Replication is Slow_ACG

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Tags

cw.ACG cw.TSG

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Summary

This Wiki is helpful for scenarios where customers complain that their Replication of Image Version is slow to regions

Symptom

Customers trying to replicate image version to different regions may experience significant delay in the replication to complete, they complain that the replication is taking hours. Here are some of the symptoms customers may see:

1. The customer image replication is taking longer than 6 hrs
2. The customer is noticing a 2x increase in replication times than they used to
3. If customer has more than 10 replica, the copy time will be at least 3 times more than single replica count
4. The customer image replication is failing with timeout consistently

Mitigation

Replication of Image Versions may some times fail due to various reasons and some of the symptoms are listed above, Shared Image Gallery Product team has agreed to take ICM's for the above symptoms as it's difficult for CSS to investigate the cause of the replication time out and delays.

Please use the following queries to capture the logs and submit an ICM to : AzureRT -> CRP-PIR. Here's the ICM Template

If you have the correlation ID of the replication job, get the correlationId and run the below query to get the details of the job to understand the start and end time of the job. If you don't have the correlationid, then query using the subscriptionId and narrow down using resourceuri to find the correlationId

```
cluster('armprod.kusto.windows.net').database('ARMProd').EventServiceEntries
| where correlationId == '3edd2d76-6ba3-488a-8ef9-43413edfda80'
| where subscriptionId == 'subscriptionid'
| project PreciseTimeStamp, operationName, eventName, status, subStatus, resourceProvider, properties
```

The properties field from the above query will give you the ServicerequestID going to CRP, Use the ServicerequestID(which is the operationID in CRP -> CapsApiQosEvent) table and run the following query to get details of the operation, look for the requestEntity Field to find the replication details, you can also review the E2EDurationinMilliseconds field to see how much time it took for the operation.

```
cluster('azcrp.kusto.windows.net').database('crp_allprod').CapsApiQosEvent
| where subscriptionId == <SUBSCRIPTION ID>
| where operationId == 'bff8f310-1812-4e19-b4b4-faaebcc3f60d'
| where PreciseTimeStamp >= datetime(2020-10-27 00:00:00) and PreciseTimeStamp <= datetime(2020-10-27 23:59:00
| project operationId, operationName, resourceGroupName, resourceName, durationInMilliseconds, e2EDurationInMi
```

Observe the "e2EDurationInMilliseconds" to understand the end to end operation time for replication, If you don't have the operationID, you can also run the following command and filter by subscriptionid, time and ExternalGalleryApi.PutGalleryImageVersion.PUT operations (see example below) to get all the PUT operations on the resource

```
cluster('azcrp.kusto.windows.net').database('crp_allprod').CapsApiQosEvent
| where subscriptionId == <SUBSCRIPTION ID>
| where operationName contains "ExternalGalleryApi.PutGalleryImageVersion.PUT" and resourceName contains "jaze
| where PreciseTimeStamp >= datetime(2020-10-27 00:00:00) and PreciseTimeStamp <= datetime(2020-10-27 23:59:00
| project operationId,operationName, resourceGroupName, resourceName, durationInMilliseconds, e2EDurationInMil
```

You can also run the following command to get the replication time for each region:

```
cluster('azcrp.kusto.windows.net').database('crp_allprod').PirCasApiQosEvent | join cluster('azcrp.kusto.windo
| where TIMESTAMP > ago(2d) and copyStatus == "Success"
| where  subscriptionId == <SUBSCRIPTION ID>
| extend replicateMetadataObj=parse_json(replicationMetadata)
| extend occupiedBlobSizeInGb = round(todouble(occupiedBlobSizeInBytes) / 1024 / 1024 /1024), logicalBlobSizeI
| project srcRegion, region,  occupiedBlobSizeInGb, logicalBlobSizeInGB,  timeSpentInMin, copyFlags
| where logicalBlobSizeInGB == 128 and occupiedBlobSizeInGb ==41
| sort by timeSpentInMin
```

```
srcRegion       region  occupiedBlobSizeInGb    logicalBlobSizeInGB     timeSpentInMin  copyFlags
eastus2       westeurope        41                    128                   300.23        SystemPriorityCopy
eastus2     southcentralus      41                    128                   121.62        SystemPriorityCopy
eastus2       westeurope        41                    128                     54.8        SystemPriorityCopy
eastus2       westeurope        41                    128                    47.04        SystemPriorityCopy
eastus2       westeurope        41                    128                    35.54        SystemPriorityCopy
eastus2    southcentralus       41                    128                    33.79        SystemPriorityCopy
eastus2       westeurope        41                    128                    32.28        SystemPriorityCopy
eastus2         eastus2         41                    128                    30.78        SystemPriorityCopy
```

**In the above example, you see that image was replicated more than once in Westeurope and SouthCentralUS, while some of the replication jobs were completed in less than an hour others took over 2 hours

Escalations

1. You can also reach out to SME - Azure Compute Gallery teams channel so please providing the case number, issue description and your question
2. If you've exhausted all your technical resources, make sure the case's area path is set to **Azure/Azure Compute Gallery** (or the equivalent one under **Virtual Machine running Linux**), then in Azure Support Center use **Escalate ticket** to create an ICM. Compute Gallery issues are in scope for the Support\EEE AzureRT ICM queue, who if necessary will engage engineering via the AzureRT\PIR/SIG Image Management ICM queue.

Need additional help or have feedback?

To enage the Azure Compute Gallery SMEs...	*To provide feedback on this page...*	*To provide kudos on this page...*
Please reach out to the **Azure Compute Gallery SMEs** AVA channel via Teams. Make sure to use the **Ava process** for faster assistance.	Use the **Azure Compute Gallery Feedback** form to submit detailed feedback on improvements or new content ideas for Azure Compute Gallery. ***Please note*** the link to the page is required when submitting feedback on existing pages! If it is a new content idea, please put N/A in the Wiki Page Link.	Use the **Azure Compute Gallery Kudos** form to submit kudos on the page. Kudos will help us improve our wiki content overall! ***Please note*** the link to the page is required when submitting kudos!