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A YANG Data Model for requesting Path Computation in an Optical
Transport Network (OTN)
draft-ietf-ccamp-otn-path-computation-yang-08

Abstract

This document provides a mechanism to request path computation in an Optical Transport Network (OTN) by augmenting the Remote Procedure Calls (RPCs) defined in RFC YYYY.

About This Document

This note is to be removed before publishing as an RFC.

The latest revision of this draft can be found at <https://ietf-ccamp-wg.github.io/ietf-ccamp-otn-path-computation/draft-ietf-ccamp-otn-path-computation-yang.html>. Status information for this document may be found at <https://datatracker.ietf.org/doc/draft-ietf-ccamp-otn-path-computation-yang/>.

Discussion of this document takes place on the Common Control and Measurement Plane Working Group mailing list (<mailto:ccamp@ietf.org>), which is archived at <https://mailarchive.ietf.org/arch/browse/ccamp/>. Subscribe at <https://www.ietf.org/mailman/listinfo/ccamp/>.

Source for this draft and an issue tracker can be found at <https://github.com/ietf-ccamp-wg/ietf-ccamp-otn-path-computation>.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

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This Internet-Draft will expire on 28 November 2026.

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1. Introduction

[I-D.ietf-teas-yang-path-computation] describes key use cases, where a client needs to request underlying SDN controllers for path computation. In some of these use cases, the underlying SDN controller can control an Optical Transport Network (OTN).

This document defines a YANG data model, which augment the generic Path Computation RPC defined in [I-D.ietf-teas-yang-path-computation], with OTN technology-specific augmentations required to request path computation to an underlying OTN SDN controller. These models allow a client to delegate path computation tasks to the underlying SDN controller without having to obtain OTN detailed information from the controller and performing feasible path computation itself.

1.1. Editorial Note (To be removed by RFC Editor)

Note to the RFC Editor: This section is to be removed prior to publication.

This document contains placeholder values that need to be replaced with finalized values at the time of publication. This note summarizes all of the substitutions that are needed.

Please apply the following replacements:

- * XXXX --> the assigned RFC number for this I-D
- * YYYY --> the assigned RFC number for [I-D.ietf-teas-yang-path-computation]
- * ZZZZ --> the assigned RFC number for [I-D.ietf-ccamp-layer1-types]
- * KKKK --> the assigned RFC number for [I-D.ietf-teas-yang-te]
- * 2026-05-19 --> the actual date of the publication of this document

1.2. Terminology and Notations

Refer to [I-D.ietf-ccamp-otn-topo-yang] and [I-D.ietf-ccamp-layer1-types] for the OTN specific 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].

1.3. Tree Diagram

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

1.4. 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 Table 1.

Prefix	YANG module	Reference
ll-types	ietf-layer1-types	[RFCZZZZ]
te	ietf-te	[RFCXXXX]
te-pc	ietf-te-path-computation	[RFCYYYY]
otn-pc	ietf-otn-path-computation	RFCXXXX

Table 1: Prefixes and corresponding YANG modules

2. YANG Data Model for OTN Path Computation

2.1. YANG Model Overview

The YANG data model for requesting OTN path computation is defined as an augmentation of the generic Path Computation RPC defined in [I-D.ietf-teas-yang-path-computation], as shown in Figure 1.

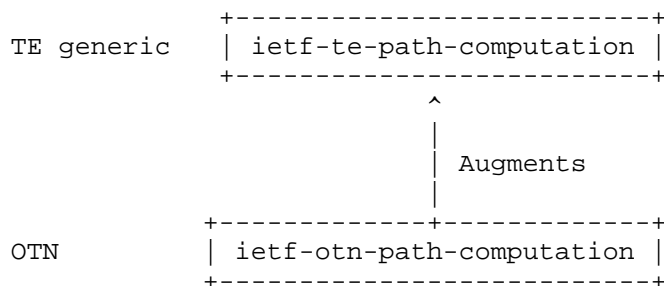


Figure 1: Relationship between OTN and TE path computation models

The entities and Traffic Engineering (TE) attributes, such as requested path and tunnel attributes, defined in [I-D.ietf-teas-yang-path-computation], are still applicable when requesting OTN path computation and the models defined in this document only specifies the additional OTN technology-specific attributes/information, using the attributes defined in [I-D.ietf-ccamp-layer1-types].

