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Digital terminal equipments – Operations, administration and maintenance features of transmission equipment

Synchronous digital hierarchy (SDH) – Management of lower order path trace and interface labelling for the network element view

ITU-T Recommendation G.774.7

(Formerly CCITT Recommendation)

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ITU-T Recommendation G.774.7

Synchronous digital hierarchy (SDH) – Management of lower order path trace and interface labelling for the network element view

Summary

This Recommendation provides an information model for the Management of Lower Order Path Trace and Interface Labelling in Synchronous Digital Hierarchy (SDH) Networks. This model describes the managed object classes and their properties for the Lower Order Path Trace and Interface Labelling functions as related to SDH Network Elements. These objects are useful to describe information exchanged across interfaces defined in ITU-T M.3010 Telecommunications Management Network (TMN) architecture for the management of the Lower Order Path Trace and Interface Labelling functions.

Document History	
Issue	**Notes**
2001	First revision incorporated the changes documented in the Implementor's Guide.
11/1996	Initial version of the Recommendation.

Source

ITU-T Recommendation G.774.7 was revised by ITU-T Study Group 15 (2001-2004) and approved under the WTSA Resolution 1 procedure on 9 February 2001.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

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ITU-T Recommendation G.774.7

Synchronous digital hierarchy (SDH) – Management of lower order path trace and interface labelling for the network element view

1 Scope

This ITU-T Recommendation covers the following functionality:

– the ability to configure and retrieve a label associated with electrical SDH physical interfaces;

– the ability to configure and retrieve a label associated with optical SDH physical interfaces;

– the ability to configure path trace on SDH lower order paths.

The rationale for supporting the above functionality is that the functions were agreed as changes in the ITU-T G.774 Implementor's Guide, but these changes are functional extensions and not defect fixes. Therefore, a specific new Recommendation was created.

Structure of this Recommendation

Clause 5.1 provides an overview of the SDH Interface Label and Lower Order Path Trace information model. Clauses 6-12 describe the information model using the notation mechanisms defined in ITU-T X.722: Guidelines for the Definition of Managed Objects. Clause 15 contains the syntax definitions of the information carried in the protocol using Abstract Syntax Notation One (ASN.1) defined in ITU-T X.680-X.683.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

– ITU-T G.707/Y.1322 (2000), *Network node interface for the synchronous digital hierarchy (SDH)*.

– ITU-T G.773 (1993), *Protocol suites for Q-interfaces for management of transmission systems*.

– ITU-T G.774 (2001), *Synchronous digital hierarchy (SDH) – Management information model for the network element view*.

– ITU-T G.783 (2000), *Characteristics of synchronous digital hierarchy (SDH) equipment functional blocks*.

– ITU-T G.784 (1999), *Synchronous digital hierarchy (SDH) management*.

– ITU-T G.803 (2000), *Architecture of transport networks based on the synchronous digital hierarchy (SDH)*.

– ITU-T G.831 (2000), *Management capabilities of transport networks based on the synchronous digital hierarchy (SDH)*.

– ITU-T G.958 (1994), *Digital line systems based on the synchronous digital hierarchy for use on optical fibre cables*.

– ITU-T M.60 (1993), *Maintenance terminology and definitions*.

– ITU-T M.2120 (2000), *PDH path, section and transmission system and SDH path and multiplex section fault detection and localization procedures*.

– ITU-T M.3010 (2000), *Principles for a telecommunications management network*.

– ITU-T M.3013 (2000), *Considerations for a telecommunications management network*.

– ITU-T M.3100 (1995), *Generic network information model*.

– ITU-T Q.811 (1997), *Lower layer protocol profiles for the Q3 and X interfaces*.

– ITU-T Q.812 (1997), *Upper layer protocol profiles for the Q3 and X interfaces*.

– ITU-T Q.822 (1994), *Stage 1, Stage 2 and Stage 3 description for the Q3-interface – Performance management*.

– ITU-T X.680 to X.683 (1997), *Information technology – Abstract Syntax Notation One (ASN.1)*.

– ITU-T X.701 (1997), *Information technology – Open Systems Interconnection – Systems management overview*.

– ITU-T X.710 (1997), *Information technology – Open Systems Interconnection – Common management information service*.

– ITU-T X.711 (1997), *Information technology – Open Systems Interconnection – Common management information protocol: Specification*.

