

IMPLEMENTOR'S GUIDE FOR RECOMMENDATION G.776.1

Summary

This document contains corrections to be incorporated within Annex A of G.776.1 (10/98). Annex A contains data files that are used by developers when implementing a TMN. This guide will be placed on the file server together with the other files of Annex A.

1 Introduction

1.1 References

- [1] ITU-T Recommendation G.776.1, Managed Objects for Signal Processing Network Elements, 10/98

1.2 Background

This guide is a compilation of reported defects, their resolutions and minor upgrades to the 1998 edition of ITU-T Recommendation G.776.1. It includes all approved corrigenda and is intended to be an additional authoritative source of information for implementors to be read in conjunction with the Recommendation itself.

1.3 Scope of the guide

This guide records the resolutions of defects in the following categories:

- editorial errors;
- technical errors, such as omissions, inconsistencies, etc.; and
- ambiguities.

In addition, this guide records minor enhancements to the Recommendation in the following categories:

- increased interoperability; and
- deployment possibility in new environments.

1.4 Contacts

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1.5 Document history

Version	Summary
06/99	New Implementors' Guide. All changes are relative to the electronic files: <i>G776_1_Attributes</i> and <i>G776_1_ASN1 of Annex A</i>

2 Changes to Annex A

Note: the following changes are shown here in printed form for reference only. The file *G776_1_Attributes* and *G776_1_ASN1* have been updated.

2.1 Revise the following attribute in file *G776_1_Attributes*:

Revise Facsimile Demodulation to reflect its use to control a Clique as opposed to a channel.

Facsimile Demodulation

```
facsimileDemodulation ATTRIBUTE
    WITH ATTRIBUTE SYNTAX G776.1ASN1DefinedTypesModule.G776.1Option;
    MATCHES FOR EQUALITY;
    BEHAVIOUR facsimileDemodulationBehaviour;
REGISTERED AS {g776.1Attribute 235};
```

```
facsimileDemodulationBehaviour BEHAVIOUR
    DEFINED AS
```

“This parameter defines whether facsimile remodulation/demodulation is done on a per clique basis.”

This attribute is characteristic of DCME. It falls in the TMN Configuration Category.

It is a Read/Write attribute that has Enumerated Option values of Enable, Disable

The default value is: Enable

*Comment: Enable allows the settings of **Facsimile Demodulation DS0** to take effect. Disable deactivates facsimile demodulation for an entire clique. In this case, the incoming traffic will not be monitored to detect the presence of facsimile.*

Reference:G.766 Table 1”;

2.2 Add the following attributes to file *G776_1_Attributes*:

Add the following attributes to reflect their use in G.776.3.

Facsimile DemodulationDS0

```
facsimileDemodulationDS0 ATTRIBUTE
    WITH ATTRIBUTE SYNTAX G776.1ASN1DefinedTypesModule.G776.1Option;
    MATCHES FOR EQUALITY;
    BEHAVIOUR facsimileDemodulationDS0Behaviour;
REGISTERED AS {g776.1Attribute 317};
```

```
FacsimileDemodulationDS0Behaviour BEHAVIOUR
    DEFINED AS
```

“This parameter defines whether facsimile remodulation/demodulation is done on a per channel basis.”

*This attribute is characteristic of DCME. It falls in the TMN Configuration Category.
It is a Read/Write attribute that has Enumerated Option values of
Enable, Disable*

The default value is: Enable

*Comment: Disable deactivates facsimile demodulation on a per channel basis. This parameter is in effect only when **Facsimile Demodulation** is set to *enable*. This attribute is used in conjunction with **Facsimile Demodulation**.*

Reference:G.766 Table 1”;

Q50A Simp DLC on abcd

q50aSimpDLConAbcd ATTRIBUTE
WITH ATTRIBUTE SYNTAX
G776.1ASN1DefinedTypesModule.Q50aSimpDLConAbcd;
MATCHES FOR EQUALITY;
BEHAVIOUR q50aSimpDLConAbcdBehaviour;
REGISTERED AS {g776.1Attribute 318};

q50aSimpDLConAbcdBehaviour BEHAVIOUR
DEFINED AS

“This parameter defines the TS16 pattern (“abcd”) for the assignment of “DLC on” towards the PSTN switch for a particular time slot while working with Q.50 Type 1 per TS mode.”

This attribute is characteristic of DCME. It falls in the TMN Configuration Category.

*It is a Read/Write attribute that has Enumerated Option values of
1 to 15 (decimal)*

The default value is: 5

Comment: Q.50 protocol includes 3 sub-protocols. Q.50 Type 1 (simplified) – This is used for DLC indication to the PSTN switch.. The DCME send pre-defined DLC ON and DLC OFF patterns to the PSTN switch using TS16. There are 2 sub-types of Q.50 Type 1 protocol. DLC per bit-stream indication using time-slot 16, frame 0 (bits 5,7,8). DLC per time-slot indication using time-slot 16, frames 1-15 (“abcd”).

