

GY

**INDUSTRY STANDARD OF THE
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**General technical requirements for Internet TV
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules of Standardization Documents" Drafting.

1 Scope

This document specifies the overall technical architecture of Internet TV, Internet TV integration platform, Internet TV content service platform, Internet TV the docking requirements between network TV terminals and the basic requirements for docking with the supervision platform.

This document is applicable to the planning, design, construction, acceptance, operation, management and maintenance of Internet TV business systems.

2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated reference documents, Only the version corresponding to that date is applicable to this document; for undated references, the latest version (including all amendments) is applicable to this document file.

GB/T 22239-2019 Information Security Technology Network Security Level Protection Basic Requirements
GY/T 277-2019 Technical Specification for Digital Rights Management of Video and Audio Content Distribution

3.1 Terms and definitions

The following terms and definitions apply to this document.

3.1.1

Internet TV over the top TV; OTT TV Based on the public Internet to transmit video, audio, graphics, text and data, etc., through the terminal receiving equipment such as televisions and set-top boxes, Provide the public with safe, reliable, interactive and manageable multimedia audio-visual services.

Note: The Internet TV in this standard refers to the requirements of the State Administration of Radio, Film and Television "Operation and Management Requirements for Organizations Holding Internet TV Licenses" (Guangbanfa Wang Zi [2011]

181) Internet TV business.

3.1.2

OTT TV integration platform Integrate and manage Internet TV services, provide program integration and broadcast, EPG management, user management, digital copyright protection, A platform for billing management and other services, hereinafter referred to as "integrated platform".

Note 1: Program integration refers to the integration of content service platform programs and applications.

Note 2: The EPG management of the integrated platform refers to the management of the terminal desktop.

3.1.3

OTT TV content service platform Provide a content service platform that meets the broadcasting requirements for the collection, review, scheduling and copyright management of Internet TV programs, hereinafter referred to as "internal Content service platform".

3.1.4

OTT TV terminal

Including but not limited to set-top boxes, televisions, projectors, monitors and other equipment, with the function of Internet audio-visual program playback.

3.1.5

Terminal desktop launcher the interface launcher of the Internet TV terminal is used to provide indexing, navigation and application jump of Internet TV related services.

3.1.6

Radio and TV client number OTT TV ID the integration platform assigns numbers for qualified models of terminal devices in accordance with the numbering rules of Internet TV clients.

Note: The numbering rules are subject to the rules formulated by industry regulatory agencies.

3.2 Abbreviations

The following abbreviations apply to this document.

AAA Authentication Authorization Accounting (Authentication Authorization Accounting)
DRM Digital Rights Management (Digital Rights Management) EPG Electronic Program Guide (Electrical Program Guide) ITVID Internet TV Receiving Device Identification MAC media access control (Media Access Control)

4.1 Architecture

Internet TV includes integrated platforms, content service platforms, Internet TV terminals, Internet TV security management and Internet TV monitoring Tube platform. The schematic diagram of the Internet TV architecture is shown in Figure 1.

4.2.1 Platform function requirements

The integration platform is responsible for the unified integration and management of the programs and applications of the content service platform, while providing EPG, user management, billing, Service capabilities such as copyright and application stores form a standardized terminal desktop to provide users with services.

The integration platform should have the management capabilities of the terminal desktop. When illegal programs and applications are found on the terminal desktop, the integration platform should have the Purpose Real-time offline and application disabling capabilities.

4.2.2 Interface docking requirements

The integration platform should be connected to the content service platform to integrate the programs and applications provided by the content service platform.

The integrated platform should be connected to the Internet TV terminal to complete the first activation and boot authentication of the Internet TV terminal equipment.

The integrated platform should be connected with the Internet TV supervision platform to provide necessary supervision data.

4.3.1 Platform function requirements

The content service platform is responsible for the collection, review, scheduling and copyright management of programs. The content service platform is mainly composed of media resource management and content Release management, copyright management, data management, advertising management and other system components.

The content service platform should have the ability to aggregate content provider programs.

The content service platform should have the ability to organize and arrange in-app programs. When illegal programs are found in the app, the content service platform should Possess real-time management and control of related programs in the application.

4.3.2 Interface docking requirements

The content service platform should be connected to the integrated platform and accept the integrated management of programs and applications by the integrated platform. The application provided by the content service platform Before going online, the application integration interface of the docking integration platform should be standardized.

The content service platform is connected with the Internet TV supervision platform to provide necessary supervision data.

4.4 Internet TV terminal

Internet TV terminals should be connected to the integrated platform, and receive programs and applications of the content service platform through the integrated platform.

4.5 Internet TV security management

Internet TV security management includes the security prevention of Internet TV business in program production, distribution, transmission, and terminal management.

The standard requirements should be to prevent program tampering, hot-linking, illegal downloading and copying, etc., and digital rights management technology (DRM) should be