



Technical Specification

金蝶Apusic分布式消息队列V2.0.6_for_kafka

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1 Preface

This document is the functional specification for ADMQ for Kafka (Apusic Distributed Message Queue, abbreviated as ADMQ for Kafka), helping users gain a detailed understanding of the product features and technical specifications of ADMQ for Kafka.

1.1 Target Audience

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

1.2 Related Documents

For more information about ADMQ for Kafka, please refer to the following ADMQ for Kafka product manual documentation suite:

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

1.3 Technical Support

ADMQ for Kafka 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 anomalies or errors

2 Product Version and Compatibility

2.1 Version Information

Attribute	Description
Product Name	ADMQ for Kafka
Product Version	ADMQ for Kafka V2.0.6.391
Release Date	March 2026

2.2 Client Compatibility

ADMQ for Kafka V2.0.6.391 is compatible with the following Kafka client versions:

Client Type	Supported Versions	Description
Java	2.8.x - 3.9.x	Supports all modern Java clients
Go	0.10.x - 1.x	Official Go client
Python	1.x - 2.x	Official Python client
C/C++	1.x - 2.x	librdkafka client
.NET	1.x - 3.x	Official .NET client
Node.js	1.x - 3.x	Official Node.js client

2.3 Protocol Compatibility

Protocol	Status	Description
PLAINTEXT	Supported	Plaintext transport protocol
SSL	Supported	SSL encrypted transport
SASL_PLAINTEXT	Supported	SASL plaintext authentication
SASL_SSL	Supported	SASL SSL authentication
SCRAM-SHA-256	Supported	SCRAM SHA-256 authentication
SCRAM-SHA-512	Supported	SCRAM SHA-512 authentication

OAuthBearer	Supported	OAuth2 authentication
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3 Core Functional Features

3.1 Message Send and Receive

Feature	Description	Status
Producer	Supports sync/async send, batch send, compression	Supported
Consumer	Supports pull mode, batch consumption, consumer groups	Supported
Message Order	Single-partition ordered, supports Key partition strategy	Supported
Message Persistence	Messages persisted to disk, supports multiple replicas	Supported
Message Compression	Supports GZIP, SNAPPY, LZ4, ZSTD	Supported
Idempotence	Exactly-Once semantics	Supported
Transactions	Supports multi-partition atomic writes	Supported

3.2 Topics and Partitions

Feature	Description	Status
Topic Create/Delete	Supports manual creation, auto-creation	Supported
Partition Management	Supports adding partitions (not reducible)	Supported
Partition Replicas	Supports configurable replica count and assignment	Supported
Partition Reassignment	Supports manual trigger of replica migration	Supported
Log Compaction	Supports Log Compaction cleanup policy	Supported
Log Retention	Supports time/size-based retention policies	Supported

3.3 Consumer Groups

Feature	Description	Status
Consumer Groups	Supports consumer group management	Supported
Rebalance	Supports automatic rebalance strategy	Supported
Offset Management	Supports automatic/manual offset commit	Supported

Offset Reset	Supports reset to earliest/latest/specified position	Supported
Consumption Progress	Supports viewing consumption lag	Supported

3.4 High Availability and Fault Tolerance

Feature	Description	Status
Multi-Replica	Supports configurable multi-replica redundancy	Supported
ISR Mechanism	Supports In-Sync Replicas synchronization	Supported
Leader Election	Supports automatic Leader election	Supported
Failure Recovery	Supports automatic failover	Supported
Controller	Supports Controller election and management	Supported
Replica Sync	Supports fast replica synchronization	Supported

3.5 Security Features

Feature	Description	Status
Authentication	Supports SASL/PLAIN/SCRAM authentication	Supported
Authorization Management	Supports ACL access control	Supported
Transport Encryption	Supports SSL/TLS encryption	Supported
Role Control	Supports RBAC role management	Supported
Multi-Tenancy	Supports resource isolation and multi-tenancy	Supported

3.6 Operations Management

Feature	Description	Status
Monitoring Metrics	Supports JMX/Prometheus metrics export	Supported
Log Management	Supports log level configuration and log rotation	Supported
Configuration Management	Supports dynamic configuration update	Supported
Cluster Management	Supports node addition/removal	Supported

Quota Management	Supports produce/consume quota control	Supported
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4 Technical Specifications

4.1 System Requirements

Component	Minimum Requirement	Recommended Configuration
CPU	4 cores	8 cores or more
Memory	8 GB	16 GB or more
Disk	100 GB SSD	500 GB or more SSD
Network	1 Gbps	10 Gbps
Operating System	Linux (CentOS 7+, Ubuntu 18.04+, Kylin, UOS)	-

4.2 Cluster Scale

Deployment Mode	Number of Brokers	Description
Standalone	1	Development and test environment
Cluster	3-5	Minimum production configuration
Large Scale	10+	High-throughput scenarios

4.3 Performance Metrics

Metric	Single Node	3-Node Cluster	Description
Throughput	100K/s	500K/s	Producer send rate
Latency	5ms	3ms	P99 latency
Replica Sync	<1s	<1s	Replica synchronization delay
Failure Recovery	<30s	<30s	Leader switchover time

4.4 Network Ports

Port	Purpose	Description
9092	Broker	Producer and consumer connections

9093	SSL	SSL encrypted connection
2181	ADCC	ADCC client connection
9094	SASL	SASL authenticated connection
12305	Console HTTP	Console web interface (HTTP)
12306	Console HTTPS	Console web interface (HTTPS)

4.5 Supported Storage

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

5 Deployment Modes

Deployment Mode	Number of Brokers	Description
Standalone	1	Suitable for development and test environments, built-in ADCC for zk, no HA guarantee
Cluster	3-10+	Suitable for production environments, supports HA and horizontal scaling
Hybrid	3+	Supports co-located deployment of ADCC for zk and Broker, reducing deployment costs

6 Backup and Disaster Recovery

6.1 Data Backup

Backup Method	Description
Replica Backup	Data redundancy through multi-replica mechanism
Periodic Backup	Supports periodic export of Topic data
Cross-Datacenter Backup	Supports MirrorMaker cross-datacenter synchronization

6.2 Disaster Recovery Capabilities

Disaster Recovery Level	Capability
Node Failure	Automatic failover, ensuring service continuity
Disk Failure	Multi-replica mechanism, single disk failure does not affect service
Datacenter Level	Supports cross-datacenter multi-active deployment
Data Security	Supports periodic snapshot backup

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4008-555-800

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