

GY

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**Technical requirements for Internet TV integration platform
(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 technical requirements for the architecture, functional modules and interfaces of the Internet TV integration platform.

This document is applicable to the planning, design, construction, acceptance, operation and maintenance of the Internet TV integration platform.

2 Normative references

There are no normative references in this document.

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 transmission, including video, audio, graphics, text and data, etc., the device is received through terminals such as televisions and set-top boxes.

It provides safe, reliable, interactive and manageable multimedia audio-visual services to the public.

Note: The Internet TV in this document 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 "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) API Application Programming Interface (Application Programming Interface) APP application (Application) 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) SDK Software Development Kit (Software Development Kit)

4.1 System composition

The composition diagram of the integrated platform system is shown in Figure 1.

Figure 1 Schematic diagram of integrated platform system composition

The integrated platform includes program integration and broadcast, EPG management, user management, billing management, application store management, terminal management, and data Management and digital copyright protection systems, as well as terminal desktops and application stores.

4.2 Program integration and broadcast system

The program integration and broadcasting system shall be connected to the content service platform, and shall be responsible for the program integration, broadcasting and management of the content service platform;

The integrated platform should have the ability to integrate the program metadata of the content service platform, and have the ability to synchronize program metadata and program online and offline.

4.3 EPG Management System

The EPG management system is responsible for the comprehensive management of terminal desktop presentation, including functional modules such as navigation,

recommendation, template, and search. able to provide Voice assistant, supports voice recognition and interaction.

4.4 User Management System

The user management system has user management service capabilities, including user registration, authentication, and management.

4.5 Billing Management System

The billing management system has the service capabilities to support Internet TV payment services, including product pricing, billing, and authentication.

4.6 App Store Management System

The application store management system is responsible for the management and operation of the application store. Including application information management, application review, application online and offline, application Use upgrade, application recommendation, application statistical analysis and other functional modules.

4.7 Terminal Management System

The terminal management system is responsible for the legality authentication of the terminal, including function models such as broadcast and television client number management, terminal activation, and terminal authentication.

Piece. Support desktop upgrade management.

4.8 Data Management System

The data management system is responsible for the analysis of desktop operation index data, mainly including data collection, data cleaning, data processing, and data analysis.

Analysis and other functional modules.

4.9 Digital Copyright Protection System

The digital copyright protection system provides copyright protection for audio-visual services. It is advisable to use DRM technology to encrypt programs.

After the program is encrypted, the digital copyright protection system should be authorized by the digital copyright protection system and the program key and authorization certificate can be obtained before the program can be watched normally.