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**Security requirements and testing methods of IPv6 network
equipment - Part 1: Router**

IPv6网络设备安全技术要求和测试方法 第1部分：路由器

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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.

This document is Part 1 of GB/T 46240 "Technical Requirements and Test Methods for IPv6 Network Equipment Security".

The following parts were published.

- Part 1: Routers;
- Part 2: Switches.

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.

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Introduction

According to the Notice on Accelerating the Scale Deployment and Application of Internet Protocol Version 6 (IPv6), in order to speed up the solution of network equipment In order to address the security deficiencies of IPv6 and promote the standardization of IPv6 large-scale deployment and application innovations, China has formulated a series of IPv6 application standards.

Among them, GB/T 46240 "IPv6 Network Equipment Security Technical Requirements and Test Methods" is to standardize and guide the smooth deployment of IPv6 in China.

The standards formulated to facilitate the implementation of the project are planned to consist of two parts.

- Part 1: Routers. The purpose is to propose and standardize the development and

application of IPv6 security for routers.

- Part 2: Switches. The purpose is to propose and standardize the development and application of IPv6 security on switches.

Security Technical Requirements and Testing Methods for IPv6 Network Equipment Part 1: Router

1 Scope

This document specifies the security architecture of IPv6-capable routers, as well as security technologies for the data plane, control plane, and management plane.

Requirements and test methods.

This document is applicable to the design, development, and testing of router devices that support IPv6 capabilities.

2 Normative references

GB/T 25069

GB/T 41269-2022

3 Terms and Definitions

The terms and definitions defined in GB/T 25069 and the following apply to this document.

3.1 router

A network device used to establish and control the flow of data between different networks.

Note. Routers select paths or routes based on routing protocol mechanisms and algorithms to establish and control data flows between networks. The network itself can be based on different Same network protocol.

[Source. GB/T 41269-2022, 3.1, modified]

4 Abbreviations

The following abbreviations apply to this document.

ACL. Access Control List (AccessControlList) AS. Autonomous System CLI. Command-Line Interface