

Recommendation **ITU-T H.626.8 (03/2025)**

SERIES H: Audiovisual and multimedia systems

Broadband, triple-play and advanced multimedia services –
Advanced multimedia services and applications

Protocols for feature-based distributed intelligent systems

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Audiovisual and multimedia systems

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For further details, please refer to the list of ITU-T Recommendations.

Recommendation ITU-T H.626.8

Protocols for feature-based distributed intelligent systems

Summary

Recommendation ITU-T H.626.8 specifies detailed protocols of the feature-based distributed intelligent systems, based on the requirements specified in Recommendation ITU-T F.748.21 and the functional architecture specified in Recommendation ITU-T F.748.22.

History *

Edition	Recommendation	Approval	Study Group	Unique ID
1.0	ITU-T H.626.8	2025-03-16	21	11.1002/1000/16248

Keywords

Feature, intelligent system, protocols.

* To access the Recommendation, type the URL <https://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID.

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Recommendation ITU-T H.626.8

Protocols for feature-based distributed intelligent systems

1 Scope

This Recommendation specifies in detail protocols of feature-based distributed intelligent systems (FDIS), based on the functional architecture specified in [ITU-T F.748.22].

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

- [[ITU-T F.748.21](#)] Recommendation ITU-T F.748.21 (2022), *Requirements and framework for feature-based distributed intelligent systems*.
- [[ITU-T F.748.22](#)] Recommendation ITU-T F.748.22 (2023), *Functional architecture for feature-based distributed intelligent systems*.
- [[ITU-T H.222.0](#)] Recommendation ITU-T H.222.0 v10 (2025), *Information technology - Generic coding of moving pictures and associated audio information: Systems*.
- [[ITU-T H.627](#)] Recommendation ITU-T H.627 (2020), *Signalling and protocols for a video surveillance system*.
- [IETF RFC 2250] IETF RFC 2250 (1998), *RTP payload format for MPEG1/MPEG2 video*.
- [IETF RFC 3261] IETF RFC 3261 (2002), *SIP: Session initiation protocol*.
- [IETF RFC 3428] IETF RFC 3428 (2002), *Session initiation protocol (SIP) extension for instant messaging*.
- [IETF RFC 3550] IETF RFC 3550 (2003), *RTP: A transport protocol for real-time applications*.
- [IETF RFC 3551] IETF RFC 3551 (2003), *RTP profile for audio and video conferences with minimal control*.
- [IETF RFC 4571] IETF RFC 4571 (2006), *Framing real-time transport protocol (RTP) and RTP control protocol (RTCP) packets over connection-oriented transport*.
- [IETF RFC 5905] IETF RFC 5905 (2010), *Network time protocol version 4: Protocol and algorithms specification*.
- [IETF RFC 7798] IETF RFC 7798 (2016), *RTP payload format for high efficiency video coding (HEVC)*.
- [IETF RFC 8866] IETF RFC 8866 (2021), *SDP: Session description protocol*.
- [IETF RFC 9112] IETF RFC 9112 (2022), *HTTP/1.1*.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1 front-end equipment [b-ITU-T K.142]: Outdoor camera and associated ancillary equipment.

3.1.2 premises unit [b-ITU-T F.743]: A device located at the remote part of a video surveillance system and used to capture multimedia information (such as audio, video, image, alarm signal, etc.) from a surveilled object.

3.2 Terms defined in this Recommendation

None.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

AAC	Advanced Audio Coding
AFS	Application Function Set
DPFS	Data Processing Function Set
ECCS	Extended Control Command Set
EMCS	Extended Media Command Set
FCM	Feature Coding for Machines
FDIS	Feature-based Distributed Intelligent Systems
FFS	Front-end Function Set
HTTP	Hypertext Transfer Protocol
ID	Identifier
MFS	Management Function Set
ML	Machine Learning
NLP	Natural Language Processing
NTP	Network Time Protocol
OFS	Operation Function Set
PES	Packetized Elementary Stream
PESA	Packetized Elementary Stream Audio
PESF	Packetized Elementary Stream Feature
PESV	Packetized Elementary Stream Video
PSM	Program Stream Map
RTP	Real-Time Protocol
RTCP	RTP Control Protocol
SDP	Session Description Protocol
SIP	Session Initiation Protocol

SN	Serial Number
TCP	Transmission Control Protocol
UA	User Agent
UDP	User Datagram Protocol

5 Conventions

In this Recommendation:

- The keywords "is required to" indicate a requirement which must be strictly followed and from which no deviation is permitted if conformance to this document is to be claimed.
- The keywords "is recommended" indicate a requirement which is recommended but which is not absolutely required. Thus this requirement needs not be present to claim conformance.
- The keywords "can optionally" and "may" indicate an optional requirement which is permissible, without implying any sense of being recommended. These terms are not intended to imply that the vendor's implementation must provide the option and the feature can be optionally enabled by the network operator/service provider. Rather, it means the vendor may optionally provide the feature and still claim conformance with the specification.

6 Introduction to functional architecture of FDIS

Figure 1 shows the functional architecture of FDIS.