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YANG Data Model for SFC Operations, Administration, and Maintenance
(OAM)
draft-xia-sfc-yang-oam-05

Abstract

This document defines YANG data model for Service Function Chaining (SFC Operations, Administration, and Maintenance (OAM)). It extends from the basic YANG data model for Layer independent OAM Management defined in [[I-D.ietf-lime-yang-oam-model](#)] with SFC technology specifics. It includes SFC OAM related configuration, state, and RPC information data.

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Internet-Draft

SFC OAM YANG Model

December 2015

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[1.](#) Introduction

YANG [[RFC6020](#)] is a data modeling language used to model configuration and state data manipulated by the Network Configuration Protocol (NETCONF) [[RFC6241](#)], NETCONF remote procedure calls (RPC), and NETCONF notifications. This document defines the YANG data model for Service Function Chaining (SFC) OAM [[I-D.ietf-sfc-oam-framework](#)]. The SFC OAM YANG module involves the OAM configuration, RPCs and notifications, etc.

Currently, [[I-D.ietf-lime-yang-oam-model](#)] proposes a basic YANG data model for Layer independent OAM Management that can be applied to various OAM technologies. SFC OAM YANG data model can be defined by directly extending the basic model with SFC technology specifics. It

can bring some obvious benefits such as unified format, reusable parts, and correlation of defects, faults, network failure at the specific layer.

In addition, various components in the SFC technology specific YANG data model defined in [[I-D.penno-sfc-yang](#)] can be directly reused in this draft to define the SFC OAM YANG data model.

Note that SFC OAM mechanisms are not yet defined or standardized although some of the basic concepts and functions (e.g., fault detection, fault localization, performance measurement, etc) may be similar to traditional OAM mechanisms. This draft should get alignment with the latest development SFC OAM mechanisms.

[2.](#) Conventions and Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [[RFC2119](#)].

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

- o client
- o configuration data
- o server
- o state data

The following terms are defined in [[RFC6020](#)] and are not redefined here:

- o augment
- o data model
- o data node

The terminology for describing YANG data models is found in [\[RFC6020\]](#).

The following notations are used within the data tree and carry the meaning as noted below.

Each node is printed as:

<status> <flags> <name> <opts> <type>

<status> is one of:

- + for current
- x for deprecated
- o for obsolete

<flags> is one of:

- rw for configuration data
- ro for non-configuration data
- x for rpcs
- n for notifications

<name> is the name of the node

If the node is augmented into the tree from another module, its name is printed as <prefix>:<name>.

<opts> is one of:

- ? for an optional leaf or choice
- ! for a presence container
- * for a leaf-list or list
- [<keys>] for a list's keys

<type> is the name of the type for leafs and leaf-lists

In this document, these words will appear with that interpretation only when in ALL CAPS. Lower case uses of these words are not to be interpreted as carrying [RFC-2119](#) significance.

[2.1.](#) Terminologies

MP Maintenance Point [8021Q]

MEP Maintenance End Point [8021Q] [[RFC6371](#)]

MIP Maintenance Intermediate Point [8021Q] [[RFC6371](#)]

MEG Maintenance Entity Group [Y1731] [[RFC6371](#)]

ME Maintenance Entity [[Y.1731](#)] [[RFC6371](#)]

MD Maintenance Domain [8021Q]

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OAM Operations, Administration, and Maintenance [[RFC6291](#)]

LIME Layer Independent OAM Management [I-D.ietf-lime-yang-oam-model]

SF Service Function [[I-D.penno-sfc-yang](#)]

SFC Service Function Chaining [[I-D.penno-sfc-yang](#)]

