

DEFECT REPORT

1. **Report Number:** 023
2. **Source of report:** Canada
3. **Report Submitted to:** TC 46/SC 4/WG 4 Secretariat: January 1997
4. **Report Concerning:** ISO 10161 AM 1
5. **Type of Defect:** Major Technical
6. **References in Document:** Clause 9.1.2
7. **Nature of Defect:**

The ASN.1 specification of Electronic-Delivery-Service contains two instances of a syntax error that will cause program generators such as SNACC to reject the data type as invalid. The portion of the specification involved is as follows:

```
Electronic-Delivery-Service ::= SEQUENCE {
    e-delivery-mode [0] IMPLICIT OBJECT IDENTIFIER OPTIONAL,
    e-delivery-parameters [1] ANY DEFINED BY e-delivery-mode OPTIONAL,
    document-type-id [2] IMPLICIT OBJECT IDENTIFIER OPTIONAL,
    document-type-parameters [3] ANY DEFINED BY document-type-id OPTIONAL,
    ...
}
```

ISO 8824 makes it clear that an ANY DEFINED BY type is not permitted to be optional. If it were, there would be ambiguity as to whether the data type following the Object Identifier was the ANY, or was the data type after the ANY.

8. Solution Proposed by the Source:

The intent of the ASN.1 was to permit the *e-delivery-mode* member to be optional, and to permit the *document-type-id* member to be optional. Clearly, if *e-delivery-mode* is omitted, the *e-delivery-mode-parameters* member needs to be omitted as well. It is recommended that the Amendment be altered to incorporate the following recast ASN.1 specification which accomplishes this goal:

```
Electronic-Delivery-Service ::= SEQUENCE {
    e-delivery-service [0] IMPLICIT SEQUENCE {
        e-delivery-mode [0] IMPLICIT OBJECT IDENTIFIER,
        e-delivery-parameters [1] ANY DEFINED BY e-delivery-mode
    } OPTIONAL,
    document-type [1] IMPLICIT SEQUENCE {
        document-type-id [2] IMPLICIT OBJECT IDENTIFIER,
        document-type-parameters [3] ANY DEFINED BY document-type-id
    } OPTIONAL,
    -- [remainder of data type unchanged:]
    e-delivery-description [4] ILL-String OPTIONAL,
    e-delivery-details [5] CHOICE {
```

e-delivery-address	[0] IMPLICIT System-Address,
e-delivery-id	[1] IMPLICIT System-Id
},	
name-or-code	[6] ILL-String OPTIONAL,
delivery-time	[7] IMPLICIT ISO-Time OPTIONAL
}	

It must be observed that this specification does not generate an identical serialization of the APDU when the BER transfer syntax is used. Because an additional data type, the SEQUENCE, has been used to organize the related pairs, an additional level of tagging will be present in the APDU.

Because of this, any systems that have implemented this data type will have to alter their software.

This requires that the defect be regarded as “major” rather than “minor. We are not aware,

however, of any systems that have implemented this amendment as yet.

The EDIFACT encoding of the data type is unaffected by this change.

9. Secretariat’s Response: For approval by ISO