

[SSIS-IR] Case Study:Troubleshooting SSIS IR Performance issue

Last updated by | Jackie Huang | Jan 4, 2022 at 12:24 AM PST

Symptom:

Some of the SSIS overview reports are showing blank when executing the SSIS packages in ADF.

TroubleShooting Steps:

- Find if there're any execution timeouts errors from SQL client:

```
AisWorkerTraceEvent | where env_cloud_roleInstance == "tvmps_f683c2e7b606b176c096633047db2fee2dc356b1731f6388cf425f495fd0de99_d/aisagent" and message contai
```

System.Data.SqlClient.SqlException (0x80131904): Execution Timeout Expired. The timeout period elapsed prior to completion of the operation or the server is not responding. ---> System.ComponentModel.Win32Exception (0x80004005): The wait operation timed out

If see the timeout error like the message shows above, let's open a collaboration task to azure SQL server team.

- Get the basic SSIS IR node start/up, failed execution and node health information in ASC tool:

You can also get the node id information which is useful for the kusto query provided below for further troubleshooting when you are not able to get the detailed failures from the ASC:

SSIS IR node health

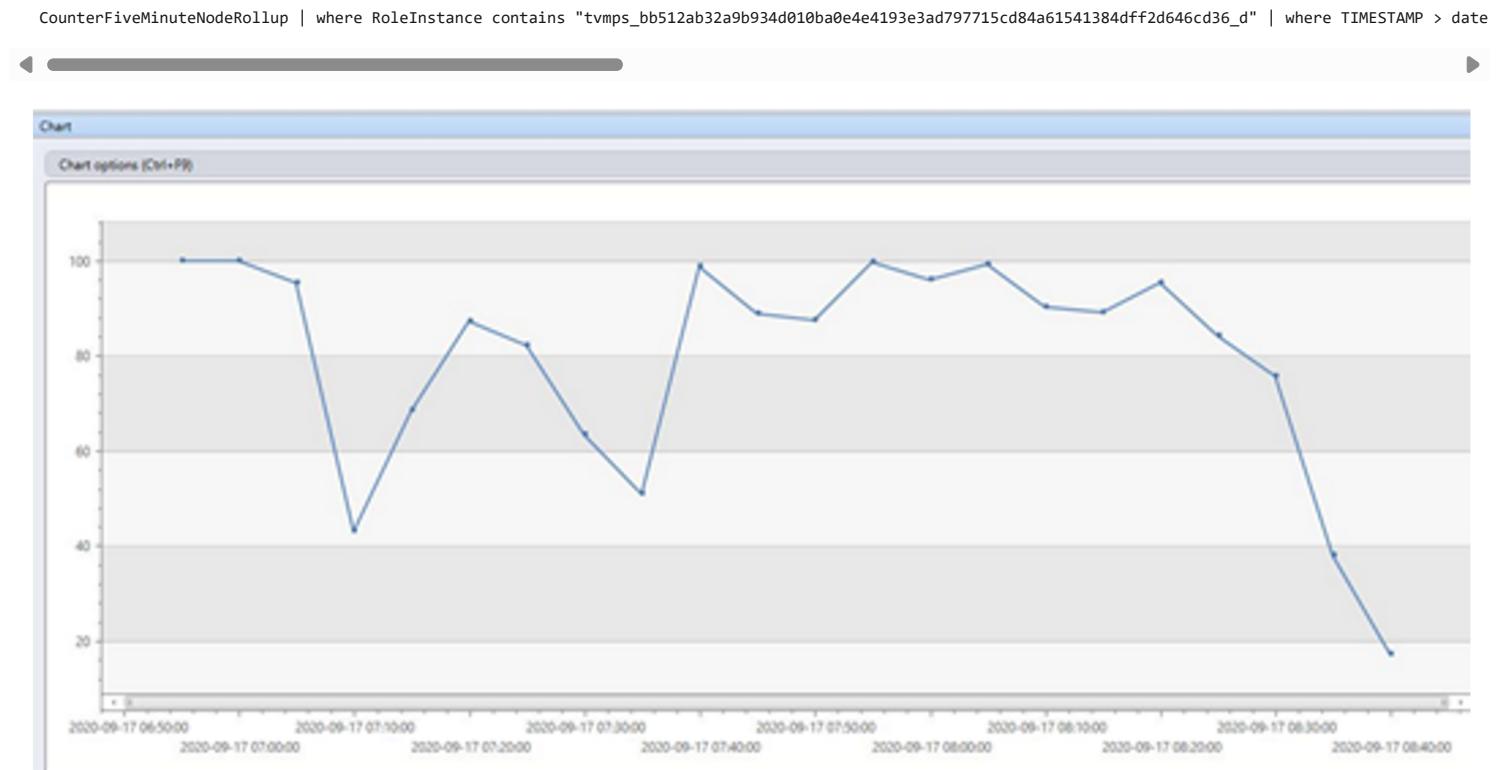
Returns node health history for SSIS Integration Runtimes in the factory