2.2. Bandwidth Augmentation

The OTN path computation model augments all the occurrences of the te-bandwidth container with the OTN technology-specific attributes using the otn-link-bandwidth and otn-path-bandwidth groupings defined in [I-D.ietf-ccamp-layer1-types].

2.3. Label Augmentations

The OTN path computation model augments all the occurrences of the label-restriction list with OTN technology-specific attributes using the otn-label-range-info grouping defined in [I-D.ietf-ccamp-layer1-types].

Moreover, the model augments all the occurrences of the te-label container with the OTN technology-specific attributes using the otn-label-start-end, otn-label-hop and otn-label-step groupings defined in [I-D.ietf-ccamp-layer1-types].

3. YANG Model for OTN Path Computation

```
<CODE BEGINS> file "ietf-otn-path-computation@2026-05-19.yang"
module ietf-otn-path-computation {
  yang-version 1.1;
  namespace "urn:ietf:params:xml:ns:yang:ietf-otn-path-computation";
  prefix otn-pc;

  import ietf-te-path-computation {
    prefix te-pc;
    reference
      "RFC YYYY: A YANG Data Model for requesting path computation";
  }
  import ietf-te {
    prefix te;
    reference
      "RFC KKKK: A YANG Data Model for Traffic Engineering Tunnels,
        Label Switched Paths, and Interfaces";
  }
  import ietf-layer1-types {
    prefix ll-types;
    reference
      "RFC ZZZZ: Common YANG Data Types for Layer 1 Networks";
  }

  organization
    "IETF CCAMP Working Group";
  contact
    "WG Web: <https://datatracker.ietf.org/wg/ccamp/>
    WG List: <mailto:ccamp@ietf.org>

    Editor:  Aihua Guo
             <mailto:aihuaguo.ietf@gmail.com>

    Editor:  Italo Busi
             <mailto:italo.busi@huawei.com>

    Editor:  Sergio Belotti
             <mailto:sergio.belotti@nokia.com>";
  description
    "This module defines a model for requesting
    OTN Path Computation.

    Copyright (c) 2026 IETF Trust and the persons identified as
    authors of the code. All rights reserved.

    Redistribution and use in source and binary forms, with or
    without modification, is permitted pursuant to, and subject to
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    forth in Section 4.c of the IETF Trust's Legal Provisions
```

Relating to IETF Documents
(<https://trustee.ietf.org/license-info>).

All revisions of IETF and IANA published modules can be found
at the YANG Parameters registry group
(<https://www.iana.org/assignments/yang-parameters>).