– ITU-T X.720 (1992), *Information technology – Open Systems Interconnection – Structure of management information: Management information model, plus* Amd.1 (1995) and Cor.1 (1994).

– ITU-T X.721 (1992), *Information technology – Open Systems Interconnection – Structure of management information: Definition of management information, plus* Cor.1 (1994), Cor.2 (1996), Cor.3 (1998) and Cor.4 (2000).

– ITU-T X.722 (1992), *Information technology – Open Systems Interconnection – Structure of management information: Guidelines for the definition of managed object, plus* Amd.1 (1995), Amd.2 (1997) and Cor.1 (1996).

– ITU-T X.730 (1992), *Information technology – Open Systems Interconnection – Systems Management: Object management function, plus* Amd.1 (1995) and Amd.1/Cor.1 (1996).

– ITU-T X.731 (1992), *Information technology – Open Systems Interconnection – Systems Management: State management function, plus* Amd.1 (1995), Cor.1 (1995) and Amd.1/Cor.1 (1996).

– ITU-T X.733 (1992), *Information technology – Open Systems Interconnection – Systems Management: Alarm reporting function, plus* Cor.1 (1994), Amd.1 (1995), Amd.1/Cor.1 (1996) and Cor. 2 (1999).

– ITU-T X.734 (1992), *Information technology – Open Systems Interconnection – System Management: Event report management function, plus* Cor.1 (1994), Amd.1 (1995), Amd.1/Cor.1 (1996) and Cor. 2 (1999).

– ITU-T X.735 (1992), *Information technology – Open Systems Interconnection – Systems Management: Log control function, plus* Amd.1 (1995) and Amd.1/Cor.1 (1996).

3 Terms and Definitions

This Recommendation uses the terms and definitions defined in ITU-T G.774, ITU-T G.784 and ITU-T M.3100.

4 Abbreviations

This Recommendation uses the following abbreviations:

AU Administrative Unit

AUG Administrative Unit Group

Bid Bidirectional

CTP Connection Termination Point

GTP Group Termination Point

Id Identifier

MS Multiplex Section

NE Network Element

OS Operations System

OSI Open Systems Interconnection

PDH Plesiochronous Digital Hierarchy

RS Regenerator Section

SDH Synchronous Digital Hierarchy

SPI Synchronous Physical Interface

TMN Telecommunication Management Network

TP Termination Point

TTP Trail Termination Point

TU Tributary Unit

TUG Tributary Unit Group

VC-n Virtual Container n

5 Lower order path trace and interface labelling information model

5.1 Overview

Labelling of electrical and optical SDH physical interfaces is done using the following managed object classes which contain the M.3100 **userlLabel** attribute.

New Managed Object Classes
labelledElectricalSPITTPBidirectional
labelledElectricalSPITTPSink
labelledElectricalSPITTPSource
labelledOpticalSPITTPBidirectional
labelledOpticalSPITTPSink
labelledOpticalSPITTPSource

Configuration of the SDH lower order path trace function is done using the following managed object classes and packages which contain attributes to provide access to and control of the **j2PathTrace** bytes in the SDH lower order path.

New Managed Object Classes
vc11PathTraceTTPBidirectional
vc11PathTraceTTPSink
vc11PathTraceTTPSource
vc12PathTraceTTPBidirectional
vc12PathTraceTTPSink
vc12PathTraceTTPSource
vc2PathTraceTTPBidirectional
vc2PathTraceTTPSink
vc2PathTraceTTPSource
modifiableVC2PathTraceTTPSink
modifiableVC2PathTraceTTPSource
modifiableVC2PathTraceTTPBidirectional
modifiableVC12PathTraceTTPSink
modifiableVC12PathTraceTTPSource
modifiable VC12PathTraceTTPBidirectional
modifiableVC11PathTraceTTPBidirectional
modifiableVC11PathTraceTTPSink
modifiableVC11PathTraceTTPSource

New Packages
vc11-2PathTraceSinkPackage
vc11-2PathTraceSourcePackage

5.2 Requirements

The information model must satisfy the following requirements:

– the ability to set and get the value a user specific label associated with an individual electrical SDH physical interface;

– the ability to set and get the value a user specific label associated with an individual optical SDH physical interface;

– the ability to set and get the value of the transmitted path trace identifier for an individual SDH lower order path;

– the ability to set and get the value of the expected path trace identifier for an individual SDH lower order path;

– the ability to get the value of the received path trace identifier for an individual SDH lower order path.

