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RFC 9094

A YANG Data Model for Wavelength Switched Optical Networks (WSONs)

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

This is an Internet Standards Track document.

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Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at <https://www.rfc-editor.org/info/rfc9094>.

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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 data model described in this document is a WSON technology-specific YANG data 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].

Neither impairment-aware optical networks nor flexi-grid are in scope for this document. Refer to [OPT-IMPAIR-AWARE-YANG] for the impairment-aware optical network topology model and [FLEXI-GRID-YANG] for the flexi-grid optical network topology model.

Additionally, neither transponder models nor resource block models (e.g., 3R) are in scope for this document.

This document defines one YANG module: "ietf-wson-topology" ([Section 3](#)). This document augments the generic TE topology specification [[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 data 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:

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

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

- configuration data
- 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 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	[RFC9093]
wsont	ietf-wson-topology	RFC 9094

Prefix	YANG module	Reference
nw	ietf-network	[RFC8345]
nt	ietf-network-topology	[RFC8345]
tet	ietf-te-topology	[RFC8795]

Table 1: Data Node Names

2. YANG Data 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

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```

    +--:(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. YANG Module for WSON Topology

```
<CODE BEGINS> file "ietf-wson-topology@2021-07-19.yang"

module ietf-wson-topology {
  yang-version 1.1;
  namespace "urn:ietf:params:xml:ns:yang:ietf-wson-topology";
  prefix wsont;

  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 9093: A YANG Data Model for Layer 0 Types";
  }

  organization
    "IETF CCAMP Working Group";

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

    Editor: Haomian Zheng <zhenghaomian@huawei.com>
    Editor: Young Lee <younglee.tx@gmail.com>
    Editor: Aihua Guo <aihuaguo.ietf@gmail.com>
    Editor: Victor Lopez <victor.lopez@nokia.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 data model described in this document is a WSON
    technology-specific YANG data 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) 2021 IETF Trust and the persons identified
    as authors of the code. All rights reserved."
```


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This version of this YANG module is part of RFC 9094; see the RFC itself for full legal notices.";

```

revision 2021-07-19 {
  description
    "Initial version";

  reference
    "RFC 9094: A YANG Data Model for Wavelength Switched
    Optical Networks (WSONs)";
}

/*
 * Data nodes
 */

augment "/nw:networks/nw:network/nw:network-types"
  + "/tet:te-topology" {
  description
    "Augment network types to define the WSON topology type.";
  container wson-topology {
    presence "Its presence identifies the WSON topology type.";
    description
      "Introduce a 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-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
      "WSOON 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 Reconfigurable Optical
          Add/Drop Multiplexer (ROADM) node;
        - false: the node is not reconfigurable, i.e.,

```

```

        it is representing a Fixed Optical Add/Drop
        Multiplexer (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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
    + 'wsont: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/'
    + 'wsont: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/'
    + 'wsont: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/'
    + 'wsont:wson-topology' {
    description
    "Augmentation parameters apply only for networks with
    WSON topology type.";
    }
description

```

```

    "Augment TE label range information for the Tunnel
    Termination Point (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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
    + 'wsont: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/'
    + 'wsont: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/'
    + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/"

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    + "tet:label-start/"
    + "tet:te-label/tet:technology" {
when ' ../../../../../../../../../../../../../../'
    + 'nw:network-types/tet:te-topology/'
    + 'wsont: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/'
    + 'wsont: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/'
    + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
    + 'wsont: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/'
    + 'wsont: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/"

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    + "tet:label-restriction/"
    + "tet:label-start/tet:te-label/tet:technology" {
when ' ../../../../ ../../../../ '
    + 'nw:network-types/tet:te-topology/'
    + 'wsont: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/'
    + 'wsont: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/'
    + 'wsont: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/"

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    + "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/'
    + 'wsont: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/'
    + 'wsont: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/'
    + 'wsont: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 {

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    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/'
    + 'wsont: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/'
    + 'wsont: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/'
    + 'wsont:wson-topology' {
    description
      "Augmentation parameters apply only for networks with

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        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/'
    + 'wsont: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/'
    + 'wsont: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/'

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    + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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" {

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when ' ../../../../../../../../../../../../../../'
+ 'nw:network-types/tet:te-topology/'
+ 'wsont: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/'
+ 'wsont: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/'
+ 'wsont: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;
}
}
}

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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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont:wson-topology' {
  description
    "Augmentation parameters apply only for networks with
      WSON topology type.";
}
}

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    }
    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/'
      + 'wsont: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/'
      + 'wsont: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/'

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    + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/"

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    + "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/'
    + 'wsont: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/'
    + 'wsont: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/'
    + 'wsont:wson-topology' {
    description
        "Augmentation parameters apply only for networks with
        WSON topology type.";
    }
    description

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    "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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont:wson-topology' {

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    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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
  + 'wsont: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/'
    + 'wsont: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) specification [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 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 the module defined in this document.

Finally, the YANG module described in this document augments the "ietf-network" YANG module [RFC8345] and the "ietf-te-topology" YANG module [RFC8795] by adding data nodes. The security considerations for the subtrees described in those RFCs apply equally to the new data nodes that this module adds.

5. IANA Considerations

IANA has assigned 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] [RFC6020].

Name: ietf-wson-topology

Namespace: urn:ietf:params:xml:ns:yang:ietf-wson-topology

Prefix: wsont

Reference: RFC 9094

6. References

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