

ICS 33.040.40

CCS M 04



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

GB/T 46335.5-2025

**IPv6 adoption rate evaluation indicators and evaluation
methods - Part 5: Content delivery network (CDN)**

IPv6支持度评测指标与评测方法 第5部分：内容分发网络（CDN）

Issued on: October 5, 2025

Implemented on: February 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Preface	III
Introduction	IV
1 Scope	1
2 Normative References	1
3 Terms and Definitions	1
4 Abbreviations	1
5 Content Delivery Network (CDN) IPv6 Support Evaluation Metrics	1
6 Content Delivery Network (CDN) IPv6 Support Evaluation Methodology 7.	11
Appendix A (Informative) Content Delivery Network (CDN) IPv6 Support Rating Classification	11
Reference	15

Foreword

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

This document is Part 5 of GB/T 46335 "IPv6 Support Evaluation Indicators and Methods".

The following sections of "Evaluation Metrics and Evaluation Methods" have been published.

- Part 1: Website;
- Part 2: Mobile Internet Applications (APPs);
- Part 3: IP Backbone Networks;
- Part 4: Data Centers;
- Part 5: Content Delivery Network (CDN).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This document is under the jurisdiction of the National Telecommunications Standardization Technical Committee (SAC/TC485).

This document was drafted by: China Academy of Information and Communications Technology, China United Network Communications Group Co., Ltd., and China Mobile Anhui Branch.

Limited Liability Company, Beijing Tonghe Shiyi Telecommunications Science and Technology Research Institute Co., Ltd., Chengdu NetDing Technology Co., Ltd., ZTE Corporation Company, Ruizhe Technology Co., Ltd.

The main drafters of this document are: Chen Yunke, Ge Pei, Yang Zhe, He Tao, Tu Libiao, Wu Chuanjie, Lu Yunpeng, Yuan Hongmei, Wang Weiqiang, and Yang Guoliang.

Introduction

According to the "Notice on Accelerating the Large-Scale Deployment and Application of Internet Protocol Version 6 (IPv6)," in order to accelerate the promotion of IPv6...

To facilitate large-scale deployment, China has formulated a series of IPv6 application standards. Among them, GB/T 46335, "IPv6 Support Evaluation Indicators and Methods," is a standard for...

This document, formulated to standardize and guide the smooth progress of large-scale IPv6 deployment in China, is proposed to consist of five parts.

- Part 1: Website. The purpose is to present the website's domain name resolution system, network connectivity, and website system performance under an IPv6 environment.

The support evaluation metrics and methods are applicable to website systems that provide services to the public and support IPv6.

- Part 2: Mobile Internet Applications (APPs). The aim is to propose solutions for mobile internet applications (APPs) in terms of IPv6 usability, Evaluation metrics and assessments for IPv6 end-to-end usability, domain name IPv6 support, IPv6 completeness, and IPv6 usage stability.

Methodology. Applicable to a comprehensive evaluation of IPv6 support in mobile internet applications.

- Part 3: IP Bearer Networks. The purpose is to propose and standardize the three aspects of IP bearer networks. network readiness, network quality, and network reliability.

This section outlines evaluation metrics and methods for IPv6 support, applicable to IP networks carrying Internet application services regarding their IPv6 support. The evaluation.

- Part 4: Data Centers. The purpose is to measure the impact of data centers on network traffic, network quality, and infrastructure resources.

IPv6 support status, applicable to data center operators for monitoring and evaluating IPv6 support.

- Part 5: Content Delivery Network (CDN). The aim is to propose system compatibility guidelines for Content Delivery Networks (CDNs) in an IPv6 environment.

Evaluation metrics and methods for IPv6 support, including quantity, resource coverage, general performance, application acceleration performance, and stability.

Used for a comprehensive evaluation of the IPv6 support of content delivery network (CDN) operators.

IPv6 Support Evaluation Metrics and Methods Part 5: Content Delivery Network (CDN)

1 Scope

This document specifies the system capacity, resource coverage, general performance, and applications for Content Delivery Networks (CDNs) in an IPv6 environment.

The evaluation criteria for IPv6 support in terms of acceleration performance and stability are described, along with the corresponding testing methods.

This document is applicable to a comprehensive evaluation of the IPv6 support of content delivery network (CDN) operators.

2 Normative references

This document has no normative references.

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1

A network used to provide content delivery network services.

3.2 AAAA record AAAArecord

The DNS resource record type that points to the IPv6 address corresponding to the hostname.

4 Abbreviations

The following abbreviations apply to this document. DNS. Domain Name System

5.1 Overview

The evaluation of IPv6 support for content delivery networks includes the following five categories of indicators.

- Content Delivery Network IPv6 System Capacity. Within a specific geographical area, the content delivery network operator can provide capacity for IPv6 services.

Increase system capacity for faster service.

- Content Delivery Network IPv6 Coverage. Within a specific geographical area, the range of IPv6 users that the content delivery service can cover.

chinastandards.org - PREVIEW