

Error 18456, State 132

Last updated by | Vitor Tomaz | Oct 18, 2022 at 3:48 AM PDT

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Issue

Failed login due to error 18456, state 132, FedAuthAADLoginJWTUserError.

AAD authentication could not be performed because of an user error with the JSON Web Token (JWT).



Using Azure support center

We detect this issue in Azure Support center tool, to generate insight with impact time frame along with CSS & customer ready content to use and share with customer for handling this issue.

ASC Insight

SQL DATABASE
Connection token invalid

SQL SERVER DATABASE

Is this insight helpful?  

Description

Connections to database [redacted] on server [redacted] have been denied due to an invalid AAD token. Between 10/15/2020 10:43:47 PM UTC and 10/15/2020 10:43:47 PM UTC, there were 2 attempt(s) to connect to the database with an invalid token. Mostly this issue occurs when the connection is attempted using an expired token. By default the connection token is valid for one hour. Please ensure to use a valid token to connect to your database successfully. Alternatively, you may experience this issue if any of the registered claims in the identity token(s) are invalid.



Impacted Resources

[redacted]

Recommended Action

Request the customer to generate a new token to resume connections to the database.

Customer Ready Content

 Copy Content  New Email

Between 10/15/2020 10:15:00 PM UTC and 10/16/2020 10:15:00 PM UTC, connections to server cgedwprod and database cgedwprod were denied due to an invalid AAD token. Token expiry is the most common cause for token to become invalid. By default, the connection token is valid for one hour. Please ensure to use a valid token to connect to your database successfully. This issue may also occur if any of the registered claims in the identity(ID) token is invalid. Please review the documents below for more information.

Recommended Documents

- [Obtaining Azure Active Directory \(AAD\) Connection token](#)
- [Understanding JWT Identity Claims for AAD Connection Token](#)

Links

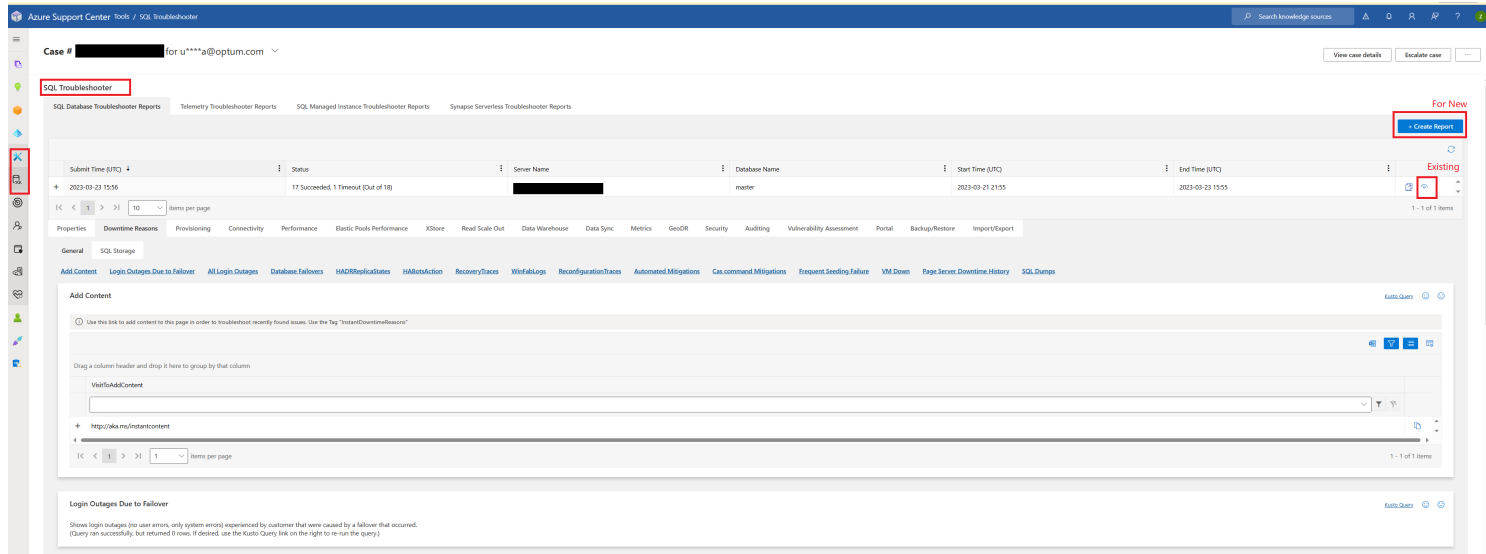
[Obtaining Azure Active Directory \(AAD\) Connection token](#)
[Understanding JWT Identity Claims for AAD Connection Token](#)

Generated On

Oct 19, 2020 18:18:36 UTC

SQL Troubleshooter

In addition, you can manually run SQL Troubleshooter and get the report.



