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INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

YD/T 4416-2023

Technical requirements for UDP-based multiplexing secure transmission protocol (QUIC) for IP networks

IP网络基于UDP的多路复用安全传输协议（QUIC）技术要求

(English Translation)

Issued on: July 28, 2023 **Implemented on: November 1, 2023**

Issued by: Ministry of Industry and Information Technology

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https://chinastandards.org/standards/yd-t-4416-2023

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1 Foreword

YD/T 4416-2023 was issued by Ministry of Industry and Information Technology on 28 July 2023 and has been in force since 1 November 2023.

The YD/T prefix marks a recommended standard. It is not law in itself: it becomes binding when a contract names it, when a regulation or a mandatory standard refers to it, or when a producer declares conformity with it.

The document runs to 15 pages in English translation.

2 Scope Preview

This standard specifies the technical requirements for the multiplexed secure transmission protocol (QUIC) based on UDP in IP networks. The main contents include: QUIC basic structure and application mode, QUIC connection management, QUIC encapsulation structure, QUIC protocol state machine, QUIC version management, QUIC packet loss detection and congestion control, QUIC error handling mechanism, QUIC manageability technical requirements, QUIC application support technical requirements, QUIC performance requirements, QUIC encryption mechanism, QUIC security considerations, etc. This standard applies to the development of QUIC-based transport layer protocols.

YD/T 4416-2023 falls under ICS 35.100.40, in the field of information technology.

This catalogue holds 725 other YD/T standards in that field.

In this catalogue, YD/T standards carry edition years from 1982 to 2026.

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3 About this standard

Sector: Telecommunication Industry Standard (Recommended)

Issued by: Ministry of Industry and Information Technology

English translation: about 15 pages (approximate)

4 Related standards

Standards on related subjects:

GB/T 17969.1-2015 - Information technology -- Open systems interconnection -- Procedures for the operation of OSI registration authorities -- Part 1: General procedures and top arcs of the International Object Identifier tree

GB/T 17143.7-1997 - Information technology. Open Systems Interconnection. Systems Management. Part 7: Security alarm reporting function

GB/T 17143.4-1997 - Information technology. Open Systems Interconnection. Systems Management. Part 4: Alarm reporting function

YD/T 6727-2026 - Technical requirements for IP based satellite access source address validation

YD/T 4432.6-2026 - Technical requirements for the inter-domain source address validation (SAVA-X) - Part 6: operation, administration, and maintenance (OAM)

YD/T 4417-2023 - UDP-based multiplexing secure transmission protocol (QUIC) test method for IP network

5 Classification and status

International classification (ICS): 35.100.40

Chinese Standard Classification (CCS): L 79

Prefix YD/T: recommended standard.

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