



**TENTH WORKING GROUP MEETING OF
AERONAUTICAL TELECOMMUNICATION NETWORK
IMPLEMENTATION CO-ORDINATION GROUP
(ATNICG WG/10)**



Jaipur, India, 26 - 29 September 2011

Agenda Item 3: Review of AMHS Technical Specification of AMHS

**REVIEW OF
MESSAGE TRANSFER ENVELOPE FOR
IPM REQUIREMENTS**

(Presented by ASIA/PAC AMHS Technical Specification Ad-hoc WG)

SUMMARY

The ATNICG Ad-hoc Working Group has developed the “ASIA/PAC Technical Specification of the Air Traffic Services Message Handling System (AMHS)” as a replacement for “Asia/Pacific Regional Interface Control Document (ICD) for ATS Message Handling System (AMHS). The Ad-hoc Working Group recommended that the detailed PICS in the AMHS ICD be compared to the corresponding detailed PICS in Doc 9880 (which are referenced in the AMHS Technical Specification). This working paper is the first in a series of working papers to be developed by the Ad-hoc Working Group to compare the AMHS ICD PICS with the Doc 9880 PICS. This first working paper analyzes Table 1.1 in the AMHS ICD against Tables 4-4 and 4-10 in Doc 9880. This paper relates to:

Strategic Objectives:

A – Safety
C – Environmental Protection and Sustainable Development of Air Transport

Global Plan Initiatives:

GPI 22 – Communication Infrastructure

1. Introduction

1.1 The ATN Implementation Coordination Group (ATNICG), in its Sixth meeting held in Seoul, Republic of Korea from 16 to 20 May, 2011 noted that ASIA/PAC requirements for AMHS have been published in several manuals based on different versions of ICAO Doc 9705 and the EUROCONTROL AMHS Manual. The meeting therefore proposed that ASIA/PAC adopt a single document that captures the AMHS requirements for the region based on the latest ICAO specification, Doc 9880.

1.2 As a result of the discussions, ATNICG agreed to establish an ad-hoc Working Group to develop the new document for consideration by CNS/MET Sub-Group meeting held in Bangkok, Thailand from 25 to 29 July 2011.

1.3 The ATNICG Ad-hoc Working Group has developed the “ASIA/PAC Technical Specification of the Air Traffic Services Message Handling System (AMHS)” {hereafter referred to as the AMHS Technical Specification) as a replacement for “Asia/Pacific Regional Interface Control Document (ICD) for ATS Message Handling System (AMHS)” (hereafter referred to as the AMHS ICD). This document was presented to the CNS/MET Sub-Group meeting which reached Draft Conclusion 15/3 that the document should be adopted.

1.4 The AMHS Technical Specification developed by the ad-hoc Working Group is based on the EUROCONTROL Specification for the Air Traffic Services Message Handling System (AMHS). Essentially the AMHS Technical Specification adopted requirements from the EUROCONTROL Specification as they applied to the Asia/Pacific intended operating environment. Requirements that were related to EUROCONTROL policies and procedures were not brought over as these do not apply to Asia/Pac. The main functional difference is that in the Asia/Pacific environment the off-line directory AMC will be employed rather than an on-line X.500 directory. In addition requirements related to testing were not brought over as these exist in other Asia/Pacific documents.

1.5 The AMHS Technical Specification was developed in a top-down manner based on the EUROCONTROL Specification. It is top-down in the sense that it is a high level profile of the requirements detailed in ICAO Doc 9880. The AMHS ICD on the other hand may be considered a bottom-up document which contains detailed PICS at the same level of Doc 9705. Because of the difference in the explicit level of detail in the two documents, the ad-hoc Working Group recommended that the detailed PICS in the AMHS ICD be compared to the corresponding detailed PICS in Doc 9880 (which are referenced in the AMHS Technical Specification).

1.6 This working paper is the first in a series of working papers to be developed by the ad-hoc Working Group to compare the AMHS ICD PICS with the Doc 9880 PICS. This first working paper analyzes Table 1.1 in the AMHS ICD against Tables 4-4 and 4-10 in Doc 9880. The topic covered by these tables is the Message Transfer Envelope for Interpersonal Messaging (IPM). In Doc 9880 there are separate tables for Origination and Reception. In the AMHS ICD the two tables are combined into one.

2. Discussion

2.1 AMHS ICD Conventions for PICS Options

In the Introduction to the Appendix to the AMHS ICD (PICS of AMHS) a description of the conventions for entries in the table header as well as support level and options is provided. For reference the first few elements of Table 1.1 are depicted below. Note that requirements for Origination and Reception are in the table.