From ASC default page for the support case, choose Tools and select SQL Troubleshooter. Then choose SQL Troubleshooter Reports, input required parameters to create report.

Create Report

Server Name

Database Name

Start Time (UTC)

10/21/2020 06:15

End Time (UTC)

10/22/2020 06:15

Subscription ID

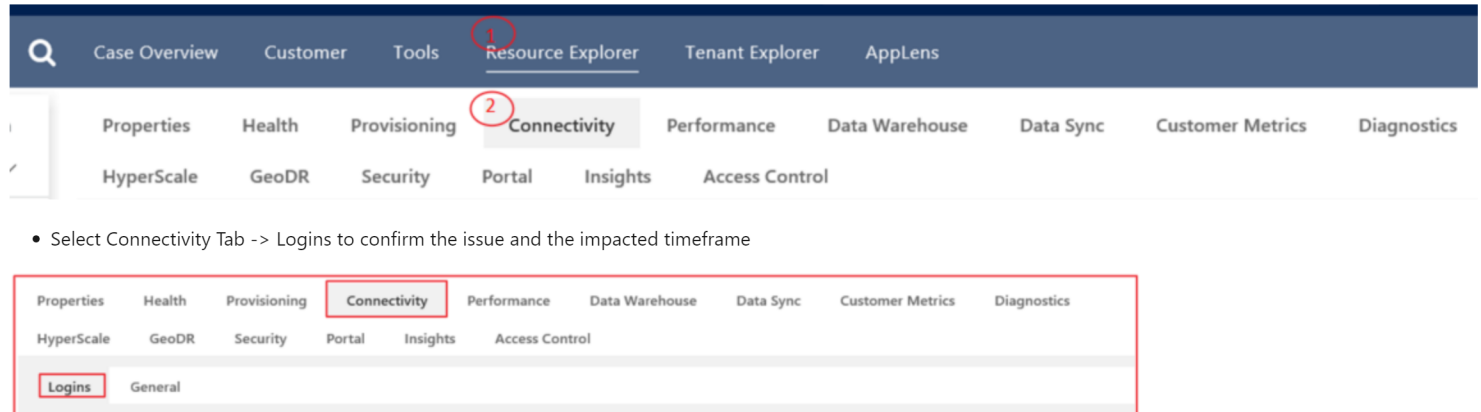
Run

While reviewing the report, choose Connectivity Tab, you will see the issue is detected.

Summary					
Connectivity					
GeoDR					
Downtime Reasons					
Performance					
Elastic Pools Performance					
Read Scale Out					
Recent Issues					
Data Warehouse					
Provisioning					
Data Sync					
Metrics					
Hyperscale					
Security					
Backup/Restore					
Import/Export					
Troubleshooter					
Data Explorer					
Root Cause Analysis					
User Outages					
Diagnostic Checks					
Root Cause Analysis					
Drag a column header and drop it here to group by that column					
Incident Start Time	Incident End Time	Root Cause	Property Name	Escalate To	
2020-10-13T15:06:00	2020-10-13T15:11:00	IsSNIReadTimeoutLowConfidencePresentinCRIsTokenNotValid	LoginFailure/Error:18456/State:132	undefined	
Incident Start Time	2020-10-13T15:06:00				
Incident End Time	2020-10-13T15:11:00				
Root Cause	IsSNIReadTimeoutLowConfidencePresentinCRIsTokenNotValid				
Property Name	LoginFailure/Error:18456/State:132				
Escalate To					
> 2020-10-14T08:09:00	2020-10-14T08:12:00	IsSNIReadTimeoutLowConfidencePresentinCRIsTokenNotValid	LoginFailure/Error:18456/State:132	undefined	
> 2020-10-13T15:50:00	2020-10-13T15:52:00	IsSNIReadTimeoutLowConfidencePresentinCRIsTokenNotValid	LoginFailure/Error:18456/State:132	undefined	
> 2020-10-14T09:30:00	2020-10-14T09:32:00	IsSNIReadTimeoutLowConfidencePresentinCRIsTokenNotValid	LoginFailure/Error:18456/State:132	undefined	
> 2020-10-13T12:31:00	2020-10-13T12:32:00	IsSNIReadTimeoutLowConfidencePresentinCRIsTokenNotValid	LoginFailure/Error:18456/State:132	undefined	
> 2020-10-13T12:48:00	2020-10-13T12:49:00	undefined	LoginFailure/Error:18456/State:132	undefined	