Q.50 Type 2A – This is used for establishing clear channels by the DCME (using TS16 frames 1-15) and indication of DLC per bit-stream to the PSTN switch (using TS16 frame 0). Q.50 Type 2B – This is the same as type 2A but the DLC indication is per time-slot instead of per bit-stream”Reference:G.766 Table 1”;

Nss Not Supported Manufacturer Code

nssNotSupportedManufacturerCode ATTRIBUTE
WITH ATTRIBUTE SYNTAX G776.1ASN1DefinedTypesModule.
nssNotSupportedManufacturerCode;
MATCHES FOR EQUALITY;
BEHAVIOUR nssNotSupportedManufacturerCodeBehaviour;
REGISTERED AS {g776.1Attribute 319};

nssNotSupportedManufacturerCodeBehaviour BEHAVIOUR
DEFINED AS

“This parameter defines a code for a manufacturer whose equipment uses non-standard facsimile protocols that are not supported by waveform analysis DCME.”

*This attribute is characteristic of DCME. It falls in the TMN Configuration Category.
It is a Read/Write attribute that has Enumerated Option values of
0, 1, 2, 3,....255*

The default value is: 0

Comment: The value of 0 represent None, no unsupported equipment. Some DCME perform waveform analysis to determine the type of facsimile protocol. This parameter defines facsimile manufacturers whose equipment uses non-standard facsimile protocols that are not supported by waveform analysis DCME. This is related to **Nss Not Supported Machine Code**

*Reference:*G.766 Table 1”;

Nss Not Supported Machine Code

nssNotSupportedMachineCode ATTRIBUTE
 WITH ATTRIBUTE SYNTAX
G776.1ASN1DefinedTypesModule.nssNotSupportedMachineCode;
 MATCHES FOR EQUALITY;
 BEHAVIOUR nssNotSupportedMachineCodeBehaviour;
REGISTERED AS {g776.1Attribute 320};

nssNotSupportedMachineCodeBehaviour BEHAVIOUR
 DEFINED AS

 “This parameter defines the code of the facsimile machine which uses non-standard protocol that is not supported by waveform analysis DCME.”

This attribute is characteristic of DCME. It falls in the TMN Configuration Category.

*It is a Read/Write attribute that has Enumerated Option values of
0, 1, 2, 3,....255*

The default value is: 0

Comment: The value of 0 represent None, no unsupported equipment. This parameter specifies the particular facsimile machine that is not supported by waveform analysis DCME. A unique code is assigned to each facsimile machine. .This is related to **Nss Not Supported Manufacturers Code**

*Reference:*G.766 Table 1”;

BC Assignment

bcAssignment ATTRIBUTE
 WITH ATTRIBUTE SYNTAX G776.1ASN1DefinedTypesModule. bcAssignment;
 MATCHES FOR EQUALITY;
 BEHAVIOUR bcAssignmentBehaviour;
REGISTERED AS {g776.1Attribute 321};

bcAssignmentBehaviour BEHAVIOUR
 DEFINED AS

 “This parameter defines the usage of the bearer channel for other than dynamic assignment.”

This attribute is characteristic of DCME. It falls in the TMN Configuration Category.

*It is a Read/Write attribute that has Enumerated Option values of
None, OOC, FCC, PABB*

The default value is: None

Comment: Typically bearer channels are configured for dynamic assignment. This parameter provides a way to utilize a bearer channel for specific, pre-assigned functions. OOC = Out of Configuration, FCC = Forward Correction Channel, PABB = Preassigned Bit Bank

*Reference:*G.766 Table 1”;

Alarm Severity Classification

```
alarmSeverityClassification ATTRIBUTE
    WITH ATTRIBUTE SYNTAX
G776.1ASN1DefinedTypesModule.alarmSeverityClassification;
    MATCHES FOR EQUALITY;
    BEHAVIOUR alarmSeverityClassificationBehaviour;
REGISTERED AS {g776.1Attribute 322};
```

```
alarmSeverityClassificationBehaviour BEHAVIOUR
    DEFINED AS
    "This parameter specifies categories of alarm severity."
```

This attribute is characteristic of DCME. It falls in the TMN Configuration Category.

It is a Read/Write attribute that has Enumerated Option values of PMA, DMA, SA, MEI

The default value is: PMA

Comment: This parameter provides a means for an operator to configure a DCME to interpret alarms by severity. PMA = Prompt Maintenance Alarm, DMA = Deferred Maintenance Alarm, SA = Service Alarm and MEI Maintenance Event Interval.

*Reference:*G.766 Table 1”;

2.3 Revise the following ASN.1 code in file G776_1_ASN1:

Add the following.

```
Q50aSimpDLConAbcd ::= INTEGER (0..15)
```

```
NssNotSupportedManufacturerCode ::= INTEGER (0..255)
```

```
NssNotSupportedMachineCode ::= INTEGER (0..255)
```

```
BCAssignment ::= ENUMERATED {
    None (0),
    Out of Configuration (1),
    forward Correciton Channel (2),
    preassignedBitBank (3),
}
```

```
AlarmSeverityClassification ::= ENUMERATED {
    Prompt Maintenance Alarm (0),
    Deferred Maintenance Alarm (1),
    Service Alarm (2),
    Maintenance Event Interval (3),
}
```