AMHS ICD Table 1.1 Message Transfer Envelope

NO.	element	support		AMHS- Action		AMHS- support		size	Detailed Action		Note
		ISP	SARPs	O	R	O	R		Originati on	Recept ion	
1	MessageTransferEnvelope	M	M	T	T	M	M	-			
1.1	per message fields										
1.1.1	message-identifier	M	M	G	D	M	M	-			See Table 2/1
1.1.2	originator-name	M	M	T	T	M	M	-			

According to the AMHS ICD Appendix each column in the table header is as follows;

"**support**" indicates the specification in the International Standardized Profile (ISP) and in the SARPs (ICAO Doc 9705).

"**AMHS-Action**" indicates the specified action at Origination (O) and at Reception (R) as specified in the SARPs (ICAO Doc 9705).

"**AMHS-support**" indicates the specified support level at Origination (O) and at Reception (R) as specified in Doc 9705.

"**Detailed Action**" indicates the detailed action specified in the SARPs (ICAO Doc 9705).

According to the AMHS ICD Appendix the definition of each support level and actions is specified in the table below:

support level and actions	Origination	Reception
M	The value is always set.	It is mandatory to set the value.
O	The value is set on conditions.	When the value is set, service is provided.
M-	-	Only the minimal support of this element. 1) allowed to set the value but no service provided 2) value is transparent when relayed
X	The value is not set.	When the value exists, it is considered to be an error.
T	Translated.	Translated.
G	Generated.	-
G1	Optionally generated.	-
G2	Conditionally generated.	-
D	-	Discarded.

2.2 Doc 9880 Conventions for PICS Options

In the AMHS ICD the “support level and actions” values do not clearly specify which are used for conformance to a particular requirement versus those used to indicate an action. The distinction is better defined in Doc 9880. For reference the first few elements of Tables 4-4 and 4-10 are depicted below. Note that Table 4-1 is for Origination and Table 4-10 is for Reception.

Doc 9880 Table 4-4 Message transfer for conveyance of an IPM

Ref	Element	Base	ISP	ATS Mess. Service	Action	Mapping / Notes
PART 1 : AMH11/A.1.4.2 MESSAGETRANSFER						
1	MessageTransferEnvelope	M	M	M	T	see Part 1/1.1 and 1.2
1.1	(per message fields)					
1.1.1	message-identifier	M	M	M	G	see Part 2/1
1.1.2	originator-name	M	M	M	T	see 4.4.2.3.3

Doc 9880 Table 4-10 Use of the Message Transfer Envelope

Ref	Element	Base	ISP	ATS Mess. Service	Action	Mapping / Notes
PART 1 : AMH11/A.1.4.2 MESSAGETRANSFER						
1	MessageTransferEnvelope	M	M	M	T	see Part 1/1.1 and 1.2
1.1	(per message fields)					
1.1.1	message-identifier	M	M	M	D	-
1.1.2	originator-name	M	M	M	T	see 4.5.2.2.6

In Doc 9880 the following elements defined in the ISPs apply for expressing conformance requirements:

- a) **mandatory full support (M).**
- b) **mandatory minimal support (M-).**
- c) **mandatory O/R name minimal support (M1)** (see ISO/IEC ISP 12062-2).
- d) **optional support (O).**
- e) **conditional support (C).**
- f) **out of scope (I).**
- g) **not applicable (-).**

In Doc 9880 the following classification applies for expressing dynamic behaviour requirements - i.e. the action performed by the ATN end system:

- a) **generated (G)**
- b) **optionally generated (G1)**
- c) **conditionally generated (G2)**
- d) **translated (T)**
- e) **conditionally translated (T1)**
- f) **discarded (D)**

- g) **excluded (X)**
- h) **out of scope or not-applicable (-)**

2.2 Options for Resolution of AMHS ICD – Doc 9880 requirement differences

The following options are recommended for elements in the AMHS ICD that differ from the corresponding elements in Doc 9880.

1. Ignore the AMHS ICD element, i.e. accept the Doc 9880 specification
2. Accept the Doc 9880 specification
3. Modify the ASIA/PAC Technical Specification for the element
4. Generate an Amendment Proposal to Doc 9880

2.3 Analysis of Table 1.1 Message Transfer Envelope for IPM

Appendix A describes the differences in the AMHS ICD and in Doc 9880 for the subject table. For the most part the differences can be attributed to the different conventions applied in the AMHS ICD and in Doc 9880.

The recommendations in Appendix A are mostly to “Ignore the AMHS ICD element”. This is because the intended requirement is essentially the same in the AMHS ICD as Doc 9880 but Doc 9880 is more consistently specified because of the better defined conventions and distinctions between conformance and action requirements.

