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A YANG Data Model for WSON (Wavelength Switched Optical Networks) draft-ietf-ccamp-wson-yang-28

Abstract

This document provides a YANG data model for the routing and wavelength assignment (RWA) TE topology in wavelength switched optical networks (WSONs). The YANG data model defined in this document conforms to the Network Management Datastore Architecture (NMDA).

Status of This Memo

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1. Introduction

This document provides a YANG data model for the routing and wavelength assignment (RWA) Traffic Engineering (TE) topology in transparent wavelength switched optical networks (WSONs). The YANG model described in this document is a WSON technology-specific YANG model based on the information model developed in [RFC7446] and the two encoding documents [RFC7581] and [RFC7579] that developed protocol independent encodings based on [RFC7446].

[ITU-Tg6982] defines amplified multichannel dense wavelength division multiplexing applications with single channel optical interfaces. The YANG data model defined in this document refers to the standard application mode defined in [ITU-Tg6982].

What is not in scope of this document is both impairment-aware optical networks and flexi-grid. Refer to [I-D.ietf-ccamp-optical-impairment-topology-yang] for impairment-aware optical network topology model and [I-D.ietf-ccamp-flexigrid-yang] for flexi-grid optical network topology model.

Additionally, transponders and resource blocks (e.g., 3R Regeneration) models are not in the scope of this document.

This document defines one YANG model: ietf-wson-topology (Section 3). This document augments the generic TE topology draft [RFC8795].

There are multiple applications for the yang data model defined in this document. For example, nodes within the network can use the data model to capture their understanding of the overall WSON topology and expose it to a controller. A controller can further propagate the topology to other controllers. The YANG model is used by NETCONF [RFC6020], [RFC8341] or a RESTCONF [RFC8040] protocol. The YANG data model defined in this document conforms to the Network Management Datastore Architecture [RFC8342].

1.1. Terminology and Notations

Refer to [RFC7446] and [RFC7581] for the key terms used in this document. The following terms are defined in [RFC7950] and are not redefined here:

- o client
- o server
- o augment
- o data model
- o data node

The following terms are defined in [RFC6241] and are not redefined here:

- o configuration data
- o state data

The terminology for describing YANG data models is found in [RFC7950].

1.2. Tree Diagram

A simplified graphical representation of the data model is used in Section 2 of this this document. The meaning of the symbols in these diagrams is defined in [RFC8340].

1.3. Prefix in Data Node Names

In this document, names of data nodes and other data model objects are prefixed using the standard prefix associated with the corresponding YANG imported modules, as shown in the following table.

Prefix	YANG module	Reference
l0-types	ietf-layer0-types	[ietf-ccamp-layer0-types]
wson	ietf-wson-topology	[RFCXXXX]
nw	ietf-network	[RFC8345]
nt	ietf-network-topology	[RFC8345]
tet	ietf-te-topology	[RFC8795]

Note: The RFC Editor will replace XXXX with the number assigned to the RFC once this draft becomes an RFC.

