

Alibaba Cloud

Database Autonomy Service OpenAPI

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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.
 Note	A note indicates supplemental instructions, best practices, tips, and other content.	 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 .
<code>Courier font</code>	Courier font is used for commands	Run the <code>cd /d C:/window</code> command to enter the Windows system folder.
<i>Italic</i>	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid</code> <i>Instance_ID</i>
[] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>
{ } or {a b}	This format is used for a required value, where only one item can be selected.	<code>switch {active stand}</code>

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1.DescribeCacheAnalysisJobs

Queries cache analysis tasks.

Before you call this operation, make sure that the following conditions are met:

- This operation is applicable to only the Redis engine.
- When you use an Alibaba Cloud SDK, make sure that the aliyun-sdk-core version is later than V4.3.3. We recommend that you use the latest version.
- The SDK version for Database Autonomy Service (DAS) must be V1.0.2 or later.
- When you use the SDK to call the DAS service, you must specify the region as cn-shanghai.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeCacheAnalysisJobs	The operation that you want to perform. Set the value to DescribeCacheAnalysisJobs .
InstanceId	String	No	r-bp18ff4a195d***	The ID of the instance.
StartTime	String	No	1596177993000	The start time of the query task. Unit: millisecond. Specify the time in the UNIX timestamp format.
EndTime	String	No	1596177993000	The end time of the query task. Unit: millisecond. Specify the time in the UNIX timestamp format.  Note The end time of the query task must be later than the start time of the query task.
PageNo	String	No	1	The number of the page to return.
PageSize	String	No	10	The number of entries to return on each page.

Set RegionId to cn-shanghai.

Response parameters

Parameter	Type	Example	Description
Code	String	200	The returned status code.
Data	Struct		The information list.
Extra	String	None	The hidden parameter.
List	Array of CacheAnalysisJob		The detailed information.
CacheAnalysisJob			
BigKeys	Array of KeyInfo		The details of the big keys.
KeyInfo			
Bytes	Long	12345	The number of bytes that are occupied by the keys.
Count	Long	127	The number of elements in the keys.
Db	Integer	0	The name of the database.
Encoding	String	hashtable	The data type of the keys.
ExpirationTimeMillis	Long	1596256542547	The time when the keys expire. Unit: millisecond. The value 0 indicates that the keys do not expire.
Key	String	task_xxxxx	The name of the key.
Nodeid	String	r-xxxx-db-0	The ID of the sharded instance.
Type	String	hash	The type of the Redis data structure.
Instanceid	String	r-bp18ff4a195d****	The ID of the instance.
Jobid	String	sf79-sd99-sa37-****	The ID of the cache analysis task.

Parameter	Type	Example	Description
Message	String	Successful	The returned message of the request. Note If the request is successful, Successful is returned for this parameter. If the request fails, a request exception message such as an error code is returned.
NodeId	String	r-x****-db-0	The ID of the sharded instance.
TaskState	String	BACKUP	The status of the cache analysis task: • BACKUP: The data is being backed up. • ANALYZING: The task is in the analysis phase. • FINISHED: The analysis is complete. • FAILED: An error occurred.
PageNo	Long	1	The page number of the returned page.
PageSize	Long	10	The number of entries returned on each page.
Total	Long	2	The number of results.
Message	String	Successful	The returned message of the request. Note If the request is successful, Successful is returned for this parameter. If the request fails, a request exception message such as an error code is returned.
RequestId	String	B6D17591-B48B-4D31-9CD6-9B9796B2****	The ID of the request.

Parameter	Type	Example	Description
Success	String	true	Indicates whether the request was successful. • true: The request was successful. • false: The request failed.

Examples

Sample requests

```
http(s)://das.cn-shanghai.aliyuncs.com/? Action=DescribeCacheAnalysisJobs
&InstanceId=r-bp18ff4a195d****
&Region=cn-shanghai
&StartTime=1596177993000
&EndTime=1596177993000
&PageNo=1
&PageSize=10
&<Common request parameters>
```

Sample success responses

XML format

```

<DescribeCacheAnalysisJobsReponse>
  <RequestId> B6D17591-B48B-4D31-9CD6-9B9796B2xxxx</RequestId>
  <Message>Successful</Message>
  <Data>
    <Extra>None</Extra>
    <PageSize>10</PageSize>
    <Total>2</Total>
    <PageNo>1</PageNo>
    <List>
      <CacheAnalysisJob>
        <NodeId>r-xxxx-db-0</NodeId>
        <Message>Successful</Message>
        <Instanceld>r-bp18ff4a195dxxxx</Instanceld>
        <TaskState>BACKUP</TaskState>
        <JobId>xxxx-xxxx-xxxx-xxxx</JobId>
      </CacheAnalysisJob>
      <CacheAnalysisJob>
        <BigKeys>
          <KeyInfo>
            <Bytes>12345</Bytes>
            <Type>hash</Type>
            <NodeId>r-xxxx-db-0</NodeId>
            <ExpirationTimeMillis>1596256542547</ExpirationTimeMillis>
            <Encoding>hashtable</Encoding>
            <Count>127</Count>
            <Key>task_xxxxx</Key>
            <Db>0</Db>
          </KeyInfo>
        </BigKeys>
      </CacheAnalysisJob>
    </List>
  </Data>
  <Code>200</Code>
  <Success>true</Success>
</DescribeCacheAnalysisJobsReponse>

