

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

J.1026

(01/2022)

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

Conditional access and protection – Downloadable
conditional access system for unidirectional networks

Downloadable conditional access system for unidirectional networks – Requirements

Recommendation ITU-T J.1026

Recommendation ITU-T J.1026

Downloadable conditional access system for unidirectional networks – Requirements

Summary

Recommendation ITU-T J.1026 specifies requirements for a one-way downloadable conditional access system (DCAS) for unidirectional networks. A one-way DCAS protects broadcast content or services and controls consumer entitlements like traditional conditional access (CA) systems, and enables a terminal, such as a set-top box (STB), to adapt to a new CA system by downloading and installing the new client of a CA system without changing the hardware. In particular, one-way DCAS can fully work in unidirectional cable television (TV) networks and other unidirectional networks such as satellite TV networks.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T J.1026	2019-07-29	9	11.1002/1000/13972
2.0	ITU-T J.1026	2022-01-13	9	11.1002/1000/14868

Keywords

Downloadable conditional access system, DCAS, Requirements.

* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

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/software copyrights, 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 appropriate ITU-T databases available via the ITU-T website at <http://www.itu.int/ITU-T/ipr/>.

© ITU 2022

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

Table of Contents

	Page
1 Scope	1
2 References.....	1
3 Definitions	1
3.1 Terms defined elsewhere	1
3.2 Terms defined in this Recommendation.....	1
4 Abbreviations and acronyms	2
5 Conventions	3
6 Requirements for one-way downloadable conditional access system for unidirectional networks	3
6.1 Security challenges in a one-way television environment	3
6.2 System security requirements.....	4
6.3 General requirements.....	4
Appendix I – Activation of a hardware security module of a one-way downloadable conditional access system	6
Bibliography.....	7