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ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

X.780

Corrigendum 2
(05/2002)

SERIES X: DATA NETWORKS AND OPEN SYSTEM
COMMUNICATIONS

OSI management – Management functions and ODMA
functions

TMN guidelines for defining CORBA managed
objects

Corrigendum 2

ITU-T Recommendation X.780 (2001) – Corrigendum 2

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ITU-T Recommendation X.780

TMN guidelines for defining CORBA managed objects

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Source

Corrigendum 2 to ITU-T Recommendation X.780 (2001) was prepared by ITU-T Study Group 4 (2001-2004) and approved under the WTSA Resolution 1 procedure on 29 May 2002.

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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TMN guidelines for defining CORBA managed objects

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1) Subclause 5.1.6

In the second paragraph, replace the fourth sentence:

On invocation, the client may submit a list of the names of the attributes in which it is interested, with a null list having the special meaning that all supported attributes should be returned.

with this sentence:

On invocation, the client may submit a list of the names of the attributes in which it is interested, with an empty list having the special meaning that all supported attributes should be returned.

Also in the second paragraph, replace the last two sentences:

The object must always return an accurate list, even if the submitted list was null or had invalid names. If all the names on the submitted list are invalid, the object should return a null list and an empty value type.

with these two sentences:

The object must always return an accurate list, even if the submitted list was empty or had invalid names. If all the names on the submitted list are invalid, the object shall return an empty list and an empty value type.

In the third paragraph, replace the third sentence:

Thus, null values should be returned for strings, references, and lists of any kind.

with this sentence:

Thus, null values shall be returned for references, strings shall be zero-length, and lists of any kind shall be empty.

2) Subclause 6.10

Add the following paragraph after the fourth paragraph, counting the IDL example as a paragraph. Thus, this paragraph comes immediately before the paragraph beginning "Code on the client side wishing to retrieve the attribute values for an equipment object might look something like this:"

The value type definition may include the IDL key word "truncatable." This tells the ORB to slightly change the way the value type is encoded when sent to another system, making it possible for the receiving system to use only the inherited part of the value type. This will help enable a managing system to interact with managed objects about which it is unfamiliar, but that inherit from managed objects with which it is familiar, to perform some level of management.

Network technology specific managed object value types, revisions of managed object value types, and in general any subclass that extends the capabilities of a framework or generic model (i.e. Rec. ITU-T M.3120) value type should include this key word. For example:

```
valuetype SpecialEquipmentValueType : truncatable EquipmentValueType {  
    ...           // new attributes  
};
```

3) Subclause 7.10.1

Add the following new paragraph to the end of the subclause:

CORBA IDL does not define a null type. To accommodate the translation of ASN.1 NULL types, the type *NullType* has been defined. ASN.1 NULL types should be translated to this type. The definition of *NullType* is simply a *typedef* of the type *char*. Systems sending *NullType* parameters should always set the value to zero (\0), and systems receiving it should always ignore the value.

4) Annex A

*In the IDL, in the section defining **forward declarations and typedefs**, after this line:*

```
typedef sequence <long> NotifIDSetType;
```

add these lines:

```
/** Since CORBA IDL does not provide a null type, the type NullType is  
defined for cases in unions in which no data type should be defined. Since  
char really is a data type, though, it should always be set to /0 and  
always ignored.  
*/typedef char      NullType;
```


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