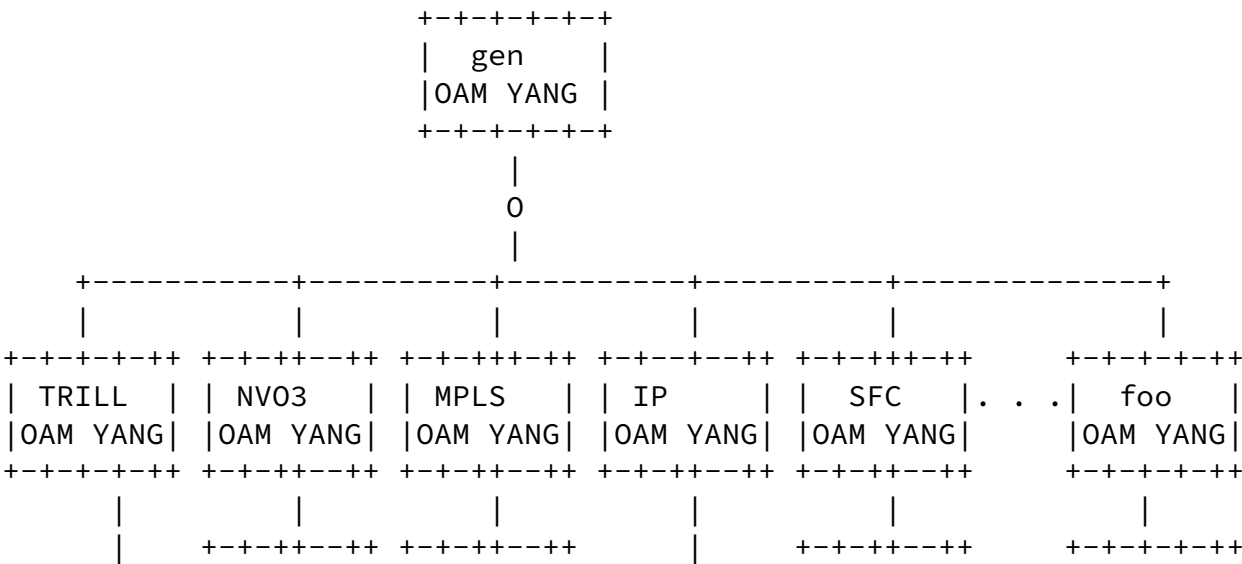
SFF Service Function Forwarder [[I-D.penno-sfc-yang](#)]

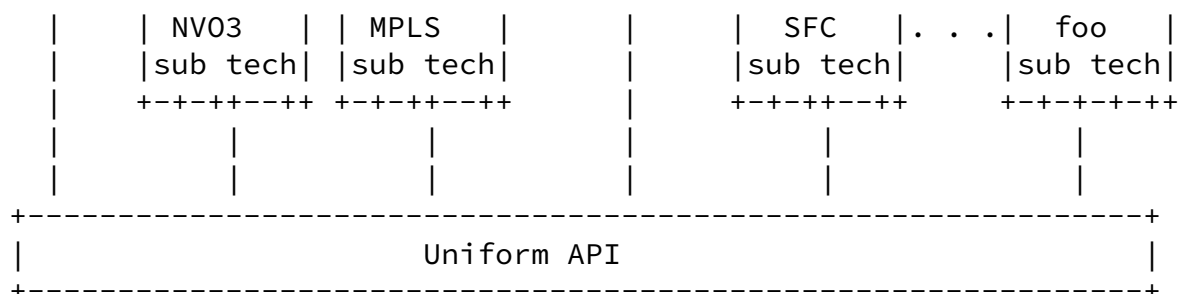
TRILL Transparent Interconnection of Lots of Links [[RFC6325](#)]

RPC Remote Process Call

[3.](#) Architecture of OAM YANG Model and Relationship to SFC OAM

Layer independent OAM YANG model [[I-D.ietf-lime-yang-oam-model](#)] is used as the basis for all the other OAM YANG models. This allows users to span across OAM tools of different technologies through a uniform API. The following Figure depicts the relationship of SFC OAM YANG model to the Layer Independent OAM YANG Model.





Relationship of SFC OAM YANG model to Layer independent OAM YANG model

4. SFC Extensions to LIME YANG Model

A new Technology parameter of SFC is defined here for the purpose of identifying the SFC specific YANG model extension:

```
identity SFC {
    base goam:technology-types;
    description
        "SFC type";
}
```

SFC identity type

Only when the Technology parameter is set to the "SFC" value, the SFC specific extensions are applied.