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

```
revision 2026-05-19 {
  description
    "Initial version.";
  reference
    "RFC XXXX: A YANG Data Model for requesting Path Computation
      in an Optical Transport Network (OTN)";
}

/*
 * Data nodes
 */
/*
 * Augment TE bandwidth
 */

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
  + "te-pc:path-request/te-pc:te-bandwidth/te-pc:technology" {
  description
    "Augment TE bandwidth of the requested path.";
  case otn {
    uses ll-types:otn-path-bandwidth;
  }
}

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
  + "te-pc:tunnel-attributes/te-pc:te-bandwidth/"
  + "te-pc:technology" {
  description
    "Augment TE bandwidth of the requested tunnel attributes.";
  case otn {
    uses ll-types:otn-path-bandwidth;
  }
}

augment "/te:tunnels-path-compute/te:output/"
  + "te:path-compute-result/te-pc:response/"
  + "te-pc:computed-paths-properties/"
  + "te-pc:computed-path-properties/te-pc:path-properties/"
```

```
    + "te-pc:te-bandwidth/te-pc:technology" {
description
    "Augment TE bandwidth of the computed path properties.";
case otn {
    uses ll-types:otn-path-bandwidth;
}
}

/*
 * Augment TE label range information
 */

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
    + "te-pc:path-request/te-pc:path-in-segment/"
    + "te-pc:label-restrictions/te-pc:label-restriction" {
description
    "Augment TE label range information for the ingress segment
    of the requested path.";
uses ll-types:otn-label-range-info;
}

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
    + "te-pc:path-request/te-pc:path-out-segment/"
    + "te-pc:label-restrictions/te-pc:label-restriction" {
description
    "Augment TE label range information for the egress segment
    of the requested path.";
uses ll-types:otn-label-range-info;
}

/*
 * Augment TE label.
 */

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
    + "te-pc:path-request/te-pc:optimizations/te-pc:algorithm/"
    + "te-pc:metric/te-pc:optimization-metric/"
    + "te-pc:explicit-route-exclude-objects/"
    + "te-pc:route-object-exclude-object/te-pc:type/"
    + "te-pc:label/te-pc:label-hop/te-pc:te-label/"
    + "te-pc:technology" {
description
    "Augment TE label hop for the optimization of the explicit
    route objects excluded by the path computation of the
    requested path.";
case otn {
    uses ll-types:otn-label-hop;
}
}
```

```

}

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
+ "te-pc:path-request/te-pc:optimizations/te-pc:algorithm/"
+ "te-pc:metric/te-pc:optimization-metric/"
+ "te-pc:explicit-route-include-objects/"
+ "te-pc:route-object-include-object/te-pc:type/"
+ "te-pc:label/te-pc:label-hop/te-pc:te-label/"
+ "te-pc:technology" {
  description
    "Augment TE label hop for the optimization of the explicit
    route objects included by the path computation of the
    requested path.";
  case otn {
    uses ll-types:otn-label-hop;
  }
}

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
+ "te-pc:path-request/te-pc:explicit-route-objects/"
+ "te-pc:route-object-exclude-always/"
+ "te-pc:type/te-pc:label-hop/te-pc:te-label/"
+ "te-pc:technology" {
  description
    "Augment TE label hop for the explicit route objects always
    excluded by the path computation of the requested path.";
  case otn {
    uses ll-types:otn-label-hop;
  }
}

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
+ "te-pc:path-request/te-pc:explicit-route-objects/"
+ "te-pc:route-object-include-exclude/te-pc:type/"
+ "te-pc:label/te-pc:label-hop/te-pc:te-label/"
+ "te-pc:technology" {
  description
    "Augment TE label hop for the explicit route objects included
    or excluded by the path computation of the requested path.";
  case otn {
    uses ll-types:otn-label-hop;
  }
}

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
+ "te-pc:path-request/te-pc:path-in-segment/"
+ "te-pc:label-restrictions/te-pc:label-restriction/"
+ "te-pc:label-start/te-pc:te-label/te-pc:technology" {