There are a few recommendations in Appendix A to “Accept the Doc 9880 specification”. This is for elements that were not listed in the AMHS ICD.

There is one case in Appendix where the recommendation is to “Generate an Amendment Proposal to Doc 9880”. The specific case is where Doc 9880 4.4.2.3.8 d) specifies that the extensions element take values as specified in 4.4.2.3.6; however, 4.4.2.3.6 does not specify any permitted values.

3. Action Taken by the Meeting

3.1 The meeting is invited to review the analysis of the subject tables in the AMHS ICD and in Doc 9880 which is referenced by the AMHS Technical Specification. The meeting is invited to concur or suggest recommended changes to the recommendations. If there are recommended changes then this working paper should be updated so that a historical record is maintained.

3.2 The meeting and and-hoc Working Group is invited to note the methodology used to analyse the first table in the AMHS ICD and make suggested improvements as appropriate.

3.2 The and-hoc Working Group is invited to assign responsibility for and define the schedule for completing analysis of the remaining tables in the AMHS ICD.

ATTACHMENT A
Differences in Doc 9880 and AMHS ICD
For Message Transfer Envelope for IPM

Element 1.1.4 content-type

In the AMHS ICD content-type may take the abstract value “interpersonal-messaging-1984” or “interpersonal-messaging-1988”. In Doc 9880 content-type takes the abstract value “interpersonal-messaging-1988”.

Recommendation: Ignore AMHS ICD element

Element 1.1.8 deferred-delivery-time

In the AMHS ICD deferred-delivery-time is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “G”; however, Doc 9880 lists AMHS Origination Action as “X”. The AMHS ICD lists AMHS Origination Support as “M”; however, Doc 9880 lists AMHS Origination Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.1.9 per-domain-bilateral-information

In the AMHS ICD per-domain-bilateral-information is listed as “O” for ISP support; however, both 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “X”; however, Doc 9880 lists AMHS Origination Action as “G1”. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11 extensions

The AMHS ICD lists AMHS Reception Action as “D”; however, both Doc 9880 lists AMHS Reception Action as “D/X”. The AMHS ICD lists AMHS Reception Support as “O”; however, both Doc 9880 lists AMHS Reception Support as “M“. The AMHS ICD specifies that the only extensions element is “internal-trace-information”. Doc 9880 specifies that the extensions element may contain “content-correlator” or “internal-trace-information”.

Recommendation: Ignore AMHS ICD element

Doc 9880 4.4.2.3.8 d) specifies that the extensions element take values as specified in 4.4.2.3.6; however, 4.4.2.3.6 does not specify any permitted values.

Recommendation: Generate an Amendment Proposal to Doc 9880

Element 1.1.11.1 recipient-reassignment-prohibited

In the AMHS ICD recipient-reassignment-prohibited is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M“. In the AMHS ICD recipient-reassignment-prohibited is listed as “M-” for SARPs support; however, Doc 9880 lists support as “M“. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M“. The AMHS ICD lists AMHS Reception Support as “M-”; however, Doc 9880 lists AMHS Origination Support as “M“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11.2 dl-extension-prohibited

In the AMHS ICD dl-extension-prohibited is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M“. In the AMHS ICD dl-extension-prohibited is listed as “M-” for SARPs support; however, Doc 9880 lists support as “M“. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M“. The AMHS ICD lists AMHS Reception Support as “M-”; however, Doc 9880 lists AMHS Origination Support as “M“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11.3 conversion-with-loss-prohibited

In the AMHS ICD conversion-with-loss-prohibited is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M“. In the AMHS ICD conversion-with-loss-prohibited is listed as “M-” for SARPs support; however, Doc 9880 lists support as “M“. The AMHS ICD lists AMHS Reception Action as “D”; however Doc 9880 lists AMHS Reception Action as “D/X”. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M“. The AMHS ICD lists AMHS Reception Support as “M-”; however, Doc 9880 lists AMHS Origination Support as “M“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11.4 latest-delivery-time

In the AMHS ICD latest-delivery-time is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M“. The AMHS ICD lists AMHS Reception Action as “D”; however, Doc 9880 lists AMHS Reception Action as “D/X”. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M-“. The AMHS ICD lists AMHS Reception Support as “O”; however, Doc 9880 lists AMHS Origination Support as “M-“. The AMHS ICD specifies that for Reception if the current time exceeds the value, then generate a NDR. Doc 9880 specifies that in addition to the NDR message rejection for all message recipients is performed

Recommendation: Ignore AMHS ICD element

Element 1.1.11.5 originator-return-address

In the AMHS ICD originator-return-address is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M“. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11.6 originator-certificate