6 Object classes

6.1 Labelled electrical SPI trail termination point object classes

```
labelledElectricalSPITTPBidirectional MANAGED OBJECT CLASS
     DERIVED FROM
          labelledElectricalSPITTPSink,
          labelledElectricalSPITTPSource;
REGISTERED AS { g774-7ObjectClass 1 };
```

```
labelledElectricalSPITTPSink MANAGED OBJECT CLASS
     DERIVED FROM  "Recommendation G.774":electricalSPITTPSink;
     CHARACTERIZED BY
          labelledElectricalSPITTPSinkPkg PACKAGE
          BEHAVIOUR
               labelledElectricalSPITTPSinkPkgBehaviour BEHAVIOUR
               DEFINED AS
               *This object class provides the ability to label electrical SDH
               physical trail termination points.*
          ;;
          ATTRIBUTES
          "Recommendation M.3100":userLabelGET-REPLACE;
     ;;
REGISTERED AS { g774-7ObjectClass 2 };

labelledElectricalSPITTPSource MANAGED OBJECT CLASS
     DERIVED FROM
          "Recommendation G.774":electricalSPITTPSource;
     CHARACTERIZED BY
          labelledElectricalSPITTPSourcePkg PACKAGE
          BEHAVIOUR
               labelledElectricalSPITTPSourcePkgBehaviour BEHAVIOUR
               DEFINED AS
               *This object class provides the ability to label electrical SDH
               physical trail termination points.*
          ;;
          ATTRIBUTES
          "Recommendation M.3100":userLabelGET-REPLACE;
     ;;
REGISTERED AS { g774-7ObjectClass 3 };
```

6.2 Labelled optical SPI trail termination point object classes

```
labelledOpticalSPITTPBidirectional MANAGED OBJECT CLASS
     DERIVED FROM
          labelledOpticalSPITTPSink,
          labelledOpticalSPITTPSource;
REGISTERED AS { g774-7ObjectClass 4 };

labelledOpticalSPITTPSink MANAGED OBJECT CLASS
     DERIVED FROM  "Recommendation G.774":opticalSPITTPSink;
     CHARACTERIZED BY
          labelledOpticalSPITTPSinkPkg PACKAGE
          BEHAVIOUR
               labelledOpticalSPITTPSinkPkgBehaviour BEHAVIOUR
               DEFINED AS
               *This object class provides the ability to label optical SDH
               physical trail termination points.*
          ;;
          ATTRIBUTES
          "Recommendation M.3100":userLabelGET-REPLACE;
     ;;
REGISTERED AS { g774-7ObjectClass 5 };

labelledOpticalSPITTPSource MANAGED OBJECT CLASS
     DERIVED FROM
          "Recommendation G.774": opticalSPITTPSource;
     CHARACTERIZED BY
          labelledOpticalSPITTPSourcePkg PACKAGE
          BEHAVIOUR
               labelledOpticalSPITTPSourcePkgBehaviour BEHAVIOUR
               DEFINED AS
               *This object class provides the ability to label optical SDH
               physical trail termination points.*
```

```
          ;;
          ATTRIBUTES
          "Recommendation M.3100":userLabelGET-REPLACE;
     ;;
REGISTERED AS { g774-7ObjectClass 6 };
```

6.3 Virtual container 11 path trace object classes

```
vc11PathTraceTTPBidirectional MANAGED OBJECT CLASS
     DERIVED FROM
          "Recommendation G.774":vc11TTPBidirectionalR1,
          vc11PathTraceTTPSink,
          vc11PathTraceTTPSource;
REGISTERED AS { g774-7ObjectClass 7 };

vc11PathTraceTTPSink MANAGED OBJECT CLASS
     DERIVED FROM  "Recommendation G.774":vc11TTPSinkR1;
     CHARACTERIZED BY
          vc11-2PathTraceSinkPackage,
          vc11TTPSinkPathTracePkg PACKAGE
          BEHAVIOUR
               vc11TTPSinkPathTracePkgBehaviour BEHAVIOUR
               DEFINED AS
               *This object class supports the SDH lower order path trace
               function. This CLASS shall be instantiated when lower order
               path trace is supported.*
          ;;
     ;;
REGISTERED AS { g774-7ObjectClass 8 };

vc11PathTraceTTPSource MANAGED OBJECT CLASS
     DERIVED FROM  "Recommendation G.774":vc11TTPSource;
     CHARACTERIZED BY
          vc11-2PathTraceSourcePackage,
          vc11TTPSourcePkgR1 PACKAGE
          BEHAVIOUR
               vc11TTPSourcePkgR1Behaviour BEHAVIOUR
               DEFINED AS
               *This object class supports the SDH lower order path trace
               function. This CLASS shall be instantiated when lower order
               path trace is supported.*
          ;;
     ;;
REGISTERED AS { g774-7ObjectClass 9 };
```