4.1. MEP Address

In SFC, either the SF on service function layer or SF/SFF on SFC forwarding layer can be MEP/MIP. A MEP/MIP cannot be identified without specifying service function path. Therefore the MEP/MIP address can only be identified by SF/SFF address plus service function path id. In [\[I-D.ietf-lime-yang-oam-model\]](#), MEP/MIP address is defined using a combination of choice and case statement. We

augment this to include SFC specific SF/SFF address plus service function path id.


```

"/goam:domains/goam:domain/goam:MA/goam:MA/goam:MEP/goam:mp-
address" {

    case sf-mep-address {

        description
            "Service function (or service function forwarder) address plus
            service function path id to identify one SFC MEP. A SFC MP can
            be a service function or service function forwarder!"

        leaf sf-mep-ref {
            when "/goam:domains/goam:domain/goam:technology='sfc'";
            type sfc-sf:service-function-ref;
        }

        leaf sfp-mep-ref {
            when "/goam:domains/goam:domain/goam:technology='sfc'";
            type sfc-sfp:service-function-path-ref;
        }

    }

    case sff-mep-address {

        description
            "Service function forwarder address plus service function path
            id identify one SFC MEP. A SFC MP can be a service function or
            service function forwarder!"

        leaf sff-mep-ref {
            type sfc-sff:service-function-forwarder-ref;
        }

        leaf sfp-mep-ref {
            type sfc-sfp:service-function-path-ref;
        }
    }
}

```

Augment SFC MEP address

[4.2.](#) Connectivity-Context

In SFC, connectivity-context is the service function path id. [I-D.ietf-lime-yang-oam-model] defines a placeholder for connectivity-context. This allows other technologies to easily augment that to

include technology specific extensions. The snippet below depicts an example of augmenting connectivity-context to include the SFC connectivity- context.

```
augment "/goam:domains/goam:domain/goam:MA/goam:MEP/goam:
  connectivity-context" {

    case connectivity-context-sfc {
      leaf connectivity-context-sfp {
        type sfc-sfp:service-function-path-ref;
      }
    }
  }
```

Augment SFC Connectivity-Context

[4.3.](#) SFC Layer For RPC - Path Discovery

Path Discovery is used to discover the path that specific service traverses in the network. For SFC, it can be used on both service function layer and SFC forwarding layer depending on what is the desired degree of path information.

```
typedef SFC-layer {  
    type enumeration {  
        enum "Service function layer" {  
            value 0;  
        }  
  
        enum "SFC forwarding layer" {  
            value 1;  
        }  
    }  
}  
  
augment "/goam-rpc:path-discovery/goam-rpc:input" {  
    description  
  
    "Adding SFC specific items on the input";  
    leaf path-discovery-layer {  
        type SFC-layer;  
        description  
            "Identifying which SFC layer to run path discovery";  
    }  
}
```

Augment SFC SFC-layer for Path Discovery

[5.](#) SFC OAM YANG Data Hierarchy

The complete data hierarchy related to the SFC OAM YANG model is presented below.

```
module: ietf-sfc-oam  
augment /goam:domains/goam:domain/goam:MA/goam:MA/goam:connectivity-context:  
    +--:(connectivity-context-sfc)  
        +--rw connectivity-context-sfp?   sfc-sfp:service-function-path-ref  
augment /goam:domains/goam:domain/goam:MA/goam:MA/goam:MEP/goam:mp-address:
```

```

    +--:(sf-mep-address)
    |   +--rw sf-mep-ref?      sfc-sf:service-function-ref
    |   +--rw sfp-mep-ref?     sfc-sfp:service-function-path-ref
    +--:(sff-mep-address)
        +--rw sff-mep-ref?     sfc-sff:service-function-forwarder-ref
        +--rw sfp-mep-ref?     sfc-sfp:service-function-path-ref
augment /goam:domains/goam:domain/goam:MA/goam:MA/goam:MEP/goam:session/goam:destination-mep-address/goam:mp-address:
    +--:(sf-mep-address)

