Alibaba Cloud

AnalyticDB for MySQL

Release Notes

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Alibaba Cloud

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Document conventions

Style	Description	Example
⚠ Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	⚠ **Danger:** Resetting will result in the loss of user configuration data.
🔔 Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	🔔 **Warning:** Restarting will cause business interruption. About 10 minutes are required to restart an instance.
🔊 Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	🔊 **Notice:** If the weight is set to 0, the server no longer receives new requests.
⑦ Note	A note indicates supplemental instructions, best practices, tips, and other content.	⑦ **Note:** You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click **Settings**> **Network**> **Set network type**.
Bold	Bold formatting is used for buttons , menus, page names, and other UI elements.	Click **OK**.
Courier font	Courier font is used for commands	Run the `cd /d C:/window` command to enter the Windows system folder.
Italic	Italic formatting is used for parameters and variables.	`bae log list --instanceid` *Instance_ID*
[] or [a|b]	This format is used for an optional value, where only one item can be selected.	`ipconfig [-all|-t]`
{} or {a|b}	This format is used for a required value, where only one item can be selected.	`switch {active|stand}`

Table of Contents

1.Release notes

This topic lists the latest feature changes to AnalyticDB for MySQL.

March 2021

V3.1.1.9 to V3.1.3.9

Category	Feature	Description	References
Added features	Computing resource grouping	The resource pool feature is provided to isolate computing resources by group in clusters in elastic mode.	资源池管理
	Tiered storage of hot and cold data	Table data of clusters in elastic mode can be defined as hot or cold data. You can switch between hot and cold storage.	N/A
	Upgrade or downgrade across specifications	Clusters can be changed from the reserved mode to the elastic mode.	N/A
	Compatible with time formats in AnalyticDB for MySQL V2.0	Time formats in AnalyticDB for MySQL V2.0 are compatible. Example: 2020-08-03T23:59:59.	N/A
	Indexes creation or deletion for JSON fields by executing the ALTER TABLE statement	Indexes for JSON fields can be disabled by executing the ALTER TABLE statement.	ALTER TABLE
	BINARY type	The BINARY type is added to the metadata of the protocol layer.	N/A
	Export of file headers during export from AnalyticDB for MySQL to a single Object Storage Service (OSS) object	File headers can be exported when you export data from AnalyticDB for MySQL to a single OSS object by using an external table.	Export data to OSS by using external tables

Category	Feature	Description	References
	Limit on the maximum number of rows in an object generated when you export data from AnalyticDB for MySQL to OSS by using an external table	If the number of exported rows exceeds the maximum, extra rows are exported to one or more new objects. You can specify both the maximum size and maximum number of rows in an object. Written data that first triggers the limit is exported to a new object.	N/A
	SQL Plan module	Execution plans of slow SQL queries can be viewed in the AnalyticDB for MySQL console.	Query execution plans
	INSERT INTO SELECT ON DUPLICATE KEY UPDATE	The following scenarios are supported: Input values in the UPDATE column are constants. Input values in the UPDATE column are those in the SELECT column.	N/A
	File format of OSS external tables	The ORC format is supported for OSS external tables.	N/A
	Priority of the BATCH LOAD statement	The priority of the BATCH LOAD statement can be specified by using hints.	N/A
Optimization	Performance of the LIMIT n statement	The performance is improved when you use the pushdown logic of the LIMIT n statement to filter data.	N/A
	Compatibility	The table creation statement is compatible with the BOOLEAN type.	N/A
	Database naming conventions	Database names can start with an uppercase letter or an underscore (_).	N/A

Category	Feature	Description	References
Fixed issues		Index exceptions occur when indexes are removed or added at the same time.	
		The java.lang.NullPointerException error occurs when the TABLE NOT EXIST statement is executed to insert data.	
		If partition fields exist in Parquet-formatted files when OSS partition tables are pushed down, data query exceptions may occur.	
		The Premature end of Content-Length error occasionally occurs when you access OSS.	
		The com.alibaba.fastsql.sql.ast.expr.SQLMethodInvokeExpr cannot be cast to com.alibaba.fastsql.sql.ast.SQLName error occurs when you execute the ADD KEY statement.	
		The no composite key to add error occurs due to composite keys when you manage tables in hot or cold storage.	