Resource Explorer

In addition you can also check and confirm the occurrence from resource explorer following the steps below to confirm



From ASC default page for the support case, choose Resource Explorer and ensure the resource is the impacted Database/Server that you're troubleshooting. The screenshot is the same as you see from **SQL Troubleshooter** report.

If the above Insights and findings did not help resolve or handle 18456 state 132 issue for customer. Please proceed with using the TSG below.

Using Kusto

This error can be caused by multiple reasons, the `JSONWebTokenErrorState` needs to be identified for more information.

`JSONWebTokenErrorState` can be seen at **error_state** under **MonFedAuthTicketService** for event == **'fedauth_webtoken_failure'**

The correlation with `MonLogin` can be made via:

`MonLogin.connection_id == MonFedAuthTicketService.sql_connection_id`

```

let starttime = ago(1d);
let endtime = now();
let server = '';
let database = '';
MonLogin
| where originalEventTimestamp >= starttime and originalEventTimestamp <= endtime
| where logical_server_name =~ server and database_name =~ database
| where event == 'process_login_finish'
| where error == 18456 and ['state'] == 132
| extend AADUser = iif( fedauth_adal_workflow > 0 or fedauth_library_type > 0, "AAD" , "SQL")
| extend ProxyOrRedirect = iif( result == "e_crContinueSameState", "Proxy" , "Redirect")
| extend fedauth_library_type_desc =
case (
fedauth_library_type == 0, "SQL Auth",
fedauth_library_type == 2, "Token Based",
fedauth_library_type == 3 and fedauth_adal_workflow == 1, "AAD Password",
fedauth_library_type == 3 and fedauth_adal_workflow == 2, "AAD Integrated",
fedauth_library_type == 3 and fedauth_adal_workflow == 3, "AAD Universal MFA",
fedauth_library_type == 4, "Windows Auth",
strcat(tostring(fedauth_library_type) , "-" , tostring(fedauth_adal_workflow))
)
| join kind=leftouter (
MonFedAuthTicketService
| where originalEventTimestamp >= starttime and originalEventTimestamp <= endtime
| where event == 'fedauth_webtoken_failure'
| project sql_connection_id, database_name, logical_database_name, JSONWebTokenErrorState = error_state, error
) on $left.connection_id == $right.sql_connection_id
| project PreciseTimeStamp, logical_server_name, database_name, MachineName , package, event, is_success, is_u
, lookup_error_state, lookup_error_code, lookup_state , peer_address, is_vnet_address,
application_name, driver_name, ProxyOrRedirect, AADUser, fedauth_library_type_desc, total_time_ms, connection
, database_name1, logical_database_name, JSONWebTokenErrorState, error_message

```

Most common JSONWebTokenErrorState

Error	State	JSONWebTokenErrorState	Description
18456	132	5	Invalid audience. Please ensure you are using "https://<servername>.database.windows.net/".
18456	132	9	Expired token.
18456	132	14	Token issuer is invalid.
18456	132	51	No object Id present in token.
18456	132	52	Invalid signature in the token.
18456	132	66	Incorrect signature or token.

The full list of JSONWebTokenErrorState

can be seen at [Reference: JSONWebTokenErrorState](#)



RCA Template

Impact : Between <Starttime> and <EndTime>, connection attempts to your database <Database Name> have failed with error 18456 and state 132.

Root Cause : Connections to the database were denied due to an invalid AAD token. Token expiry is the most common cause for token to become invalid. By default, the connection token is valid for one hour. Please ensure to use a valid token to connect to your database successfully. This issue may also occur if any of the registered claims in the identity(ID) token is invalid.

Mitigation : Please ensure connect to your database with valid token.

Additional Information : Please review the documents below for more information.

- [Obtaining Azure Active Director \(AAD\) Connection token](#) 
- [Understanding JWT identity Claims for AAD Connection Token](#) 

Classification

Cases resolved by this TSG should be coded to the following root cause:

Root Cause: Azure SQL DB v2\Connectivity\AAD Issues\AAD Token expired

How good have you found this content?



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