



[Diagnostic] Copy activity connectivity issue to Cloud Data Store

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SME	pinye
Symptoms	<p>When customer met the connectivity issue to the source/sink data store, the customer would meet various kinds of error messages (e.g. status code 403, request timeout, status code 400, etc.)</p> <p>To quickly check whether a customer faced error is caused by connectivity issue, the followings show some check points:</p> <ul style="list-style-type: none"> The error is thrown from the source/sink connectors. It fails at the start of the copy. It is a consistent failure for Azure IR, Azure Managed Virtual Network IR or self-hosted IR with one node. <ul style="list-style-type: none"> It may be a random failure for self-hosted IR with multiple nodes if only partial of the nodes have issue. If the customer is using self-hosted IR, suggest to have a trial run to the same data store on Azure IR, and the trial run could succeed. <p>Sample Error:</p> <ul style="list-style-type: none"> "A connection attempt failed because the connected party did not properly respond after a period of time, or established connection failed because connected host has failed to respond xx.xx.xx.xx:443" "The remote server returned an error: (403) Forbidden"
Cause	<p>Mostly the connectivity issue could be caused by the following factors:</p> <ul style="list-style-type: none"> If using self-hosted IR <ul style="list-style-type: none"> Proxy setting in the self-hosted IR's node Firewall setting in the self-hosted IR's node Permission is not granted correctly for related Service principle or Managed Identify If using Azure public IR <ul style="list-style-type: none"> Firewall setting in the Cloud Data Store Permission is not granted correctly for related Service principle or Managed Identify If using Azure Managed VNET IR <ul style="list-style-type: none"> Outbound communication through public endpoint from Azure Managed Virtual Network is blocked Private endpoint is not created correctly
Resolution	<ol style="list-style-type: none"> Check the output of failed copy activity and see what integration runtime was using Details about copy activity output please refer https://docs.microsoft.com/en-us/azure/data-factory/copy-activity-monitoring If the customer is using self-hosted IR <p>If the activity run to the same data store in Azure IR could succeed, suggest the customer to check their proxy, firewall, network setting in their local network.</p> <ul style="list-style-type: none"> Helpful links: <ul style="list-style-type: none"> Self-hosted IR Ports and Firewalls Specific connectors doc which may have endpoint or ports requirements. E.g. ADLS connector. If the customer is using Azure public IR <ul style="list-style-type: none"> If succeeded after disable firewall setting, check the following known issues. If it is a new issue, contact PG team for further help. <ul style="list-style-type: none"> In general, if the firewall settings rely on the whitelisted IP address ranges, please make sure that Azure IR IP Addresses are white listed. For Azure Blob Storage and ADLS Gen 2, the customer can turn on the firewall setting "Allow trusted Microsoft services to access this storage account". If so, the customer needs to use managed identify authentication, make sure they grant proper permission for the data factory in Access control setting of their Azure cloud store. More details please refer to Azure Blob Storage and ADLS Gen2 doc. For ADLS Gen1, the customer can turn on the firewall with setting "Allow access to Azure services" enabled. If it fails, there is a known issue in ADLS side that certain account with preview features may have connectivity issues. If still fails, contact PG team. If the customer is using Azure managed VNET IR <p>If their copy activity get failed intermittently with error message "A connection attempt failed because the connected party did not properly respond after a period of time, or established connection failed because connected host has</p>

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	<p>failed to respond xx.xx.xx.xx:443", and the IP showed in the error message is public IP.</p> <p>This is because the copy activity was talking to azure data store via public IP, there was a known bug in azure network (Incident 229038333 ) , ETA of fix is by the end of April, 2021. Please suggest customer to create private endpoint for their data store following https://docs.microsoft.com/en-us/azure/data-factory/tutorial-copy-data-portal-private  , If customer said they created private endpoint for related azure data store, it's very likely private endpoint didn't be created or configured correctly, please suggest them to follow the document and recreate the private endpoint and reconfigure the copy activity.</p>
More Information	