

International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

J.388

(08/2010)

SERIES J: CABLE NETWORKS AND TRANSMISSION
OF TELEVISION, SOUND PROGRAMME AND OTHER
MULTIMEDIA SIGNALS

Digital transmission of television signals

Real-time video and audio transmission system over IP networks

Recommendation ITU-T J.388

Recommendation ITU-T J.388

Real-time video and audio transmission system over IP networks

Summary

Recommendation ITU-T J.388 defines a system for real-time video/audio transmission over an IP-based network. The protocol of the system consists of session control and media transmission. Session control is based on the session initiation protocol (SIP), and for the use of SIP this Recommendation refers to Recommendation ITU-T J.366.4. Several types of packet formats are defined for media transmission. With regard to codecs, this Recommendation provides some mandatory codecs and some optional ones. The system equipped with the protocol specified here can be used for bidirectional applications, such as video telephony, as well as unidirectional applications, such as video news gathering. Even in case of video news gathering, bidirectional transmission is often required for communication between a reporter in the field and the studio. In addition, the system is defined taking into account implementation complexity. Thus, a software-based embedded solution is also available, which requires less cost and a shorter development period than a hardware-based one.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T J.388	2010-08-29	9

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure, e.g., interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <http://www.itu.int/ITU-T/ipr/>.

© ITU 2010

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without the prior written permission of ITU.

CONTENTS

	Page
1 Scope	1
2 References.....	1
3 Definitions	2
3.1 Terms defined elsewhere	2
3.2 Terms defined in this Recommendation.....	3
4 Abbreviations and acronyms	3
5 Conventions	4
6 System overview.....	4
6.1 Architecture framework.....	4
6.2 Session control.....	6
6.3 Media transmission.....	6
6.4 Example of the sequence	6
7 Session control.....	7
7.1 Authentication	7
7.2 Registration.....	8
7.3 Starting a session	8
7.4 Closing a session	8
7.5 Cancelling a request	8
8 Media transmission.....	8
8.1 Profiles.....	8
8.2 Codecs	9
8.3 Codec profile selection in set-up – UE procedures	9
8.4 Packet format.....	9
8.5 Transport.....	10
8.6 Real-time text support (optional).....	10