```

```

    |   +--rw sf-mep-ref?      sfc-sf:service-function-ref
    |   +--rw sfp-mep-ref?     sfc-sfp:service-function-path-ref
    +--:(sff-mep-address)
        +--rw sff-mep-ref?     sfc-sff:service-function-forwarder-ref
        +--rw sfp-mep-ref?     sfc-sfp:service-function-path-ref
augment /goam:domains/goam:domain/goam:MA/goam:MA/goam:MEP/goam:session/goam:connectivity-context:
    +--:(connectivity-context-sfc)
        +--rw connectivity-context-sfp? sfc-sfp:service-function-path-ref
augment /goam:continuity-check/goam:input/goam:destination-mp/goam:mp-address:
    +--:(sf-mep-address)
    |   +--ro sf-mep-ref?      sfc-sf:service-function-ref
    |   +--ro sfp-mep-ref?     sfc-sfp:service-function-path-ref
    +--:(sff-mep-address)
        +--ro sff-mep-ref?     sfc-sff:service-function-forwarder-ref
        +--ro sfp-mep-ref?     sfc-sfp:service-function-path-ref
augment /goam:continuity-verification/goam:input/goam:destination-mp/goam:mp-address:
    +--:(sf-mep-address)
    |   +--ro sf-mep-ref?      sfc-sf:service-function-ref
    |   +--ro sfp-mep-ref?     sfc-sfp:service-function-path-ref
    +--:(sff-mep-address)
        +--ro sff-mep-ref?     sfc-sff:service-function-forwarder-ref
        +--ro sfp-mep-ref?     sfc-sfp:service-function-path-ref
augment /goam:path-discovery/goam:input:
    +--ro path-discovery-layer? SFC-layer
augment /goam:path-discovery/goam:input/goam:destination-mp/goam:mp-address:
    +--:(sf-mep-address)
    |   +--ro sf-mep-ref?      sfc-sf:service-function-ref
    |   +--ro sfp-mep-ref?     sfc-sfp:service-function-path-ref
    +--:(sff-mep-address)
        +--ro sff-mep-ref?     sfc-sff:service-function-forwarder-ref

```

```

    +--ro sfp-mep-ref?    sfc-sfp:service-function-path-ref
augment /goam:path-discovery/goam:output/goam:response/goam:destination-mp/goam:
mp-address:
  +--:(sf-mep-address)
  |   +--ro sf-mep-ref?    sfc-sf:service-function-ref
  |   +--ro sfp-mep-ref?    sfc-sfp:service-function-path-ref
  +--:(sff-mep-address)
    +--ro sff-mep-ref?    sfc-sff:service-function-forwarder-ref
    +--ro sfp-mep-ref?    sfc-sfp:service-function-path-ref

```

Data hierarchy of SFC OAM

6. SFC OAM YANG Module

```

<CODE BEGINS> file "ietf-sfc-oam@2015-12-10.yang"
module ietf-sfc-oam {
  namespace "urn:ietf:params:xml:ns:yang:ietf-sfc-oam";
  prefix sfcoam;
  import ietf-gen-oam {
    prefix goam;
  }
  import service-function {
    prefix sfc-sf;
  }
  import service-function-path {
    prefix sfc-sfp;
  }
  import service-function-forwarder {
    prefix sfc-sff;
  }
  organization
    "IETF SFC Working Group";

  contact
    "TBD";
  description

```

```

    "The YANG module defines a SFC OAM configuration
    model.";

revision "2015-12-10" {
    description
    "Initial revision";
    reference
    "foo";
}

identity sfc {
    base goam:technology-types;
    description
    "sfc type";
}

typedef SFC-layer {
    type enumeration {
        enum "Service function layer" {
            value 0;
            description
            "service function layer.";
        }
    }
}

```

```

        enum "SFC forwarding layer" {
            value 1;
            description
            "SFC forwarding layer";
        }
    }
    description
    "SFC layer";
}

augment
"/goam:domains/goam:domain/goam:MA/goam:MA"
+ "/goam:connectivity-context" {
    description
    "augment the generic oam yang";
    case connectivity-context-sfc {
        description
        "connectivity context sfc.";
        leaf connectivity-context-sfp {

```

```

type leafref {
    path "/sfc-sfp:service-function-paths/" +
        "sfc-sfp:service-function-path/sfc-sfp:name";
}
    description
        "connectivity context sfcp.";
}
}

augment
"/goam:domains/goam:domain/goam:MA"
+ "/goam:MA/goam:MEP/goam:mp-address" {
    description
        "augment the generic oam yang";
    case sf-mep-address {
        description

            "Service function (or service function forwarder) address plus
            service function path id to identify one SFC MEP. A SFC MP can be a
            service function or service function forwarder!";
        container sf-mep-addr {
            description
                "container of sf-mep-addr";
        }
        leaf sf-mep-ref {
            when "/goam:domains/goam:domain/goam:technology='sfc'"{
                description
                    "when technology = sfc.";
            }
        }
    }
}
type leafref {