```

JSON format

```
{
  "RequestId": "B6D17591-B48B-4D31-9CD6-9B9796B2xxxx",
  "Message": "Successful",
  "Data": {
    "Extra": "None",
    "PageSize": "10",
    "Total": "2",
    "PageNo": "1",
    "List": {
      "CacheAnalysisJob": [
        {
          "NodeId": "r-xxxx-db-0",
          "Message": "Successful",
          "InstanceId": "r-bp18ff4a195dxxxx",
          "TaskState": "BACKUP",
          "JobId": "xxxx-xxxx-xxxx-xxxx",
          "BigKeys": {
            "KeyInfo": [
              {
                "Bytes": "12345",
                "Type": "hash",
                "NodeId": "r-xxxx-db-0",
                "ExpirationTimeMillis": "1596256542547",
                "Encoding": "hashtable",
                "Count": "127",
                "Key": "task_xxxxx",
                "Db": "0"
              }
            ]
          }
        }
      ]
    },
    "Code": "200",
    "Success": "true"
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

2.CreateCacheAnalysisJob

Creates a cache analysis task.

Before you call this operation, make sure that the following conditions are met:

- This operation is applicable only to ApsaraDB for Redis Community Edition and ApsaraDB for Redis Enhanced Edition (Tair).
- When you use an Alibaba Cloud SDK, make sure that the aliyun-sdk-core version is later than V4.3.3. We recommend that you use the latest version.
- The SDK version for Database Autonomy Service (DAS) must be V1.0.3 or later.
- When you call the SDK to call the DAS service, you must specify the region as cn-shanghai.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateCacheAnalysisJob	The operation that you want to perform. Set the value to CreateCacheAnalysisJob .
Instanceid	String	Yes	r-bp18ff4a195d***	The ID of the ApsaraDB for Redis instance.
Nodetid	String	No	r-x****-db-0	The ID of the data node of the instance. This parameter can be used to query the monitoring information about the specified node.  Note If you specify the BackupSetId parameter, the system ignores the Nodetid parameter. To query the node ID, you can call the DescribeLogicInstanceTopology operation.

Parameter	Type	Required	Example	Description
BackupSetId	String	No	12345	The ID of the backup file. To query this value, you can call the DescribeBackups operation.  Note - This parameter is required if the Redis instance is a cluster instance or a read/write splitting instance. If you need to specify multiple backup file IDs, separate them with commas (,), such as <code>12345,67890</code>. - If the Redis instance is a standard instance and you do not specify this parameter, the system automatically performs a backup and then performs cache analysis on the backup file.

Response parameters

Parameter	Type	Example	Description
Code	String	200	The returned status code.
Data	Struct		The list of detailed information.
BigKeys	Array of KeyInfo		The details of the big keys.
KeyInfo			
Bytes	Long	12345	The number of bytes that are occupied by the keys.
Count	Long	127	The number of elements in the keys.
Db	Integer	0	The name of the database.

Parameter	Type	Example	Description
Encoding	String	hashtable	The data type of the keys.
ExpirationTimeMillis	Long	1596256542547	The time when the keys expire. Unit: millisecond. The value 0 indicates that the keys do not expire.
Key	String	task_x****	The name of the key.
NodeId	String	r-x****-db-0	The data node ID of the instance.
Type	String	hash	The type of the Redis data structure.
InstanceId	String	r-bp18ff4a195d****	The ID of the instance.
JobId	String	sf79-sd99-sa37-****	The ID of the cache analysis task.  Note This parameter can be used to query cache analysis tasks. When you call this operation, it takes some time to create a cache analysis task. As a result, the analysis results are not immediately returned. To obtain the analysis results, you must use this parameter together with the DescribeCacheAnalysisJob API operation.
Message	String	Successful	The returned message for the request.  Note If the request is successful, Successful is returned. If the request fails, an exception message that contains an error code is returned.
NodeId	String	r-x****-db-0	The data node ID of the instance.

Parameter	Type	Example	Description
TaskState	String	BACKUP	The status of the cache analysis task. Valid values: • BACKUP: The data is being backed up. • ANALYZING: The task is in the analysis phase. • FINISHED: The analysis is complete. • FAILED: An error occurred.
Message	String	Successful	The returned message for the request.  Note If the request is successful, Successful is returned. If the request fails, an exception message that contains an error code is returned.
RequestId	String	B6D17591-B48B-4D31-9CD6-9B9796B2****	The ID of the request.
Success	String	true	Indicates whether the request was successful. • true: The request was successful. • false: The request failed.

Examples

Sample requests

```
http(s)://das.cn-shanghai.aliyuncs.com/?Action=CreateCacheAnalysisJob
&InstanceId=r-bp18ff4a195d****
&NodeId=r-x****-db-0
&<Common request parameters>
```

Sample success responses

XML format

```

<CreateCacheAnalysisJobReponse>
  <RequestId> B6D17591-B48B-4D31-9CD6-9B9796B2270A</RequestId>
  <Message>Successful</Message>
  <Data>
    <BigKeys>
      <KeyInfo>
        <Bytes>12345</Bytes>
        <Type>hash</Type>
        <NodeId>r-xxxx-db-0</NodeId>
        <ExpirationTimeMillis>1596256542547</ExpirationTimeMillis>
        <Encoding>hashtable</Encoding>
        <Count>127</Count>
        <Key>task_xxxx</Key>
        <Db>0</Db>
      </KeyInfo>
    </BigKeys>
    <Message>Successful</Message>
    <InstanceId>r-bp18ff4a195dxxx</InstanceId>
    <NodeId>r-xxxx-db-0</NodeId>
    <TaskState>BACKUP</TaskState>
    <JobId>xxx-xxxx-xxxx-xxx</JobId>
  </Data>
  <Code>200</Code>
  <Success>true</Success>
</CreateCacheAnalysisJobReponse>

```

JSON format

