

Recommendation

ITU-T J.1036 (07/2023)

SERIES J: Cable networks and transmission of television, sound programme and other multimedia signals

Conditional access and protection – Factual subscriber-base reporting and protected content delivery in conditional access systems

Factual subscriber-base reporting and protected content delivery in conditional access system – Requirements

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Recommendation ITU-T J.1036

Factual subscriber-base reporting and protected content delivery in conditional access system – Requirements

Summary

The objective of Recommendation ITU-T J.1036 is to address two major concerns related to conditional access system (CAS), namely underreporting of subscriber numbers and content piracy leading to revenue loss to broadcasters, content providers and the governments.

Most countries have implemented digital addressable systems (DAS) for distribution platforms such as cable TV, direct to home (DTH), Internet protocol television (IPTV), and headend in the sky (HITS), DAS enables subscribers to have a choice and option to select their channels and packages. Conditional access system (CAS) and subscriber management system (SMS) are integral parts of a DAS environment. While CAS is responsible for encrypting the content and its delivery in a secure and encrypted manner only to authorised subscribers, SMS handles the subscriber management functions. The quality of service depends on the CAS and SMS systems deployed by the distribution platform owner (DPO).

Since content providers and broadcasters have no control over the CAS and SMS, as these are deployed at the DPO end, they often complain about the loss of revenue due to various malpractices such as under-reporting of subscriber-base, distribution of channels to unauthorised users, and content piracy.

Therefore, it is necessary to frame benchmarks for the CAS systems prescribing technical specifications focusing on functional requirements to ensure factual reporting of the subscriber-base and protected delivery of content to authorised subscribers. Creating a framework that prevents the deployment of sub-standard CAS will bring preventive control from potential threats and revenue losses arising due to the vulnerability of such systems, bring economic efficiency, improve quality of service, and improve the end-consumer experience.

This Recommendation thus elaborates the various functional requirements of the CAS such as log requirements, reports requirements, database requirements, security requirements, service requirements and more. Compliance with these requirements in CAS performance will address the concerns mentioned above.

History *

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CAS, conditional access, piracy, reporting, subscriber management system, SMS.

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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.

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