2. YANG Model (Tree Structure) for WSON topology

```
module: ietf-wson-topology
  augment /nw:networks/nw:network/nw:network-types/tet:te-topology:
    +--rw wson-topology!
  augment /nw:networks/nw:network/nw:node/tet:te
            /tet:te-node-attributes:
    +--rw wson-node!
       +--rw is-reconfigurable-node?   boolean
  augment /nw:networks/nw:network/nw:node/tet:te
            /tet:te-node-attributes/tet:connectivity-matrices
            /tet:label-restrictions/tet:label-restriction:
    +--rw grid-type?   identityref
    +--rw priority?    uint8
  augment /nw:networks/nw:network/nw:node/tet:te
            /tet:te-node-attributes/tet:connectivity-matrices
            /tet:connectivity-matrix/tet:from/tet:label-restrictions
            /tet:label-restriction:
    +--rw grid-type?   identityref
    +--rw priority?    uint8
  augment /nw:networks/nw:network/nw:node/tet:te
            /tet:te-node-attributes/tet:connectivity-matrices
            /tet:connectivity-matrix/tet:to/tet:label-restrictions
            /tet:label-restriction:
    +--rw grid-type?   identityref
```

```
       +--rw priority?    uint8
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:label-restrictions/tet:label-restriction:
       +--ro grid-type?   identityref
       +--ro priority?    uint8
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:from/tet:label-restrictions
               /tet:label-restriction:
       +--ro grid-type?   identityref
       +--ro priority?    uint8
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:to/tet:label-restrictions
               /tet:label-restriction:
       +--ro grid-type?   identityref
       +--ro priority?    uint8
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities/tet:label-restrictions
               /tet:label-restriction:
       +--rw grid-type?   identityref
       +--rw priority?    uint8
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities
               /tet:local-link-connectivity/tet:label-restrictions
               /tet:label-restriction:
       +--rw grid-type?   identityref
       +--rw priority?    uint8
     augment /nw:networks/nw:network/nt:link/tet:te
               /tet:te-link-attributes/tet:label-restrictions
               /tet:label-restriction:
       +--rw grid-type?   identityref
       +--rw priority?    uint8
     augment /nw:networks/nw:network/nt:link/tet:te
               /tet:information-source-entry/tet:label-restrictions
               /tet:label-restriction:
       +--ro grid-type?   identityref
       +--ro priority?    uint8
     augment /nw:networks/tet:te/tet:templates/tet:link-template
               /tet:te-link-attributes/tet:label-restrictions
               /tet:label-restriction:
       +--rw grid-type?   identityref
       +--rw priority?    uint8
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
```

```
               /tet:label-restrictions/tet:label-restriction
               /tet:label-start/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:label-restrictions/tet:label-restriction
               /tet:label-end/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:label-restrictions/tet:label-restriction
               /tet:label-step/tet:technology:
       +--:(wson)
          +--rw (l0-grid-type)?
             +--:(dwdm)
             |  +--rw wson-dwdm-channel-spacing?   identityref
             +--:(cwdm)
                +--rw wson-cwdm-channel-spacing?   identityref
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:underlay/tet:primary-path/tet:path-element/tet:type
               /tet:label/tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:underlay/tet:backup-path/tet:path-element/tet:type
               /tet:label/tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
```

```
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:optimizations/tet:algorithm/tet:metric
               /tet:optimization-metric
               /tet:explicit-route-exclude-objects
               /tet:route-object-exclude-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:optimizations/tet:algorithm/tet:metric
               /tet:optimization-metric
               /tet:explicit-route-include-objects
               /tet:route-object-include-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:path-properties/tet:path-route-objects
               /tet:path-route-object/tet:type/tet:label/tet:label-hop
               /tet:te-label/tet:technology:
       +--:(wson)
```

```
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:from/tet:label-restrictions
               /tet:label-restriction/tet:label-start/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:from/tet:label-restrictions
               /tet:label-restriction/tet:label-end/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:from/tet:label-restrictions
               /tet:label-restriction/tet:label-step/tet:technology:
       +--:(wson)
          +--rw (l0-grid-type)?
             +--:(dwdm)
             |  +--rw wson-dwdm-channel-spacing?   identityref
             +--:(cwdm)
                +--rw wson-cwdm-channel-spacing?   identityref
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:to/tet:label-restrictions
               /tet:label-restriction/tet:label-start/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
```

```
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:to/tet:label-restrictions
               /tet:label-restriction/tet:label-end/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:to/tet:label-restrictions
               /tet:label-restriction/tet:label-step/tet:technology:
       +--:(wson)
          +--rw (l0-grid-type)?
             +--:(dwdm)
             |  +--rw wson-dwdm-channel-spacing?   identityref
             +--:(cwdm)
                +--rw wson-cwdm-channel-spacing?   identityref
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:underlay/tet:primary-path
               /tet:path-element/tet:type/tet:label/tet:label-hop
               /tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:underlay/tet:backup-path
               /tet:path-element/tet:type/tet:label/tet:label-hop
               /tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
```

```
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:optimizations/tet:algorithm
               /tet:metric/tet:optimization-metric
               /tet:explicit-route-exclude-objects
               /tet:route-object-exclude-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:optimizations/tet:algorithm
               /tet:metric/tet:optimization-metric
               /tet:explicit-route-include-objects
               /tet:route-object-include-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:te-node-attributes/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:path-properties
               /tet:path-route-objects/tet:path-route-object/tet:type
               /tet:label/tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
```

```
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:label-restrictions/tet:label-restriction
               /tet:label-start/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:label-restrictions/tet:label-restriction
               /tet:label-end/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:label-restrictions/tet:label-restriction
               /tet:label-step/tet:technology:
       +--:(wson)
          +--ro (l0-grid-type)?
             +--:(dwdm)
             |  +--ro wson-dwdm-channel-spacing?   identityref
             +--:(cwdm)
                +--ro wson-cwdm-channel-spacing?   identityref
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:underlay/tet:primary-path/tet:path-element/tet:type
               /tet:label/tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
```

```
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:underlay/tet:backup-path/tet:path-element/tet:type
               /tet:label/tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:optimizations/tet:algorithm/tet:metric
               /tet:optimization-metric
               /tet:explicit-route-exclude-objects
               /tet:route-object-exclude-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:optimizations/tet:algorithm/tet:metric
               /tet:optimization-metric
               /tet:explicit-route-include-objects
               /tet:route-object-include-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
```

```
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:path-properties/tet:path-route-objects
               /tet:path-route-object/tet:type/tet:label/tet:label-hop
               /tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:from/tet:label-restrictions
               /tet:label-restriction/tet:label-start/tet:te-label
               /tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:from/tet:label-restrictions
               /tet:label-restriction/tet:label-end/tet:te-label
               /tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:from/tet:label-restrictions
               /tet:label-restriction/tet:label-step/tet:technology:
       +--:(wson)
          +--ro (l0-grid-type)?
             +--:(dwdm)
```

```
             |  +--ro wson-dwdm-channel-spacing?   identityref
             +--:(cwdm)
                +--ro wson-cwdm-channel-spacing?   identityref
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:to/tet:label-restrictions
               /tet:label-restriction/tet:label-start/tet:te-label
               /tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:to/tet:label-restrictions
               /tet:label-restriction/tet:label-end/tet:te-label
               /tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:to/tet:label-restrictions