```

{"RequestId": "B6D17591-B48B-4D31-9CD6-9B9796B2270A",
 "Message": "Successful",
 "Data": {
   "BigKeys": {
     "KeyInfo": {
       "Bytes": "12345",
       "Type": "hash",
       "NodeId": "r-xxxx-db-0",
       "ExpirationTimeMillis": "1596256542547",
       "Encoding": "hashtable",
       "Count": "127",
       "Key": "task_xxxx",
       "Db": "0"}},
     "Message": "Successful",
     "InstanceId": "r-bp18ff4a195dxxx",
     "NodeId": "r-xxxx-db-0",
     "TaskState": "BACKUP",
     "JobId": "xxx-xxxx-xxxx-xxx",
     "Code": "200",
     "Success": "true"}

```

Error codes

For a list of error codes, visit the [API Error Center](#).

3.DescribeCacheAnalysisJob

Queries the details of a specified cache analysis task.

Before you call this operation, make sure that the following conditions are met:

- This operation is applicable to only the Redis engine.
- When you use an Alibaba Cloud SDK, make sure that the aliyun-sdk-core version is later than V4.3.3. We recommend that you use the latest version.
- The SDK version for Database Autonomy Service (DAS) must be V1.0.2 or later.
- When you use the SDK to call the DAS service, you must specify the region as cn-shanghai.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeCacheAnalysisJob	The operation that you want to perform. Set the value to DescribeCacheAnalysisJob .
InstanceId	String	No	r-bp18ff4a195d***	The ID of the instance.
JobId	String	No	sf79-sd99-sa37-****	The ID of the analysis task.

Response parameters

Parameter	Type	Example	Description
Code	String	200	The returned status code.
Data	Struct		The list of detailed information.
BigKeys	Array of KeyInfo		The details of the big keys.
KeyInfo			
Bytes	Long	12345	The number of bytes that are occupied by the keys.
Count	Long	127	The number of elements in the keys.
Db	Integer	0	The name of the database.

Parameter	Type	Example	Description
Encoding	String	hashtable	The data type of the keys.
ExpirationTime Millis	Long	1596256542547	The time when the keys expire. Unit: millisecond. The value 0 indicates that the keys do not expire.
Key	String	task_x****	The name of the key.
NodeId	String	r-****-db-0	The ID of the sharded instance.
Type	String	hash	The type of the Redis data structure.
InstanceId	String	r-bp18ff4a195d****	The ID of the instance.
JobId	String	sf79-sd99-sa37-****	The ID of the cache analysis task.
KeyPrefixes	Array of Prefix		The list of key prefixes.
Prefix			
Bytes	Long	3652000	The number of memory bytes that are occupied.
Count	Long	1596256	The number of elements for the prefix.
KeyNum	Long	123	The number of keys for the prefix.
Prefix	String	task_	The prefix of the keys.
Type	String	hash	The type of the Redis data structure.

Parameter	Type	Example	Description
Message	String	Successful	The returned message of the request. Note If the request is successful, Successful is returned for this parameter. If the request fails, a request exception message such as an error code is returned.
NodeId	String	r-x****-db-0	The ID of the sharded instance.
TaskState	String	BACKUP	The status of the cache analysis task: • BACKUP: The data is being backed up. • ANALYZING: The task is in the analysis phase. • FINISHED: The analysis is complete. • FAILED: An error occurred.
Message	String	Successful	The returned message of the request. Note If the request is successful, Successful is returned for this parameter. If the request fails, a request exception message such as an error code is returned.
RequestId	String	B6D17591-B48B-4D31-9CD6-9B9796B2****	The ID of the request.
Success	String	true	Indicates whether the request was successful. • true: The request was successful. • false: The request failed.

Examples

Sample requests

```
https://das.cn-shanghai.aliyuncs.com/?Action=DescribeCacheAnalysisJob
&InstanceId=r-bp18ff4a195d****
&JobId=sf79-sd99-sa37-****
&<Common request parameters>
```

Sample success responses

XML format

```
</DescribeCacheAnalysisJobReponse>
<RequestId> B6D17591-B48B-4D31-9CD6-9B9796B2270A</RequestId>
<Message>Successful</Message>
<Data>
  <KeyPrefixes>
    <Prefix>
      <Bytes>3652000</Bytes>
      <Type>hash</Type>
      <Count>1596256</Count>
      <Prefix>task_</Prefix>
      <KeyNum>123</KeyNum>
    </Prefix>
  </KeyPrefixes>
  <BigKeys>
    <KeyInfo>
      <Bytes>12345</Bytes>
      <Type>hash</Type>
      <NodeId>r-xxxx-db-0</NodeId>
      <ExpirationTimeMillis>1596256542547</ExpirationTimeMillis>
      <Encoding>hashtable</Encoding>
      <Count>127</Count>
      <Key>task_XXXX</Key>
      <Db>0</Db>
    </KeyInfo>
  </BigKeys>
  <Message>Successful</Message>
  <InstanceId>r-xxxxxx</InstanceId>
  <NodeId>r-xxxx-db-0</NodeId>
  <TaskState>BACKUP</TaskState>
  <JobId>xxxx-xxxx-xxxx-xxxx</JobId>
</Data>
<Code>200</Code>
<Success>true</Success>
</DescribeCacheAnalysisJobReponse>
```

JSON format

