



Technical Specification

Kingdee Apusic Distributed Message Queue
V2.0.6_for_rocketmq

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1 Preface

This document is a feature specification for Kingdee Apusic Distributed Message Queue for RocketMQ (Apusic Distributed Message Queue for RocketMQ, abbreviated as ADMQ for RocketMQ), helping users understand in detail the product features and technical specifications of ADMQ for RocketMQ.

1.1 Target Audience

This document is intended for IT information business leaders, R&D managers, software project managers, software architects, and operations engineers.

1.2 Related Documents

To learn more about ADMQ for RocketMQ, please refer to the following ADMQ for RocketMQ product documentation:

No.	Document	Description
1	Kingdee Apusic Distributed Message Queue for RocketMQ Quick Start Guide	A brief introduction on how to quickly get started with ADMQ for RocketMQ.
2	Kingdee Apusic Distributed Message Queue for RocketMQ Installation Guide	Detailed instructions on installing ADMQ for RocketMQ on various operating systems, as well as starting and stopping ADMQ for RocketMQ services.
3	Kingdee Apusic Distributed Message Queue for RocketMQ Message Engine User Guide	Detailed instructions on using, configuring, and managing ADMQ for RocketMQ message engine features and supporting tools.
4	Kingdee Apusic Distributed Message Queue for RocketMQ Console User Guide	Detailed instructions on using and operating the ADMQ for RocketMQ console.
5	Kingdee Apusic Distributed Message Queue for RocketMQ Development Guide	Detailed instructions on developing ADMQ for RocketMQ client applications in various programming languages.
6	Kingdee Apusic Distributed Message Queue for RocketMQ Migration Guide	Detailed instructions on migrating from RocketMQ to ADMQ for RocketMQ.
7	Kingdee Apusic Distributed Message Queue for RocketMQ Operations	Detailed instructions on monitoring, operations, and security hardening for ADMQ for RocketMQ.

	Guide	
8	Kingdee Apusic Distributed Message Queue for RocketMQ Performance Optimization Guide	Detailed instructions on performance tuning for ADMQ for RocketMQ.

1.3 Technical Support

ADMQ for RocketMQ provides comprehensive technical support services. You can obtain technical support through the following channels:

- Website: www.apusic.com
- Phone: 400-855-5800
- Email: support@apusic.com
- Kingdee Cloud Community: <https://vip.kingdee.com/?productId=73&productLineId=14&lang=zh-CN>

When seeking technical support, please provide the following information:

1. Your name
2. Company information and contact details
3. Operating system and version
4. Product version number
5. Detailed information such as logs and screenshots of errors and exceptions

2 Product Version and Compatibility

2.1 Version Information

Attribute	Description
Product Name	Kingdee Apusic Distributed Message Queue
Product Version	ADMQ for RocketMQ V2.0.6.534
Release Date	June 2026

2.2 Client Compatibility

ADMQ for RocketMQ V2.0.6.534 is compatible with the following RocketMQ client versions: (Currently, the following protocols are supported in 5.x versions; in 4.x versions, they are consistent with open-source RocketMQ, with Java being the primary language and other languages implemented through third-party repositories)

Client Type	Supported Versions	Description
Java	4.4.x - 5.3.x	Official Java Client
Go	2.x	Official Go Client
Python	2.0.x	Official Python Client
C/C++	2.0.x - 2.2.x	Official C++ Client
.NET	1.x	Community .NET Client
Node.js	1.x	Community Node.js Client

2.3 Protocol Compatibility

Protocol	Status	Description
RocketMQ Remoting	Supported	Core message transport protocol
gRPC	Supported	RocketMQ 5.x new protocol
HTTP	Supported	RESTful API protocol
TCP	Supported	Underlying transport protocol

TLS	Supported	Encrypted transport
ACL	Supported	Access control protocol

3 Core Features

3.1 Message Production and Consumption

Feature	Description	Status
Producer	Supports synchronous/asynchronous sending, one-way sending, batch sending	Supported
Consumer	Supports push mode, pull mode, batch consumption	Supported
Message Ordering	Supports global ordering and partition ordering	Supported
Message Persistence	Messages persisted to disk, supports master-slave replication	Supported
Message Retry	Supports consumer retry and scheduled retry	Supported
Dead Letter Queue	Supports messages exceeding retry count entering dead letter queue	Supported
Message Trace	Supports recording full-chain message trace	Supported

3.2 Topics and Queues

Feature	Description	Status
Topic Create/Delete	Supports manual creation, auto-creation	Supported
Queue Management	Supports read/write queue count configuration	Supported
Message Filtering	Supports Tag filtering and SQL92 filtering	Supported
Message Query	Supports query by Key, message ID, time	Supported
Message Rewind	Supports rewind consumption by timestamp	Supported
Message Cleanup	Supports scheduled cleanup and capacity-based cleanup	Supported

3.3 Consumer Groups

Feature	Description	Status
Consumer Group	Supports consumer group management	Supported

Clustering Consumption	Messages in the same consumer group are consumed only once	Supported
Broadcasting Consumption	Each message in the same consumer group is consumed by all	Supported
Consumption Offset	Supports consumption by offset and by time	Supported
Consumption Retry	Supports retry mechanism after consumption failure	Supported
Consumption Progress	Supports viewing consumption lag and backlog	Supported