               /tet:label-restriction/tet:label-step/tet:technology:
       +--:(wson)
          +--ro (l0-grid-type)?
             +--:(dwdm)
             |  +--ro wson-dwdm-channel-spacing?   identityref
             +--:(cwdm)
                +--ro wson-cwdm-channel-spacing?   identityref
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:underlay/tet:primary-path
               /tet:path-element/tet:type/tet:label/tet:label-hop
               /tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
```

```
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:underlay/tet:backup-path
               /tet:path-element/tet:type/tet:label/tet:label-hop
               /tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:optimizations/tet:algorithm
               /tet:metric/tet:optimization-metric
               /tet:explicit-route-exclude-objects
               /tet:route-object-exclude-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:optimizations/tet:algorithm
               /tet:metric/tet:optimization-metric
               /tet:explicit-route-include-objects
               /tet:route-object-include-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
```

```
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:information-source-entry/tet:connectivity-matrices
               /tet:connectivity-matrix/tet:path-properties
               /tet:path-route-objects/tet:path-route-object/tet:type
               /tet:label/tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities/tet:label-restrictions
               /tet:label-restriction/tet:label-start/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities/tet:label-restrictions
               /tet:label-restriction/tet:label-end/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities/tet:label-restrictions
               /tet:label-restriction/tet:label-step/tet:technology:
       +--:(wson)
          +--rw (l0-grid-type)?
             +--:(dwdm)
             |  +--rw wson-dwdm-channel-spacing?   identityref
```

```
             +--:(cwdm)
                +--rw wson-cwdm-channel-spacing?   identityref
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities/tet:underlay
               /tet:primary-path/tet:path-element/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities/tet:underlay
               /tet:backup-path/tet:path-element/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities/tet:optimizations
               /tet:algorithm/tet:metric/tet:optimization-metric
               /tet:explicit-route-exclude-objects
               /tet:route-object-exclude-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
```

```
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities/tet:optimizations
               /tet:algorithm/tet:metric/tet:optimization-metric
               /tet:explicit-route-include-objects
               /tet:route-object-include-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities/tet:path-properties
               /tet:path-route-objects/tet:path-route-object/tet:type
               /tet:label/tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities
               /tet:local-link-connectivity/tet:label-restrictions
               /tet:label-restriction/tet:label-start/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities
```

```
               /tet:local-link-connectivity/tet:label-restrictions
               /tet:label-restriction/tet:label-end/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities
               /tet:local-link-connectivity/tet:label-restrictions
               /tet:label-restriction/tet:label-step/tet:technology:
       +--:(wson)
          +--rw (l0-grid-type)?
             +--:(dwdm)
             |  +--rw wson-dwdm-channel-spacing?   identityref
             +--:(cwdm)
                +--rw wson-cwdm-channel-spacing?   identityref
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities
               /tet:local-link-connectivity/tet:underlay
               /tet:primary-path/tet:path-element/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities
               /tet:local-link-connectivity/tet:underlay/tet:backup-path
               /tet:path-element/tet:type/tet:label/tet:label-hop
               /tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
```

```
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities
               /tet:local-link-connectivity/tet:optimizations
               /tet:algorithm/tet:metric/tet:optimization-metric
               /tet:explicit-route-exclude-objects
               /tet:route-object-exclude-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities
               /tet:local-link-connectivity/tet:optimizations
               /tet:algorithm/tet:metric/tet:optimization-metric
               /tet:explicit-route-include-objects
               /tet:route-object-include-object/tet:type/tet:label
               /tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nw:node/tet:te
               /tet:tunnel-termination-point
               /tet:local-link-connectivities
               /tet:local-link-connectivity/tet:path-properties
               /tet:path-route-objects/tet:path-route-object/tet:type
               /tet:label/tet:label-hop/tet:te-label/tet:technology:
       +--:(wson)
          +--ro (grid-type)?
```

```
             +--:(dwdm)
             |  +--ro (single-or-super-channel)?
             |     +--:(single)
             |     |  +--ro dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--ro subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nt:link/tet:te
               /tet:te-link-attributes/tet:underlay/tet:primary-path
               /tet:path-element/tet:type/tet:label/tet:label-hop
               /tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nt:link/tet:te
               /tet:te-link-attributes/tet:underlay/tet:backup-path
               /tet:path-element/tet:type/tet:label/tet:label-hop
               /tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/nw:network/nt:link/tet:te
               /tet:te-link-attributes/tet:label-restrictions
               /tet:label-restriction/tet:label-start/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nt:link/tet:te
               /tet:te-link-attributes/tet:label-restrictions
```

```
               /tet:label-restriction/tet:label-end/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nt:link/tet:te
               /tet:te-link-attributes/tet:label-restrictions
               /tet:label-restriction/tet:label-step/tet:technology:
       +--:(wson)
          +--rw (l0-grid-type)?
             +--:(dwdm)
             |  +--rw wson-dwdm-channel-spacing?   identityref
             +--:(cwdm)
                +--rw wson-cwdm-channel-spacing?   identityref
     augment /nw:networks/nw:network/nt:link/tet:te
               /tet:information-source-entry/tet:label-restrictions
               /tet:label-restriction/tet:label-start/tet:te-label
               /tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nt:link/tet:te
               /tet:information-source-entry/tet:label-restrictions
               /tet:label-restriction/tet:label-end/tet:te-label
               /tet:technology:
       +--:(wson)
          +--ro (grid-type)?
             +--:(dwdm)
             |  +--ro dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--ro cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/nw:network/nt:link/tet:te
               /tet:information-source-entry/tet:label-restrictions
               /tet:label-restriction/tet:label-step/tet:technology:
       +--:(wson)
          +--ro (l0-grid-type)?
             +--:(dwdm)
             |  +--ro wson-dwdm-channel-spacing?   identityref
             +--:(cwdm)
                +--ro wson-cwdm-channel-spacing?   identityref
     augment /nw:networks/tet:te/tet:templates/tet:link-template
               /tet:te-link-attributes/tet:underlay/tet:primary-path
```

```
               /tet:path-element/tet:type/tet:label/tet:label-hop
               /tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/tet:te/tet:templates/tet:link-template
               /tet:te-link-attributes/tet:underlay/tet:backup-path
               /tet:path-element/tet:type/tet:label/tet:label-hop
               /tet:te-label/tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw (single-or-super-channel)?
             |     +--:(single)
             |     |  +--rw dwdm-n?              l0-types:dwdm-n
             |     +--:(super)
             |        +--rw subcarrier-dwdm-n*   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?                    l0-types:cwdm-n
     augment /nw:networks/tet:te/tet:templates/tet:link-template
               /tet:te-link-attributes/tet:label-restrictions
               /tet:label-restriction/tet:label-start/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/tet:te/tet:templates/tet:link-template
               /tet:te-link-attributes/tet:label-restrictions
               /tet:label-restriction/tet:label-end/tet:te-label
               /tet:technology:
       +--:(wson)
          +--rw (grid-type)?
             +--:(dwdm)
             |  +--rw dwdm-n?   l0-types:dwdm-n
             +--:(cwdm)
                +--rw cwdm-n?   l0-types:cwdm-n
     augment /nw:networks/tet:te/tet:templates/tet:link-template
               /tet:te-link-attributes/tet:label-restrictions
```

```
                /tet:label-restriction/tet:label-step/tet:technology:
      +--:(wson)
         +--rw (l0-grid-type)?
            +--:(dwdm)
            |  +--rw wson-dwdm-channel-spacing?   identityref
            +--:(cwdm)
               +--rw wson-cwdm-channel-spacing?   identityref
```