```
{
  "RequestId": "B6D17591-B48B-4D31-9CD6-9B9796B2270A",
  "Message": "Successful",
  "Data": {
    "KeyPrefixes": {
      "Prefix": {
        "Bytes": "3652000",
        "Type": "hash",
        "Count": "1596256",
        "Prefix": "task_",
        "KeyNum": "123"
      }
    },
    "BigKeys": {
      "KeyInfo": {
        "Bytes": "12345",
        "Type": "hash",
        "NodeId": "r-xxxx-db-0",
        "ExpirationTimeMillis": "1596256542547"
      }
    },
    "Encoding": "hashtable",
    "Count": "127",
    "Key": "task_xxxxx",
    "Db": "0"
  }
},
{
  "Message": "Successful",
  "InstanceId": "r-xxxxxx",
  "NodeId": "r-xxxxx-db-0",
  "TaskState": "BACKUP",
  "JobId": "xxxx-xxxx-xxxx-xxxx",
  "Code": "200",
  "Success": "true"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

4.GetAutonomousNotifyEventDetail

Queries the details of a specified notification event.

Before you call this operation, make sure that the following conditions are met:

- When you use an Alibaba Cloud SDK, make sure that the aliyun-sdk-core version is later than V4.3.3. We recommend that you use the latest version.
- The SDK version for Database Autonomy Service (DAS) must be V1.0.2 or later.
- When you use the SDK to call the DAS service, you must specify the region as cn-shanghai.
- After your instance is connected to DAS, notification events such as snapshot capturing are triggered if the changes of database monitoring metrics are detected during DAS anomaly detection.

 **Note** You can query the details of notification events only after the autonomy center is enabled. For more information, see [Autonomy center](#).

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	GetAutonomousNotifyEventDetail	The operation that you want to perform. Set the value to GetAutonomousNotifyEventDetail .
__context	String	No	None	The hidden parameter.
InstanceId	String	No	r-bp18ff4a195d***	The ID of the instance. On the Instance Monitoring page in the DAS console, you can view the IDs of different types of instances.
SpanId	String	No	7e7b2774-95b8-4fa3-bd9c-0ab47cb7****	The unique identifier of the event. You can call the GetAutonomousNotifyEvents operation to view SpanId in the response parameters.

Response parameters

Parameter	Type	Example	Description
Code	String	200	The returned status code.

Parameter	Type	Example	Description
Data	String	"Data": { "total": 1, "list": [...], "Code": 200, "Success": true }	The list of detailed information, including the number of messages and the error codes.
Message	String	Successful	The returned message of the request.  Note If the request is successful, Successful is returned for this parameter. If the request fails, a request exception message such as an error code is returned.
RequestId	String	B6D17591-B48B-4D31-9CD6-9B9796B2****	The ID of the request.
Success	String	true	Indicates whether the request was successful. • true: The request was successful. • false: The request failed.

Examples

Sample requests

```
https://das.cn-shanghai.aliyuncs.com/?Action=GetAutonomousNotifyEventDetail
&InstanceId=r-bp18ff4a195d****
&SpanId=7e7b2774-95b8-4fa3-bd9c-0ab47cb7****
&<Common request parameters>
```

Sample success responses

XML format

```
<GetAutonomousNotifyEventDetailReponse>
  <RequestId>B6D17591-B48B-4D31-9CD6-9B9796B2270A</RequestId>
  <Message>error msg</Message>
  <Data></Data>
  <Code>200</Code>
  <Success>true</Success>
</GetAutonomousNotifyEventDetailReponse>
```

JSON format

```
{ "RequestId": "B6D17591-B48B-4D31-9CD6-9B9796B2270A",  
  "Message": "Successful",  
  "Data": { "Data": { "total": 1, "list": [...] }, "Code": 200, "Success": true },  
  "Code": "200",  
  "Success": "true" }
```

Error codes

For a list of error codes, visit the [API Error Center](#).

5.DescribeHotKeys

Queries the hot keys of a specified ApsaraDB for Redis instance.

Before you call this operation, make sure that the following conditions are met:

- This operation is applicable to only the Redis engine.
- When you use an Alibaba Cloud SDK, make sure that the aliyun-sdk-core version is later than V4.3.3. We recommend that you use the latest version.
- The SDK version for Database Autonomy Service (DAS) must be V1.0.2 or later.
- When you use the SDK to call the DAS service, you must specify the region as cn-shanghai.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeHotKeys	The operation that you want to perform. Set the value to DescribeHotKeys .
InstanceId	String	No	r-bp18ff4a195d***	The ID of the Redis instance. You can call the DescribeInstances operation to view the ID.
NodeId	String	No	r-x***-db-0	The ID of the Redis node. You can call the DescribeRoleZoneInfo operation to view the InsName response parameter.

Response parameters

Parameter	Type	Example	Description
Code	String	200	The returned status code.
Data	Array of HotKey		The list of detailed information.
HotKey			
Db	Integer	0	The database instance.
Hot	String	5500~6000	The access frequency.
Key	String	BACKUP	The ID of the sharded instance.

