
**Information technology — Message
Handling Systems (MHS) —**

**Part 9:
Electronic Data Interchange Messaging
System**

AMENDMENT 1: Compression extension

*Technologies de l'information — Systèmes de messagerie (MHS) —
Partie 9: Système de messagerie avec échange de données informatisé
AMENDEMENT 1: Extension de compression*

Foreword

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Amendment 1 to ISO/IEC 10021-9:1995 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

This Amendment is also published by ITU-T, but not as identical text.

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Information technology — Message Handling Systems (MHS) —

Part 9: Electronic Data Interchange Messaging System

AMENDMENT 1: Compression extension

1. Insert at the end of clause 2

" CCITT Recommendation V.42 bis (1990), Data Compression Procedures for data circuit terminating equipment (DCE) using error correction procedures"

2. Insert new subclauses at the end of 8.2.19 as follows :

8.2.19.1 Compression Extension introduction

The following extension describes the parameters that need to be exchanged when the primary body part is transferred in a compressed mode. The absence of this parameter implies that the content of the primary body part is not compressed.

```
primary-body-part-compression-indication EDIM-EXTENSION
CompressionParameter--as defined for P2 File Transfer Body Part
CRITICAL FOR DELIVERY
 ::= id-edi-compression
```

The syntax of this parameter is that of the corresponding parameter in the file transfer body-part defined in ITU-T Rec. X.420/ISO/IEC 10021-7.

The following macro gives a notation to express an instance of the compression extension.

```
COMPRESSION-ALGORITHM MACRO ::=
BEGIN
    TYPE NOTATION ::= type | empty
    VALUE NOTATION ::= value ( VALUE OBJECT IDENTIFIER )
END
```

NOTE: Although this specification identifies V.42 bis compression, other compression algorithms may be used.

8.2.19.2 V.42bis compression

The following instance of the COMPRESSION-ALGORITHM macro defines the parameters needed to perform V.42 bis compression as stated in the CCITT Recommendation V.42 bis(1990).

```
V42BisCompression COMPRESSION-ALGORITHM V42BisCompressionParameter
 ::= id-edi-compression-v42bis

V42BisCompressionParameter ::= SEQUENCE {
    p1-Number-of-codewords      INTEGER DEFAULT 512,
    p2-Maximum-string-size     INTEGER DEFAULT 6,
```

NOTE: The values 4096 for p1-Number-of-codewords and 512 for p2-Maximum-string-size may give better performance for EDI purposes rather than the default values (which are those specified by V.42bis).

The V42BisCompressionParameter has the following components :

- a) **p1-Number-of-codewords:** gives the number of codewords. The default value 512 allows 509 entries in the dictionary
- b) **p2-Maximum-string-size:** defines the Maximum string size (largest repetitive chain of bytes that can be compressed).

3. Change 9.3 as follows:

Insert a new error code in the *NNUAMSDiagnosticField* after "proof-service-failure"

```
compression-unsupported (35) --used when the received compression is not supported
```

Insert a new error code in the *NNUserBasicCodeField* by replacing "user-defined-reason (10)" by

```
" user-defined-reason (10),
```

```
compression-unsupported (11) --used when the received compression is not supported"
```

4. Modify Annex A

Insert the following two lines at the end of the "Categories" section:

```
id-ext ID ::= {id-edims 17}
```

```
id-alg ID ::= {id-edims 18}
```

Insert two new sections at the end of Annex A, before "END"

```
-- Extensions
```

```
id-edi-compression ID ::= { id-ext 0 }
```

```
-- Algorithms
```

```
id-edi-compression-v42bis ID ::= { id-alg 0 }
```

5. Modify Annex B as follows

Replace the ASN.1 definition of *HeadingExtensionsField* as follows:

```
HeadingExtensionsField ::= SET OF HeadingExtensionsSubField
CHOSEN FROM { primary-body-part-compression-indication, ... }
```

Insert a new section before the last END of the ASN.1 module.

```
-- Compression extensions
```

```
Primary-body-part-compression-indication EDIM-EXTENSION
CompressionParameter -- as defined for P2 File Transfer Body Part
CRITICAL FOR DELIVERY
 ::= id-edi-compression
```

```
COMPRESSION-ALGORITHM MACRO ::=
```

```
BEGIN
```

```
TYPE NOTATION ::= type | empty
```

```
VALUE NOTATION ::= value ( VALUE OBJECT IDENTIFIER )
```

```
END
```

```
V42BisCompression COMPRESSION-ALGORITHM
```

```
V42BisCompressionParameter
```

```
::= id-edi-compression-v42bis
```

```
V42BisCompressionParameter ::= SEQUENCE {
```

```
p1-Number-of-codewords INTEGER DEFAULT 512,
```

```
p2-Maximum-string-size INTEGER DEFAULT 6 }
```

Insert a new error code in the NNUAMSDiagnosticField after "proof-service-failure"

compression-unsupported (35) --used when the received compression is not supported

*Insert a new error code in the NNUserBasicCodeField by replacing "user-defined-reason (10)" by
" user-defined-reason (10),*

compression-unsupported (11) --used when the received compression is not supported"

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