3. The YANG Code for WSON topology

```
<CODE BEGINS> file "ietf-wson-topology@2020-10-16.yang"
module ietf-wson-topology {
  yang-version 1.1;
  namespace "urn:ietf:params:xml:ns:yang:ietf-wson-topology";
  prefix "wson";

  import ietf-network {
    prefix "nw";
    reference
      "RFC 8345: A YANG Data Model for Network Topologies";
  }

  import ietf-network-topology {
    prefix "nt";
    reference
      "RFC 8345: A YANG Data Model for Network Topologies";
  }

  import ietf-te-topology {
    prefix "tet";
    reference
      "RFC 8795: YANG Data Model for
       Traffic Engineering (TE) Topologies";
  }

  import ietf-layer0-types {
    prefix "l0-types";
    reference
      "RFC XXXX: A YANG Data Model for Layer 0 Types";
  }

/* Note: The RFC Editor will replace XXXX with the number assigned
   to the RFC once draft-ietf-ccamp-layer0-types becomes an RFC.*/

  organization
```

```
       "IETF CCAMP Working Group";

     contact
       "WG Web: <http://tools.ietf.org/wg/ccamp/>
        WG List: <mailto:ccamp@ietf.org>

        Editor: Haomian Zheng
                <mailto:zhenghaomian@huawei.com>

        Editor: Young Lee
                <younglee.tx@gmail.com>

        Editor: Aihua Guo
                <aihuaguo.ietf@gmail.com>
        Editor: Victor Lopez
                <victor.lopezalvarez@telefonica.com>

        Editor: Daniel King
                <d.king@lancaster.ac.uk>";

     description
       "This module provides a YANG data model for the routing and
        wavelength assignment (RWA) Traffic Engineering (TE)
        topology in wavelength switched optical networks (WSONs).
        The YANG model described in this document is a WSON
        technology-specific YANG model augmenting the generic TE
        topology module (ietf-te-topology) based on the information
        model developed in RFC 7446 and the two encoding documents
        RFC 7579 and RFC 7581.

        Copyright (c) 2020 IETF Trust and the persons identified
        as authors of the code.  All rights reserved.

        Redistribution and use in source and binary forms, with
        or without modification, is permitted pursuant to, and
        subject to the license terms contained in, the Simplified
        BSD License set forth in Section 4.c of the IETF Trust's
        Legal Provisions Relating to IETF Documents
        (http://trustee.ietf.org/license-info).

        This version of this YANG module is part of RFC XXXX; see
        the RFC itself for full legal notices.";

     revision 2020-10-16 {
       description
         "Initial Version";
       reference
         "RFC XXXX: A YANG Data Model for WSON (Wavelength Switched
```

```
          Optical Networks)";
       // RFC Ed.: replace XXXX with actual RFC number, update date
       // information and remove this note
     }

     /*
      * Data nodes
      */

     augment "/nw:networks/nw:network/nw:network-types"
           + "/tet:te-topology" {
       description
         "Augment network types to define WSON topology type.";
       container wson-topology {
         presence
           "Its presence identifies the WSON topology type.";
         description
           "Introduce new network type for WSON topology.";
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te"
           + "/tet:te-node-attributes" {
       when "/nw:networks/nw:network/nw:network-types"
          + "/tet:te-topology/wson:wson-topology" {
         description
         "Augmentation parameters apply only for networks with
          WSON topology type.";
       }
       description "Augment TE node attributes.";
       container wson-node {
         presence "The TE node is a WSON node.";
         description "WSON node attributes";
         leaf is-reconfigurable-node {
           type boolean;
           default true;
           description
             "Indicates whether the WSON node is reconfigurable:
              - true: the node is reconfigurable, i.e.,
                        it is representing a ROADM node;
              - false: the node is not reconfigurable, i.e.,
                it is representing a FOADM node.";
         }
       }
     }

     /*
      * Augment TE label range information
```

```
 */

augment "/nw:networks/nw:network/nw:node/tet:te/"
      + "tet:te-node-attributes/tet:connectivity-matrices/"
      + "tet:label-restrictions/tet:label-restriction" {
  when "../../../../../../nw:network-types/tet:te-topology/"
     + "wson:wson-topology" {
    description
      "Augmentation parameters apply only for networks with
       WSON topology type.";
  }
  description
    "Augment TE label range information for the TE node
     connectivity matrices.";
  uses l0-types:l0-label-range-info;
}

augment "/nw:networks/nw:network/nw:node/tet:te/"
      + "tet:te-node-attributes/tet:connectivity-matrices/"
      + "tet:connectivity-matrix/tet:from/"
      + "tet:label-restrictions/tet:label-restriction" {
  when "../../../../../../../../nw:network-types/tet:te-topology/"
     + "wson:wson-topology" {
    description
      "Augmentation parameters apply only for networks with
       WSON topology type.";
  }
  description
    "Augment TE label range information for the source LTP
     of the connectivity matrix entry.";
  uses l0-types:l0-label-range-info;
}

augment "/nw:networks/nw:network/nw:node/tet:te/"
      + "tet:te-node-attributes/tet:connectivity-matrices/"
      + "tet:connectivity-matrix/tet:to/"
      + "tet:label-restrictions/tet:label-restriction" {
  when "../../../../../../../../nw:network-types/tet:te-topology/"
     + "wson:wson-topology" {
    description
      "Augmentation parameters apply only for networks with
       WSON topology type.";
  }
  description
    "Augment TE label range information for the destination LTP
     of the connectivity matrix entry.";
  uses l0-types:l0-label-range-info;
}
```

```
     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:information-source-entry/"
           + "tet:connectivity-matrices/tet:label-restrictions/"
           + "tet:label-restriction" {
       when "../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range information for the TE node
          connectivity matrices information source.";
       uses l0-types:l0-label-range-info;
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:information-source-entry/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/"
           + "tet:from/tet:label-restrictions/tet:label-restriction" {
       when "../../../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range information for the source LTP
          of the connectivity matrix entry information source.";
       uses l0-types:l0-label-range-info;
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:information-source-entry/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/"
           + "tet:to/tet:label-restrictions/tet:label-restriction" {
       when "../../../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range information for the destination LTP
          of the connectivity matrix entry information source.";
       uses l0-types:l0-label-range-info;
     }
```

```
     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:tunnel-termination-point/"
           + "tet:local-link-connectivities/"
           + "tet:label-restrictions/tet:label-restriction" {
       when "../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range information for the TTP
          Local Link Connectivities.";
       uses l0-types:l0-label-range-info;
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:tunnel-termination-point/"
           + "tet:local-link-connectivities/"
           + "tet:local-link-connectivity/"
           + "tet:label-restrictions/tet:label-restriction" {
       when "../../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range information for the TTP
          Local Link Connectivity entry.";
       uses l0-types:l0-label-range-info;
     }

     augment "/nw:networks/nw:network/nt:link/tet:te/"
           + "tet:te-link-attributes/"
           + "tet:label-restrictions/tet:label-restriction" {
       when "../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range information for the TE link.";
       uses l0-types:l0-label-range-info;
     }

     augment "/nw:networks/nw:network/nt:link/tet:te/"
```

```
           + "tet:information-source-entry/"
           + "tet:label-restrictions/tet:label-restriction" {
       when "../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range information for the TE link
          information source.";
       uses l0-types:l0-label-range-info;
     }

     augment "/nw:networks/tet:te/tet:templates/"
           + "tet:link-template/tet:te-link-attributes/"
           + "tet:label-restrictions/tet:label-restriction" {
       description
         "Augment TE label range information for the TE link template.";
       uses l0-types:l0-label-range-info;
     }

     /*
      * Augment TE label
      */

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:label-restrictions/tet:label-restriction/"
           + "tet:label-start/"
           + "tet:te-label/tet:technology" {
       when "../../../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range start for the TE node
          connectivity matrices";
       case wson {
         uses l0-types:wson-label-start-end;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:label-restrictions/"
```

```
           + "tet:label-restriction/tet:label-end/"
           + "tet:te-label/tet:technology" {
       when "../../../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range end for the TE node
          connectivity matrices";
       case wson {
         uses l0-types:wson-label-start-end;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:label-restrictions/"
           + "tet:label-restriction/tet:label-step/"
           + "tet:technology" {
       when "../../../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range step for the TE node
          connectivity matrices";