Drag a column header and drop it here to group by that column

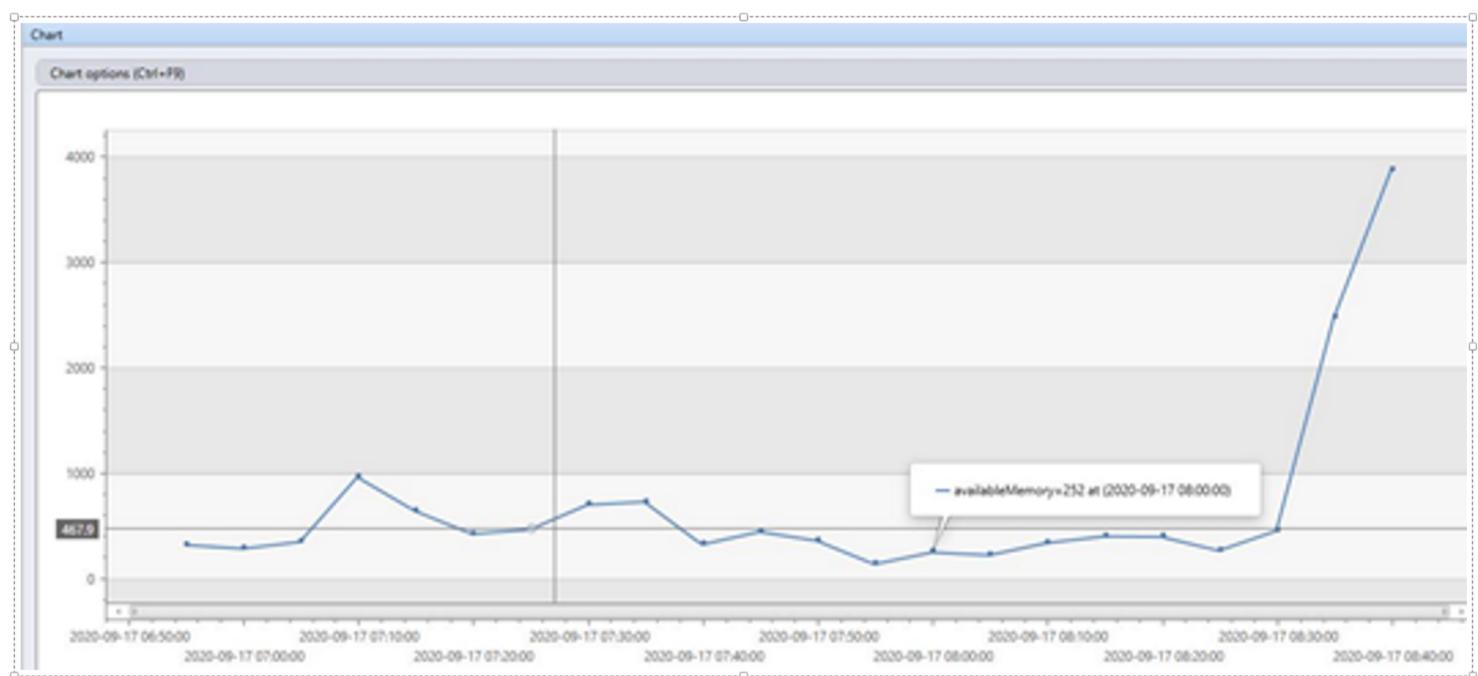
HourTime	SubscriptionId	DataFactoryName	IRName	NodId	Status	FirstHeartBeatTimeInHour	HeartBeatCount
2020-11-16 09:00:00	[REDACTED]	AzureSSISIntegration	azuressisir	tvmpls_f7ab753b982dc82d100229bb9772e90df2bf66dc3e64e5606ed905dbb0e3c264_d	Active	2020-11-16 09:01:24	3
2020-11-16 09:00:00	[REDACTED]	AzureSSISIntegration	azuressisir	tvmpls_27994d1f0cda7dfb5d1073beb48a1b8467c6140ba059154d18f92ec8ca15e36f_d	Active	2020-11-16 09:01:37	1
2020-11-16 08:00:00	[REDACTED]	AzureSSISIntegration	azuressisir	tvmpls_f7ab753b982dc82d100229bb9772e90df2bf66dc3e64e5606ed905dbb0e3c264_d	Active	2020-11-16 08:00:23	60
2020-11-16 08:00:00	[REDACTED]	AzureSSISIntegration	azuressisir	tvmpls_27994d1f0cda7dfb5d1073beb48a1b8467c6140ba059154d18f92ec8ca15e36f_d	Active	2020-11-16 08:00:37	60
2020-11-16 07:00:00	[REDACTED]	AzureSSISIntegration	azuressisir	tvmpls_f7ab753b982dc82d100229bb9772e90df2bf66dc3e64e5606ed905dbb0e3c264_d	Active	2020-11-16 07:00:23	60
2020-11-16 07:00:00	[REDACTED]	AzureSSISIntegration	azuressisir	tvmpls_27994d1f0cda7dfb5d1073beb48a1b8467c6140ba059154d18f92ec8ca15e36f_d	Active	2020-11-16 07:00:35	60
2020-11-16 06:00:00	[REDACTED]	AzureSSISIntegration	azuressisir	tvmpls_f7ab753b982dc82d100229bb9772e90df2bf66dc3e64e5606ed905dbb0e3c264_d	Active	2020-11-16 06:00:22	60

