

ICS 33.040
CCS L 78



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

GB/T 47323-2026

**IPv6 address assignment and coding rules -
Non-service-provider networks**

IPv6地址分配和编码规则 非服务商网络

Issued on: March 31, 2026

Implemented on: October 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. 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 Internet Network Information Center (CNNIC), China Academy of Information and Communications Technology (CAICT), and China Oil & Gas Pipeline Network Corporation (COPI). Company, Information Center of the Ministry of Water Resources, Highway Research Institute of the Ministry of Transport, Bank of China Limited, Information Center of the Ministry of Ecology and Environment, China China Railway Information Technology Group Co., Ltd., State Grid Corporation of China, Huawei Technologies Co., Ltd., Beijing Lianxing Technology Co., Ltd., Xiaomi Communications Technology Co., Ltd. The main drafters of this document are. Yang Xue, Shen Zhi, He Wei, Wang Zhifeng, Yu Wenyan, Zhang Likun, Wang Zhiyang, Liu Yongxiang, Qu Jiewu, Zou hope, and Zhang Jisheng. Xu Hong, Zhu Zhichao, Li Chen, Sun Yu, Xi Yingjie, Bai Junfeng, Li Jiwei, Wang Xuan, Chen Qi, Yu Zhen, Wang Xin, Zhao Jiangteng, Yu Haisheng, Wang Shaoshuai Yang Qi and Sun Hanbiao. IPv6 address allocation and encoding rules Non-service provider network

1 Scope

GB/T 47323-2026 is the Chinese national standard covering how an enterprise or campus plans its IPv6 addressing - the allocation of prefixes across sites, subnets and functions, in an address space so large that the discipline has to be chosen rather than forced by scarcity. First edition, in force since 1 October 2026. It was issued on 31 March 2026 and takes effect on 1 October 2026, as a first edition. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation,

and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the rules for IPv6 address allocation and encoding for non-service provider networks. This document applies to entities within my country, excluding Internet access service providers and application infrastructure service providers, that have the authority to manage IP addresses. Organizations and enterprises that obtain IPv6 addresses for their own use, or internet access service providers.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 45282-2025 General Requirements for IPv

3 Terms and Definitions

The terms and definitions defined in GB/T 45282-2025 apply to this document.

4. Abbreviations The following abbreviations apply to this document. 5. IPv6 address encoding format Figure 1 shows the IPv6 address encoding format for non-service provider networks, including the definition of each encoding field and the order in which the encoding fields are used.

- a) PB. IPv6 address block prefix, a bit string of length n ($n > 0$) obtained from the IP address allocation authority.
- b) AT. Address Type Identifier, a bit string of length s ($s > 0$), used to identify the address category in different usage scenarios; AT label Identifiers are typically located after the IPv6 address block prefix PB and before other identifiers.
- c) OI. Organization Identifier, a bit string of length t ($t > 0$) used to identify organizational information, which can reflect location information; non- Service providers can also place the OI identifier before the AT identifier according to their own needs.
- d) SSI. Subnet Space Identifier, a 128-nstu bit string used to identify subnet space partitioning information, depending on the actual business requirements. Service requirements are divided.