In the AMHS ICD originator-certificate is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M“. The AMHS ICD lists AMHS Reception Action as “X”; however, Doc 9880 lists AMHS Origination Support as “D“. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M-“. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11.7 content-confidentiality-algorithm-identifier

In the AMHS ICD content-confidentiality-algorithm-identifier is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M“. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M-“. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11.8 message-origin-authentication-echeck

In the AMHS ICD message-origin-authentication-echeck is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11.9 message-security-label

In the AMHS ICD message-security-label is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11.10 content-correlator

In the AMHS ICD content-correlator is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11.11 dl-expansion-history

In the AMHS ICD dl-expansion-history is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M-“. The AMHS ICD lists AMHS Reception Support as “O”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11.12 internal-trace-information

In the AMHS ICD internal-trace-information is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists SARPs Support as “M-”; however, Doc 9880 lists SARPs support as “M“. The AMHS ICD lists AMHS Reception Support as “M-”; however, Doc 9880 lists AMHS Reception Support as “M“.

Recommendation: Ignore AMHS ICD element

Element 1.1.11.13 certificate-selectors

The certificate-selectors element is not listed in the AMHS ICD; however, it is listed in Doc 9880 for extended ATSMHS.

Recommendation: Accept Doc 9880 specification

Element 1.1.11.14 multiple-originator-certificates

The multiple-originator-certificates element is not listed in the AMHS ICD; however, it is listed in Doc 9880 for extended ATSMHS.

Recommendation: Accept Doc 9880 specification

Element 1.1.11.15 dl-exempted-recipients

The dl-exempted-recipients element is not listed in the AMHS ICD; however, it is listed in Doc 9880 for extended ATSMHS.

Recommendation: Accept Doc 9880 specification

Element 1.1.11.16 PrivateExtensions

The PrivateExtensions element is not listed in the AMHS ICD; however, it is listed in Doc 9880 for extended ATSMHS.

Recommendation: Accept Doc 9880 specification

Element 1.2.1 recipient-name

The AMHS ICD recipient-name element contains additional text in the Detailed Origination Action column. The additional text indicates that the MF address can be either an XF address or a CAAS address. The ASIA/PAC Technical Specification for AMHS recommends CAAS but notes that for interoperability XF addresses must be supported as well.

Recommendation: Ignore AMHS ICD element

Element 1.2.4 explicit-conversion

In the AMHS ICD explicit-conversion is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5 extensions

In the AMHS ICD extensions is listed as “M-” for SARPs support; however, Doc 9880 lists SARPs support as “M“. The AMHS ICD lists AMHS Reception Action as “D”; however, Doc 9880 lists AMHS Reception Action as “D/X“. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 lists AMHS Origination Support as “M“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.1 originator-requested-alternate-recipient

In the AMHS ICD originator-requested-alternate-recipient is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.2 requested-delivery-method

In the AMHS ICD requested-delivery-method is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.2 requested-delivery-method

In the AMHS ICD requested-delivery-method is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.3 physical-forwarding-prohibited

In the AMHS ICD physical-forwarding-prohibited is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.4 physical-forwarding-address-request

In the AMHS ICD physical-forwarding-address-request is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.5 physical-delivery-modes

In the AMHS ICD physical-delivery-modes is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.6 registered-mail-type

In the AMHS ICD registered-mail-type is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.6 registered-mail-type

In the AMHS ICD registered-mail-type is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.6 registered-mail-type

In the AMHS ICD registered-mail-type is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.7 recipient-number-for-advice

In the AMHS ICD recipient-number-for-advice is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.8 physical-rendition-attributes

In the AMHS ICD physical-rendition-attributes is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.9 physical-delivery-report-request

In the AMHS ICD physical-delivery-report-request is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.10 message-token

In the AMHS ICD message-token is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.11 content-integrity-check

In the AMHS ICD content-integrity-check is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Action as “X”; however, Doc 9880 lists AMHS Reception Support as “D/X”. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.12 proof-of-delivery-request

In the AMHS ICD proof-of-delivery-request is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Action as “X”; however, Doc 9880 lists AMHS Reception Support as “D/X”. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element

Element 1.2.5.13 redirection-history

In the AMHS ICD redirection-history is listed as “O” for ISP support; however, Doc 9880 lists ISP support as “M-“. The AMHS ICD lists AMHS Origination Action as “-”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Action as “X”; however, Doc 9880 lists AMHS Reception Support as “D”. The AMHS ICD lists AMHS Origination Support as “X”; however, Doc 9880 does not include the element. The AMHS ICD lists AMHS Reception Support as “M-/X”; however, Doc 9880 lists AMHS Reception Support as “M-“.

Recommendation: Ignore AMHS ICD element
