

# Request MI token failure

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## Symptom

Typically you may encounter below error messages, all point to Request MI token failed.

- a. Request MI token failed: An error occurred while sending the request.The remote name could not be resolved: 'sea.frontend.clouddatahub.net'
- b. Request MI token failed: An error occurred while sending the request. The request was aborted: Could not create SSL/TLS secure channel
- c. Request MI token failed: A task was canceled

As we know, IR will interact with ADF backend auth service to retrieve MSI token.  
To handle this issue we need confirm whether the error is happen on client(IR) side or server(auth service) side.

## Scenario

### For scenario a

From the error message, it is clearly indicate it is client(IR) side DNS resolution failure. So we will need use "nslookup" to check if the IR machine able to resolve our frontend url. Or we can capture netmon trace to get more details on the dns resolution failure. And such issue usually happen in SHIR but NOT in Azure IR.

Refer this TSG for troubleshooting DNS name resolution error:  
[https://supportability.visualstudio.com/AzureDataFactory/\\_wiki/wikis/AzureDataFactory/388087/Troubleshoot-DNS-name-resolution-errors](https://supportability.visualstudio.com/AzureDataFactory/_wiki/wikis/AzureDataFactory/388087/Troubleshoot-DNS-name-resolution-errors)

### For scenario b, c

We might not have a solid answer in the first place. Then please use below query to verify whether auth service received MI token request from IR or not.

## Troubleshooting

MsiTraceVerbose | where ActivityId == ""

If ADF auth service received the request from IR, you will find below message . Which means IR able to send request successfully.

Detail
Getting managed identity with id: [REDACTED], principal 00000000-0000-0000-0000-000000000000 in MI V2 store.
The MI 00000000-0000-0000-0000-000000000000 is not found in MI store V2, will handle this token request in MI store V1.
Begin call ManagedServiceIdentityLogic.AcquireTokenAsync, with subscriptionId=00000000-0000-0000-0000-000000000000, dataFactoryName=[REDACTED] resource=https://vault.azure.net
Successfully end call ManagedServiceIdentityLogic.AcquireTokenAsync, clientId=[REDACTED], clientCert:[REDACTED]
Acquire MI Token: subscription id: 00000000-0000-0000-0000-000000000000, entity id: [REDACTED], principal id: 00000000-0000-0000-0000-000000000000, api version: 2019-09-01
Validating the token request. entity id: [REDACTED], entity name: A[REDACTED]SEA, principal id: 00000000-0000-0000-0000-000000000000.
The acquire MI token request is coming from self-hosted integration runtime SHIRProd in data factory ADF-LPT-PROD-SEA, data factory id: ba7fc3a1-a39f-43d1-baca-217003e8b6fc.
The acquire MI token request is coming from Self-Hosted IR. The data factory A[REDACTED]-SEA, IR name SHIRProd, region sea.
Getting managed identity with id: ba7fc3a1-a39f-43d1-baca-217003e8b6fc, principal 00000000-0000-0000-0000-000000000000 in MI V2 store.
The MI 00000000-0000-0000-0000-000000000000 is not found in MI store V2, will handle this token request in MI store V1.
Begin call ManagedServiceIdentityLogic.AcquireTokenAsync, with subscriptionId=00000000-0000-0000-0000-000000000000, dataFactoryName=a[REDACTED], resource=https://vault.azure.net
Successfully end call ManagedServiceIdentityLogic.AcquireTokenAsync, clientId:[REDACTED], clientCert:EBDF5A0D6D71998D79D2C2C34F74D79E5A0312F6

Besides, with below query on Details table, you will find 200 response code. Details | where ActivityId == "" and RequestUri contains "token"

RequestMethod	RequestHeaders	ResponseCode
POST	Accept-Language, Expect, Host, User-Agent, x-ms-client-request-id	200
POST	Accept-Language, Authorization, Expect, Host, User-Agent, x-ms-client-request-id	200
POST	Accept-Language, Authorization, Expect, Host, User-Agent, x-ms-client-request-id	200

Customer might still encounter Request MI token failure when ADF auth service received request and have 200 response code in time. Then the issue should happen when IR trying to receive the response from server. We need capture netmon trace for further investigation.

If you can NOT find token request records in MsiTraceVerbose and Details, which means IR did not send request successfully.  
If this case happen in Azure IR, usually it should be transient issue, retry can mitigate.  
If the issue happen in selfhosted IR. Please check selfhosted IR log and capture netmon trace for further investigation.

If you find error records in the MsiTraceVerbose

Detail
Acquire MI Token: subscription id: 00000000-0000-0000-0000-000000000000, entity id: bf5e043c-7deb-4ec8-9fad-dccfceebd430, principal id: 00000000-0000-0000-0000-000000000000, api version: 2019-09-01 Payload: ("resour
Validating the token request. entity id: bf5e043c-7deb-4ec8-9fad-dccfceebd430, entity name: edp-ea-adf-bdp-01-prod, principal id: 00000000-0000-0000-0000-000000000000.
The acquire MI token request is coming from services. No further validation.
Getting managed identity with id: bf5e043c-7deb-4ec8-9fad-dccfceebd430, principal 00000000-0000-0000-0000-000000000000 in MI V2 store.
Azure table operation failed. StatusCode: 408, Error message: .
HttpStatusCode: InternalServerError, ErrorCode: ManagedIdentityStorageError, Error Message: Exception of type 'Microsoft.Hdis.AgentService.BusinessLogic.Exceptions.ManagedIdentityException' was thrown.

And the Details table contains 500 response code.

RequestUri	ResponseCode
https://aue.frontend.clouddatahub.net/subscriptions/ /aue/jobs?partitionkey= &api-version=2014-06-26&taskQueueOption=Primary&delayStarted=False	200
https://aue.frontend.clouddatahub.net/subscriptions/ /aue/executionruns/ /state?api-version=1.0	200
https://aue.frontend.clouddatahub.net/subscriptions/ /aue/tasks/keep_alive?issecondary=False&api-version=2014-06-26	200
https://aue.frontend.clouddatahub.net/subscriptions/ /aue/tasks/keep_alive?issecondary=False&api-version=2014-06-26	200
https://aue.frontend.clouddatahub.net/subscriptions/00000000-0000-0000-0000-000000000000/entities/ /identities/00000000-0000-0000-0000-000000000000/token?api-version=2019-09-01	500
https://aue.frontend.clouddatahub.net/subscriptions/ /aue/executionruns/ /state?api-version=1.0	200
https://aue.frontend.clouddatahub.net/subscriptions/ /aue/tasks/delete?issecondary=False&api-version=2014-06-26	200

Then it indicate the issue is caused by server side error. Please check whether retry can mitigate. If needed, you can engage ADMS PG for detail RCA.

How good have you found this content?

