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

GB/T 26243.1-2026

Replacing GB/T 26243.1-2010

**Information technology - Relayed Multicast Control Protocol
(RMCP) - Part 1: Framework**

信息技术 中继组播控制协议 (RMCP) 第1部分：框架
(English Translation)

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Foreword

This document conforms to GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting is scheduled.

This document is Part 1 of GB/T 26243. GB/T 26243 has the following parts published.

--Part 1: Framework.

This document replaces GB/T 26243.1-2010 "Information Technology Relay Multicast Control Protocol (RMCP) Part 1: Framework", and is consistent with...

Compared with GB/T 26243.1-2010, apart from structural adjustments and editorial changes, the main technical changes are as follows.

a) Modified "Child Multicast Proxy", "Multicast", "Multicast Proxy", "Multitasking", "Parent Multicast Proxy", "Relay Multicast", and "Receiver Multicast Proxy".

Definitions of "Session Manager", "Session ID", "Sender Multicast Agent", and "Simplified" (see 3.1, 3.3, 3.4, 3.5, 3.6, 3.7).

3.8, 3.11, 3.12, 3.13, 3.14 (2010 edition. 3.12, 3.1, 3.7, 3.14, 3.11, 3.3, 3.9, 3.6, 3.10, 3.8, 3.13).

b) Added the terms and definitions for "IP Multicast", "Relay Multicast Control Protocol", and "Relay Multicast Control Protocol Dialogue" (see 3.2, 3.9).

(and 3.10);

c) Unused terms "Internet Protocol Multicast," "Relay Multicast Protocol," and "Relay Multicast Protocol Session" have been removed (see section 3.2 of the 2010 edition).

3.4, 3.5);

d) Abbreviations such as "CP", "ID", "IP", "CP", and "SCTP" have been removed (see Chapter 4 of the 2010 edition).

e) A new chapter on "Conventions" has been added (see Chapter 5);

f) The requirement for "RMCP service scenarios" has been removed (see Chapter 6 of the 2010 edition).

g) The requirement for the "SM protocol stack" has been added (see 6.2);

h) An "RMCP security considerations" requirement has been added (see 6.4);

i) A "session subscription" requirement has been added (see 7.2);

j) Change "Session Release" to "Session Termination" (see 7.4, 2010 version 7.4);

k) Change "Options" to "Controls" (see 8.2, 2010 version 8.2);

l) The "Fill Options" requirement has been removed (see 8.2.1.1 in the 2010 version).

m) "Option extensions" has been removed (see 8.2.1.2 in the 2010 version);

n) A "sub-control item format" has been added (see 8.3).

This document is equivalent to ISO/IEC 16512-1:2016 "Information technology - Relay multicast control protocol (RMCP) - Part 1." frame".

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 and is under the jurisdiction of the National Information Technology Standardization Technical Committee.

Introduction

GB/T 26243 aims to specify the Relay Multicast Control Protocol (RMCP), which is used to implement relay multicast data transmission schemes.

Protocol. Unlike traditional IP multicast, RMCP uses intermediate hosts along the configured relay multicast path to transmit multicast streams.

RMCP is used in IP networks that currently do not have fully deployed IP multicast and only have unicast.

GB/T 26243 is compiled in accordance with ISO/IEC 16512. Based on ISO/IEC 16512,

GB/T 26243 is proposed to consist of two parts.

constitute.

--Part 1: Framework. The purpose is to define the Relay Multicast Control Protocol (RMCP).

--Part 2: Simplex Group Application Specification. The purpose is to define multicast protocols based on a multicast tree, from a single sender to multiple receivers.

Control Protocol (RMCP-2).

Information Technology Relay Multicast Control Protocol (RMCP) Part 1: Framework

1 Scope

Relay Multicast Control Protocol (RMCP) is a protocol used to implement relay multicast data transmission schemes. It differs from traditional IP multicast.

Similarly, RMCP can utilize intermediate hosts to configure the relay multicast path through which multicast traffic flows, enabling RMCP to be applied to multicast networks that have not yet deployed IP addresses.

A unicast-based IP network.

This document introduces the basic concepts of RMCP. It defines the relevant terminology and proposes a framework for the future development of subsequent protocols.

The framework covers network topology, service scenarios, basic operations, and message formats, including network entities and their relationships.

2 Normative references

This document has no normative references.

3 Terms and Definitions

The following terms and definitions apply to this document.

Child multicast agent; CMA in the Relay Multicast Control Protocol (RMCP) data transmission path, the next-hop multicast agent (MA) is located downstream.

IP multicast

In IP networks, a multicast solution is implemented using IP routers that support multicast functionality.

multicast

A data delivery scheme that enables the same data unit to be sent from a single source to multiple destinations in a single service call.

Multicast agent; MA

Intermediate nodes for relaying group application data.

Multi-functional N-plex Multiple parties can send data; if one sender sends data, all other parties can receive that data.

Parent multicast agent; PMA in the Relay Multicast Control Protocol (RMCP) data transmission path, the upstream multicast agent (MA) is located upstream.

relayed multicast

A solution for delivering multicast data in unicast environments.