

AMHS Workshop 2023

P1 PROTOCOL

The formal ASN.1 structure for the P1 Message Protocol Data Units (MPDU) is:

MPDU ::= CHOICE {[0] IMPLICIT UserMPDU, Service MPDU }

ServiceMPDU ::= CHOICE {
 [1] IMPLICIT DeliveryReportMPDU,
 [2] IMPLICIT ProbeMPDU }

UserMPDU ::= SEQUENCE { UMPDUEnvelope, UMPDUContent }

UMPDUEnvelope ::= SET {
 MPDUIdentifier,
 originator ORName,
 original EncodedInformationTypes OPTIONAL,
 ContentType,
 UAContentID OPTIONAL,
 Priority DEFAULT normal,
 PerMessageFlag DEFAULT { },
 DeferredDelivery [0] IMPLICIT Time OPTIONAL,
 [1] IMPLICIT SEQUENCE OF
 PerDomainBilateralInfo OPTIONAL,
 [2] IMPLICIT SEQUENCE OF RecipientInfo,
 TraceInformation }

ORName ::= [APPLICATION 0] IMPLICIT SEQUENCE {
 StandardAttributeList,
 DomainDefinedAttributeList OPTIONAL }

Standard Attribute List ::= SEQUENCE {
 CountryName OPTIONAL,
 AdministrationDomainName OPTIONAL,
 [0] IMPLICIT X121Address OPTIONAL,
 [1] IMPLICIT TerminalId OPTIONAL,
 [2] PrivateDomainName OPTIONAL,
 [3] IMPLICIT OrganizationName OPTIONAL,
 [4] IMPLICIT Unique UAIdentifier OPTIONAL,
 [5] IMPLICIT PersonalName OPTIONAL,
 [6] IMPLICIT SEQUENCE OF OrganizationalUnit OPTIONAL }

MHSAddress ::= { ContryName,
 ADMName,
 PersonalName,
 PRMDName,
 OrganizationalName,
 OrganizationalUnit (s),
 DomainDefinedAttributes OPTIONAL }

TraceInformation ::= { GlobalDomainIdentifier,
 DomainSuppliedInfo }

GlobalDomainIdentifier ::= [APPLICATION 3] IMPLICIT SEQUENCE {
 CountryName,
 AdministrationDomainName,
 PrivateDomainIdentifier OPTIONAL }

EncodedInformationTypes ::= [APPLICATION 5] IMPLISIT SET {
 [0] IMPLICIT BIT STRING {undefined (0), tlx (1), iA5text (2),
 g3Fax (3), tIFO (4), tTX (5), videotex (6), voice (7),
 sFD (8), tIF1 (9)},
 [1] IMPLICIT G3NonBasicParams OPTIONAL,
 [2] IMPLICIT TeletexNonBasicParams OPTIONAL,

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                [3] IMPLICIT PresentationCapabilities OPTIONAL }
UMPDUContent ::= SEQUENCE
DeliveryReportMPDU ::= SEQUENCE {
    DeliveryReportEnvelope,
    DeliveryReportContent }
DeliveryReportEnvelope ::= SET {
    report MPDUIdentifier,
    originator ORName,
    TraceInformation }
DeliveryReportContent ::= SET {
    original MPDUIdentifier,
    intermediate TraceInformation OPTIONAL,
    UAContentID OPTIONAL,
    [0] IMPLICIT SEQUENCE OF
    ReportedRecipientInfo,
    Returned [1] IMPLICIT UMPDUContent OPTIONAL,
    BillingInformation [2] ANY OPTIONAL}
ReportedRecipientInfo ::= SET {
    Recipient [0] IMPLICIT ORName,
    [1] IMPLICIT ExtensionIdentifier,
    [2] IMPLICIT PerRecipientFlag,
    [3] IMPLICIT LastTraceInformation, intendedRecipient
    [4] IMPLICIT ORName OPTIONAL,
    [5] IMPLICIT SupplementaryInformation OPTIONAL }
Report ::= Choice {
    [0] IMPLICIT DeliveredInfo,
    [1] IMPLICIT NonDeliveredInfo }
DeliveredInfo ::= SET {
    Delivery [0] IMPLICIT Time,
    TypeOfUA [1] IMPLICIT INTEGER {public(0), private (1)}
    DEFAULT public}
NonDeliveredInfo ::= SET {
    [0] IMPLICIT ReasonCode,
    [1] IMPLICIT DiagnosticCode OPTIONAL }

ProbeMPDU ::= ProbeEnvelope
ProbeEnvelope ::= SET {
    probe MPDUIdentifier,
    originator ORName,
    ContentType,

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UAContentID OPTIONAL,
original EncodedInformationTypes OPTIONAL,
TraceInformation,
PerMessageFlaf DEFAULT{ },
contentLenght [0] IMPLICIT INTEGER OPTIONAL,
[1] IMPLICIT SEQUENCE OF PerDomainBilateralInfo OPTIONAL,
[2] IMPLICIT SEQUENCE OF RecipientInfo }