-Time chart for checking the CPU/Memory for the SSIS IR node

vmps_bb512ab32a9b934d010ba0e4e4193e3ad797715cd84a61541384dff2d646cd36_d during the issue happening time period:

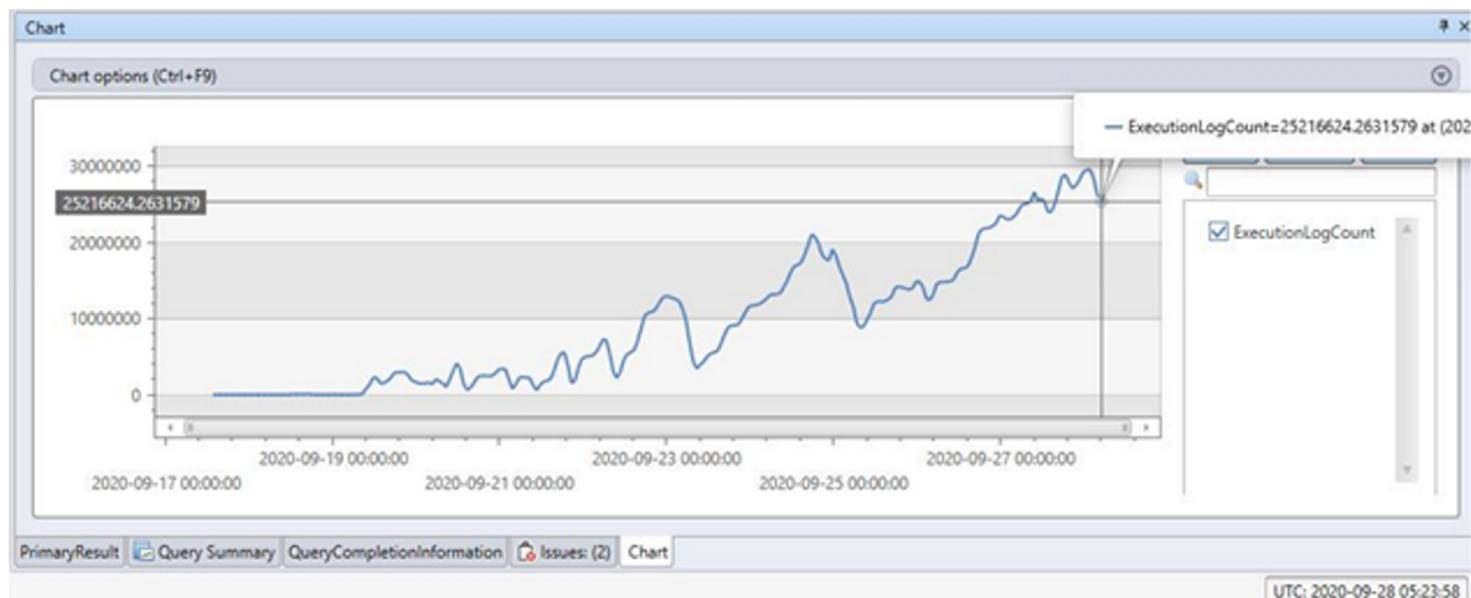


CounterFiveMinuteNodeRollup | where RoleInstance contains "tvmpls_bb512ab32a9b934d010ba0e4e4193e3ad797715cd84a61541384dff2d646cd36_d" | where TIMESTAMP > date



