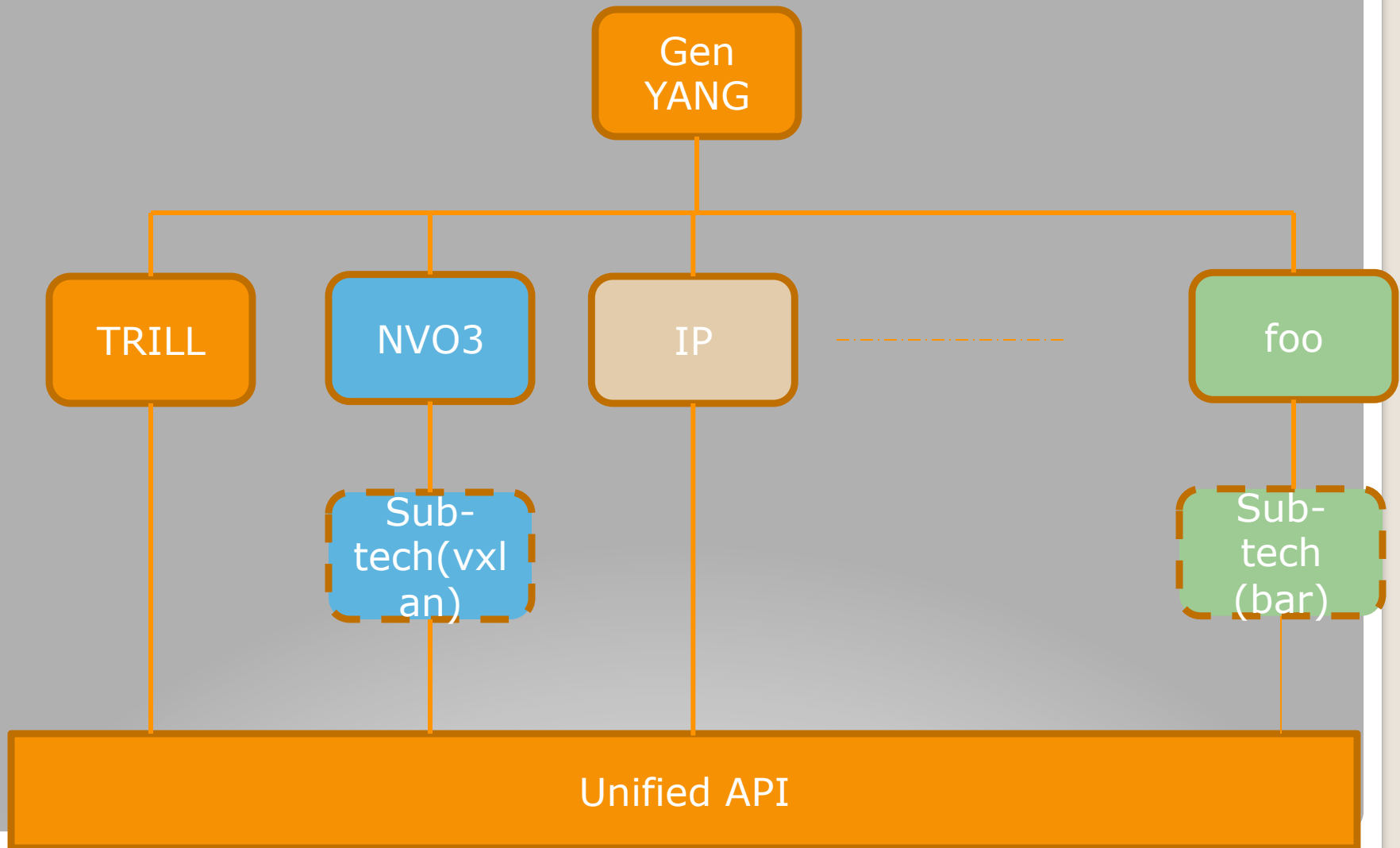
Architecture

- 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

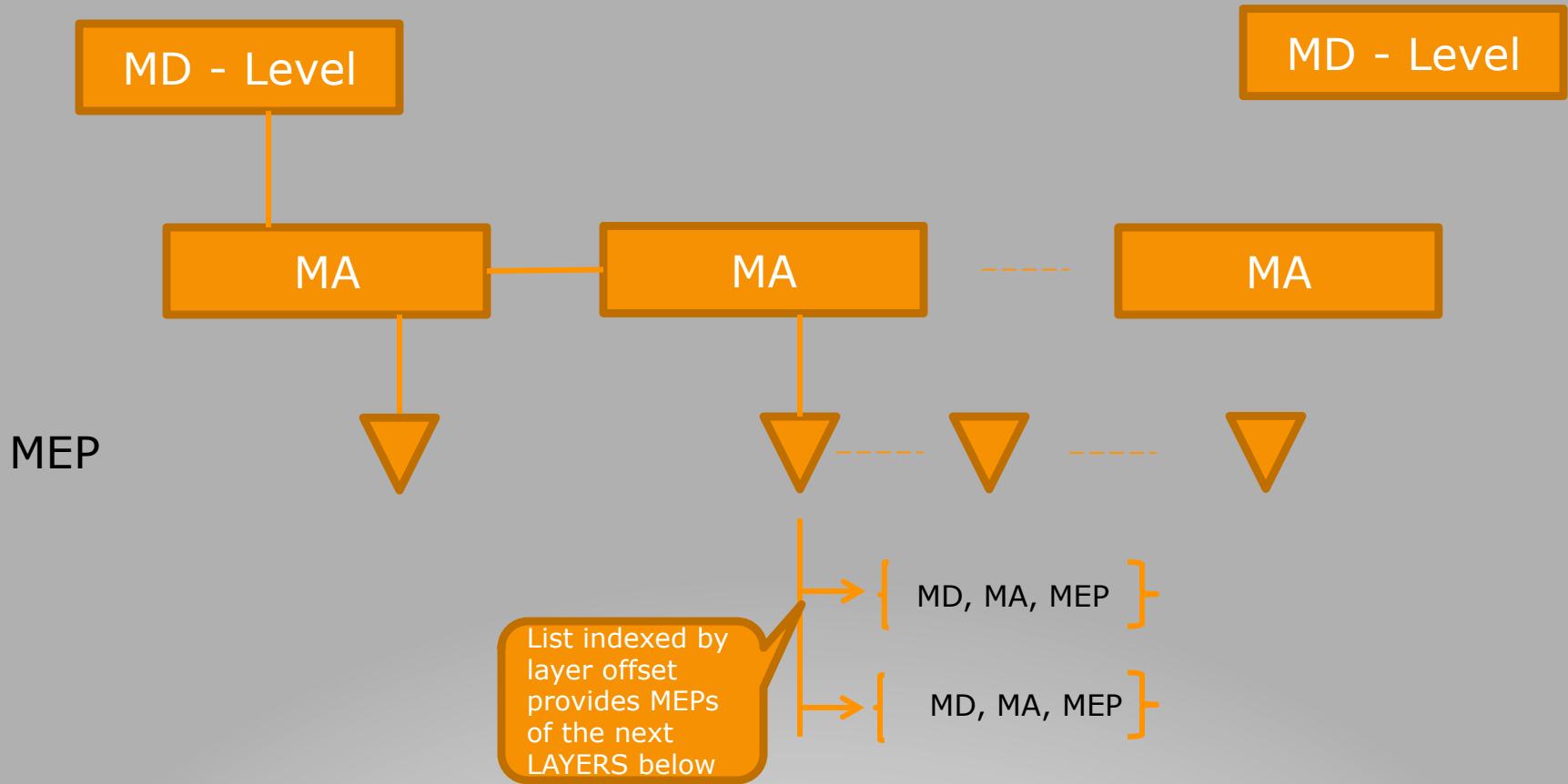
Application

- draft-tiss-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 TRILL

- We augment the nodes with TRILL specifics
 - Flow-entropy, MEP addressing, context-id (VLAN, FGL)

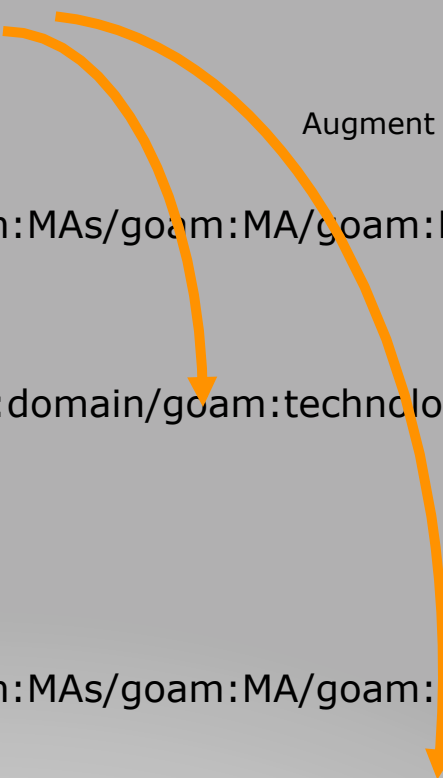
Application to TRILL continued

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

```
augment "/goam:domains/goam:domain/goam:MAS/goam:MA/goam:MEP/  
goam:mep-address" {  
  case mep-address-trill {  
    leaf mep-address-trill {  
      when "/goam:domains/goam:domain/goam:technology='trill'";  
      type trill-rb-nickname;  
    }  
  }  
}
```

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

Augment based on technology



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
 - WG adoption
 - Separate YANG model for Loss and delay for TRILL