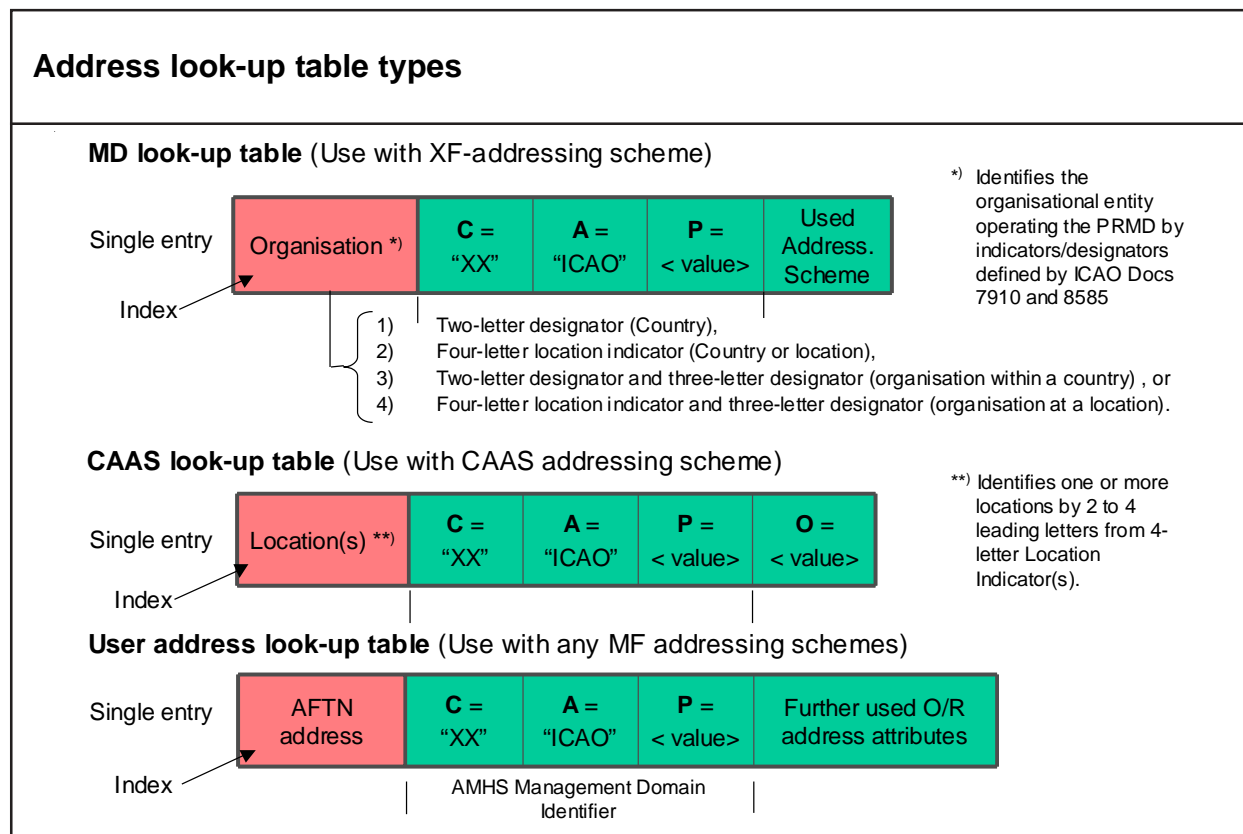


(2) Address Look-up Tables



Need of address look-up tables

Looking at the very different constructions of the AFTN and MF-addresses it becomes obvious that a gateway needs additional information when converting addresses from AFTN to AMHS. For provision of such additional information the AMHS SARPs define three types of look-up tables to be maintained in gateways: *MD look-up table*, *CAAS look-up table* and *User address look-up table*. The first type is specialised for XF-addresses, the second is suitable for the CAAS, and the third supports any type of MF addressing scheme.

Different look-up tables for different MF-addressing schemes

The above figure illustrates the contents of address look-up tables specialised to ICAO AMHS management domains. The AMHS SARPs specify more comprehensive table contents also covering address conversions for communication with MHS users located outside of ICAO AMHS management domains. An example is the intercommunication with SITA entities.

MD look-up table

The MD look-up table provides the gateway with the *AMHS Management Domain Identifier* for an organisational entity operating a PRMD. The field "organisation" identifies the operating entity by means of indicators and designators defined in ICAO documents

Typically, the index of the MD look-up table is a two-letter designator identifying a state

7910 (location indicators) and 8585 (3-letter designators). The entry in the field "organisation" corresponds, therefore, to a letter combination of an AFTN address. Typically, the field "organisation" contains a two-letter designator identifying a State. "Wild cards" may be used for the "organisation" field to minimise the amount of table entries.

CAAS look-up table

The CAAS look-up table provides the gateway, for a given Location Indicator, with the AMHS Management Domain Identifier and organisation-name (O) of the associated CAAS address. Generally, there is an $1:n$ relation between a given "O-name" (identifying a regional unit) and subordinated "OU1 names" (i.e. location). That means, vice versa, that collectives of locations may have the same C, A, P and O names. Therefore, to minimise the number of table entries, "wild cards" for the third and/or fourth letter of the given collective of location indicators may be used.

User address look-up table

The user address look-up table provides the gateway with all address attributes used in a MF-address. The field "AFTN address" contains a complete 8-letter AFTN address.

The AMHS SARPs do not specify update mechanisms for address look-up tables. With the SPACE study work a model for such a mechanism has been developed which is called Distributed Address Publication Service. Some aspects of this model are implemented with the European AMHS Off-line Management Centre (see separate page).

The typical index of a CAAS look-up table is the four-letter location indicator

The index of a user address look-up table is the eight-letter AFTN address

references

- DOC 9705-AN/956 (ATN Manual), Draft Edition 4, Sub-Volume III, Section 3.1.2.3.3.2 (Address look-up tables) and resolved AMHS PDR M4100002 (24/02/2006)