       case wson {
         uses l0-types:wson-label-step;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:underlay/tet:primary-path/tet:path-element/"
           + "tet:type/tet:label/tet:label-hop/"
           + "tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
```

```
         "Augment TE label hop for the underlay primary path of the
          TE node connectivity matrices";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:underlay/tet:backup-path/tet:path-element/"
           + "tet:type/tet:label/tet:label-hop/"
           + "tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the underlay backup path of the
          TE node connectivity matrices";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:optimizations/tet:algorithm/tet:metric/"
           + "tet:optimization-metric/"
           + "tet:explicit-route-exclude-objects/"
           + "tet:route-object-exclude-object/"
           + "tet:type/tet:label/tet:label-hop/"
           + "tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the explicit route objects excluded
          by the path computation of the TE node connectivity
          matrices";
       case wson {
         uses l0-types:wson-label-hop;
```

```
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:te-node-attributes/tet:connectivity-matrices/"
          + "tet:optimizations/tet:algorithm/tet:metric/"
          + "tet:optimization-metric/"
          + "tet:explicit-route-include-objects/"
          + "tet:route-object-include-object/"
          + "tet:type/tet:label/tet:label-hop/"
          + "tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the explicit route objects included
         by the path computation of the TE node connectivity
         matrices";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:te-node-attributes/tet:connectivity-matrices/"
          + "tet:path-properties/tet:path-route-objects/"
          + "tet:path-route-object/tet:type/tet:label/tet:label-hop/"
          + "tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the computed path route objects
         of the TE node connectivity matrices";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
```

```
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/tet:from/"
           + "tet:label-restrictions/tet:label-restriction/"
           + "tet:label-start/"
           + "tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range start for the source LTP
          of the connectivity matrix entry.";
       case wson {
         uses l0-types:wson-label-start-end;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/tet:from/"
           + "tet:label-restrictions/tet:label-restriction/"
           + "tet:label-end/"
           + "tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range end for the source LTP
          of the connectivity matrix entry.";
       case wson {
         uses l0-types:wson-label-start-end;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/tet:from/"
           + "tet:label-restrictions/tet:label-restriction/"
           + "tet:label-step/"
           + "tet:technology" {
       when "../../../../../../../../../../"
```

```
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label range step for the source LTP
         of the connectivity matrix entry.";
      case wson {
        uses l0-types:wson-label-step;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:te-node-attributes/tet:connectivity-matrices/"
          + "tet:connectivity-matrix/tet:to/"
          + "tet:label-restrictions/tet:label-restriction/"
          + "tet:label-start/"
          + "tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label range start for the destination LTP
         of the connectivity matrix entry.";
      case wson {
        uses l0-types:wson-label-start-end;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:te-node-attributes/tet:connectivity-matrices/"
          + "tet:connectivity-matrix/tet:to/"
          + "tet:label-restrictions/tet:label-restriction/"
          + "tet:label-end/"
          + "tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
```

```
        description
          "Augment TE label range end for the destination LTP
           of the connectivity matrix entry.";
        case wson {
          uses l0-types:wson-label-start-end;
        }
      }

      augment "/nw:networks/nw:network/nw:node/tet:te/"
            + "tet:te-node-attributes/tet:connectivity-matrices/"
            + "tet:connectivity-matrix/tet:to/"
            + "tet:label-restrictions/tet:label-restriction/"
            + "tet:label-step/"
            + "tet:technology" {
        when "../../../../../../../../../"
           + "nw:network-types/tet:te-topology/"
           + "wson:wson-topology" {
          description
            "Augmentation parameters apply only for networks with
             WSON topology type.";
        }
        description
          "Augment TE label range step for the destination LTP
           of the connectivity matrix entry.";
        case wson {
          uses l0-types:wson-label-step;
        }
      }

      augment "/nw:networks/nw:network/nw:node/tet:te/"
            + "tet:te-node-attributes/tet:connectivity-matrices/"
            + "tet:connectivity-matrix/"
            + "tet:underlay/tet:primary-path/tet:path-element/"
            + "tet:type/tet:label/tet:label-hop/"
            + "tet:te-label/tet:technology" {
        when "../../../../../../../../../../"
           + "nw:network-types/tet:te-topology/"
           + "wson:wson-topology" {
          description
            "Augmentation parameters apply only for networks with
             WSON topology type.";
        }
        description
          "Augment TE label hop for the underlay primary path
           of the connectivity matrix entry.";
        case wson {
          uses l0-types:wson-label-hop;
        }
```

```
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/"
           + "tet:underlay/tet:backup-path/tet:path-element/"
           + "tet:type/tet:label/tet:label-hop/"
           + "tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the underlay backup path
          of the connectivity matrix entry.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/tet:optimizations/"
           + "tet:algorithm/tet:metric/tet:optimization-metric/"
           + "tet:explicit-route-exclude-objects/"
           + "tet:route-object-exclude-object/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the explicit route objects excluded
          by the path computation of the connectivity matrix entry.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/tet:optimizations/"
```

```
           + "tet:algorithm/tet:metric/tet:optimization-metric/"
           + "tet:explicit-route-include-objects/"
           + "tet:route-object-include-object/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the explicit route objects included
          by the path computation of the connectivity matrix entry.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:te-node-attributes/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/"
           + "tet:path-properties/tet:path-route-objects/"
           + "tet:path-route-object/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the computed path route objects
          of the connectivity matrix entry.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:information-source-entry/"
           + "tet:connectivity-matrices/tet:label-restrictions/"
           + "tet:label-restriction/"
           + "tet:label-start/tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
```

```
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label range start for the TE node connectivity
         matrices information source.";
      case wson {
        uses l0-types:wson-label-start-end;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:information-source-entry/"
          + "tet:connectivity-matrices/tet:label-restrictions/"
          + "tet:label-restriction/"
          + "tet:label-end/tet:te-label/tet:technology" {
      when "../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label range end for the TE node connectivity
         matrices information source.";
      case wson {
        uses l0-types:wson-label-start-end;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:information-source-entry/"
          + "tet:connectivity-matrices/tet:label-restrictions/"
          + "tet:label-restriction/"
          + "tet:label-step/tet:technology" {
      when "../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label range step for the TE node connectivity
         matrices information source.";
      case wson {
```

```
        uses l0-types:wson-label-step;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:information-source-entry/tet:connectivity-matrices/"
          + "tet:underlay/tet:primary-path/tet:path-element/tet:type/"
          + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the underlay primary path
         of the TE node connectivity matrices of the information
         source entry.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:information-source-entry/tet:connectivity-matrices/"
          + "tet:underlay/tet:backup-path/tet:path-element/tet:type/"
          + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the underlay backup path
         of the TE node connectivity matrices of the information
         source entry.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:information-source-entry/tet:connectivity-matrices/"
          + "tet:optimizations/tet:algorithm/tet:metric/"
          + "tet:optimization-metric/"
```

```
           + "tet:explicit-route-exclude-objects/"
           + "tet:route-object-exclude-object/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the explicit route objects excluded
          by the path computation of the TE node connectivity matrices
          information source.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:information-source-entry/tet:connectivity-matrices/"
