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**IPv4/IPv6 network security protection technical specifications -
Part 2: Mobile communication network**

IPv4/IPv6网络安全防护技术规范 第2部分：移动通信网

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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.

GB/T 45279 "IPv4/IPv6 Network Security Protection Technical Specification" and GB/T 44810 "IPv6 Network Security Equipment Technical Requirements" Together they form a national standard system that supports IPv6 security.

This document is Part 2 of GB/T 45279 "IPv4/IPv6 Network Security Protection Technical Specification". GB/T 45279 has been published The following parts.

- Part 1: IP bearer network;
- Part 2: Mobile communication network;
- Part 3: Internet Data Center;
- Part 4: Content delivery networks.

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.

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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 better cope with the complexity of the network, In order to promote the standardization of IPv6 network security work, China has formulated a series of IPv6 security Among them, GB/T 45279 "IPv4/IPv6 Network Security Protection Technical Specification" is to standardize the important network units of telecommunications networks and the Internet.

The security protection work carried out after the deployment of IPv6 is planned to be divided into the following parts.

- Part 1: IP bearer network. The purpose is to promote the security protection of IP bearer network after IPv6 is deployed.
- Part 2: Mobile communication network. The purpose is to promote the security protection of mobile communication networks after the deployment of IPv6.
- Part 3: Internet Data Center. The purpose is to promote the security protection of Internet data centers after the deployment of IPv6.
- Part 4: Content Distribution Network. The purpose is to promote the security protection of content distribution networks after the deployment of IPv6.

IPv4/IPv6 Network Security Protection Technical Specification Part 2: Mobile communication network

1 Scope

This document specifies the security protection requirements and test methods for mobile

communication networks in IPv4, IPv6, and dual-stack environments, including service security, network It covers network security, network element equipment and infrastructure security, physical environment security and management security.

This document is applicable to guiding the development and promotion of security protection work for mobile communication networks that support IPv4/IPv6 protocols.

2 Normative references

GB/T 22239-2019

GB/T 22240-2020

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Mobile communication network mobilecommunicationnetwork

A network that provides mobile communication services to the public through wireless access technology.

4 Abbreviations

The following abbreviations apply to this document.

AAA. Authentication, Authorization, and Accounting AKA. Authentication and Key Agreement AMF. Access and Mobility Management Function (AccessManagementFunction) AN. Access Network AN-AAA. Access Network-Authentication, Authorization, and Accounting API. Application Programming Interface ARP. Address Resolution Protocol AUSE. Authentication Server Function BG. Border Gateway BGP. Border Gateway Protocol BSF. Binding Support Function BTS. Base Transceiver Station