3.4 Advanced Message Features

Feature	Description	Status
Ordered Messages	Supports global ordered and partition ordered messages	Supported
Transactional Messages	Supports distributed transactional messages (two-phase commit)	Supported
Scheduled/Delayed Messages	Supports message delivery at specified times	Supported
Batch Messages	Supports producers sending messages in batch	Supported
Message Compression	Supports message body compression for transmission	Supported

3.5 High Availability and Fault Tolerance

Feature	Description	Status
Master-Slave Replication	Supports synchronous replication and asynchronous replication	Supported
Master-Slave Switchover	Supports master-slave switchover	Supported
Fault Recovery	Supports automatic failover	Supported
Cross-Data Center Deployment	Supports cross-data center multi-active deployment	Supported

3.6 Security Features

Feature	Description	Status
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Identity Authentication	Supports AK/SK and username/password authentication	Supported
Authorization Management	Supports ACL access control	Supported
Transport Encryption	Supports TLS encryption	Supported
Role Control	Supports RBAC role management	Supported
Multi-Tenancy	Supports namespace isolation	Supported

3.7 Operations Management

Feature	Description	Status
Monitoring Metrics	Supports Prometheus metric export	Supported
Log Management	Supports log level configuration and log rotation	Supported
Configuration Management	Supports dynamic configuration updates	Supported
Cluster Management	Supports Broker add/remove	Supported

4 Technical Specifications

4.1 System Requirements

Before starting deployment, please ensure your environment meets the following requirements:

- **Operating System:** 64-bit Linux (recommended CentOS 7+, Ubuntu 18.04+, domestic Kylin v10+, OpenEuler 22.03+)
- **Java Version:** JDK 8 and above
- **Hardware Configuration:**
 - Minimum production environment requires 7 servers (or virtual machines)
 - 3 servers running Name Server
 - 4 servers running Broker (2 Masters and 2 Slaves each)
 - Test environment can run all components on a single server
- **Network:** All nodes can communicate with each other and have a stable network connection
- **DNS:** Optional, configure a common DNS name for all Broker nodes

4.2 Hardware Recommendations

The following table provides hardware recommendations for clusters of different scales (per node):

Component	Small Cluster (250 Topics)	Medium Cluster (1000 Topics)
Name Server	• CPU: 4 cores • Memory: 16GB • Disk: 200GB SSD	• CPU: 8 cores • Memory: 32GB • Disk: 500GB SSD
Broker	• CPU: 8 cores • Memory: 32GB • Disk: 500GB SSD	• CPU: 16 cores • Memory: 64GB • Disk: 1TB SSD

Hardware Selection Recommendations

- Name Server is only used for metadata storage and can use relatively smaller servers
- Broker requires fast CPU and network, recommended to use 10Gbps network interfaces; storage requires fast storage devices, recommended to use SSD or RAID controller with battery-backed cache

4.3 Performance Metrics

Metric	Single Node	3-Node Cluster	Description
Throughput	60,000/sec	100,000/sec	Producer send rate

Latency	2ms	2ms	P99 latency
Master-Slave Sync	<1s	<1s	Synchronous replication delay
Fault Recovery	<30s	<30s	Master-slave switchover time

4.4 Network Ports

Port	Purpose	Description
9876	NameServer	Service registration and discovery
10911	Broker	Producer and consumer connections
10909	Broker VIP	VIP channel
10912	Broker HA	Master-slave replication port
12305	Console HTTP	Console web interface (HTTP)
12306	Console HTTPS	Console web interface (HTTPS)

4.5 Supported Storage

Type	Support	Description
EXT4	Supported	Linux standard file system
XFS	Recommended	High-performance file system
NFS	Supported	Network file system (requires configuration)
Multi-Disk Mounting	Supported	Supports multiple data directories

5 Deployment Modes

Deployment Mode	Number of Brokers	Number of NameServers	Description
Single Node Mode	1	1	Suitable for development and test environments, no high availability guarantee
Dual Master Mode	2	2	Suitable for production environments, dual Masters for mutual backup
Multi-Master Multi-Slave Mode	4+	3+	Suitable for production environments, Master-Slave architecture

6 Backup and Disaster Recovery

6.1 Data Backup

Backup Method	Description
Master-Slave Backup	Data redundancy through master-slave replication mechanism
Periodic Backup	Supports periodic export of CommitLog and ConsumeQueue
Cross-Data Center Backup	Supports cross-data center master-slave replication

6.2 Disaster Recovery Capabilities

Disaster Recovery Level	Capability
Node Failure	Automatic master-slave switchover, ensuring service continuity
Disk Failure	Master-slave replication mechanism, single disk failure does not affect service
Data Center Level	Supports cross-data center multi-active deployment
Data Security	Supports periodic snapshot backup

UNIFIED SERVICE HOTLINE

4008-555-800

Kingdee Apusic Cloud Computing Co., Ltd. (referred to as “Kingdee Apusic”) was founded in 2000. Its predecessor was “Kingdee Middleware Company.” It is a basic software platform provider under Kingdee Group, a national standards-setting enterprise for cloud computing, and a core software enterprise in the national IT application innovation industry. Kingdee Apusic is an enterprise undertaking the National 863 Key R&D Program and the National Major Science and Technology Project for Core Electronic Components, High-end General-purpose Chips and Fundamental Software, and is also a basic platform provider for the national key projects of “Two Networks, One Website, Four Databases, and Twelve Golden Projects.” Its products are widely used in key industries such as government, military, finance, and energy, and it has cumulatively served more than 100,000 customers.



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