Parameter	Type	Example	Description
KeyType	String	zset	The type of the keys.
Size	Long	12345	The number of elements in the keys.
Message	String	Successful	The returned message of the request.  Note If the request is successful, Successful is returned for this parameter. If the request fails, a request exception message such as an error code is returned.
RequestId	String	B6D17591-B48B-4D31-9CD6-9B9796B2****	The ID of the request.
Success	String	true	Indicates whether the request was successful. • true: The request was successful. • false: The request failed.

Examples

Sample requests

```
http(s)://https://das.cn-shanghai.aliyuncs.com/?Action=DescribeHotKeys
&InstanceId=r-bp18ff4a195d****
&NodeId=r-x****-db-0
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeHotKeysReponse>
  <RequestId> B6D17591-B48B-4D31-9CD6-9B9796B2270A</RequestId>
  <Message>Successful</Message>
  <Data>
    <HotKey>
      <KeyType>zset</KeyType>
      <Hot>5500~6000</Hot>
      <Size>12345</Size>
      <Key>BACKUP</Key>
      <Db>0</Db>
    </HotKey>
  </Data>
  <Code>200</Code>
  <Success>true</Success>
</DescribeHotKeysReponse>
```

JSON format

```
{"RequestId": "B6D17591-B48B-4D31-9CD6-9B9796B2270A",
 "Message": "Successful",
 "Data": {
   "HotKey": {
     "KeyType": "zset",
     "Hot": "5500~6000",
     "Size": "12345",
     "Key": "BACKUP",
     "Db": "0"
   }
 },
 "Code": "200",
 "Success": "true"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

6.GetAutonomousNotifyEvents

Queries the notification events that are related to the autonomy service.

Before you call this operation, make sure that the following conditions are met:

- When you use an Alibaba Cloud SDK, make sure that the aliyun-sdk-core version is later than V4.3.3. We recommend that you use the latest version.
- The SDK version for Database Autonomy Service (DAS) must be V1.0.2 or later.
- When you use the SDK to call the DAS service, you must specify the region as cn-shanghai.
- After your instance is connected to DAS, notification events such as snapshot capturing are triggered if the changes of database monitoring metrics are detected during DAS anomaly detection.

 **Note** You can query the details of notification events only after the autonomy center is enabled. For more information, see [Autonomy center](#).

Events are categorized based on the following urgency levels:

- Notice: notification events. When the changes of database monitoring metrics are detected during DAS anomaly detection, notification events such as snapshot capturing are triggered.
- Optimization: optimization events. DAS provides some recommendations on SQL optimization or specifications based on the previous trends of instance running.
- Warn: warning events that you must take note of. Warning events may affect databases.
- Critical: crisis events that you must handle. Crisis events occur when databases cannot provide services, such as emergency events of SQL throttling.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	GetAutonomousNotifyEvents	The operation that you want to perform. Set the value to GetAutonomousNotifyEvents .
__context	String	No	6c2e064b-a45f-4bd0-8a80-*****	The scenario where the event occurs.
InstanceId	String	No	rm-18ff4a195d****	The ID of the instance. On the Instance Monitoring page in the DAS console, you can view the IDs of different types of instances.
StartTime	String	No	1568269711000	The start timestamp of the SQL query. Unit: millisecond.

Parameter	Type	Required	Example	Description
EndTime	String	No	1568267711001	The end timestamp of the SQL query. Unit: millisecond.
NodeId	String	No	r-x****-db-0	The ID of the node. You can call the DescribeDBClusters operation to view the DBNodeId response parameter.  Note This parameter is applicable to only PolarDB.
EventContext	String	No	None	The hidden parameter.
Level	String	No	Notice	The urgency level of the event. When this parameter is specified, the MinLevel parameter is invalid. Valid values: • Notice: notification events • Optimization: optimization events • Warn: warning events • Critical: crisis events
MinLevel	String	No	Optimization	The minimum urgency level of events. Only the events whose urgency levels are higher than the specified urgency level are returned. Valid values: • Notice: notification events • Optimization: optimization events • Warn: warning events • Critical: crisis events
PageOffset	String	No	1	The number of the page to return. The paged query is performed.
PageSize	String	No	30	The number of entries to return on each page. The paged query is performed.

Response parameters

Parameter	Type	Example	Description
-----------	------	---------	-------------

Parameter	Type	Example	Description
Code	String	200	The returned status code.
Data	String	"Data": { "total": 1, "list": [...] }, "Code": 200, "Success": true }	The list of detailed information, including the number of messages and the error codes.
Message	String	Successful	The returned message of the request.  Note If the request is successful, Successful is returned for this parameter. If the request fails, a request exception message such as an error code is returned.
RequestId	String	B6D17591-B48B-4D31-9CD6-9B9796B2****	The ID of the request.
Success	String	true	Indicates whether the request was successful. • true: The request was successful. • false: The request failed.

Examples

Sample requests

```
https://das.cn-shanghai.aliyuncs.com/?Action=GetAutonomousNotifyEvents
&__context=6c2e064b-a45f-4bd0-8a80-*****
&InstanceId=rm-18ff4a195d****
&StartTime=1596177993000
&EndTime=1596177993000
&NodeId=r-x****-db-0
&PageSize=10
&<Common request parameters>
```

Sample success responses

XML format

```
<GetAutonomousNotifyEventsReponse>
  <RequestId> B6D17591-B48B-4D31-9CD6-9B9796B2270A</RequestId>
  <Message>Successful</Message>
  <Data> "Data":{  "total": 1,  "list":[...] }, "Code": 200, "Success": true }</Data>
  <Code>200</Code>
  <Success>true</Success>
</GetAutonomousNotifyEventsReponse>
```

JSON format

```
{"RequestId": "B6D17591-B48B-4D31-9CD6-9B9796B2270A",
 "Message": "Successful",
 "Data": {"Data": {  "total": 1,  "list": [...] }, "Code": 200, "Success": true },
 "Code": "200",
 "Success": "true"}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

7.GetInstanceInspections

Queries the result of the instance and inspection feature that is implemented on your instance.