July 2020

V3.1.1.6

Category	Feature	Description	References
Added features	Timestamp and Datetime columns	When the MODIFY COLUMN statement is executed to modify a Timestamp or Datetime column, the ON UPDATE CURRENT_TIMESTAMP clause is supported.	N/A
	Table and column naming conventions	Table and column names support Chinese characters.	N/A
	Requirements for creating an external table in OSS	When you create an OSS external table, make sure that the following requirements are met: • The partition key columns must be specified at the end of the field list. Otherwise, the table cannot be created. • The partition key columns must be specified at the end of the field list. Otherwise, the table cannot be created.	Create an external table in OSS

Category	Feature	Description	References
Optimization	CREATE TABLE AS SELECT	The CREATE TABLE AS SELECT statement can be executed to create a table.	CTAS
	Fields of the BOOLEAN type	The default values for the fields of the BOOLEAN type can be 0 or 1.	N/A
	Show Databases	The permission to list databases can be granted when the SHOW DATABASES statement is executed.	N/A
Fixed issues	The Not a Number (NaN) bug occurs in statistics.		
	When the CREATE TABLE statement is executed to create a table, the table name is the same as an existing view name.		
	When a number of queries fail, data queries slow down.		
	When a statement that contains a GROUP BY clause is executed to query data from a table that has a multi-value column, only part of data is returned.		
	After the data in an OSS external table is compressed by using GZIP, only part of data is read from the end of the table.		

April 2020

V3.0.9.6

To improve the service quality, the following database software upgrades are performed for users of AnalyticDB for MySQL Basic Edition:

Category	Feature	Description	References
	Geometry functions	Geometry functions are supported.	Geometry functions
	JSON_EXTRACT function	The JSON_EXTRACT function is supported.	JSON_EXTRACT
	INSERT INTO VALUES(FROM_UNIXTIME(...))	The INSERT INTO VALUES(FROM_UNIXTIME(...)) statement is supported.	N/A
	Nested-loop join (NLJ)	NLJ is supported for data joining.	N/A

Added features Category	Feature	Description	References
	Power BI connection	Power BI can be connected to the protocol layer.	N/A
	Database naming conventions	Hyphens (-) can be included in database names. ② Note Hyphens (-) must be enclosed in backticks (``).	N/A
Optimization	Zero dates	Zero dates (0000-00-00) are converted to NULL.	N/A
	DIV function of the DECIMAL type	The DIV function of the DECIMAL type is supported as in MySQL.	DIV
	CAST function of the JSON type	The CAST function is supported for JSON data as in MySQL and Apache Hive.	JSON
	Threshold of response for slow queries	The threshold of response for slow queries is set to 1 second.	N/A

March 2020

V3.0.9

Category	Feature	Description	References
Added features	JSON data types and related JSON functions	Complex JSON data types and related JSON functions are supported.	• JSON • JSON functions
	SELECT NOW()	The SELECT NOW() statement is supported.	N/A

Category	Feature	Description	References
Optimization	Maximum number of tables	The maximum number of tables that can be created in a Cluster Edition cluster of the minimum specifications is increased from 512 to 800. The minimum specifications indicate that the Cluster Edition cluster has only two node groups.	N/A
	Compatibility with Data Definition Language (DDL) statements	The compatibility with DDL statements in AnalyticDB for MySQL V2.0 is improved to enable smooth data migration to AnalyticDB for MySQL V3.0 clusters. Your business is not affected during data migration.	N/A
	Compatibility with business intelligence (BI) tools	AnalyticDB for MySQL V3.0 improves compatibility with BI tools and is fully compatible with Power BI.	Power BI
Fixed issues	The system returns an unclear error message when the used disk space exceeds the threshold during data loading.		

February 2020

V3.0.8

Category	Feature	Description	References
	MariaDB JDBC Connector	MariaDB Connector/J is supported.	N/A
	Instance types of the Cluster Edition	The storage-intensive instance type S8 is added for AnalyticDB for MySQL clusters of the Cluster Edition. S8 is ideal for scenarios that do not require high concurrency and performance.	N/A

Category	Feature	Description	References
Added features	Flexible purchase of clusters	Node groups can be purchased and scaled out in pairs. This allows you to purchase clusters on demand and reduces costs.	N/A
	Available in Alibaba Finance Cloud	AnalyticDB for MySQL is available in the China East 1 Finance, China East 2 Finance, and China South 1 Finance regions of Alibaba Finance Cloud.	N/A
	Available on the international site (alibabacloud.com)	AnalyticDB for MySQL is available in the China (Hong Kong), Indonesia (Jakarta), Malaysia (Kuala Lumpur), India (Mumbai), and Australia (Sydney) regions.	N/A
Optimization	Time types	The TIMESTAMP and DATETIME data types are compatible with the NO_ZERO_DATE mode of MySQL SQL_MODE.	N/A
Fixed issues	Compatibility issues are generated from the SUBSTRING_INDEX function in terms of boundary condition processing.		

