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A MIME Body Part for ODA

Status of this Memo

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1. Introduction

This document contains the definitions, originally contained in RFC 1495 and RFC 1341, on how to carry ODA in MIME, and how to translate it to its X.400 representation.

1.1. The Application/ODA MIME content-type

The "ODA" subtype of application is used to indicate that a body contains information encoded according to the Office Document Architecture [ODA] standards, using the ODIF representation format. For application/oda, the Content-Type line should also specify an attribute/value pair that indicates the document application profile (DAP), using the key word "profile", and the document class, using the keyword "class".

For the keyword "class", the values "formatted", "processable" and "formatted-processable" are legal values.

Thus an appropriate header field might look like this:

Content-Type: application/oda; profile=Q112; class=formatted

Consult the ODA standard [T.411] for further information.

The Base64 content-transfer-encoding is appropriate for carrying ODA.

1.2. ODA - application/oda

X.400 Body Part: ODA
MIME Content-Type: application/oda
Conversion: None
Comments:

The ODA body part is defined in the CCITT document T.411 [T.411], appendix E, section E.2, "ODA identification in the P2 protocol of MHS"

An abbreviated version of its ASN.1 definition is:

```
 oda-body-part EXTENDED-BODY-PART-TYPE
         PARAMETERS      OdaBodyPartParameters
         DATA            OdaData
         ::= id-et-oda

 OdaBodyPartParameters ::= SET {
         document-application-profile    [0] OBJECT IDENTIFIER
         document-architecture-class     [1] INTEGER {
                                         formatted (0)
                                         processable (1)
                                         formatted-processable(2)}}

 id-et-oda OBJECT IDENTIFIER ::= { 2 8 1 0 1 }
```

Mapping from X.400 to MIME, the following is done:

The Parameters.document-application-profile is mapped onto the MIME parameter "profile" according to the table below.

Profile	OBJECT IDENTIFIER
Q112	{ iso (1) identified-organization (3) ewos (16) eg (2) oda (6) profile (0) q112 (1) }

The Parameters.document-architecture-class is mapped onto the MIME parameter "class" according to the table below.

String	Integer
formatted	formatted(0)
processable	processable(1)
formatted-processable	formatted-processable(2)

NOTE: This parameter is not defined in RFC 1341.

The body of the MIME content-type is the Data part of the ODA body part.

When mapping from MIME to X.400, the following steps are done:

The Parameters.document-application-profile and Parameters.document-architecture-class are set from the tables above. If any of the parameters are missing, the values for Q112 and formatted-processable are used.

It is an option for the gateway implementor to try to access them from inside the document, where they are defined as

document-profile.document-characteristics.document-architecture-class

document-profile.document-characteristics.document-application-profile

Gateways are NOT required to do this, since the document-characteristics are optional parameters. If a gateway does not, it simply uses the defaulting rules defined above.

The OBJECT IDENTIFIERs for the document application profile and for ODA {2 8 0 0} must be added to the Encoded Information Types parameter of the message envelope.

2. Security Considerations

ODA body parts have the natural propensity of complex structures that it is hard to find out what the parts are capable of.

Moreover, ODA is an extensible architecture, where new content portions may be added at any time, so that the threats posed by this body part may change over time.

However, no security risks related to ODA are known at this time.

3. References

[MIME]
Freed, N., and N. Borenstein, "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies", RFC 2045, November 1996.

[T.411]
CCITT Recommendation T.411 (1988), Open Document Architecture (ODA) and Interchange Format, Introduction and General Principles.

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