DAS supports the inspection and scoring feature. This feature allows you to inspect and score the health status of your instances on a regular basis. This helps you learn the running status of your databases. For more information, see [Inspection and scoring](#).

Before you call this operation, make sure that the following conditions are met:

- This operation is applicable to only ApsaraDB RDS for MySQL databases, self-managed MySQL databases on Elastic Compute Service (ECS) instances, self-managed MySQL databases in your data center, and ApsaraDB for Redis databases.
- When you use an Alibaba Cloud SDK, make sure that the aliyun-sdk-core version is later than V4.3.3. We recommend that you use the latest version.
- The SDK version for Database Autonomy Service (DAS) must be V1.0.3 or later.
- When you use the SDK to call the DAS service, you must specify the region as cn-shanghai.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GetInstanceInspections	The operation that you want to perform. Set the value to GetInstanceInspections .
EndTime	String	Yes	1608888296000	The end time of the query task. Unit: millisecond. The value is a UNIX timestamp. Note The end time of the query task must be later than the start time of the query task.
Engine	String	Yes	MySQL	The engine of the database. Valid values: • MySQL • Redis Note Only MySQL and Redis are supported.

Parameter	Type	Required	Example	Description
InstanceArea	String	Yes	RDS	The database type to which the instance belongs. Valid values: • RDS: a cloud instance • ECS: a self-managed ECS instance • IDC: a self-managed instance that is not deployed on Alibaba Cloud  Note IDC is the user data center.
PageNo	String	Yes	1	The number of the page to return. The value must be an integer that is larger than 0 and does not exceed the maximum value of the INTEGER data type. Default value: 1.
PageSize	String	Yes	10	The maximum number of entries to return on each page. Default value: 10.
StartTime	String	Yes	1608888296000	The start time of the query task. Unit: millisecond. The value is a UNIX timestamp.
SearchMap	String	No	instanceId	The filter condition. You can use the following filter conditions: • instanceId: the ID of a single instance. • instanceIds: a list of multiple instance IDs. • region: the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
Code	String	200	The returned status code.
Data	Struct		The details.

Parameter	Type	Example	Description
List	Array of BaseInspection		The list of detailed information.
BaseInspection			
Data	String	<pre>"data": { "hasDeadLock": false, "exceptionTableMap": {}, "bigTransactionCount": 0, "cpu": 4, "isRds": true, "rdsEnable": true, "enable": false, "activeSessions": [], "bigTransactionList": [], "bigSessionList": [{ "blockDuration": 0, "active": false, "Time": 0, "db": "" },</pre>	The returned data.
EndTime	Long	1608888296000	The end time of the query task. Unit: millisecond. The value is a UNIX timestamp.  Note The end time of the query task must be later than the start time of the query task.
GmtCreate	Long	1603247192000	The time when the task was created. Unit: millisecond. The value is a UNIX timestamp.
Instance	Struct		The instance information.
AccountId	String	108398049688****	The account ID. On the Security Settings page under Alibaba Cloud account management , you can query the ID of the logon account .

Parameter	Type	Example	Description
Engine	String	MySQL	The engine of the database. Valid values: - MySQL - Redis  Note Only MySQL and Redis are supported.
EngineVersion	String	5.7	The version number of the database engine.
InstanceArea	String	RDS	The database type to which the instance belongs. Valid values: - RDS: a cloud instance - ECS: a self-managed ECS instance - IDC: a self-managed instance that is not deployed on Alibaba Cloud  Note IDC is the user data center.
InstanceClass	String	rds.mysql.s2.xlarge	The instance type.
InstanceId	String	rm-bp10usoc1erj7****	The ID of the instance.
NetworkType	String	Vpc	The network type of the instance.
NodeId	String	rm-bp10usoc1erj7****	The ID of the node on the instance.
Region	String	cn-hangzhou	The ID of the region where the instance is deployed.
Uuid	String	hdm_3063db6792965c080a4bcb6e6304***	The unique identifier of the instance.
VpcId	String	vpc-bp1knt7m55z9exoo7****	The ID of the VPC where the instance is deployed.

Parameter	Type	Example	Description
Score	Integer	100	The inspection score of the instance.
ScoreMap	String	"cpu": 4	The deduction details for the score.
StartTime	Long	1608888296000	The start time of the query task. Unit: millisecond. The value is a UNIX timestamp.
PageNo	Long	1	The number of the page to return. The value must be an integer that is larger than 0 and does not exceed the maximum value of the INTEGER data type. Default value: 1.
PageSize	Long	10	The maximum number of entries returned on each page. Default value: 10.
Total	Long	4	The total number of entries returned.
Message	String	Successful	The returned message for the request.  Note If the request is successful, Successful is returned. If the request fails, an exception message that contains an error code is returned.
RequestId	String	B6D17591-B48B-4D31-9CD6-9B9796B2****	The ID of the request.
Success	String	true	Indicates whether the request was successful. true: The request was successful. false: The request failed.