6.4 Virtual container 12 object classes

```
vc12PathTraceTTPBidirectional MANAGED OBJECT CLASS
     DERIVED FROM  "Recommendation G.774":vc12TTPBidirectionalR1,
                   vc12PathTraceTTPSink,
                   vc12PathTraceTTPSource;
REGISTERED AS { g774-7ObjectClass 10 };

vc12PathTraceTTPSink MANAGED OBJECT CLASS
     DERIVED FROM  "Recommendation G.774":vc12TTPSinkR1;
     CHARACTERIZED BY
          vc11-2PathTraceSinkPackage,
          vc12TTPSinkPathTracePkg PACKAGE
```

```
          BEHAVIOUR
               vc12TTPSinkPathTracePkgBehaviour BEHAVIOUR
               DEFINED AS
               *This object class supports the SDH lower order path trace
               function. This CLASS shall be instantiated when lower order
               path trace is supported.*
          ;;
     ;;
REGISTERED AS { g774-7ObjectClass 11 };

vc12PathTraceTTPSource MANAGED OBJECT CLASS
     DERIVED FROM  "Recommendation G.774":vc12TTPSource;
     CHARACTERIZED BY
          vc11-2PathTraceSourcePackage,
          vc12TTPSourcePkgR1 PACKAGE
          BEHAVIOUR
               vc12TTPSourcePkgR1Behaviour BEHAVIOUR
               DEFINED AS
               *This object class supports the SDH lower order path trace
               function. This CLASS shall be instantiated when lower order
               path trace is supported.*
          ;;
     ;;
REGISTERED AS { g774-7ObjectClass 12 };
```

6.5 Virtual container 2 object classes

```
vc2PathTraceTTPBidirectional MANAGED OBJECT CLASS
     DERIVED FROM  "Recommendation G.774":vc2TTPBidirectionalR1,
                   vc2PathTraceTTPSink,
                   vc2PathTraceTTPSource;
REGISTERED AS { g774-7ObjectClass 13 };

vc2PathTraceTTPSink MANAGED OBJECT CLASS
     DERIVED FROM  "Recommendation G.774":vc2TTPSinkR1;
     CHARACTERIZED BY
          vc11-2PathTraceSinkPackage,
          vc2TTPSinkPathTracePkg PACKAGE
          BEHAVIOUR
               vc2TTPSinkPathTracePkgBehaviour BEHAVIOUR
               DEFINED AS
               *This object class supports the SDH lower order path trace
               function. This CLASS shall be instantiated when lower order
               path trace is supported.*
          ;;
     ;;
REGISTERED AS { g774-7ObjectClass 14 };

vc2PathTraceTTPSource MANAGED OBJECT CLASS
     DERIVED FROM  "Recommendation G.774":vc2TTPSource;
     CHARACTERIZED BY
          vc11-2PathTraceSourcePackage,
          vc2TTPSourcePkgR1 PACKAGE
          BEHAVIOUR
               vc2TTPSourcePkgR1Behaviour BEHAVIOUR
               DEFINED AS
               *This object class supports the SDH lower order path trace
               function.This CLASS shall be instantiated when lower order path
               trace is supported.*
          ;;
     ;;
REGISTERED AS { g774-7ObjectClass 15 };
```