           + "tet:optimizations/tet:algorithm/tet:metric/"
           + "tet:optimization-metric/"
           + "tet:explicit-route-include-objects/"
           + "tet:route-object-include-object/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the explicit route objects included
          by the path computation of the TE node connectivity matrices
          information source.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:information-source-entry/tet:connectivity-matrices/"
           + "tet:path-properties/tet:path-route-objects/"
           + "tet:path-route-object/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
```

```
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the computed path route objects
         of the TE node connectivity matrices information source.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:information-source-entry/tet:connectivity-matrices/"
          + "tet:connectivity-matrix/"
          + "tet:from/tet:label-restrictions/"
          + "tet:label-restriction/"
          + "tet:label-start/tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label range start for the source LTP
         of the connectivity matrix entry information source.";
      case wson {
        uses l0-types:wson-label-start-end;
      }
    }
    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:information-source-entry/tet:connectivity-matrices/"
          + "tet:connectivity-matrix/"
          + "tet:from/tet:label-restrictions/"
          + "tet:label-restriction/"
          + "tet:label-end/tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
```

```
        "Augment TE label range end for the source LTP
         of the connectivity matrix entry information source.";
      case wson {
        uses l0-types:wson-label-start-end;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:information-source-entry/tet:connectivity-matrices/"
          + "tet:connectivity-matrix/"
          + "tet:from/tet:label-restrictions/"
          + "tet:label-restriction/"
          + "tet:label-step/tet:technology" {
      when "../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label range step for the source LTP
         of the connectivity matrix entry information source.";
      case wson {
        uses l0-types:wson-label-step;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:information-source-entry/tet:connectivity-matrices/"
          + "tet:connectivity-matrix/"
          + "tet:to/tet:label-restrictions/tet:label-restriction/"
          + "tet:label-start/tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label range start for the destination LTP
         of the connectivity matrix entry information source.";
      case wson {
        uses l0-types:wson-label-start-end;
      }
    }
```

```
     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:information-source-entry/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/"
           + "tet:to/tet:label-restrictions/tet:label-restriction/"
           + "tet:label-end/tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range end for the destination LTP
          of the connectivity matrix entry information source.";
       case wson {
         uses l0-types:wson-label-start-end;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:information-source-entry/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/"
           + "tet:to/tet:label-restrictions/tet:label-restriction/"
           + "tet:label-step/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range step for the destination LTP
          of the connectivity matrix entry information source.";
       case wson {
         uses l0-types:wson-label-step;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:information-source-entry/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/"
           + "tet:underlay/tet:primary-path/tet:path-element/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
```

```
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the underlay primary path
         of the connectivity matrix entry information source.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:information-source-entry/tet:connectivity-matrices/"
          + "tet:connectivity-matrix/"
          + "tet:underlay/tet:backup-path/tet:path-element/tet:type/"
          + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the underlay backup path
         of the connectivity matrix entry information source.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:information-source-entry/tet:connectivity-matrices/"
          + "tet:connectivity-matrix/"
          + "tet:optimizations/tet:algorithm/tet:metric/"
          + "tet:optimization-metric/"
          + "tet:explicit-route-exclude-objects/"
          + "tet:route-object-exclude-object/tet:type/"
          + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
```

```
         "Augment TE label hop for the explicit route objects excluded
          by the path computation of the connectivity matrix entry
          information source.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:information-source-entry/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/"
           + "tet:optimizations/tet:algorithm/tet:metric/"
           + "tet:optimization-metric/"
           + "tet:explicit-route-include-objects/"
           + "tet:route-object-include-object/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the explicit route objects included
          by the path computation of the connectivity matrix entry
          information source.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:information-source-entry/tet:connectivity-matrices/"
           + "tet:connectivity-matrix/"
           + "tet:path-properties/tet:path-route-objects/"
           + "tet:path-route-object/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the computed path route objects
          of the connectivity matrix entry information source.";
```

```
        case wson {
          uses l0-types:wson-label-hop;
        }
      }

      augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:tunnel-termination-point/"
          + "tet:local-link-connectivities/"
          + "tet:label-restrictions/tet:label-restriction/"
          + "tet:label-start/"
          + "tet:te-label/tet:technology" {
        when "../../../../../../../../"
           + "nw:network-types/tet:te-topology/"
           + "wson:wson-topology" {
          description
            "Augmentation parameters apply only for networks with
             WSON topology type.";
        }
        description
          "Augment TE label range start for the TTP
           Local Link Connectivities.";
        case wson {
          uses l0-types:wson-label-start-end;
        }
      }

      augment "/nw:networks/nw:network/nw:node/tet:te/"
            + "tet:tunnel-termination-point/"
            + "tet:local-link-connectivities/"
            + "tet:label-restrictions/tet:label-restriction/"
            + "tet:label-end/"
            + "tet:te-label/tet:technology"{
        when "../../../../../../../../"
           + "nw:network-types/tet:te-topology/"
           + "wson:wson-topology" {
          description
            "Augmentation parameters apply only for networks with
             WSON topology type.";
        }
        description
          "Augment TE label range end for the TTP
           Local Link Connectivities.";
        case wson {
          uses l0-types:wson-label-start-end;
        }
      }

      augment "/nw:networks/nw:network/nw:node/tet:te/"
```

```
           + "tet:tunnel-termination-point/"
           + "tet:local-link-connectivities/"
           + "tet:label-restrictions/tet:label-restriction/"
           + "tet:label-step/"
           + "tet:technology"{
       when "../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range step for the TTP
          Local Link Connectivities.";
       case wson {
         uses l0-types:wson-label-step;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:tunnel-termination-point/"
           + "tet:local-link-connectivities/"
           + "tet:underlay/tet:primary-path/tet:path-element/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the underlay primary path
          of the TTP Local Link Connectivities.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:tunnel-termination-point/"
           + "tet:local-link-connectivities/"
           + "tet:underlay/tet:backup-path/tet:path-element/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
```

```
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the underlay backup path
         of the TTP Local Link Connectivities.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:tunnel-termination-point/"
          + "tet:local-link-connectivities/"
          + "tet:optimizations/tet:algorithm/tet:metric/"
          + "tet:optimization-metric/"
          + "tet:explicit-route-exclude-objects/"
          + "tet:route-object-exclude-object/tet:type/"
          + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the explicit route objects excluded
         by the path computation of the TTP Local Link
         Connectivities.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:tunnel-termination-point/"
          + "tet:local-link-connectivities/"
          + "tet:optimizations/tet:algorithm/tet:metric/"
          + "tet:optimization-metric/"
          + "tet:explicit-route-include-objects/"
          + "tet:route-object-include-object/tet:type/"
          + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
```

```
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the explicit route objects included
          by the path computation of the TTP Local Link
          Connectivities.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:tunnel-termination-point/"
           + "tet:local-link-connectivities/"
           + "tet:path-properties/tet:path-route-objects/"
           + "tet:path-route-object/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the computed path route objects