```

```

    path "/sfc-sf:service-functions/sfc-sf:service-function/"
        + "sfc-sf:name";
}
    description
        "sf mep reference.";
}

leaf sfp-mep-ref {
    when "/goam:domains/goam:domain/goam:technology='sfc'"{
        description
            "when technology = sfc.";
    }
}

```

```

    }
    type leafref {
      path "/sfc-sfp:service-function-paths/" +
        "sfc-sfp:service-function-path/sfc-sfp:name";
    }
    description
      "sfp mep reference.";
  }
}

case sff-mep-address {
  description

    "Service function address plus service function path id to
    identify one SFC MEP. A SFC MP can be a service function or service
    function forwarder!";

    leaf sff-mep-ref {
    type leafref {
      path "/sfc-sff:service-function-forwarders/sfc-sff:service-function-forwarder/" +
        "sfc-sff:name";
    }
    description
      "sff mep reference";
    }

    leaf sfp-mep-ref {
    type leafref {
      path "/sfc-sfp:service-function-paths/" +
        "sfc-sfp:service-function-path/sfc-sfp:name";
    }
    description
      "sfp mep reference.";
    }
  }
}

```

```

augment
"/goam:domains/goam:domain/goam:MA/goam:MA/goam:MEP/goam:session"
+ "/goam:destination-mep-address/goam:mp-address" {
  description

```



```

    "augment the generic oam yang";
    case sf-mep-address {

        leaf sf-mep-ref {
        type leafref {
            path "/sfc-sf:service-functions/sfc-sf:service-function/"
                + "sfc-sf:name";
        }

            description
                "sf mep reference";
        }

        leaf sfp-mep-ref {
        type leafref {
            path "/sfc-sfp:service-function-paths/" +
                "sfc-sfp:service-function-path/sfc-sfp:name";
        }

            description
                "sfp mep reference";
        }
    }

    case sff-mep-address {
        leaf sff-mep-ref {
        type leafref {
            path "/sfc-sff:service-function-forwarders/sfc-sff:service-function-forwarder/"
                + "sfc-sff:name";
        }

            description
                "sff mep reference";
        }

        leaf sfp-mep-ref {
        type leafref {
            path "/sfc-sfp:service-function-paths/" +
                "sfc-sfp:service-function-path/sfc-sfp:name";
        }

            description
                "sfp mep reference";
        }

        description
            "sff mep address";
    }
}

```

```
    augment
    "/goam:domains/goam:domain/goam:MA/goam:MA/goam:MEP"
+ "/goam:session/goam:connectivity-context" {
    description
        "augment the generic oam yang";
    case connectivity-context-sfc {
        leaf connectivity-context-sfp {
            type leafref {
                path "/sfc-sfp:service-function-paths/" +
                    "sfc-sfp:service-function-path/sfc-sfp:name";
            }
            description
                "connectivity context sfc.";
        }
        description
            "connectivity context sfc.";
    }
}

//SFC extension of contiuity-check part

/*
augment "/goam:continuity-check/goam:input"
+ "/goam:source-mep/goam:mp-address" {
    description
        "augment the generic oam yang";
    case sf-mep-address {
        leaf sf-mep-ref {
            type leafref {
                path "/sfc-sf:service-functions/sfc-sf:service-function/"
                    + "sfc-sf:name";
            }
        }

        leaf sfp-mep-ref {
            type leafref {
                path "/sfc-sfp:service-function-paths/" +
                    "sfc-sfp:service-function-path/sfc-sfp:name";
            }
        }

        case sff-mep-address {
            leaf sff-mep-ref {
                type leafref {
                    path "/sfc-sff:service-function-forwarders/sfc-sff:service-function-forwarder/"
                        + "sfc-sff:name";
                }
            }
        }
    }
}
```

```
}
```