6.6 Modifiable virtual container 2 path trace object classes

```
modifiableVC2PathTraceTTPBidirectional MANAGED OBJECT CLASS
     DERIVED FROM vc2PathTraceTTPBidirectional;
     CHARACTERIZED BY
          "Recommendation M.3100": supportableClientListPackage,
          modifiableVC2PathTraceTTPBidPackage PACKAGE
               BEHAVIOUR
               modifiableVC2PathTraceTTPBidBehaviour  BEHAVIOUR
               DEFINED AS
               *This CLASS shall be instantiated when change of the SDH
               frame structure by management operation is supported and lower
               order path trace is supported.*
          ;;
          ACTIONS
               "Recommendation G.774.2":defineClientType;;;
REGISTERED AS {  g774-7ObjectClass 16  };

modifiableVC2PathTraceTTPSink MANAGED OBJECT CLASS
     DERIVED FROM vc2PathTraceTTPSink;
     CHARACTERIZED BY
          "Recommendation M.3100": supportableClientListPackage,
          modifiableVC2PathTraceTTPSinkPackage PACKAGE
          BEHAVIOUR
               modifiableVC2PathTraceTTPSinkBehaviour  BEHAVIOUR
               DEFINED AS
               *This CLASS shall be instantiated when change of the SDH
               frame structure by management operation is supported and lower
               order path trace is supported.*
          ;;
          ACTIONS
               "Recommendation G.774.2":defineClientType;;;
REGISTERED AS {  g774-7ObjectClass 17  };

modifiableVC2PathTraceTTPSource MANAGED OBJECT CLASS
     DERIVED FROM vc2PathTraceTTPSource;
     CHARACTERIZED BY
          "Recommendation M.3100": supportableClientListPackage,
          modifiableVC2PathTraceTTPSourcePackage PACKAGE
          BEHAVIOUR
               modifiableVC2PathTraceTTPSourceBehaviour  BEHAVIOUR
               DEFINED AS
               *This CLASS shall be instantiated when change of the SDH
               frame structure by management operation is supported and lower
               order path trace is supported.*
          ;;
          ACTIONS
               "Recommendation G.774.2":defineClientType;;;
REGISTERED AS {  g774-7ObjectClass 18  };
```

6.7 Modifiable virtual container 12 path trace object classes

```
modifiableVC12PathTraceTTPBidirectional MANAGED OBJECT CLASS
     DERIVED FROM vc12PathTraceTTPBidirectional;
     CHARACTERIZED BY
          "Recommendation M.3100": supportableClientListPackage,
          modifiableVCPathTrace12TTPBidPackage PACKAGE
          BEHAVIOUR
               modifiableVC12PathTraceTTPBidBehaviour  BEHAVIOUR
               DEFINED AS
               *This CLASS shall be instantiated when change of the SDH
               frame structure by management operation is supported and lower
               order path trace is supported.*
```

```
          ;;
          ACTIONS
               “Recommendation G.774.2”:defineClientType;;;
REGISTERED AS {  g774-7ObjectClass 19  };

modifiableVCPathTrace12TTPSink MANAGED OBJECT CLASS
     DERIVED FROM vc12PathTraceTTPSink;
     CHARACTERIZED BY
          "Recommendation M.3100": supportableClientListPackage,
          modifiableVC12PathTraceTTPSinkPackage PACKAGE
          BEHAVIOUR
               modifiableVC12PathTraceTTPSinkBehaviour  BEHAVIOUR
               DEFINED AS
               *This CLASS shall be instantiated when change of the SDH
               frame structure by management operation is supported and lower
               order path trace is supported.*
          ;;
          ACTIONS
               "Recommendation G.774.2":defineClientType;;;
REGISTERED AS {  g774-7ObjectClass 20  };

modifiableVC12PathTraceTTPSource MANAGED OBJECT CLASS
     DERIVED FROM vc12PathTraceTTPSource;
     CHARACTERIZED BY
          "Recommendation M.3100":  supportableClientListPackage,
          modifiableVC12PathTraceTTPSourcePackage PACKAGE
          BEHAVIOUR
               modifiableVC12PathTraceTTPSourceBehaviour  BEHAVIOUR
               DEFINED AS
               *This CLASS shall be instantiated when change of the SDH
                frame structure by management operation is supported and
               lower order path trace is supported.*
          ;;
          ACTIONS
               "Recommendation G.774.2":defineClientType;;;
REGISTERED AS {  g774-7ObjectClass 21  };
```

