

ICS 33.040.40

CCS M 04



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

GB/T 46335.1-2025

**IPv6 adoption rate evaluation indicators and evaluation
methods - Part 1: Website**

IPv6支持度评测指标与评测方法 第1部分：网站

Issued on: October 5, 2025

Implemented on: February 1, 2026

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

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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 1 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 the National

Computer Network Emergency Response Technical Team/Coordination Center of China.

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Beijing Tonghe Shiyi Telecommunications Science and Technology Research Institute Co., Ltd., Chengdu NetDing Technology Co., Ltd., China Construction Bank Corporation Beijing National Financial Technology Certification Center Co., Ltd., China Mobile (Hangzhou) Information Technology Co., Ltd., Ruizhe Technology Co., Ltd., Beijing Asia Hongshiji Technology Development Co., Ltd., Beijing Lianxing Technology Co., Ltd., Northeast Agricultural University, and Mudanjiang Normal University.

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Introduction

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

To facilitate 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 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 and assessing 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 1: Website

1 Scope

This document specifies the IPv6 support evaluation criteria for websites in an IPv6 environment, including domain name resolution system, network connectivity, and website system performance.

The requirements are specified, and the corresponding test methods are described.

This document applies to the evaluation of website systems that provide services to the public and support IPv6.

2 Normative references

This document has no normative references.

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Domain Name System

A distributed internet service system that maps domain names to certain predefined types of resource records.

Note. Domain name service systems on the network cooperate with each other to ultimately resolve domain names to the corresponding resource records.

[Source. GB/T 33134-2023, 3.7, with modifications]

3.2 domainname

In the Domain Name System namespace, a string of dotted decimal places connecting all nodes along the path from the current node to the root node.

[Source. GB/T 33134-2023, 3.2]

3.3 [Source. GB/T 33134-2023, 3.9]

A service system that provides trusted data functionality for one or more regions.

Note. Authoritative domain name service systems store the original domain name resource records of the zones they own.

3.4 AAAA record AAAArecord

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

3.5 internal link

Links between content pages under the same website domain.

3.6 external link

Links between content pages under different website domains.