

A YANG Data Model for Layer 1 Types

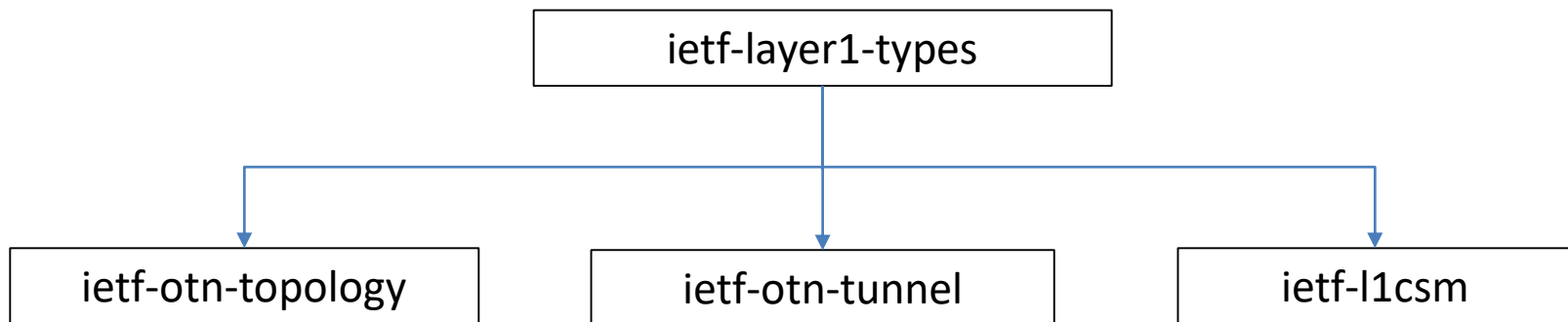
CCAMP WG, IETF 105, Montreal, Canada
draft-ietf-ccamp-layer1-types-01

[Haomian Zheng](mailto:zhenghaomian@huawei.com), zhenghaomian@huawei.com

Italo Busi, Italo.Busi@huawei.com

Model Relationship

- Background
 - Types for generic Traffic Engineering model and technology-specific model are common for multiple models;
 - This model should be imported by ietf-otn-topology, ietf-otn-tunnel and ietf-l1csm;
 - This model does not require importing any models.



Types Included

Base Type	Detailed Type	Remark
odu-type	ODU0/ODU1/ODU1e/ODU2/ ODU2e/ODU3/ODU3e1/ODU 3e2/ODU4/ODUflex/ODUCn	ODU types in RFC7139: std track (G.709) RFC7963: informational (G.sup43)
Client-signal	ETH: 1Gb/10Gb-LAN/10Gb- WAN/40Gb/100Gb	
	STM: STM-1/4/16/64/256	
	OC: OC-3/12/48/192/768	
	FC: FC-100/200/400/800 /1200/1600/3200	
	FICON: 4G/8G	

Groupings

	Imported by
tributary-slot-granularity	OTN-topology, OTN-tunnel;
odu-type	OTN-topology, OTN-tunnel;
client-signal	OTN-topology, OTN-tunnel; client-signal; L1CSM
otn-label-range-type	OTN-topology, OTN-tunnel;
otn-link-bandwidth	OTN-topology,
otn-path-bandwidth	OTN-topology, OTN-tunnel;
otn-label-restriction	OTN-topology, OTN-tunnel;
otn-label-step	OTN-topology,
otn-link-label/otn-path-label	OTN-topology, OTN-tunnel;
optical-interface-func	L1CSM
service-performance-metric	L1CSM

Next Step

- Continue harmonizing with related models;
 - Including ietf-otn-topology, ietf-otn-tunnel, ietf-l1csm;
- Check RFC8407;
- Request for WG LC & YANG Doctor Review;

YANG Model for OTN Topology

CCAMP WG, IETF 105, Montreal, Canada

draft-ietf-ccamp-otn-topo-yang-07

[Haomian Zheng](#), Aihua Guo, Italo Busi(Huawei)

Anurag Sharma (Google)

Xufeng Liu (Jabil)

Sergio Belotti (Nokia)

Yunbin Xu (CAICT)

Lei Wang (China Mobile)

Oscar Gonzalez de Dios (Telefonica)

Contributors:

Baoquan Rao, Xian Zhang, Huub van Helvoort,

Victor Lopez, Yunbo Li, Dieter Beller, Yanlei Zheng

Summary of Changes (with -03)

- Text Changed:
 - Compliance with RFC8407;
- YANG model Changed:
 - Added 'supported-client-signals';
 - Harmonized with TE generic model:
 - Added the otn-label-step and set it as 1 for OTN;
 - Changed the paths to be consistent with latest ietf-te-topology;
 - Switched importing from 'layer1-types';

YANG Augmentations

Attributes Augmentation

```
module: ietf-otn-topology
  augment /nw:networks/nw:network/nw:network-types/tet:te-topology:
    +--rw otn-topology!
  augment /nw:networks/nw:network/nt:link/tet:te/tet:te-link-attributes:
    +--rw tsg?          identityref
    +--rw distance?    uint32
  augment /nw:networks/nw:network/nw:node/nt:termination-point/tet:te:
    +--rw client-svc!
      +--rw client-facing?          boolean
      +--rw supported-client-signal* identityref
```

TE-Bandwidth Augmentations

```
+--:(otn)
  +--rw odulist* [odu-type]
    +--rw odu-type    identityref
    +--rw number?    uint16
```

TE-Label Augmentations

For label-start/label-end;

```
+--:(otn)
  +--rw (otn-label-type)?
    +--:(tributary-port)
      | +--rw tpn?    uint16
    +--:(tributary-slot)
      +--rw ts?    uint16
```

For label-hop;

```
+--:(otn)
  +--ro tpn?    uint16
  +--ro tsg?    identityref
  +--ro ts-list? string
```

For label-step;

```
+--:(otn)
  +--rw (otn-label-type)?
    +--:(tributary-port)
      | +--rw tpn-step?    uint16
    +--:(tributary-slot)
      +--rw ts?    uint16
```

For label-restriction;

```
+--ro range-type?    identityref
+--ro tsg?            identityref
+--ro priority?      uint8
```


Next Step

- This work is technically stable;
- Request for WG LC/YANG Doctor Review;

- Model available at:
<https://github.com/haomianzheng/IETF-ACTN-YANG-Model/tree/master/YANG/ccamp/otn-topology>

YANG Model for OTN Tunnel

CCAMP WG, IETF 105, Montreal, Canada

draft-ietf-ccamp-otn-tunnel-model-07

[Haomian Zheng](#), Aihua Guo, Italo Busi(Huawei)

Anurag Sharma (Google)

Rajan Rao (Infinera)

Sergio Belotti (Nokia)

Victor Lopez (Telefonica)

Yunbo Li (China Mobile)

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Lei Wang, Oscar Gonzalez de Dios

Summary of Changes (with -03)

- Text Changed:
 - Compliance with RFC8407;
- YANG Model changed:
 - Harmonized with TE generic model:
 - Added the otn-label-step and set it as 1 for OTN;
 - Changed the paths to be consistent with latest ietf-te;
 - Switched importing from 'layer1-types';
 - Removed RPC for path computation;

YANG Augmentations

Attributes
Augmentation

```
module: ietf-otn-tunnel
  augment /te:te/te:tunnels/te:tunnel:
    +--rw src-client-signal?    identityref
    +--rw dst-client-signal?    identityref
```

TE-Bandwidth
Augmentations

```
+---:(otn)
  +--rw odu-type?    identityref
```

TE-Label
Augmentations

For label-start/label-end;

```
+---:(otn)
  +--rw (otn-label-type)?
    +---:(tributary-port)
      | +--rw tpn?    uint16
    +---:(tributary-slot)
      +--rw ts?    uint16
```

For label-hop;

```
+---:(otn)
  +--ro tpn?    uint16
  +--ro tsg?    identityref
  +--ro ts-list? string
```

For label-step;

```
+---:(otn)
  +--rw (otn-label-type)?
    +---:(tributary-port)
      | +--rw tpn-step?    uint16
    +---:(tributary-slot)
      +--rw ts?    uint16
```

For label-restriction;

```
+--ro range-type?    identityref
+--ro tsg?            identityref
+--ro priority?      uint8
```

Next Step

- This work is technically stable;
- Request for WG LC/YANG Doctor Review;
- Model available at:
<https://github.com/haomianzheng/IETF-ACTN-YANG-Model/tree/master/YANG/ccamp/otn-tunnel>

Thank you!