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```
    }

    leaf sfp-mep-ref {
type leafref {
    path "/sfc-sfp:service-function-paths/" +
        "sfc-sfp:service-function-path/sfc-sfp:name";
}
    }
}
}*/

augment "/goam:continuity-check/goam:input"
+ "/goam:destination-mp/goam:mp-address" {
    description
        "augment the generic oam yang";
    case sf-mep-address {
        leaf sf-mep-ref {
type leafref {
    path "/sfc-sf:service-functions/sfc-sf:service-function/"
        + "sfc-sf:name";
}
            description
                "sf mep reference";
        }

        leaf sfp-mep-ref {
type leafref {
    path "/sfc-sfp:service-function-paths/" +
        "sfc-sfp:service-function-path/sfc-sfp:name";
}
            description
                "sfp mep reference";
        }
        description
            "sf mep address";
    }
    case sff-mep-address {

        leaf sff-mep-ref {
type leafref {
```

```

        path "/sfc-sff:service-function-forwarders/sfc-sff:service-function-forwarders/" +
            + "sfc-sff:name";
    }
    description
        "sff mep reference";
}
leaf sfp-mep-ref {
type leafref {

```

```

        path "/sfc-sfp:service-function-paths/" +
            "sfc-sfp:service-function-path/sfc-sfp:name";
    }
    description
        "sfp mep reference";
}
    description
        "sff mep address";
}
}

//SFC extension of connectivity-verification part
/*
augment "/goam:connectivity-verification"
+ "/goam:input/goam:source-mep/goam:mp-address" {
    description
        "augment the generic oam yang";
    case sf-mep-address {
        leaf sf-mep-ref {
type leafref {
    path "/sfc-sf:service-functions/sfc-sf:service-function/"
        + "sfc-sf:name";
}
}

        leaf sfp-mep-ref {
type leafref {
    path "/sfc-sfp:service-function-paths/" +
        "sfc-sfp:service-function-path/sfc-sfp:name";
}
}
}
}

```

```

        case sff-mep-address {
        leaf sff-mep-ref {
type leafref {
        path "/sfc-sff:service-function-forwarders/sfc-sff:service-function-forwarders/sfc-sff:name";
    }
    }

        leaf sfp-mep-ref {
type leafref {
        path "/sfc-sfp:service-function-paths/" +
            "sfc-sfp:service-function-path/sfc-sfp:name";
    }
    }
    }
}

```

```

    }*/

    augment "/goam:continuity-verification"
+ "/goam:input/goam:destination-mp/goam:mp-address" {
        description
            "augment the generic oam yang";
        case sf-mep-address {
        leaf sf-mep-ref {
type leafref {
        path "/sfc-sf:service-functions/sfc-sf:service-function/"
            + "sfc-sf:name";
    }
    }
        description
            "sf mep reference";
    }

        leaf sfp-mep-ref {
type leafref {
        path "/sfc-sfp:service-function-paths/" +
            "sfc-sfp:service-function-path/sfc-sfp:name";
    }
    }
        description
            "sfp mep reference";
    }
    }
    description
        "sf mep address";
}

```

```

    }

    case sff-mep-address {
    leaf sff-mep-ref {
type leafref {
    path "/sfc-sff:service-function-forwarders/sfc-sff:service-function-forwarders/sfc-sff:name";
}
        description
        "sff mep reference";
    }

    leaf sfp-mep-ref {
type leafref {
    path "/sfc-sfp:service-function-paths/" +
        "sfc-sfp:service-function-path/sfc-sfp:name";
}
        description
        "sfp mep reference";
    }
    description
    "sff mep address";
}

```

```

    }
}

//SFC extension of path-discovery part

augment "/goam:path-discovery/goam:input" {
    description
    "adds SFC specific items on the input";
    leaf path-discovery-layer {
type SFC-layer;

    description
    "Identifying which SFC layer to run path discovery";
    }
}

/*augment "/goam:path-discovery/goam:input"
+ "/goam:source-mep/goam:mp-address" {

```