          of the TTP Local Link Connectivities.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:tunnel-termination-point/"
           + "tet:local-link-connectivities/"
           + "tet:local-link-connectivity/"
           + "tet:label-restrictions/tet:label-restriction/"
           + "tet:label-start/tet:te-label/tet:technology" {
       when "../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range start for the TTP
```

```
          Local Link Connectivity entry.";
      case wson {
        uses l0-types:wson-label-start-end;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:tunnel-termination-point/"
          + "tet:local-link-connectivities/"
          + "tet:local-link-connectivity/"
          + "tet:label-restrictions/tet:label-restriction/"
          + "tet:label-end/tet:te-label/tet:technology" {
      when "../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label range end for the TTP
         Local Link Connectivity entry.";
      case wson {
        uses l0-types:wson-label-start-end;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:tunnel-termination-point/"
          + "tet:local-link-connectivities/"
          + "tet:local-link-connectivity/"
          + "tet:label-restrictions/tet:label-restriction/"
          + "tet:label-step/tet:technology" {
      when "../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label range step for the TTP
         Local Link Connectivity entry.";
      case wson {
        uses l0-types:wson-label-step;
      }
    }
```

```
     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:tunnel-termination-point/"
           + "tet:local-link-connectivities/"
           + "tet:local-link-connectivity/"
           + "tet:underlay/tet:primary-path/tet:path-element/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the underlay primary path
          of the TTP Local Link Connectivity entry.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:tunnel-termination-point/"
           + "tet:local-link-connectivities/"
           + "tet:local-link-connectivity/"
           + "tet:underlay/tet:backup-path/tet:path-element/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
       when "../../../../../../../../../../"
          + "nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label hop for the underlay backup path
          of the TTP Local Link Connectivity entry.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nw:node/tet:te/"
           + "tet:tunnel-termination-point/"
           + "tet:local-link-connectivities/"
           + "tet:local-link-connectivity/"
           + "tet:optimizations/tet:algorithm/tet:metric/"
           + "tet:optimization-metric/"
```

```
           + "tet:explicit-route-exclude-objects/"
           + "tet:route-object-exclude-object/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      when "../../../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the explicit route objects excluded
         by the path computation of the TTP Local Link
         Connectivity entry.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:tunnel-termination-point/"
          + "tet:local-link-connectivities/"
          + "tet:local-link-connectivity/"
          + "tet:optimizations/tet:algorithm/tet:metric/"
          + "tet:optimization-metric/"
          + "tet:explicit-route-include-objects/"
          + "tet:route-object-include-object/tet:type/"
          + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      when "../../../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the explicit route objects included
         by the path computation of the TTP Local Link
         Connectivity entry.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nw:node/tet:te/"
          + "tet:tunnel-termination-point/"
          + "tet:local-link-connectivities/"
          + "tet:local-link-connectivity/"
```

```
           + "tet:path-properties/tet:path-route-objects/"
           + "tet:path-route-object/tet:type/"
           + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      when "../../../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the computed path route objects
         of the TTP Local Link Connectivity entry.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }
    augment "/nw:networks/nw:network/nt:link/tet:te/"
          + "tet:te-link-attributes/"
          + "tet:underlay/tet:primary-path/tet:path-element/tet:type/"
          + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      when "../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label hop for the underlay primary path
         of the TE link.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/nw:network/nt:link/tet:te/"
          + "tet:te-link-attributes/"
          + "tet:underlay/tet:backup-path/tet:path-element/tet:type/"
          + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      when "../../../../../../../../"
         + "nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
```

```
         "Augment TE label hop for the underlay backup path
          of the TE link.";
       case wson {
         uses l0-types:wson-label-hop;
       }
     }

     augment "/nw:networks/nw:network/nt:link/tet:te/"
           + "tet:te-link-attributes/"
           + "tet:label-restrictions/tet:label-restriction/"
           + "tet:label-start/tet:te-label/tet:technology" {
       when "../../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range start for the TE link.";
       case wson {
         uses l0-types:wson-label-start-end;
       }
     }

     augment "/nw:networks/nw:network/nt:link/tet:te/"
           + "tet:te-link-attributes/"
           + "tet:label-restrictions/tet:label-restriction/"
           + "tet:label-end/tet:te-label/tet:technology" {
       when "../../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range end for the TE link.";
       case wson {
         uses l0-types:wson-label-start-end;
       }
     }

     augment "/nw:networks/nw:network/nt:link/tet:te/"
           + "tet:te-link-attributes/"
           + "tet:label-restrictions/tet:label-restriction/"
           + "tet:label-step/tet:technology" {
       when "../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
```

```
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range step for the TE link.";
       case wson {
         uses l0-types:wson-label-step;
       }
     }

     augment "/nw:networks/nw:network/nt:link/tet:te/"
           + "tet:information-source-entry/"
           + "tet:label-restrictions/tet:label-restriction/"
           + "tet:label-start/tet:te-label/tet:technology" {
       when "../../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range start for the TE link
          information source.";
       case wson {
         uses l0-types:wson-label-start-end;
       }
     }

     augment "/nw:networks/nw:network/nt:link/tet:te/"
           + "tet:information-source-entry/"
           + "tet:label-restrictions/tet:label-restriction/"
           + "tet:label-end/tet:te-label/tet:technology" {
       when "../../../../../../../nw:network-types/tet:te-topology/"
          + "wson:wson-topology" {
         description
           "Augmentation parameters apply only for networks with
            WSON topology type.";
       }
       description
         "Augment TE label range end for the TE link
          information source.";
       case wson {
         uses l0-types:wson-label-start-end;
       }
     }

     augment "/nw:networks/nw:network/nt:link/tet:te/"
           + "tet:information-source-entry/"
```

```
          + "tet:label-restrictions/tet:label-restriction/"
          + "tet:label-step/tet:technology" {
      when "../../../../../../nw:network-types/tet:te-topology/"
         + "wson:wson-topology" {
        description
          "Augmentation parameters apply only for networks with
           WSON topology type.";
      }
      description
        "Augment TE label range step for the TE link
         information source.";
      case wson {
        uses l0-types:wson-label-step;
      }
    }

    augment "/nw:networks/tet:te/tet:templates/"
          + "tet:link-template/tet:te-link-attributes/"
          + "tet:underlay/tet:primary-path/tet:path-element/tet:type/"
          + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      description
        "Augment TE label hop for the underlay primary path
         of the TE link template.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/tet:te/tet:templates/"
          + "tet:link-template/tet:te-link-attributes/"
          + "tet:underlay/tet:backup-path/tet:path-element/tet:type/"
          + "tet:label/tet:label-hop/tet:te-label/tet:technology" {
      description
        "Augment TE label hop for the underlay backup path
         of the TE link template.";
      case wson {
        uses l0-types:wson-label-hop;
      }
    }

    augment "/nw:networks/tet:te/tet:templates/"
          + "tet:link-template/tet:te-link-attributes/"
          + "tet:label-restrictions/tet:label-restriction/"
          + "tet:label-start/tet:te-label/tet:technology" {
      description
        "Augment TE label range start for the TE link template.";
      case wson {
        uses l0-types:wson-label-start-end;
```

```
      }
    }

    augment "/nw:networks/tet:te/tet:templates/"
          + "tet:link-template/tet:te-link-attributes/"
          + "tet:label-restrictions/tet:label-restriction/"
          + "tet:label-end/tet:te-label/tet:technology" {
      description
        "Augment TE label range end for the TE link template.";
      case wson {
        uses l0-types:wson-label-start-end;
      }
    }

    augment "/nw:networks/tet:te/tet:templates/"
          + "tet:link-template/tet:te-link-attributes/"
          + "tet:label-restrictions/tet:label-restriction/"
          + "tet:label-step/tet:technology" {
      description
        "Augment TE label range step for the TE link template.";
      case wson {
        uses l0-types:wson-label-step;
      }
    }
  }

  <CODE ENDS>
```