December 2019

V3.0.7

Category	Feature	Description	References
	Instance type C24	Compute-intensive instance type C24 is added for AnalyticDB for MySQL clusters. C24 is ideal for scenarios that require complex computing capabilities.	N/A

Category	Feature	Description	References
Added features	Upgrade feature	Instance types can be upgraded. You can perform hot switchovers between two of the following instance types within seconds: C8, C4, and C24.	N/A
	Monitoring and alerting feature	The monitoring and alerting feature is supported. You can use CloudMonitor to set the threshold for all metrics. An alert is triggered when the threshold is reached.	Monitoring and alerting
	Stop query feature	The stop query feature is supported. You can view and stop running queries in real time in the AnalyticDB for MySQL console.	N/A
	Synchronization from PolarDB-X to AnalyticDB for MySQL	Data Transmission Service (DTS) can be used to synchronize data from PolarDB-X to AnalyticDB for MySQL in real time for data analytics.	N/A
	Available on the international site (alibabacloud.com)	AnalyticDB for MySQL is released for international use. This service is available in the Singapore and Japan (Tokyo) regions.	N/A
Optimization	View creation	Window functions can be used to create views.	N/A
	Scenario of common table expressions (CTEs)	CTEs can be used in the INSERT SELECT FROM clause.	INSERT SELECT FROM

September 2019

V3.0.6

Category	Feature	Description	References
Added features	Instance type C4	Instance type C4 is added to simplify the use of AnalyticDB for MySQL. We recommend that you use this instance type in learning.	N/A
	COLLECT_SET function	The COLLECT_SET function is supported.	N/A
Optimization	Creation and scale-out time for clusters	The creation and scale-out time for clusters are optimized to reduce costs.	N/A
Fixed issues	The IF NOT EXIST clause does not take effect for external tables.		

August 2019

V3.0.5

Category	Feature	Description	References
Added features	Column default value	The default value of a column can be set to the current time. Example: `gmt_create datetime` NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP.	N/A
	Oracle GoldenGate (OGG)	OGG is supported in AnalyticDB for MySQL to enhance data synchronization from Oracle to AnalyticDB for MySQL.	N/A
	Disk resizing	Elegant disk resizing is supported. This allows you to resize disks on demand and reduces costs.	N/A
	Available in Alibaba Finance Cloud	AnalyticDB for MySQL is available in Alibaba Finance Cloud.	N/A

Category	Feature	Description	References
	Virtual e-commerce logistics platforms and CloudTmall	AnalyticDB for MySQL is available in virtual e-commerce logistics platforms and CloudTmall.	N/A
Optimization	Error message returned for modifying non-auto-increment attributes	An error is returned when you change non-auto-increment attributes to auto-increment attributes.	N/A

July 2019

V3.0.4

Category	Feature	Description	References
Added features	Backup	The incremental backup and restoration features are supported. You can restore data from backup sets to a point in time to maximize data restorability.	N/A
	LOAD DATA	The LOAD DATA LOCAL INFILE statement is supported.	LOAD DATA LOCAL INFILE
	Flexible purchase of services	Node groups can be purchased in pairs. For example, you can select 2, 4, 6, or 8 in the AnalyticDB for MySQL console.	N/A
	Data types and important functions	New data types and some important functions are supported.	N/A
Optimization	Compatibility	AnalyticDB for MySQL is fully compatible with Navicat, FineReport, and FineBI, and improves compatibility with Sequel Pro.	N/A
Fixed issues	Multiple columns are not supported for subquery comparisons.		

2.Announcements

This article mainly records the release time and considerations of the version of AnalyticDB for MySQL.

Precautions

During the version upgrade, please keep in mind the following precautions.

- Reserved mode cluster edition, elastic mode 32 cores and above specifications: data reading and writing are not interrupted, and queries are occasionally interrupted within 5 minutes after the upgrade is completed.

- Reserved mode basic edition, elastic mode 8-core 16-core specifications: data writing will be interrupted for about 30 minutes, and queries will occasionally flash within 5 minutes after the upgrade is completed.

- By default, upgrades to clusters do not affect their database access, account management, database management, or IP address whitelist settings.

- During the upgrade process, network jitters may occur and affect read and write operations. Make sure that you configure automatic reconnection policies for your applications.

- During the upgrade process, the clusters may experience transient disconnections. Make sure that you configure automatic reconnection policies for your applications.

If your instance does not need to be upgraded, or there is a problem with the upgrade process, please contact the product personnel for the work order!

Software Upgrade on April 23, 2021

- Upgrade operation time: 2021-04-23 00:00~2021-05-03 23:59:00
- Upgraded version: V3.1.3.9

Software upgrade on April 13, 2020

- Upgrade operation time: 2020-04-20 00:00:00~2020-04-27 23:59:00
- Upgrade version: V3.0.9.6

Software upgrade on March 20, 2020

- Upgrade duration: March 20, 2020 to March 27, 2020
- Upgrade version: V3.0.9

Software upgrade on February 20, 2020

- Upgrade duration: February 20, 2020 to February 27, 2020
- Upgrade version: V3.0.8

Software upgrade on December 26, 2019

- Upgrade duration: December 26, 2019 to December 31, 2019
- Upgrade version: V3.0.7

Software upgrade on October 21, 2019

In order to improve the service quality, AnalyticDB for MySQL Database software upgrades will be carried out on October 21, 2019 to repair defects, optimize performance or release new features.

- Upgrade duration:
  - 2019-10-21 20:00:00~2019-10-22 02:00:00
  - 2019-10-22 20:00:00~2019-10-23 02:00:00

- Upgrade version: V3.0.6