

GY

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GY/T 339.2-2020

**Cable TV Network Big Data Technical Specification - Part 2:
Platform Requirements
(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.

This document is Part 2 of GY/T 339 "Cable TV Network Big Data Technical Specification". GY/T 339 has released the following parts.

- Part 1: General requirements;
- Part 2: Platform requirements;
- Part 3: Data rules.

Introduction

GY/T 339 "Cable TV Network Big Data Technical Specification" stipulates the general requirements of the cable TV network big data technical specification, including the functions, performance, interface, security and other requirements of big data systems and data services are applicable to cable TV network big data systems and industries.

Planning, design, implementation, acceptance, upgrading, and operation and maintenance of services.

GY/T 339 has three parts. Each part is briefly described as follows.

- Part 1: General requirements. Specifies the function, performance, interface, and security of the cable TV network big data system and data service and other requirements.
- Part 2: Platform requirements. It specifies the structure and technical requirements of the cable TV network big data platform.

--Part 3: Data rules. It stipulates the data source, data content and data expression rules of the big data of the cable TV network.

Cable TV Network Big Data Technical Specification Part 2: Platform Requirements

1 Scope

This document specifies the structure and technical requirements of the cable TV network big data platform, and also stipulates the cable TV network big data collection, Technical requirements for access, storage, processing, analysis, display and open services.

This document applies to the collection, access, storage, processing, analysis, display and open services of cable television network data, as well as to Guide the cable TV network operating agency to carry out the planning, design, implementation, upgrading, and operation and maintenance of the big data platform.

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 GB/T 35295-2017 Information Technology Big Data Terminology GB/T 35589-2017 Information Technology Big Data Technical Reference Model GB 50174-2017 Data Center Design Specification GY/T 337-2020 Radio and TV network security rating protection guidelines GD/J 075-2018 TV ratings data exchange interface specification

3 Terms and definitions

The following terms and definitions defined in GB/T 35295-2017 apply to this document.

Big data

It has the characteristics of huge volume, diverse sources, extremely fast generation, variability, etc., and it is difficult to effectively handle with traditional data architecture.

The amount of data in the data set.

[Source. GB/T 35295-2017, definition 2.1.1] 3.2 Big data reference architecture A high-level conceptual model used as a tool to facilitate open discussions on the inherent requirements, design structure, and operation of big data.

[Source. GB/T 35295-2017, definition 2.1.3] 3.3 Data center it consists of computer field station (computer room), computer room infrastructure, information system hardware

(physical and virtual resources), information system software and information an entity composed of resources (data), etc.

Big data platform

The data center system based on the big data reference architecture. In this document, it refers to the integration of big data collection, access, storage, and processing.

Data processing system for management, analysis, sharing, and various supporting functional components and infrastructure.

Data collection terminal A software component or physical device that is deployed on a data generating node to implement data standard collection, aggregation and processing.

Big data system

The data processing system based on the big data reference architecture, in this document, refers to the big data platform, data source, data collection A data processing system composed of functional components such as terminals, gateways, and related auxiliary components.

[Source. GB/T 35295-2017, definition 2.1.14].

Meta data

A data unit with attributes such as data type, code, name, and business description that can be used to describe the characteristics of data products.

Framework

A collection composed of functional components such as data collection, access, storage, processing, analysis, and services.

4 Abbreviations

The following abbreviations apply to this document.

API Application Programming Interface (Application Programming Interface) BSS Business Support System (Business Support System) CEP Complex Event Processing CPU Central Processing Unit (Central Processing Unit) GPU graphics processing unit (Graphic Processing Unit) HDD hard disk drive (Hard Disk Drive) IO Input and Output (Input and Output) MPI message passing interface (Message-Passing-Interface) MSS Management Support System (Management Support System) NoSQL non-relational database (Not only SQL) OLAP (On-Line Analysis Processing) OSS Operation Support System (Operation Support System) RAID Redundant Arrays of Independent Drives SQL structured query language (Structured Query Language) SSD solid state disk (Solid State Disk) XML Extensible Markup Language (Extensible Markup Language)

5 Overview

The big data platform realizes the collection, access, processing, and storage of various types of big data generated during the operation of operating institutions and system operation and maintenance.

Storage, analysis, display, sharing, and management, provide data and services for big data consumers, and provide a unified system for data exchange between operating organizations.

One interface. Figure 1 adopts the definition of big data reference system architecture in GB/T 35589-2017, and adopts the logic of roles, activities, components, etc.

The component describes the composition and business logic of the cable TV network big data platform (hereinafter referred to as the big data platform or platform). About Big Data Reference the system architecture, as well as descriptions of roles, activities, and components, are shown in Appendix A.