

# **Alibaba Cloud ApsaraDB for MongoDB**

Security White Paper

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## Document conventions

Style	Description	Example
	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 <b>Danger:</b> Resetting will result in the loss of user configuration data.
	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 <b>Warning:</b> Restarting will cause business interruption. About 10 minutes are required to restart an instance.
	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	 <b>Notice:</b> If the weight is set to 0, the server no longer receives new requests.
	A note indicates supplemental instructions, best practices, tips, and other content.	 <b>Note:</b> You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click <b>Settings &gt; Network &gt; Set network type.</b>
<b>Bold</b>	Bold formatting is used for buttons, menus, page names, and other UI elements.	Click <b>OK.</b>
Courier font	Courier font is used for commands.	Run the <code>cd /d C:/window</code> command to enter the Windows system folder.
Italic	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid Instance_ID</code>
[ ] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>

<b>Style</b>	<b>Description</b>	<b>Example</b>
{ } or {a b}	This format is used for a required value, where only one item can be selected.	switch {active stand}



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# 1 Overview

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ApsaraDB for MongoDB is fully compatible with the MongoDB protocol and is based on the distributed Apsara system and high-reliability storage engine. ApsaraDB for MongoDB provides solutions such as multiple-node high-availability architecture, elastic scaling, disaster recovery, backup and rollback, and performance optimization.

For more information, see [What is ApsaraDB for MongoDB?](#)

## 2 Resource Access Management

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To ensure data security, ApsaraDB for MongoDB controls access to databases through database account and password verification and an IP address whitelist.

### Database Account

- To access ApsaraDB for MongoDB, users must pass account authentication.
- A root user account is generated after creating a ApsaraDB for MongoDB instance. Users can specify the password during or after the instance creation.
- By default, the root user account has complete ApsaraDB for MongoDB management permissions. Users can use the root user account to add or operate other accounts.

### IP address whitelists

ApsaraDB for MongoDB provides the IP whitelist to implement network security access control.

By default, the whitelist contains only the IP address 127.0.0.1, which means no IP address can access the ApsaraDB for MongoDB instance. You can add IP addresses to a whitelist on the security controls page of the console or by using an API operation. Updating the IP whitelist does not require a restart, and therefore does not affect the running instance..

## 3 Data backup

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ApsaraDB for MongoDB automatically backs up data to ensure data integrity and reliability.

You can specify the full physical backup frequency (at least twice per week) and the backup time window. You can also initiate a full physical backup through the console or API at any time.

ApsaraDB for MongoDB also automatically backs up incremental logs. The full backup and incremental log backups allow users to restore data to a backup time point (accurate to seconds).

**Note:**

Currently, all MongoDB backup files are stored for only seven days.

## 4 Version Maintenance

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ApsaraDB for MongoDB periodically provides new database versions for you to upgrade as needed.

- ApsaraDB for MongoDB periodically releases new database software versions.
- ApsaraDB for MongoDB does not upgrade to the new version automatically unless the you restarts the MongoDB instance.
- The R&D team inform you to arrange an upgrade if the current software version has high security risks.
- The version upgrade usually takes less than five minutes and may disconnect the database several times.

## 5 Network isolation

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ApsaraDB for MongoDB supports the VPC function to implement high-level network isolation.

A VPC is a private network that resides in the public cloud and isolates your network packets through underlying network protocols, implementing access control on the network layer.

You can use VPN or a physical connection to connect on-premise servers to Alibaba Cloud and use user-defined VPC IP addresses to prevent IP address conflicts.

## 6 Service authorization

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Without your authorization, Alibaba Cloud after-sales team and ApsaraDB for MongoDB development team can only view information about resources, fees, and performance of your ApsaraDB for MongoDB instances. The information includes the time when an ApsaraDB for MongoDB instance is purchased and expires and its CPU, memory, and storage usage.

- To allow Alibaba Cloud after-sales team and ApsaraDB for MongoDB development team to view more information about your instances to help you troubleshoot issues, you can grant permissions to them.
- Only with your authorization can Alibaba Cloud after-sales team and ApsaraDB for MongoDB development team view or modify configurations about your ApsaraDB for MongoDB instances during the specified time period. For example, you can authorize them to view the IP address whitelist and audit logs of an ApsaraDB for MongoDB instance.
- Alibaba Cloud after-sales team and ApsaraDB for MongoDB development team never proactively modify connection information of your ApsaraDB for MongoDB instances, including the instance endpoint and the database account and password.