

# Increase activity run throttling number (quota)

Last updated by | Anil K B | Dec 21, 2022 at 10:11 PM PST


## Contents

- [When](#)
- [Azure Subscription Service Limits, Quotas, and Constraints](#)
  - [Data Factory limits:](#)
    - [Data Factory v2 Limits](#)
    - [Data Factory v1 Limits](#)
- [How](#)
  - [Option-1:](#)
  - [Option-2:](#)
    - [Do we support moving Data Factory across Subscriptions?](#)
  - [Option-3:](#)
- [Exception Handling](#)
- [Note](#)

## When

For some ADF customers, with business/usage increasement, they may want to increase activity run throttling number to run more activities in parallel.



Mostly the customer will meet following error:

There are substantial concurrent copy activity executions which is causing failures due to throttling under subscription 7cb8355e-c94a-4fcf-8c08-f3c6dbfd824a, region cu and limitation 6000. Please reduce the concurrent executions. For limits, refer <https://aka.ms/adflimits> . Note: For pipeline activity (get-metadata, lookup, delete...) and external activity (custom, HDI...), the error message is similar.


## Azure Subscription Service Limits, Quotas, and Constraints

[Azure subscription and service limits, quotas, and constraints](#) 

### Data Factory limits:

- [Data Factory v2 Limits](#) 
- [Data Factory v1 Limits](#) 

## How

Based on ADF public doc <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/azure-subscription-service-limits#data-factory-limits> , in official, we don't allow to help customer adjust/increase the throttling number while suggest customer to use one of following solutions as workaround.

### Option-1:

Ask customer to check his pipeline pattern (for example, lookup + foreach + copy) and adjust the frequency and interval-time (for example, batchSize in foreach + waiting time) to avoid too many activities are triggered and running at the same time.

### Option-2:

Ask customer to split his business requirement into different pipelines, run the pipelines under different subscriptions, today the throttling number of concurrent-activity execution is per subscription per region.

#### 1. Do we support moving Data Factory across Subscriptions?

Yes, Data Factory can be moved across different Resource Groups or Subscriptions. [More Information](#) 

### Option-3:

Ask customer to use SHIR as compute to run the pipeline/activities. Here ADF does not have concurrent-activity-run number limitation.


## Exception Handling

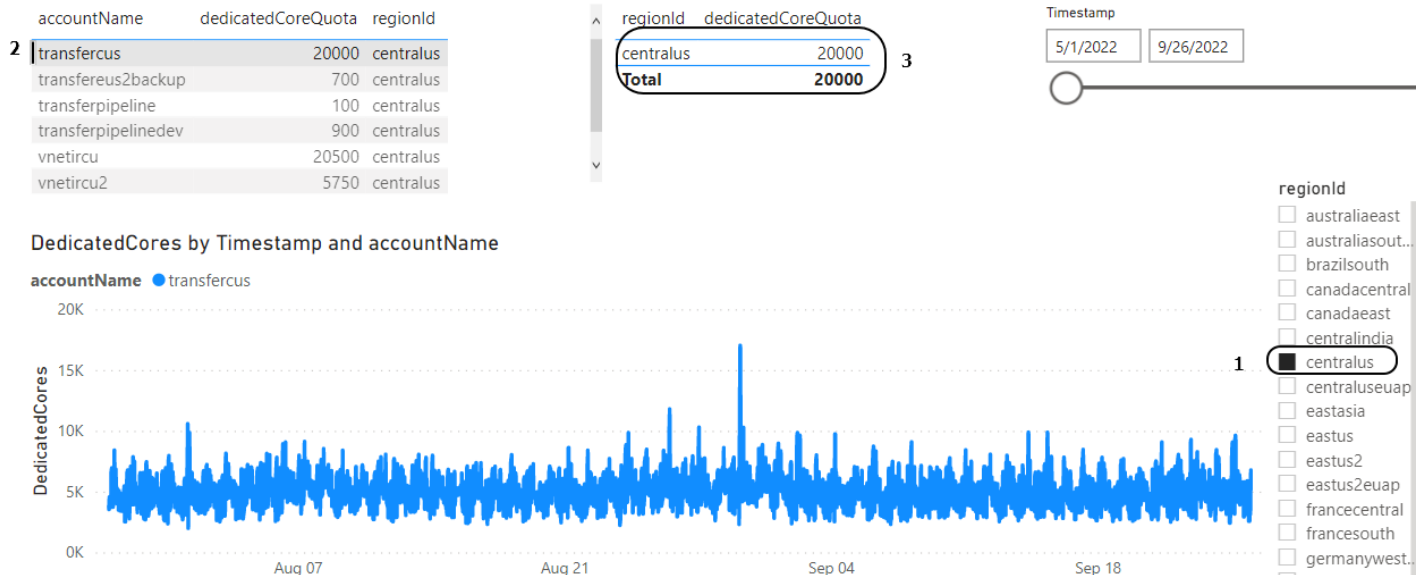
If customer insists on using Azure-IR to run large number of activities and escalate the case, please contact IM (incident manager) and PMs ([jianleishen@microsoft.com](mailto:jianleishen@microsoft.com), [sunil.sabat@microsoft.com](mailto:sunil.sabat@microsoft.com)...) to evaluate it if the customer is VVIP (for example, Walmart, Walgreens, Adobe...)

