STANAG 5066 Extension Protocol Series

Isode

STANAG 5066 is a NATO Standard providing a link level service for HF Radio, the latest version is Edition 4 of May 2022.
The S5066-EP document series was originally intended to address the issues in STANAG 5066 Edition 3. Most of these proposals were integrated into Edition 4. Many of these proposals are now primarily recorded for historical purposes. One proposal remains active, and the series may be used for future proposals.

This document is an index of the STANAG 5066 Extension Protocol (S5066-EP) series. Following the ratification of STANAG 5066 Ed4, a number of the Extension Protocols have been incorporated into the S5066 Ed4 Annexes.

1. S5066-EP Series Goals

STANAG 5066 is a NATO Standard "PROFILE FOR HF RADIO DATA COMMUNICATIONS" providing a link level service for HF Radio. The latest version is Edition 4 of May 2022.

The S5066-EP document series was originally intended to address the issues in STANAG 5066 Edition 3. Most of these proposals were integrated into Edition 4. Many of these proposals are now primarily recorded for historical purposes. One proposal remains active and the series may be used for future proposals.

Isode is managing the S5066-EP series and this index as a community service. The initial S5066-EP documents are written by Isode. Isode encourages other individuals, organizations, and vendors to contribute documents to this series.

2. Exchange of Information on STANAG 5066 Eps

The STANAG 5066 are all published on this website and can be reached using the links in the table at the bottom of this document.

There is an open mailing list for discussion of current and new S5066-EPs: s5066-ep (at) isode.com. To join this list or manage your subscription, please send a message to s5066-ep-request (at) isode.com.

3. Document Requirements

S5066-EPs must be openly available specifications that NATO may incorporate into a future edition of STANAG 5066. They must be free of IPR or Patent restrictions that would prevent this.

These specifications are intended for implementation and must provide sufficient clear information to be implemented in the context of the current STANAG 5066 Edition.

S5066-EPs must have a status value which is one of:

- Active: A specification that is still active in the latest edition of STANAG 5066.
- Historical: A specification that has either been discarded or incorporated into an Annex from the latest edition of STANAG 5066. Where a document has been incorporated into a specific Annex, this will be indicated.

4. Index

Number	Title	Status	Summary
S5066-EP1	STANAG 5066 Extension Protocol Index	N/A	This Document
S5066-EP2	STANAG 5066 Padding DPDU	Historical and incorporated into STANAG 5066 Ed4 Annex C	New PDU to improve performance
S5066-EP3	Pipelining the CAS 1 Linking Protocol	Historical Now not seen as useful	Optimizes CAS-1, which is important for small data transfers in particular
S5066-EP4	Data Rate Selection in STANAG 5066 for Autobaud Waveforms	Historical and incorporated into STANAG 5066 Ed4 Annex C	This document specifies an approach to STANAG 5066 Data Rate Selection to address some significant problems with Data Rate Change in the current standard.
S5066-EP5	STANAG 5066 Large Window Support	Historical and incorporated into STANAG 5066 Ed4 Annex C	This specification addresses performance problems caused by window exhaustion, which impacts WBHF and faster speeds for standard HF.
S5066-EP6	Slotted Option for STANAG 5066 Annex K	Historical and incorporated into STANAG 5066 Ed4 Annex K	This document specifies a Slotted option for STANAG 5066 Annex K (CSMA Access) as an alternative to the Jitter approach specified.
S5066-EP7	Advertising Extended Capabilities	Historical and incorporated into STANAG 5066 Ed4 Annex C	This document specifies a mechanism for STANAG 5066 implementations to specify which STANAG 5066 Extensions (S5066-EP series) they support.
S5066-EP8	Block-Based EOTs	Historical and incorporated into STANAG 5066 Ed5 Annex C	This document specifies a mechanism for using block count to determine the end of transmission.
S5066-EP9	Compact Acknowledgement	Historical Equivalent functionality provided in STANAG 5066 Ed5 Annex A	This document specifies a mechanism for client acknowledgement of STANAG 5066 APDUs that improves efficiency and

			reliability of the current mechanism.
S5066-EP10	Extension DPDU	Historical and incorporated into STANAG 5066 Ed4 Annex C	This document provides a framework for specifying future DPDUs.
S5066-EP11	Variable C_PDU Segment Size	Historical and incorporated into STANAG 5066 Ed4 Annex C	This document specifies a modification of STANAG 5066 to allow more flexibility in the selection of C_PDU segment size. This enables performance improvements.
S5066-EP12	HF Wireless Token Ring Protocol	Historical and incorporated into STANAG 5066 Ed4 Annex L	This document set out a protocol to improve Annex L in STANAG 5066 Ed3 and was fully incorporated into STANAG 5066 Ed4.
S5066-EP13	STANAG 5066 Routing Sublayer	Historical and incorporated into STANAG 5066 Ed4 Annex R	This specification adds a routing layer so that STANAG 5066 SIS service can be provided across multiple subnets.
S5066-EP14	STANAG 5066 TRANSEC Crypto Layer using AES and other Protocols	Historical and incorporated into STANAG 5066 Ed4 Annex T	This document specifies the protocol for supporting a Crypto Layer between STANAG 5066 and Modem.
S5066-EP15	AES Key Distribution for TRANSEC and Half Loop	Active	This document specifies a mechanism for distributing AES keys, in support of STANAG 5066 TRANSEC Crypto Layer using AES and other Protocols.

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