```

    description
        "augment the generic oam yang";
    case sf-mep-address {
        leaf sf-mep-ref {
type leafref {
    path "/sfc-sf:service-functions/sfc-sf:service-function/"
        + "sfc-sf:name";
}
        }

        leaf sfp-mep-ref {
type leafref {
    path "/sfc-sfp:service-function-paths/" +
        "sfc-sfp:service-function-path/sfc-sfp:name";
}
        }
    }

    case sff-mep-address {
        leaf sff-mep-ref {
type leafref {
    path "/sfc-sff:service-function-forwarders/sfc-sff:service-function-forwarder/"
        + "sfc-sff:name";
}
        }
    }

    leaf sfp-mep-ref {
type leafref {
    path "/sfc-sfp:service-function-paths/" +

```

```

        "sfc-sfp:service-function-path/sfc-sfp:name";
    }
    }
}*/

augment "/goam:path-discovery/goam:input"
+ "/goam:destination-mp/goam:mp-address" {
    description
        "augment the generic oam yang";
    case sf-mep-address {
        leaf sf-mep-ref {

```

```

type leafref {
  path "/sfc-sf:service-functions/sfc-sf:service-function/"
    + "sfc-sf:name";
}
      description
        "sf mep reference";
    }

    leaf sfp-mep-ref {
type leafref {
  path "/sfc-sfp:service-function-paths/" +
    "sfc-sfp:service-function-path/sfc-sfp:name";
}
      description
        "sfp mep reference";
    }
      description
        "sf mep address";
    }
    case sff-mep-address {
      leaf sff-mep-ref {
type leafref {
  path "/sfc-sff:service-function-forwarders/sfc-sff:service-function-forw
    + "sfc-sff:name";
}
      description
        "sff mep reference";
    }

    leaf sfp-mep-ref {
type leafref {
  path "/sfc-sfp:service-function-paths/" +
    "sfc-sfp:service-function-path/sfc-sfp:name";
}
      description
        "sfp mep reference";

```

```

}
description
  "sff mep address";
}
}

```



```

augment "/goam:path-discovery/goam:output"
+ "/goam:response/goam:destination-mp/goam:mp-address" {
    description
        "augment the generic oam yang";
    case sf-mep-address {
        leaf sf-mep-ref {
            type leafref {
                path "/sfc-sf:service-functions/sfc-sf:service-function/"
                    + "sfc-sf:name";
            }
            description
                "sf mep reference";
        }

        leaf sfp-mep-ref {
            type leafref {
                path "/sfc-sfp:service-function-paths/" +
                    "sfc-sfp:service-function-path/sfc-sfp:name";
            }
            description
                "sfp mep reference";
        }
    }
    case sff-mep-address {
        leaf sff-mep-ref {
            type leafref {
                path "/sfc-sff:service-function-forwarders/sfc-sff:service-function-forwarder/"
                    + "sfc-sff:name";
            }
            description
                "sff mep reference";
        }

        leaf sfp-mep-ref {
            type leafref {
                path "/sfc-sfp:service-function-paths/" +
                    "sfc-sfp:service-function-path/sfc-sfp:name";
            }
            description
                "sfp mep reference";
        }
    }
}

```

```

    }
    description
    "sff mep address";
  }
}

//SFC extension of performance-measurement part
/*
augment "/goam-rpc:initiated-performance-measurement/goam-
rpc:input/goam-rpc:source-mep/goam-rpc:mp-address" {
  description
    "augment the generic oam yang";
  case sf-mep-address {
    leaf sf-mep-ref {
type leafref {
  path "/sfc-sf:service-functions/sfc-sf:service-function/"
    + "sfc-sf:name";
}
}

    leaf sfp-mep-ref {
type leafref {
  path "/sfc-sfp:service-function-paths/" +
    "sfc-sfp:service-function-path/sfc-sfp:name";
}
}

    case sff-mep-address {
      leaf sff-mep-ref {
type leafref {
  path "/sfc-sff:service-function-forwarders/sfc-sff:service-function-forw
    + "sfc-sff:name";
}
}
      leaf sfp-mep-ref {
type leafref {
  path "/sfc-sfp:service-function-paths/" +
    "sfc-sfp:service-function-path/sfc-sfp:name";
}
}

    }
  }*/
}
<CODE ENDS>

```

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[7.](#) Security Considerations

TBD.

[8.](#) IANA Considerations

TBD.

[9.](#) References

[9.1.](#) Normative References

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[9.2.](#) Informative References

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