1. Use following kusto query to check the customer.

```
cluster('u360sec.kusto.windows.net').database('KPIData').CustomerSubscriptions
| where SubscriptionId == "<customer subId>"
| project SubscriptionId, CustomerName, UsageType
```

2. After evaluation, if IM and PMs agree to help this customer temporally increase throttling number (quota) to satisfy his requirement, please take following action step by step.

- Login [BacthQuota - PowerBi](#)  to check the max quota and current usage of that region, ensure customer expected number is  $\leq \text{Total}/2$ , for example:



- o Login SAW machine and use Geneva Action to get existed value of EC "UpdatedThrottlingConfiguration"

Extensions Onboarding Favorites History

Environment: Public

Filter: 1 azure data move

ADMS Operation Group

ADMS Pool Operation Group

ADMS Test Operation Group

Exposure Control

Add an experience

Change allowlist feature

Change EC Settings

2 View EC Settings

View History

View History Entry

Managed VNet Operation Group

Manta

Resource Operation Group

Azure Data Movement > Exposure Control > View EC Settings

Refresh Token Copy Link ...

Operation Id: GetExposureControlS... Operation Type: Read Only Idempotent: tr... Extension Owner: shelfeng@microsoft.com

View EC Settings

Endpoint: ADMSPublicEndpoint

Service Name: IRMSEC 3

ECSettings Name: prod\_centralus

4. The region customer's activity is running

Run

Status: Success

ActivityId: 6bf39fc0-675d-4056-bc5b-832f376c2bb1

Messages Result Preview

View EC Settings

```

1377 "name": "UpdatedThrottlingConfiguration", 5
1378 "type": "Dictionary",
1379 "featureId": "d5a3e178-e010-4759-9c18-d17d68a824b5",
1380 "defaultValue": "",
1381 "values": {
1382   "c9dc09b3-c452-40d6-aab6-52adcbd46077": "{ \"DatamovementActivity\":10, \"PipelineActivity\":3, \"SchemaQuery\":5 }",
1383   "22ad103f-8e55-4081-b121-f01ca75ee121": "{ \"DatamovementActivity\":5, \"PipelineActivity\":3, \"ExternalActivity\":5 }",
1384   "ce9b5a8d-0f10-4988-a02c-68791f6caa82": "{ \"PipelineActivity\":2000 }"
1385 }

```

6. Copy the value out and store in temp file

- o Append customer's subId + expected number into that temp file (example file: )

```

1 EC-update.txt
2 {
3   changes: [
4     {
5       sources: [ "AnySource" ],
6       features: [
7         {
8           name: "UpdatedThrottlingConfiguration",
9           operation: "AddExperience",
10          "values": {
11            "c9dc09b3-c452-40d6-aab6-52adcbd46077": "{ \"DatamovementActivity\":10, \"PipelineActivity\":3, \"SchemaQuery\":5 }",
12            "22ad103f-8e55-4081-b121-f01ca75ee121": "{ \"DatamovementActivity\":5, \"PipelineActivity\":3, \"ExternalActivity\":5 }",
13            "ce9b5a8d-0f10-4988-a02c-68791f6caa82": "{ \"PipelineActivity\":2000 }"
14          }
15        }
16      ]
17    }
18  ]
19 }

```

1. Add experience

2. Add customer subId + new number

- Update backend EC value with Geneva Action.

- Add new task in related sev2 ICM (for example, <https://portal.microsofticm.com/imp/v3/incidents/details/355271833/home>) and ask PMs to have follow-up with this customer, then rollback related EC change later.

## Note

If you meet other issue, please contact SME ([zhanyu@microsoft.com](mailto:zhanyu@microsoft.com)) to get help.

## Additional Information:

- Icm References:**
- Author:** zhanyu
- Reviewer:** kbanil
- Keywords:** throttling, quota

## How good have you found this content?