6.8 Modifiable virtual container 11 path trace object classes

```
modifiableVC11PathTraceTTPBidirectional MANAGED OBJECT CLASS
     DERIVED FROM vc11PathTraceTTPBidirectional;
     CHARACTERIZED BY
          "Recommendation M.3100": supportableClientListPackage,
          modifiableVC11PathTraceTTPBidPackage PACKAGE
          BEHAVIOUR
               modifiableVC11PathTraceTTPBidBehaviour  BEHAVIOUR
               DEFINED AS
               *This CLASS shall be instantiated when change of the SDH
               frame structure by management operation is supported and lower
               order path trace is supported.*
          ;;
          ACTIONS
               "Recommendation G.774.2":defineClientType;;;
REGISTERED AS {  g774-7ObjectClass 22  };

modifiableVC11PathTraceTTPSink MANAGED OBJECT CLASS
     DERIVED FROM vc11PathTraceTTPSink;
     CHARACTERIZED BY
          "Recommendation M.3100": supportableClientListPackage,
          modifiableVC11PathTraceTTPSinkPackage PACKAGE
          BEHAVIOUR
               modifiableVC11PathTraceTTPSinkBehaviour  BEHAVIOUR
```

```
            DEFINED AS
            *This CLASS shall be instantiated when change of the SDH
            frame structure by management operation is supported and lower
            order path trace is supported.*
        ;;
        ACTIONS
            "Recommendation G.774.2":defineClientType;;;
REGISTERED AS {  g774-7ObjectClass 23  };

modifiableVC11PathTraceTTPSource MANAGED OBJECT CLASS
    DERIVED FROM vc11PathTraceTTPSource;
    CHARACTERIZED BY
        "Recommendation M.3100": supportableClientListPackage,
        modifiableVC11PathTraceTTPSourcePackage PACKAGE
        BEHAVIOUR
            modifiableVC11PathTraceTTPSourceBehaviour  BEHAVIOUR
            DEFINED AS
            *This CLASS shall be instantiated when change of the SDH
            frame structure by management operation is supported and lower
            order path trace is supported.*
        ;;
        ACTIONS
            "Recommendation G.774.2":defineClientType;;;
REGISTERED AS {  g774-7ObjectClass 24  };
```

7 Packages

7.1 Virtual container 11-2 path trace packages

```
vc11-2PathTraceSinkPackage PACKAGE
        BEHAVIOUR
            vc11-2PathTraceSinkPackageBehaviour BEHAVIOUR
                DEFINED AS
                    *When 16 bytes are supported, the 16 bytes of the path
                    trace shall be conveyed at the management interface in
                    both ways. This is a local issue whether the NE recompute
                    the CRC7 under a replace operation.*
        ;;
        ATTRIBUTES
            "Recommendation G.774.5":j2PathTraceExpected
            REPLACE-WITH-DEFAULT
            DEFAULT VALUE SDHPTLASN1.nullDefault
            GET-REPLACE,
            "Recommendation G.774.5":j2PathTraceReceive        GET;
;

vc11-2PathTraceSourcePackage PACKAGE
        BEHAVIOUR
            vc11-2PathTraceSourcePackageBehaviour BEHAVIOUR
                DEFINED AS
                    *When 16 bytes are supported, the 16 bytes of the path
                    trace shall be conveyed at the management interface.*
        ;;
        ATTRIBUTES
            "Recommendation G.774.5":j2PathTraceSend           GET-REPLACE;
;
```

8 Attributes

None.

9 Actions

None.

10 Notifications

None.

11 Parameters

None.

12 Name bindings

None.

13 Constraint rules

None.

14 Subordination rules

None.

15 Supporting ASN.1 productions

This clause contains all the ASN.1 definitions required to support all the new GDMO definitions within this Recommendation.

```
SDHPTLASN1 { itu-t(0) recommendation(0) g(7) g774(774) hyphen(127) ptl(7)
informationModel(0)
     asn1Module(2) sdhptl (0) }
DEFINITIONS IMPLICIT TAGS ::=
BEGIN

-- EXPORTS everything

sdhPTL OBJECT IDENTIFIER ::= { itu-t(0) recommendation(0) g(7) g774(774)
hyphen(127) ptl(7) informationModel(0) }
g774-7ObjectClass OBJECT IDENTIFIER ::= { sdhPTL managedObjectClass(3) }
g774-7Action OBJECT IDENTIFIER ::= { sdhPTL action(9) }
g774-7NameBinding OBJECT IDENTIFIER ::= { sdhPTL nameBinding(6) }
g774-7Parameter OBJECT IDENTIFIER ::= { sdhPTL parameter(5)}
g774-7Notification OBJECT IDENTIFIER ::= { sdhPTL notification(10) }
g774-7Package OBJECT IDENTIFIER ::= { sdhPTL package(4) }
g774-7Attribute OBJECT IDENTIFIER ::= { sdhPTL attribute(7) }

nullDefault Null ::= NULL

Null ::= NULL

END
-- end of supporting asn.1 productions
```

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Series A	Organization of the work of ITU-T
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