

Variable Message Format (VMF) Interoperability (IO)

Datasheet

VMF IO can be difficult to achieve because it is designed to be used with almost any bearer system. IO can be achieved, but only if very careful attention is paid to the concept right from the start.

Legal options within the same MIL-STD Version

- Platform X uses a SINCGARS radio, Platform Y uses Ultra High Frequency (UHF)
- Platform X is using Type 2 Type of Service, Platform Y uses only Type 3

VMF Message IO

- Only 3 VMF messages are Min Imp, the other 100 or so messages are all optional. There is no agreed Functional Area Min Imp for those optional messages. So, Platform X may implement the K04.1 message but Platform Y may not
- VMF messages often have a number of 'Cases', most of which are not mandatory. Each Case is really a 'message' in its own right, so we could have Platform X implementing Case 1 whilst Platform Y does not

MIL-STD Version IO

- It may be necessary to build a multi-stack system that can use various versions as required but there is some limited IO between some MIL-STD versions. Different Header versions are unlikely to be IO
- Thorough research is required

IO is vital, as effective data link communications depend on being able to get the message (pun intended!) across clearly and accurately.

IO needs to be addressed at Day 1 of the project and not when the system is in service.

Most of these problems can be avoided by careful pre-acquisition research.

Figure out exactly who you need to interoperate with and find out precisely what they do - this may be easier said than done - get expert **independent** advice from the start!

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