```

```
    description
      "Augment TE label range start for the ingress segment
      of the requested path.";
    case otn {
      uses ll-types:otn-label-start-end;
    }
  }

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
  + "te-pc:path-request/te-pc:path-in-segment/"
  + "te-pc:label-restrictions/te-pc:label-restriction/"
  + "te-pc:label-end/te-pc:te-label/te-pc:technology" {
  description
    "Augment TE label range end for the ingress segment
    of the requested path.";
  case otn {
    uses ll-types:otn-label-start-end;
  }
}

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
  + "te-pc:path-request/te-pc:path-in-segment/"
  + "te-pc:label-restrictions/te-pc:label-restriction/"
  + "te-pc:label-step/te-pc:technology" {
  description
    "Augment TE label range step for the ingress segment
    of the requested path.";
  case otn {
    uses ll-types:otn-label-step;
  }
}

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
  + "te-pc:path-request/te-pc:path-out-segment/"
  + "te-pc:label-restrictions/te-pc:label-restriction/"
  + "te-pc:label-start/te-pc:te-label/te-pc:technology" {
  description
    "Augment TE label range start for the egress segment
    of the requested path.";
  case otn {
    uses ll-types:otn-label-start-end;
  }
}

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
  + "te-pc:path-request/te-pc:path-out-segment/"
  + "te-pc:label-restrictions/te-pc:label-restriction/"
  + "te-pc:label-end/te-pc:te-label/te-pc:technology" {
```

```
    description
      "Augment TE label range end for the egress segment
      of the requested path.";
    case otn {
      uses ll-types:otn-label-start-end;
    }
  }

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
  + "te-pc:path-request/te-pc:path-out-segment/"
  + "te-pc:label-restrictions/te-pc:label-restriction/"
  + "te-pc:label-step/te-pc:technology" {
  description
    "Augment TE label range end for the egress segment
    of the requested path.";
  case otn {
    uses ll-types:otn-label-step;
  }
}

augment "/te:tunnels-path-compute/te:input/te:path-compute-info/"
  + "te-pc:synchronization/te-pc:exclude-objects/"
  + "te-pc:excludes/te-pc:type/te-pc:label/te-pc:label-hop/"
  + "te-pc:te-label/te-pc:technology" {
  description
    "Augment TE label hop for the explicit route objects to always
    exclude from synchronized path computation.";
  case otn {
    uses ll-types:otn-label-hop;
  }
}

augment "/te:tunnels-path-compute/te:output/"
  + "te:path-compute-result/te-pc:response/"
  + "te-pc:computed-paths-properties/"
  + "te-pc:computed-path-properties/te-pc:path-properties/"
  + "te-pc:path-route-objects/te-pc:path-route-object/"
  + "te-pc:type/te-pc:label/"
  + "te-pc:label-hop/te-pc:te-label/te-pc:technology" {
  description
    "Augment TE label hop for the route object of the computed
    path.";
  case otn {
    uses ll-types:otn-label-hop;
  }
}
}
<CODE ENDS>
```

Figure 2: OTN path computation YANG module

4. Security Considerations

This section is modeled after the template described in Section 3.7 of [RFC9907].

The "ietf-otn-path-computation" YANG module defines a data model that is designed to be accessed via YANG-based management protocols, such as NETCONF [RFC6241] and RESTCONF [RFC8040]. These YANG-based management protocols (1) have to use a secure transport layer (e.g., SSH [RFC4252], TLS [RFC8446], and QUIC [RFC9000]) and (2) have to use mutual authentication.

The Network Configuration Access Control Model (NACM) [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 no particularly sensitive RPC or action operations.

This YANG module uses groupings from other YANG modules that define nodes that may be considered sensitive or vulnerable in network environments. Refer to the Security Considerations of [I-D.ietf-ccamp-layer1-types] for information as to which nodes may be considered sensitive or vulnerable in network environments.

The YANG module defined in this document augments the "tunnels-path-compute" and the "tunnel-actions" RPCs, defined in [I-D.ietf-teas-yang-te] and in [I-D.ietf-teas-yang-path-computation], with OTN technology-specific attributes. The security considerations provided in [I-D.ietf-teas-yang-te] and in [I-D.ietf-teas-yang-path-computation] are also applicable to the YANG module defined in this document.

5. IANA Considerations

IANA is requested to register the following URI in the "ns" registry within the "IETF XML Registry" group [RFC3688]:

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

IANA is requested to register the following YANG module in the "YANG Module Names" registry [RFC6020] within the "YANG Parameters" registry group.

Name: ietf-otn-path-computation
Maintained by IANA? N
Namespace: urn:ietf:params:xml:ns:yang:ietf-otn-path-computation
Prefix: otn-pc
Reference: RFC XXXX