-Timechart to check the accumulated logs in the SSIS node memory (use it to check the LOGIO related issues from SQL DB)

```
AisWorkerTraceEvent
| where * contains "tvmps_f683c2e7b606b176c096633047db2fee2dc356b1731f6388cf425f495fd0de99_d"
| where tag contains "ExecutionLog"
| extend ExecutionLogCount = toint(extract("count=([^.]+)", 1, message))
| summarize ExecutionLogCount = avg(ExecutionLogCount) by bin(env_time, 1h)
| render timechart
```



-Check the populated logs count in the SSIS node memory per min

```
AisWorkerTraceEvent
| where * contains "tvmps_f683c2e7b606b176c096633047db2fee2dc356b1731f6388cf425f495fd0de99_d"
| where tag contains "ExecutionLog"
| extend ExecutionLogCount = toint(extract("count=([^.]+)", 1, message))
| where env_time > datetime(2020-09-28 01:30:07.4695725) and env_time < datetime(2020-09-28 01:41:18.1154683)
| project env_time, ExecutionLogCount
```

env_time	ExecutionLogCount
2020-09-28 01:30:20.6116282	29450321
2020-09-28 01:31:20.6241310	29468545
2020-09-28 01:32:20.6277752	29474846
2020-09-28 01:33:20.6432506	29480766
2020-09-28 01:34:20.6565359	29487662
2020-09-28 01:35:20.6708055	29512561
2020-09-28 01:36:20.6740107	29524259
2020-09-28 01:37:20.6871412	29531375
2020-09-28 01:38:20.6895956	29538482
2020-09-28 01:39:20.6902261	29545878
2020-09-28 01:40:20.7057479	29552357

