ITU - Telecommunication Standardization Sector Temporary Document **0136**
STUDY GROUP 7

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Question(s): Q.13/7 (for action) [Proposed]
Q.14/7 (for information)

SOURCE Q.14/7

TITLE LIAISON: COMMENTS ON ITU-T DRAFT REC. X.742 [ISO/IEC DIS 10164-10]

After looking at the above mentioned document, we would like to see the following changes made to it:

Comment 1: The Terminology

The terminology used throughout the document is very connection-oriented. For example, the names of the various blocks of clause 8.2.3 (i.e. registration, request, accept, complete, ...). It is recognized that this technology is not only usable in a connection-oriented environment, but can as easily used in a connection-less environment (like MHS), but the terminology used hides this fact. We suggest that the terminology be changed to a more neutral one, for instance:

Current Name	New Name
Registration information block (clause 8.2.3.1)	Identification information block
Request information block (clause 8.2.3.2)	Service Request information block
Accept information block (clause 8.2.3.3)	Service Received information block
Complete information block (clause 8.2.3.4)	Resource Consumption information block
Corresponding information block (clause 8.2.3.5)	Cross Reference information block
Bulk information block (clause 8.2.3.6)	Bulk information block
Interruption information block (clause 8.2.3.7)	Service Failure information block

Comment 2: The Editorial Style of Annex A

The link between the model of clause 7, the generic definitions of clause 8, and the service definition of clause 9 is clear. It is easy to keep track of the various components between these parts. But this link is broken when we get to the GDMO and ASN.1 definitions of annex A. Those sections have proven exceptionally difficult to understand.

This is due, in a first part, to the stylistic complexity of the GDMO notation used. We believe that a better partitioning of the managed object classes and their constituting packages would be needed in order to achieve a better readability. To that end, we suggest that you refrain from using inline description of GDMO templates and leave all such templates as separate entities, each with its own clause. An example of such an approach can be found in Rec. X.4amf | ISO/IEC CD 11588-3.

In a second part, we would like the templates' object identifier (REGISTERED AS statements) definitions to be grouped together in another ASN.1 module. This would facilitate the management of the document and we believe that the use of significant labels is more "user-friendly" than numerals. An example of such an approach can be found in Rec. X.4amf | ISO/IEC CD 11588-3.

Comment 3: The Structure of the usageRecord managed object in Annex A

It is our experience that the structure of the usage metering data described in clause 8.2 is only formalized in the ASN.1 descriptions of annex A.8. It is our belief that most management experts who will be referring to the document will first look at the GDMO definitions of annex A.1 through A.7. All the relevant information should therefore be placed therein, including the structure of the aforementioned usage metering data report.

This way, the person in charge of specializing those records to a specific application could use the inheritance mechanism found in GDMO to integrate your work in his.

The main drawback of this solution is the overhead it places on the structure of the records. This comes from the fact that a record is semantically split into blocks and that the inheritance mechanism has apply to these blocks. But this mechanism can only be applied to objects, and promoting the blocks to the status of objects would introduce too much overhead. One way of solving this would be not to formally specify the block structure in GDMO but only to keep the textual specification in Clause 8. It would then be up to the person in charge of specializing the usageRecord managed object to define in the specialization the exact content of those blocks.

The block structure should be kept in a normative and optional annex showing the most desirable (and recommended) way of structuring the usageRecord managed objects.

We want this annex to be non-mandatory because we feel that some applications will have such specific needs that they will be unable to use the block structure in an efficient manner. An example of this would be the record descriptions in Rec. X.4amf | ISO/IEC CD 11588-3, where we've tried to keep the records' structure as close as possible to their corresponding event, as described in the Rec. X.400 | ISO/IEC IS 10021 suite. To this end, it has to be possible to substract ourselves from the obligation to conform to the block structure. By placing such structure in such an annex, with a separate conformance statement, we can still claim conformance to your model, even though some of the specific details are different.

An illustrative example of our proposed solution would be the following GDMO description of the usageRecord managed object class:

```
usageRecord MANAGED OBJECT CLASS
    DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2":eventLogRecord;
    CHARACTERIZED BY usageRecordPackage;
REGISTERED AS {joint-iso-ccitt ms(9) function(2) part10(10) ...};

usageRecordPackage PACKAGE
    BEHAVIOUR usageRecordPackageBehaviour;
    ATTRIBUTES
        -- list of mandatory attributes relevant to generic usage metering
        ;
REGISTERED AS { joint-iso-ccitt ms(9) function(2) part10(10) ... }
```

```
usageRecordPackageBehaviour BEHAVIOUR
    DEFINED AS "...";
```

And a sample specialization would then look as follow:

```
myEventRecord MANAGED OBJECT CLASS
    DERIVED FROM "Rec. X.742 | ISO/IEC 10164-10":usageRecord;
    CHARACTERIZED BY myEventRecordPackage, registrationPackage;
    CONDITIONAL PACKAGES
        requestPackage
            PRESENT IF "...",
        acceptPackage
            PRESENT IF"...",
        completePackage
            PRESENT IF "...";
REGISTERED AS { ... };
```

It is our opinion that this solution is both simple and elegant, while keeping the general ideas expressed into [Rec. X.742 | ISO/IEC 10164-10]. We also believe that this solution would remain closer to the completely generic spirit of the event logging function describe in [Rec. X.721 | ISO/IEC 10164-2].

Comment 4: The content of Annex B.2

This comment is regarding the accounting example related to X.400 in annex B.2. Since this example does not reflect the actual way that MHS accounting is performed, it would be better if it be removed. You should instead replace it by a reference to our work. We plan to integrate your functionality into our accounting management function, and thus provide you with a living example of its use.