6. References

6.1. Normative References

- [I-D.ietf-ccamp-layer1-types]
Zheng, H. and I. Busi, "Common YANG Data Types for Layer 1 Networks", Work in Progress, Internet-Draft, draft-ietf-ccamp-layer1-types-18, 23 February 2024, <<https://datatracker.ietf.org/doc/html/draft-ietf-ccamp-layer1-types-18>>.
- [I-D.ietf-teas-yang-path-computation]
Busi, I., Belotti, S., de Dios, O. G., Sharma, A., and Y. Shi, "A YANG Data Model for requesting path computation", Work in Progress, Internet-Draft, draft-ietf-teas-yang-path-computation-28, 12 May 2026, <<https://datatracker.ietf.org/doc/html/draft-ietf-teas-yang-path-computation-28>>.
- [I-D.ietf-teas-yang-te]
Saad, T., Gandhi, R., Liu, X., Beeram, V. P., and I. Bryskin, "A YANG Data Model for Traffic Engineering Tunnels, Label Switched Paths, and Interfaces", Work in Progress, Internet-Draft, draft-ietf-teas-yang-te-44, 26 March 2026, <<https://datatracker.ietf.org/doc/html/draft-ietf-teas-yang-te-44>>.
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- [RFC6241] Enns, R., Ed., Bjorklund, M., Ed., Schoenwaelder, J., Ed., and A. Bierman, Ed., "Network Configuration Protocol (NETCONF)", RFC 6241, DOI 10.17487/RFC6241, June 2011, <<https://www.rfc-editor.org/rfc/rfc6241>>.
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- [RFC8340] Bjorklund, M. and L. Berger, Ed., "YANG Tree Diagrams", BCP 215, RFC 8340, DOI 10.17487/RFC8340, March 2018, <<https://www.rfc-editor.org/rfc/rfc8340>>.
- [RFC8341] Bierman, A. and M. Bjorklund, "Network Configuration Access Control Model", STD 91, RFC 8341, DOI 10.17487/RFC8341, March 2018, <<https://www.rfc-editor.org/rfc/rfc8341>>.

6.2. Informative References

- [I-D.draft-gbb-ccamp-optical-path-computation-yang]
Busi, I., Guo, A., and S. Belotti, "YANG Data Models for requesting Path Computation in Optical Networks", Work in Progress, Internet-Draft, draft-gbb-ccamp-optical-path-computation-yang-02, 12 September 2022, <<https://datatracker.ietf.org/doc/html/draft-gbb-ccamp-optical-path-computation-yang-02>>.
- [I-D.ietf-ccamp-otn-topo-yang]
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- [I-D.ietf-teas-actn-poi-applicability]
Peruzzini, F., Bouquier, J., Busi, I., King, D., and D. Ceccarelli, "Applicability of Abstraction and Control of Traffic Engineered Networks (ACTN) to Packet Optical Integration (POI)", Work in Progress, Internet-Draft, draft-ietf-teas-actn-poi-applicability-18, 14 March 2026, <<https://datatracker.ietf.org/doc/html/draft-ietf-teas-actn-poi-applicability-18>>.
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- [RFC9000] Iyengar, J., Ed. and M. Thomson, Ed., "QUIC: A UDP-Based Multiplexed and Secure Transport", RFC 9000, DOI 10.17487/RFC9000, May 2021, <<https://www.rfc-editor.org/rfc/rfc9000>>.
- [RFC9907] Bierman, A., Boucadair, M., Ed., and Q. Wu, "Guidelines for Authors and Reviewers of Documents Containing YANG Data Models", BCP 216, RFC 9907, DOI 10.17487/RFC9907, March 2026, <<https://www.rfc-editor.org/rfc/rfc9907>>.

Appendix A. OTN Path Computation Tree Diagram

Figure 3 below shows the tree diagram of the YANG data model defined in module `ietf-otn-path-computation.yang`. See [RFC8340] for an explanation of the symbols used. The data type of every leaf node is shown near the right end of the corresponding line.

module: `ietf-otn-path-computation`

```

augment /te:tunnels-path-compute/te:input/te:path-compute-info
  /te-pc:path-request/te-pc:te-bandwidth/te-pc:technology:
+--:(otn)
  +-- otn-bandwidth
    +-- odu-type?                               identityref
    +-- (oduflex-type)?
      +--:(generic)
        | +-- nominal-bit-rate                 union
      +--:(cbr)
        | +-- client-type                     identityref
      +--:(gfp-n-k)
        | +-- gfp-n                           uint8
        | +-- gfp-k?                          gfp-k
      +--:(flexe-client)
        | +-- flexe-client                     flexe-client-rate
      +--:(flexe-aware)
        | +-- flexe-aware-n                   uint16
      +--:(packet)
        +-- opuflex-payload-rate               union
augment /te:tunnels-path-compute/te:input/te:path-compute-info
  /te-pc:tunnel-attributes/te-pc:te-bandwidth
  /te-pc:technology:
+--:(otn)
  +-- otn-bandwidth
    +-- odu-type?                               identityref