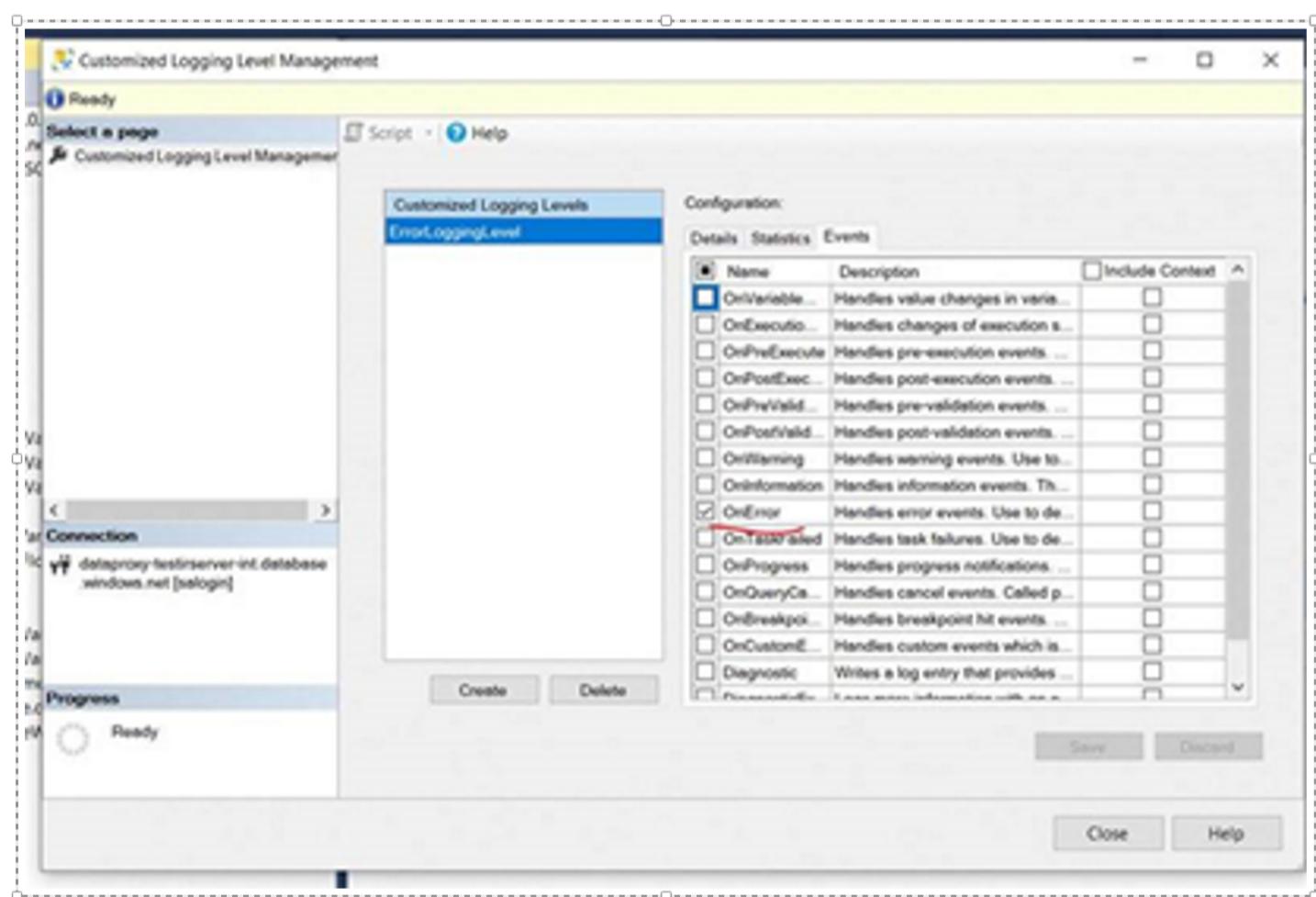
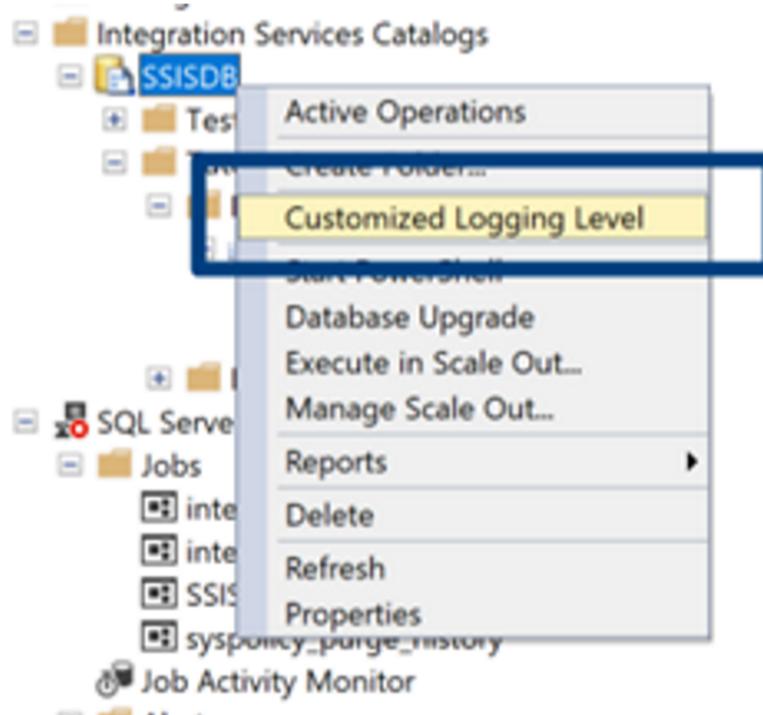
2948,1651 is too much than your SSISIR nodes can handle, suggest stop and start the SSIS IR node for clearing the accumulated execution logs in the node memory

RCA

According to the logs, we can see it's a performance issue due to the huge log counts. We saw some Execution Timeout failure from SSIS DB side when having issue to insert the logs data. The timeout period elapsed prior to completion of the operation or the server is not responding. Also, during the issue happening timeframe - we can see the accumulated execution logs in the node memory reached to 2948,1651 and the SSIS node was populating about 10k execution logs every minutes.

Workaround to cut down the SSIS package execution log when the package located in SSISDB

Customize the logging level – to configure the ErrorLoggingLevel to filtering required events execution logging count Example for filtering only error logs:



Save as template Validate Debug Add trigger

Execute SSIS package

Execute SSIS package1

General **Settings** SSIS parameters Connection managers Property overrides User properties

(See more info [here](#))

Package location * SSISDB

Folder * DataProxyTestFolder

Project * DataProxyTestProject

Package * FlatFileSourceWithProxy_CM_VarFromForEach(n...)

Environment Select...

Logging level * ErrorLoggingLevel Customized

Manual entries