4. Security Considerations

The YANG module specified in this document defines a schema for data that is designed to be accessed via network management protocols such as NETCONF [RFC6241] or RESTCONF [RFC8040]. The lowest NETCONF layer is the secure transport layer, and the mandatory-to-implement secure transport is Secure Shell (SSH) [RFC6242]. The lowest RESTCONF layer is HTTPS, and the mandatory-to-implement secure transport is TLS [RFC8446].

The NETCONF Protocol over Secure Shell (SSH) [RFC6242] describes a method for invoking and running NETCONF within a Secure Shell (SSH) session as an SSH subsystem. The NETCONF access control model [RFC8341] provides the means to restrict access for particular NETCONF or RESTCONF users to a preconfigured subset of all available NETCONF or RESTCONF protocol operations and content.

There are a number of data nodes defined in this YANG module that are writable/creatable/deletable (i.e., config true, which is the

default). These data nodes may be considered sensitive or vulnerable in some network environments. Write operations (e.g., edit-config) to these data nodes without proper protection can have a negative effect on network operations. Considerations in Section 8 of [RFC8795]are also applicable to their subtrees in the module defined in this document.

Some of the readable data nodes in this YANG module may be considered sensitive or vulnerable in some network environments. It is thus important to control read access (e.g., via get, get-config, or notification) to these data nodes. Considerations in Section 8 of [RFC8795]are also applicable to their subtrees in the module defined in this document.

5. IANA Considerations

It is proposed to IANA to assign new URIs from the "IETF XML Registry" [RFC3688] as follows:

```
URI: urn:ietf:params:xml:ns:yang:ietf-wson-topology
Registrant Contact: The IESG
XML: N/A; the requested URI is an XML namespace.
```

This document registers a YANG module in the YANG Module Names registry [RFC7950] and [RFC6020].

```
name:         ietf-wson-topology
namespace:    urn:ietf:params:xml:ns:yang:ietf-wson-topology
prefix:       wson
reference:    RFC XXXX
```

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