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

GB/T 44266-2024

Technical requirement for Chinese domain name

中文域名总体技术要求

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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 for standardization documents" Drafting is required. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the 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 Communications Standardization Technical Committee (SAC/TC 485). This document was drafted by: China Internet Network Information Center, Jinan University, Computer Network Information Center of Chinese Academy of Sciences, Guangdong Yingshi Computer Technology Co., Ltd., China Academy of Information and Communications Technology, Tsinghua University, Internet Society of China, China Telecom Corporation Limited, China Communications Standards Association, China Unicom Group Co., Ltd., China Mobile Communications Group Co., Ltd. The main drafters of this document are. Zeng Yu, Yao Jiankang, Li Hongtao, Hu Anlei, Pei Wei, Geng Guanggang, Yang Xue, Weng Jian, Li Yanbiao, Duan Haixin, Zhou Linlin, Zhang Man, Dong Kejun, Yan Zhiwei, Zhong Rui, Zheng

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The Internet is a network based on open interconnection protocols. Domain names are the basic services on the Internet. They are used to identify and locate a hierarchical character identifier for a computer, corresponding to the computer's Internet address. Based on the domain name, it can provide WWW, EMAIL, FTP and other application services. To support Chinese domain names, we must first support internationalized domain names. This document references IETF RFC 3490 and IETF RFC 5890 is the standard for internationalized domain names. IETF RFC 3743 is designed to address the problem of Chinese, Japanese, and Korean characters having different forms. Chapter 4 of this document mainly corresponds to IETF RFC 3490 and IETF RFC 5890, which mainly stipulates how to implement Chinese in applications. Domain name support. Chapter 5 of this document mainly corresponds to IETF RFC 3743, which mainly stipulates the registration guidelines for Chinese domain names. For file support, please refer directly to IETF RFC 3490 and IETF RFC 3743. With the development of the Internet, the number of Chinese users is increasing, and the demand for Chinese domain names is also increasing. There are significant differences from traditional English domain names, for example, the domain name field separators (Chinese and English periods) are different, and there are many types of Chinese characters, forms (including simplified, traditional, variant, ancient, etc.); and the character set of Chinese domain names is much larger than the character set of traditional English domain names. In order to standardize the use of Chinese domain names and enable Chinese users to conveniently use various Internet application services through Chinese domain names, It is very important to establish the standard of Chinese domain names and promote the use of Chinese domain names. General technical requirements for Chinese domain names

1 Scope

GB/T 44266-2024 sets the overall technical requirements for Chinese domain names, the internationalised domain names written in Chinese characters. They raise problems that an ASCII domain does not: the same word exists in simplified and traditional forms that users expect to be equivalent, the variant character tables that define that equivalence have to be applied consistently by every registry and registrar, the names must be encoded to and from Punycode without ambiguity, and applications that were written for ASCII have to be made to accept them. The standard sets the overall technology and an overview of the Chinese domain name system, then the requirements on the character repertoire and the variant handling, on the encoding and conversion, on registration and on the resolution service, on the behaviour required of applications and clients, and on the security and stability of the whole. For a registry, a registrar or a software vendor supporting Chinese domain names, this is the reference. It took effect on 23 August 2024.

This document specifies the overall technical requirements for using Chinese domain

names on the Internet system, and specifies the requirements for the resolution system for using Chinese domain names. Requirements, encoding technical requirements, registration technical requirements, and character table technical requirements. This document is applicable to domain name registration management institutions at all levels, domain name registration service providers and software manufacturers who develop applications that support Chinese domain names. Or services, etc.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies. in this document.

GB/T 44278-2024 Technical requirements for Chinese domain name resolution

GB/T 44596-2024 Technical requirements for Chinese domain name encoding

GB/T 44277-2024 Technical requirements for Chinese domain name table

GB/T 44270-2024 Technical requirements for Chinese domain name registration

3 Terms, definitions and abbreviations

3.1 Terms and Definitions The following terms and definitions apply to this document.

3.1.1 UNICODE encoding Characters are identified by their position, or code point, giving each character a unique number.

Note. The universal character encoding of this document adopts the set of ISO / IEC 10646 universal character encodings, called the universal character set.

3.1.2 Chinese domain name Domain names containing Chinese domain name fields.

3.1.3 domain name label The parts of a domain name separated by separators.

Note. The separator is the letters digits hyphen domain name system (LDH DNS) domain name. A period in a Chinese domain name or a Chinese period in a Chinese domain name.

3.1.4 Chinese domain name label Domain name field containing Chinese characters.