```

```

    +-- (oduflex-type)?
      +--:(generic)
        | +-- nominal-bit-rate          union
      +--:(cbr)
        | +-- client-type                identityref
      +--:(gfp-n-k)
        | +-- gfp-n                      uint8
        | +-- gfp-k?                     gfp-k
      +--:(flexe-client)
        | +-- flexe-client                flexe-client-rate
      +--:(flexe-aware)
        | +-- flexe-aware-n              uint16
      +--:(packet)
        +-- opuflex-payload-rate          union
augment /te:tunnels-path-compute/te:output/te:path-compute-result
    /te-pc:response/te-pc:computed-paths-properties
    /te-pc:computed-path-properties/te-pc:path-properties
    /te-pc:te-bandwidth/te-pc:technology:
+--:(otn)
  +--ro otn-bandwidth
  +--ro odu-type?                      identityref
  +--ro (oduflex-type)?
    +--:(generic)
      | +--ro nominal-bit-rate          union
    +--:(cbr)
      | +--ro client-type                identityref
    +--:(gfp-n-k)
      | +--ro gfp-n                      uint8
      | +--ro gfp-k?                     gfp-k
    +--:(flexe-client)
      | +--ro flexe-client                flexe-client-rate
    +--:(flexe-aware)
      | +--ro flexe-aware-n              uint16
    +--:(packet)
      +--ro opuflex-payload-rate          union
augment /te:tunnels-path-compute/te:input/te:path-compute-info
    /te-pc:path-request/te-pc:path-in-segment
    /te-pc:label-restrictions/te-pc:label-restriction:
+-- otn-label-range
  +-- range-type?                      otn-label-range-type
  +-- tsg?                              identityref
  +-- odu-type-list*                    identityref
  +-- priority?                         uint8
augment /te:tunnels-path-compute/te:input/te:path-compute-info
    /te-pc:path-request/te-pc:path-out-segment
    /te-pc:label-restrictions/te-pc:label-restriction:
+-- otn-label-range
  +-- range-type?                      otn-label-range-type

```

```

    +-- tsg?          identityref
    +-- odu-type-list* identityref
    +-- priority?     uint8
augment /te:tunnels-path-compute/te:input/te:path-compute-info
    /te-pc:path-request/te-pc:optimizations/te-pc:algorithm
    /te-pc:metric/te-pc:optimization-metric
    /te-pc:explicit-route-exclude-objects
    /te-pc:route-object-exclude-object/te-pc:type/te-pc:label
    /te-pc:label-hop/te-pc:te-label/te-pc:technology:
+---:(otn)
    +-- otn-label
        +-- tpn?          otn-tpn
        +-- tsg?          identityref
        +-- ts-list?     string
augment /te:tunnels-path-compute/te:input/te:path-compute-info
    /te-pc:path-request/te-pc:optimizations/te-pc:algorithm
    /te-pc:metric/te-pc:optimization-metric
    /te-pc:explicit-route-include-objects
    /te-pc:route-object-include-object/te-pc:type/te-pc:label
    /te-pc:label-hop/te-pc:te-label/te-pc:technology:
+---:(otn)
    +-- otn-label
        +-- tpn?          otn-tpn
        +-- tsg?          identityref
        +-- ts-list?     string
augment /te:tunnels-path-compute/te:input/te:path-compute-info
    /te-pc:path-request/te-pc:explicit-route-objects
    /te-pc:route-object-exclude-always/te-pc:type/te-pc:label
    /te-pc:label-hop/te-pc:te-label/te-pc:technology:
+---:(otn)
    +-- otn-label
        +-- tpn?          otn-tpn
        +-- tsg?          identityref
        +-- ts-list?     string
augment /te:tunnels-path-compute/te:input/te:path-compute-info
    /te-pc:path-request/te-pc:explicit-route-objects
    /te-pc:route-object-include-exclude/te-pc:type
    /te-pc:label/te-pc:label-hop/te-pc:te-label
    /te-pc:technology:
+---:(otn)
    +-- otn-label
        +-- tpn?          otn-tpn
        +-- tsg?          identityref
        +-- ts-list?     string
augment /te:tunnels-path-compute/te:input/te:path-compute-info
    /te-pc:path-request/te-pc:path-in-segment
    /te-pc:label-restrictions/te-pc:label-restriction
    /te-pc:label-start/te-pc:te-label/te-pc:technology:

```

```

+--:(otn)
  +-- otn-label
    +-- tpn?   otn-tpn
    +-- ts?    otn-ts
augment /te:tunnels-path-compute/te:input/te:path-compute-info
  /te-pc:path-request/te-pc:path-in-segment
  /te-pc:label-restrictions/te-pc:label-restriction
  /te-pc:label-end/te-pc:te-label/te-pc:technology:
+--:(otn)
  +-- otn-label
    +-- tpn?   otn-tpn
    +-- ts?    otn-ts
augment /te:tunnels-path-compute/te:input/te:path-compute-info
  /te-pc:path-request/te-pc:path-in-segment
  /te-pc:label-restrictions/te-pc:label-restriction
  /te-pc:label-step/te-pc:technology:
+--:(otn)
  +-- otn-label-step
    +-- tpn?   otn-tpn
    +-- ts?    otn-ts
augment /te:tunnels-path-compute/te:input/te:path-compute-info
  /te-pc:path-request/te-pc:path-out-segment
  /te-pc:label-restrictions/te-pc:label-restriction
  /te-pc:label-start/te-pc:te-label/te-pc:technology:
+--:(otn)
  +-- otn-label
    +-- tpn?   otn-tpn
    +-- ts?    otn-ts
augment /te:tunnels-path-compute/te:input/te:path-compute-info
  /te-pc:path-request/te-pc:path-out-segment
  /te-pc:label-restrictions/te-pc:label-restriction
  /te-pc:label-end/te-pc:te-label/te-pc:technology:
+--:(otn)
  +-- otn-label
    +-- tpn?   otn-tpn
    +-- ts?    otn-ts
augment /te:tunnels-path-compute/te:input/te:path-compute-info
  /te-pc:path-request/te-pc:path-out-segment
  /te-pc:label-restrictions/te-pc:label-restriction
  /te-pc:label-step/te-pc:technology:
+--:(otn)
  +-- otn-label-step
    +-- tpn?   otn-tpn
    +-- ts?    otn-ts
augment /te:tunnels-path-compute/te:input/te:path-compute-info
  /te-pc:synchronization/te-pc:exclude-objects
  /te-pc:excludes/te-pc:type/te-pc:label/te-pc:label-hop
  /te-pc:te-label/te-pc:technology:

```

```

+--:(otn)
  +-- otn-label
    +-- tpn?          otn-tpn
    +-- tsg?          identityref
    +-- ts-list?      string
augment /te:tunnels-path-compute/te:output/te:path-compute-result
  /te-pc:response/te-pc:computed-paths-properties
  /te-pc:computed-path-properties/te-pc:path-properties
  /te-pc:path-route-objects/te-pc:path-route-object
  /te-pc:type/te-pc:label/te-pc:label-hop/te-pc:te-label
  /te-pc:technology:
+--:(otn)
  +--ro otn-label
    +--ro tpn?          otn-tpn
    +--ro tsg?          identityref
    +--ro ts-list?      string

```

Figure 3: OTN path computation tree diagram

Appendix B. Change Log

The initial YANG data model requesting path computation in optical networks was draft-gbb-ccamp-optical-path-computation-yang-00. This document included path computation request capabilities for WSON, Flexi-Grid and OTN technologies. However, it was proposed at IETF 113 (March 25, 2022) to split the initial document into separate documents for WDM (WSON and Flexi-Grid) and OTN technologies, as each technology may be developed and implemented separately.

The WDM technology capabilities were kept in [I-D.draft-gbb-ccamp-optical-path-computation-yang], and the OTN capabilities were moved into this document.

Editors note, please remove this appendix before publication.

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