Examples

Sample requests

```
http(s)://das.cn-shanghai.aliyuncs.com/?Action=GetInstanceInspections
&PageNo=1
&PageSize=10
&<Common request parameters>
```

Sample success responses

XML format

```
<GetInstanceInspectionsReponse>
  <RequestId> B6D17591-B48B-4D31-9CD6-9B9796B2****</RequestId>
  <Message>Successful</Message>
  <Data>
    <PageSize>10</PageSize>
    <Total>4</Total>
    <PageNo>1</PageNo>
    <List>
      <BaseInspection>
        <GmtCreate>1603247192000</GmtCreate>
        <Score>100</Score>
        <ScoreMap>"cpu": 4</ScoreMap>
        <EndTime>1608888296000</EndTime>
        <StartTime>1608888296000</StartTime>
        <Data>"data": {    "hasDeadLock": false,    "exceptionTableMap": {},    "bigTransactionCount": 0,    "cpu": 4,    "isRds": true,    "rdsEnable": true,    "enable": false,    "activeSessions": [],    "bigTransactionList": [],    "bigSessionList": [    {    "blockDuration": 0,    "active": false,    "Time": 0,    "db": ""    }],</Data>
      <Instance>
        <Uuid>hdm_3063db6792965c080a4bcb6e6304****</Uuid>
        <EngineVersion>5.7</EngineVersion>
        <AccountId>123456678</AccountId>
        <VpcId>vpc-bp1knt7m55z9exoo7****</VpcId>
        <InstanceId>rm-bp10usoc1erj****</InstanceId>
        <NetworkType>Vpc</NetworkType>
        <InstanceArea>RDS</InstanceArea>
        <NodeId>rm-bp10usoc1erj7****</NodeId>
        <Region>cn-hangzhou</Region>
        <InstanceClass>rds.mysql.s2.xlarge</InstanceClass>
        <Engine>MySQL</Engine>
      </Instance>
    </BaseInspection>
  </List>
</Data>
<Code>200</Code>
<Success>true</Success>
</GetInstanceInspectionsReponse>
```

JSON format

```
{
  "RequestId": "B6D17591-B48B-4D31-9CD6-9B9796B2****",
  "Message": "Successful",
  "Data": {
    "PageSize": "10",
    "Total": "4",
    "PageNo": "1",
    "List": {
      "BaseInspection": [
        {
          "GmtCreate": "1603247192000",
          "Score": "100",
          "ScoreMap": {
            "cpu": "4",
            "EndTime": "1608888296000",
            "StartTime": "1608888296000",
            "Data": {
              "data": {
                "hasDeadLock": false,
                "exceptionTableMap": {},
                "bigTransactionCount": 0,
                "cpu": "4",
                "isRds": true,
                "rdsEnable": true,
                "enable": false,
                "activeSessions": [],
                "bigTransactionList": [],
                "bigSessionList": [
                  {
                    "blockDuration": 0,
                    "active": false,
                    "Time": 0,
                    "db": ""
                  }
                ],
                "Instance": {
                  "Uuid": "hdm_3063db6792965c080a4bcb6e6304****",
                  "EngineVersion": "5.7",
                  "AccountId": "123456678",
                  "VpcId": "vpc-bp1knt7m55z9exoo7****",
                  "InstanceId": "rm-bp10usoc1erj****",
                  "NetworkType": "Vpc",
                  "InstanceArea": "RDS",
                  "NodeId": "rm-bp10usoc1erj7****",
                  "Region": "cn-hangzhou",
                  "InstanceClass": "rds.mysql.s2.xlarge",
                  "Engine": "MySQL"
                }
              }
            }
          }
        }
      ]
    },
    "Code": "200",
    "Success": "true"
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.CreateDiagnosticReport

Creates a diagnostic report.

Database Autonomy Service (DAS) regularly inspects all the database instances that are connected to DAS and generates health scores. This way, the running status of databases is clear at a glance.

Before you call this operation, make sure that the following conditions are met:

- This operation is applicable to only the ApsaraDB RDS for MySQL and ApsaraDB for Redis engines.
- When you use an Alibaba Cloud SDK, make sure that the aliyun-sdk-core version is later than V4.3.3. We recommend that you use the latest version.
- The SDK version for DAS must be V1.0.2 or later.
- When you use the SDK to call the DAS service, you must specify the region as cn-shanghai.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	CreateDiagnosticReport	The operation that you want to perform. Set the value to CreateDiagnosticReport .
Uid	String	No	hdm_df02bbfd3bd64c7bb1982e5323a6****	The account ID. On the Security Settings page under Alibaba Cloud account management , you can query the ID of the logon account .
accessKey	String	No	None	A hidden parameter.
signature	String	No	None	A hidden parameter.
timestamp	String	No	None	A hidden parameter.
__context	String	No	None	A hidden parameter.
skipAuth	String	No	None	A hidden parameter.
UserId	String	No	None	A hidden parameter.
DBInstanceId	String	No	r-s****	The ID of the instance.

Parameter	Type	Required	Example	Description
StartTime	String	No	1596177993000	The start time of the task of creating the diagnostic report. Specify the time in the UNIX timestamp format. The time must be in UTC. Unit: ms.
EndTime	String	No	1596177993000	The end time of the task of creating the diagnostic report. Specify the time in the UNIX timestamp format. The time must be in UTC. Unit: ms.  Note The end time of the task of creating the diagnostic report must be later than the start time of the task of creating the diagnostic report.

Response parameters

Parameter	Type	Example	Description
Code	String	200	The returned status code.
Data	String	{ "cpuUsage": 0.000299999999999999894, "maxConnection": 32532, "slowSqlCount": 0, "exceptionTableMap": { "table_space": 1, "table_row": 1 },	The returned data.
Message	String	Successful	The returned message.  Note If the request is successful, Successful is returned. If the request fails, a request exception message, such as an error code, is returned.
RequestId	String	ac544623-f6ad-45fd-9a74-9be3db65****	The ID of the request.

Parameter	Type	Example	Description
Success	String	true	Indicates whether the request was successful. • true: The request was successful. • false: The request failed.
Synchro	String	None	A hidden parameter.

Examples

Sample requests

