

# YANG Model for Unified OAM

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draft-tissa-netmod-oam

# Goal

- Create a YANG model that provides set of unified interfaces across various OAM technologies.
- YANG model MUST be extensible to include new OAM technologies
- Facilitate “nested OAM” across layers that deploys different OAM technologies.

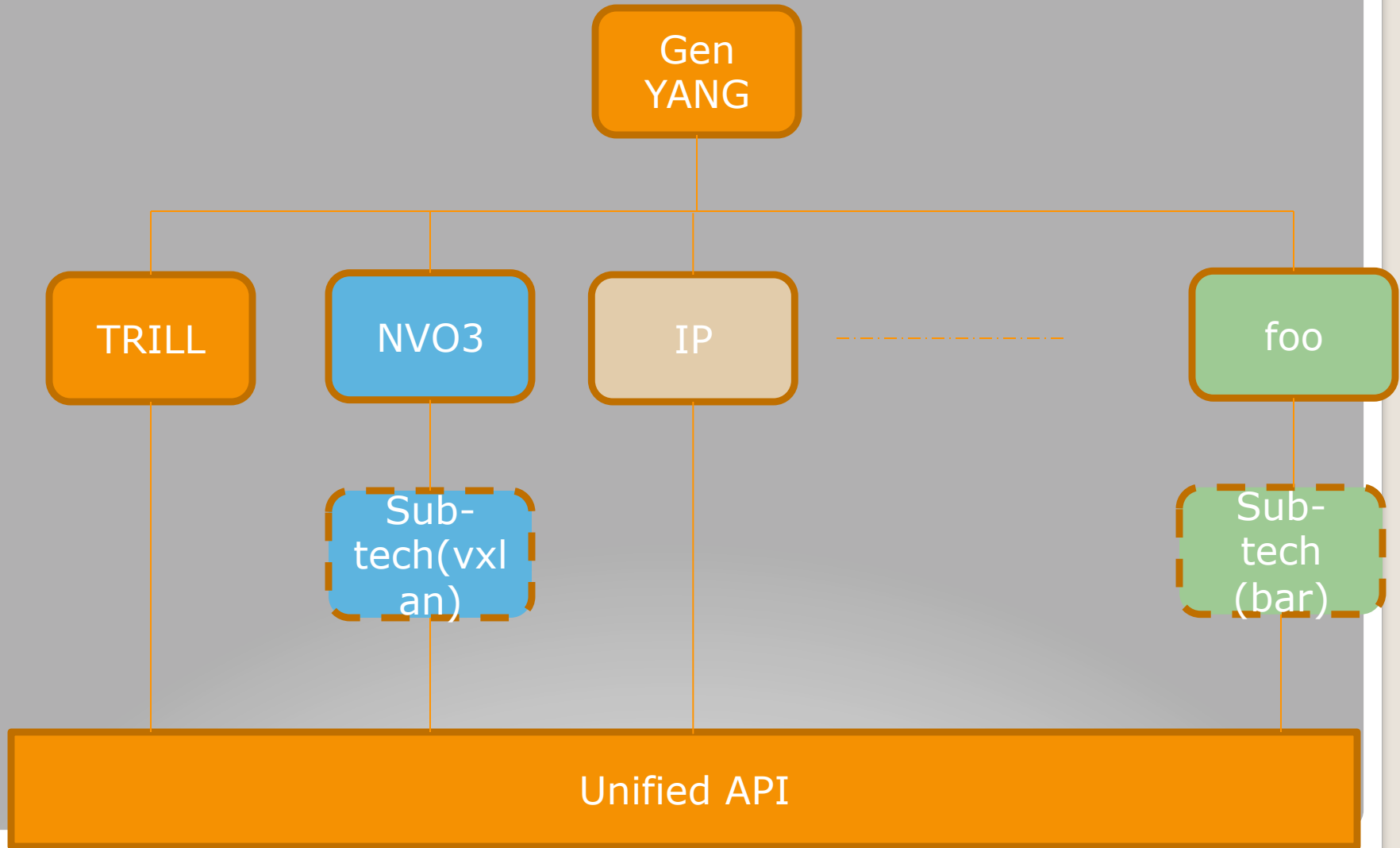
# Architecture

- 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



# References

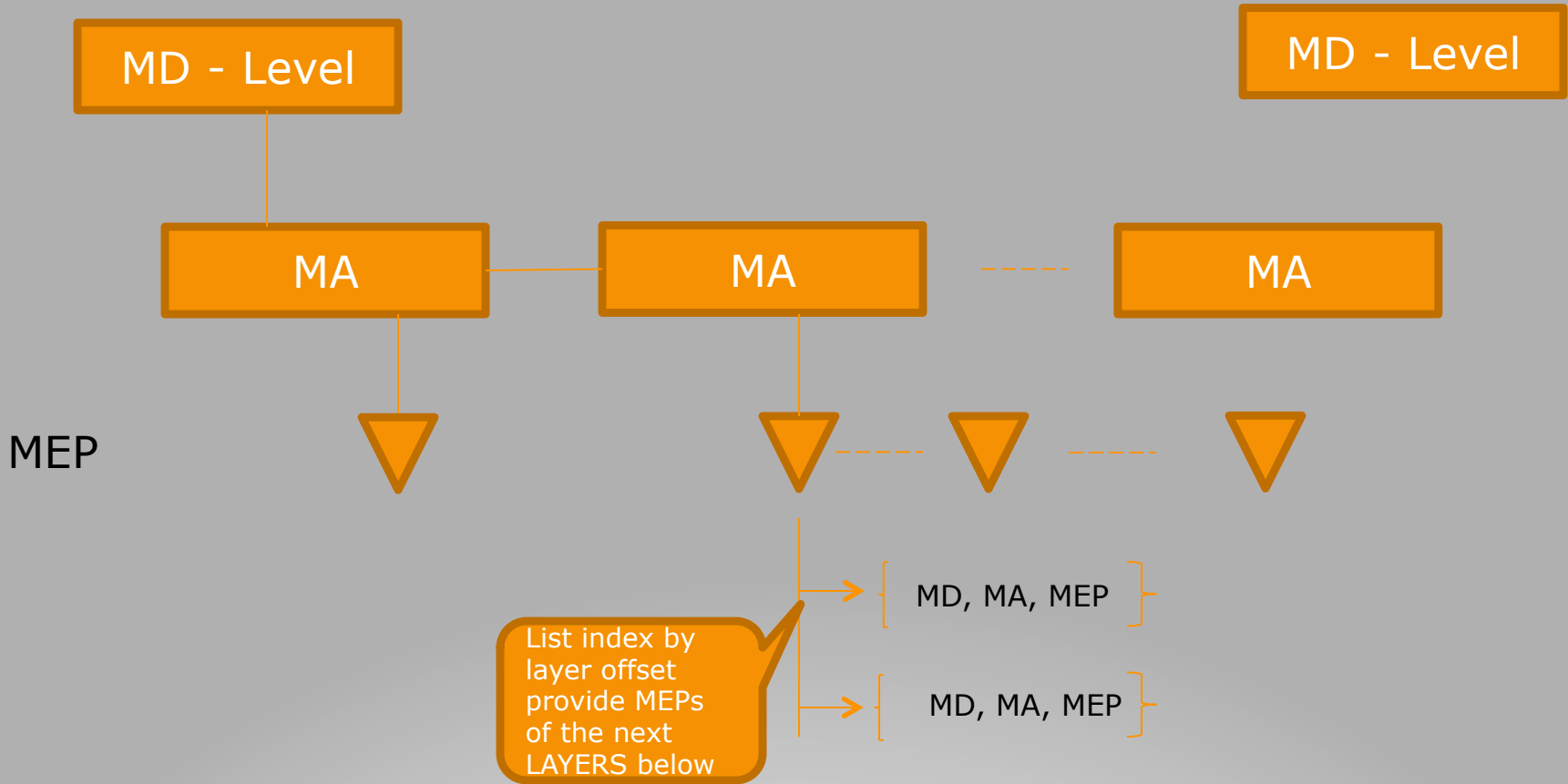
- High level YANG model
  - <https://datatracker.ietf.org/doc/draft-tissa-netmod-oam/>
- Technology dependent
  - TRILL:  
<http://tools.ietf.org/html/draft-tissa-trill-yang-oam-00>
  - NVO3:  
<http://tools.ietf.org/html/draft-tissa-nvo3-yang-oam-00>

## Q&A

- Review 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
  - Changed MA-name nodes from binary to string
  - Updated use of ietf-inetrface name to refer to the specific name of the interface.

**Backup slides**

# Flow of the Model





# More details

module: ietf-oam

+--rw domains

| +--rw domain\* [md-name]

| | +--rw technology identityref

| | +--rw md-name-format MD-name-format

| | +--rw md-name binary

| | +--rw md-level int32

| | +--rw MAs!

| | | +--rw MA\* [ma-name]

| | | | +--rw ma-name-format MA-name-format

| | | | +--rw ma-name binary

:  
.

+--rw MEP\* [mep-id]

| +--rw mep-id MEP-id

| +--rw mep-name? string

| +--rw mep-direction MEP-direction

| +--rw (mep-address)?

| | +--:(mac-address)

| | | +--rw mac-address? yang:mac-address

| | | +--:(ipv4-address)

| | | | +--rw ipv4-address? inet:ipv4-address

| | | | +--:(ipv6-address)

| | | | | +--rw ipv6-address? inet:ipv6-address

| | +--rw (context-id)?

| | | +--:(context-null)

# Application to TRILL

- We augment the nodes with TRILL specifics
  - Flow-entropy, MEP addressing, conext-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