```
http(s)://das.cn-shanghai.aliyuncs.com/?Action=CreateDiagnosticReport
&StartTime=1608888296000
&EndTime=1608888296000
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateDiagnosticReportReponse>
  <RequestId>ac544623-f6ad-45fd-9a74-9be3db65f938</RequestId>
  <Message>None</Message>
  <Synchro>None</Synchro>
  <Data></Data>
  <Code>200</Code>
  <Success>true</Success>
</CreateDiagnosticReportReponse>
```

JSON format

```
{
  "RequestId": "ac544623-f6ad-45fd-9a74-9be3db65f938",
  "Message": "None",
  "Synchro": "None",
  "Data": "",
  "Code": 200,
  "Success": true
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

9.DescribeDiagnosticReportList

Queries diagnostic reports.

Database Autonomy Service (DAS) regularly inspects all the database instances that are connected to DAS and generates health scores. This way, the running status of databases is clear at a glance.

Before you call this operation, make sure that the following conditions are met:

- This operation is applicable to only the ApsaraDB RDS for MySQL and ApsaraDB for Redis engines.
- When you use an Alibaba Cloud SDK, make sure that the aliyun-sdk-core version is later than V4.3.3. We recommend that you use the latest version.
- The SDK version for DAS must be V1.0.2 or later.
- When you use the SDK to call the DAS service, you must specify the region as cn-shanghai.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeDiagnosticReportList	The operation that you want to perform. Set the value to DescribeDiagnosticReportList .
Uid	String	No	hdm_df02bbfd3bd64c7bb1982e5323a67944	A hidden parameter.
accessKey	String	No	None	A hidden parameter.
signature	String	No	None	A hidden parameter.
timestamp	String	No	None	A hidden parameter.
__context	String	No	None	A hidden parameter.
skipAuth	String	No	None	A hidden parameter.
UserId	String	No	None	A hidden parameter.
DBInstanceId	String	No	r-bp18ff4a195d***	The ID of the instance.

Parameter	Type	Required	Example	Description
PageNo	String	No	1	The number of the page to return. The value must be a positive integer that does not exceed the maximum value of the Integer data type.
PageSize	String	No	1	The number of entries to return on each page. Default value: 1.
StartTime	String	No	1596177993000	The start time of the query task. Specify the time in the UNIX timestamp format. Unit: ms.
EndTime	String	No	1596177993000	The end time of the query task. Specify the time in the UNIX timestamp format. Unit: ms.  Note The end time of the query task must be later than the start time of the query task.

Response parameters

Parameter	Type	Example	Description
Code	String	200	The returned status code.
Data	String	<pre>{ "cpuUsage": 0.00029999999999999999894, "maxConnection": 32532, "slowSqlCount": 0, "exceptionTableMap": { "table_space": 1, "table_row": 1 },</pre>	The list of diagnostic reports. The following list describes the parameters: • diagnosticTime: the time when the diagnostic report is generated. • startTime: the start time of the query task. • endTime: the end time of the query task. • score: the health score of the database. • downloadURL: the link for downloading the diagnostic report.

Parameter	Type	Example	Description
Message	String	Successful	The returned message. Note If the request is successful, Successful is returned. If the request fails, a request exception message, such as an error code, is returned.
RequestId	String	ac544623-f6ad-45fd-9a74-9be3db65****	The ID of the request.
Success	String	true	Indicates whether the request was successful. true: The request was successful. false: The request failed.
Synchro	String	None	A hidden parameter.

Examples

Sample requests

```
http(s)://das.cn-shanghai.aliyuncs.com/?Action=DescribeDiagnosticReportList
&StartTime=1608888296000
&EndTime=1608888296000
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeDiagnosticReportListReponse>
  <RequestId>ac544623-f6ad-45fd-9a74-9be3db65f938</RequestId>
  <Message>None</Message>
  <Synchro>None</Synchro>
  <Data></Data>
  <Code>200</Code>
  <Success>true</Success>
</DescribeDiagnosticReportListReponse>
```

JSON format

```
{ "RequestId": "ac544623-f6ad-45fd-9a74-9be3db65f938",  
  "Message": "None",  
  "Synchro": "None",  
  "Data": "",  
  "Code": "200",  
  "Success": "true" }
```

Error codes

For a list of error codes, visit the [API Error Center](#).