

Performance Test Report For

Execution of 6 months Slot availability

Batch Jobs with existing slots available in DB

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Summary

This report presents the observations and findings of the 6 months slot availability batch jobs when the slots are already created and available in the database.

The objective of this load test was to observe and record the behavior of the application when executing the 6 months slots in terms of 1 months, 2 months upto 6 months when already slots available in Database.

1.month (30 days) Slot availability Batch Job execution details:

For the execution of 1-month slot availability batch job below are pre-requisites:

- All the available sots are deleted from the database (means there were no slots available) before the executing the batch job
- 30K pre –registrations are available in DB

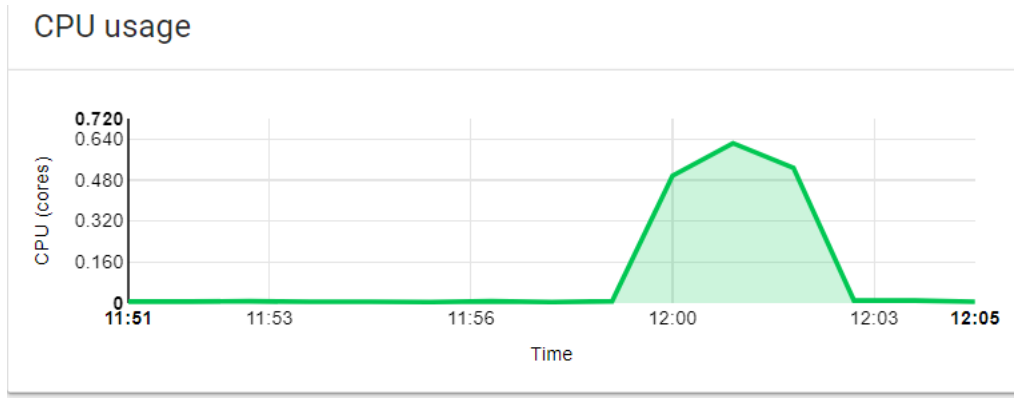
Executed the 30 days batch job after restarting batch service below are the details:

instance_id	Create_Time	Start_Time	End_Time	Execution Time	Status	Slots available (DB)	Days (DB)
1116	2019-06-21 06:28:39.449	2019-06-21 06:28:39.478	2019-06-21 06:31:38.923	00:02:59	Completed	12600	30

Execution time for this batch job is **00:02:59** sec, Batch job execution completed successfully without any issues, Verified in DB that this job created slots for 60 days.

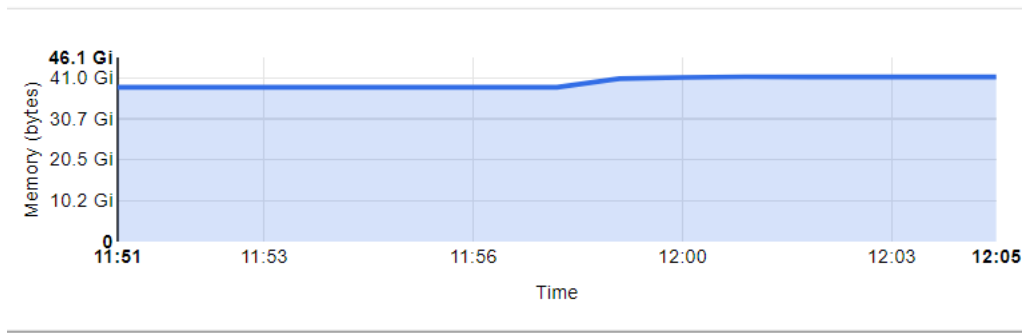
We have taken the CPU and memory utilization graphs of the slot availability batch job (pods), They are below:

CPU Utilization:



Memory utilization:

Memory usage ⓘ

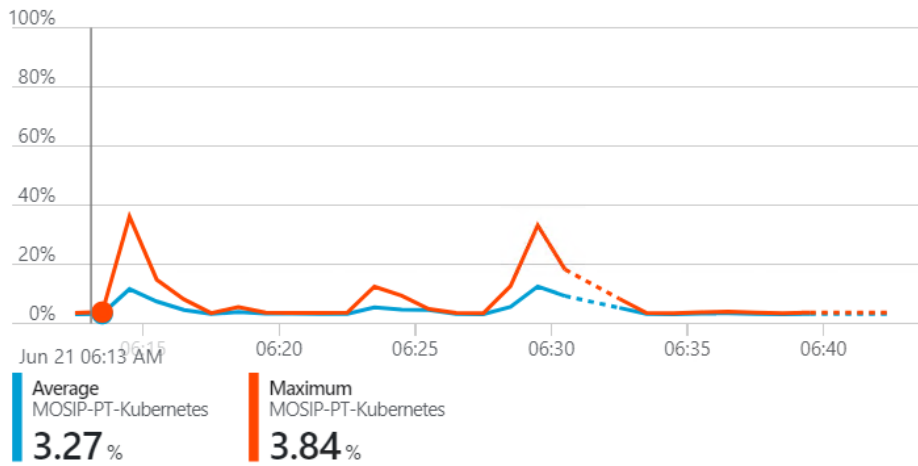


CPU and Memory utilization from Kubernetes cluster:



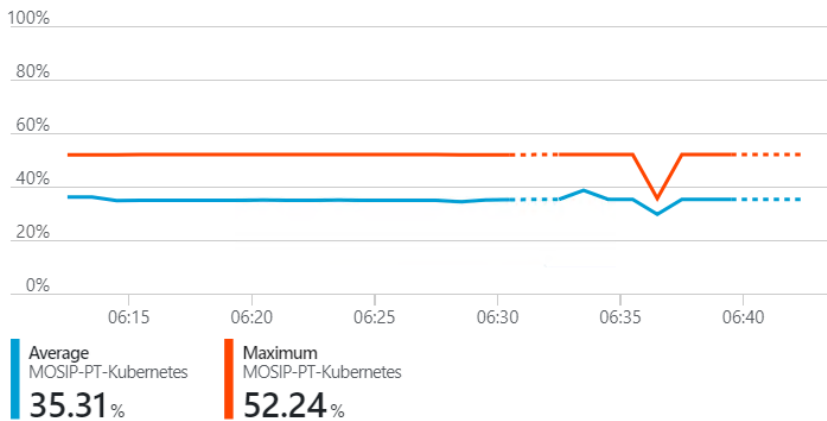
Node CPU utilization % 1m granularity

Avg Min 50th 90th 95th Max




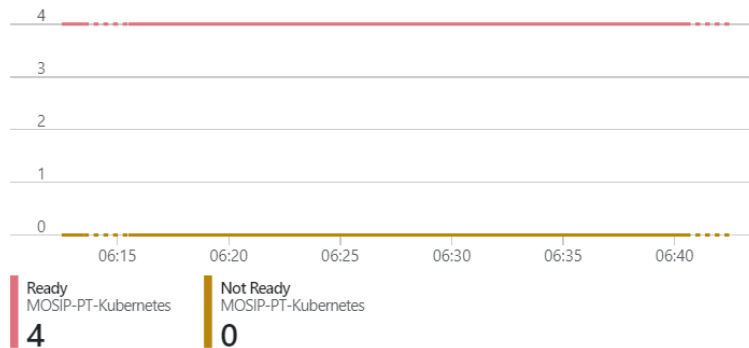
Node memory utilization % 1m granularity

Avg Min 50th 90th 95th Max



Node count
1m granularity

Total Ready Not Ready 



2 months slots availability Batch Job execution details:

For the execution of 2 months slot availability batch job below are pre-requisites:

- 1 month slots available in DB before the executing the batch job
- 30K pre –registrations are available in DB

Executed the 2 months (60 days) batch job after restarting batch service below are the details:

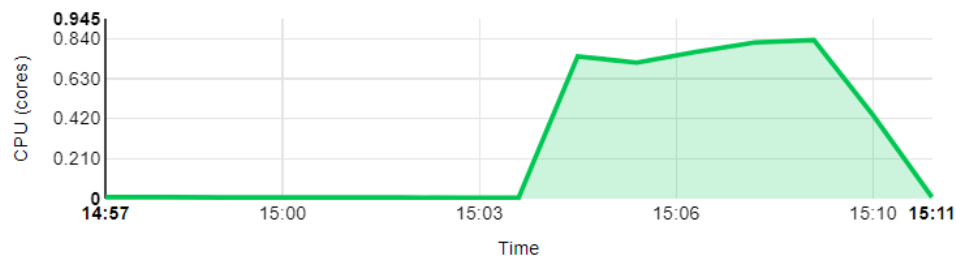
instance_id	Create_Time	Start_Time	End_Time	Execution Time	Status	Slots available (DB)	Days (DB)
1098	2019-06-21 09:34:53.99	2019-06-21 09:34:54.036	2019-06-21 09:39:29.233	00:04:35	Completed	23,985	60

Execution time for this batch job is **00:04:35** sec ,Batch job execution completed successfully without any issues ,Verified in DB that this job created slots for 60 days.

We have taken the CPU and memory utilization graphs of the slot availability batch job (pods), They are below:

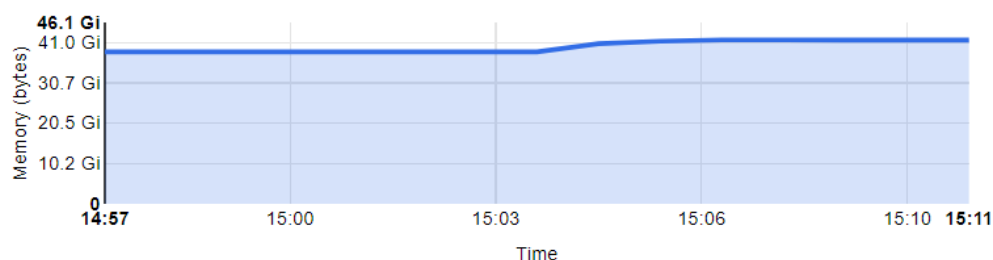
CPU Utilization:

CPU usage



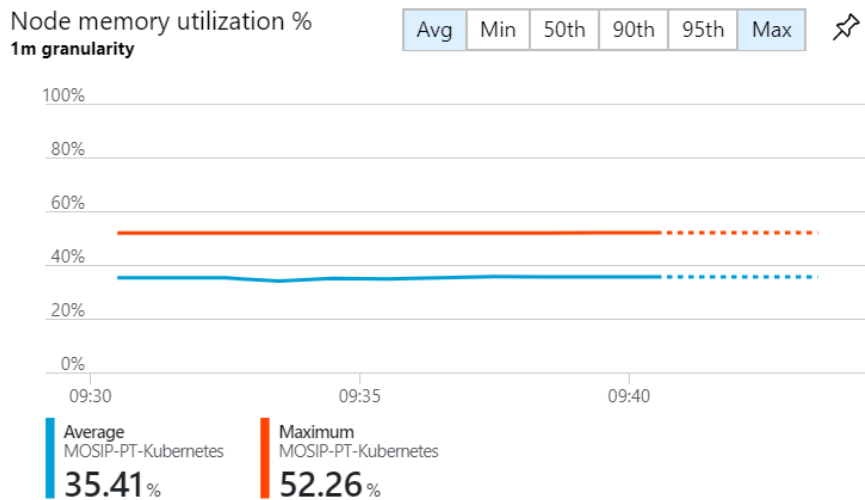
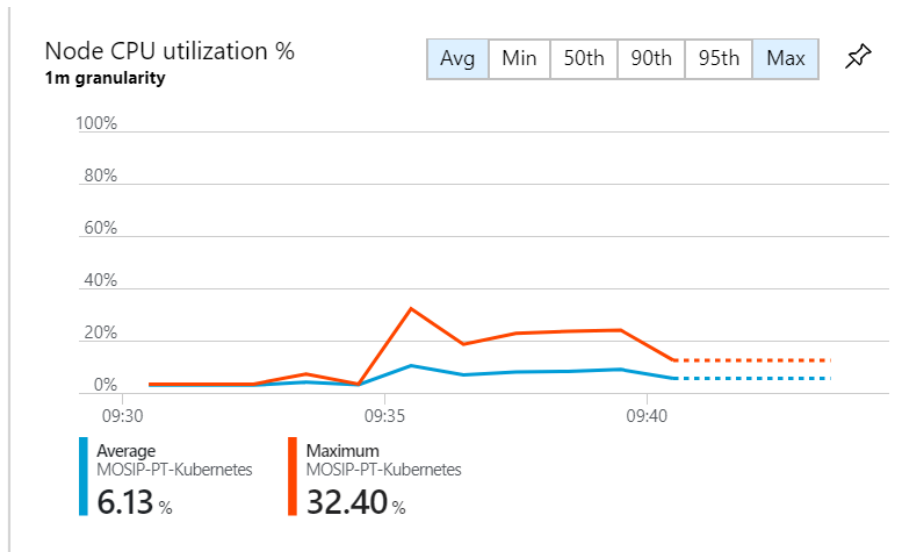
Memory utilization:

Memory usage ⓘ





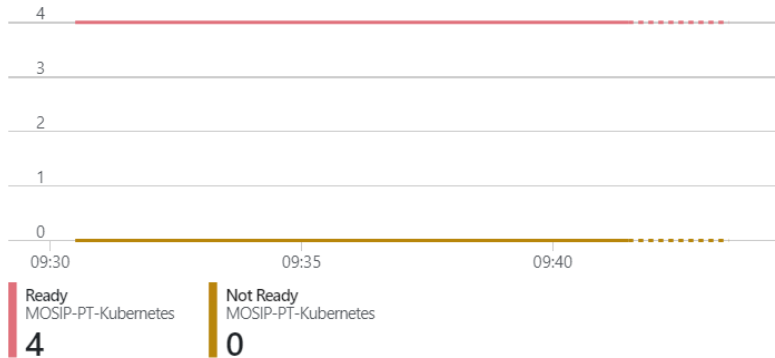
CPU and Memory utilization from Kubernetes cluster:





Node count
1m granularity

Total Ready Not Ready



3 months slots availability Batch Job execution details:

For the execution of 3 months slot availability batch job below are pre-requisites:

- 2 month slots available in DB before the executing the batch job
- 30K pre –registrations are available in DB

Executed the 3 months (90 days) batch job after restarting batch service below are the details:

instance_id	Create_Time	Start_Time	End_Time	Execution Time	Status	Slots available (DB)	Days (DB)
1101	2019-06-21 10:05:23.915	2019-06-21 10:05:23.942	2019-06-21 10:11:50.187	00:06:26	Completed	35559	90

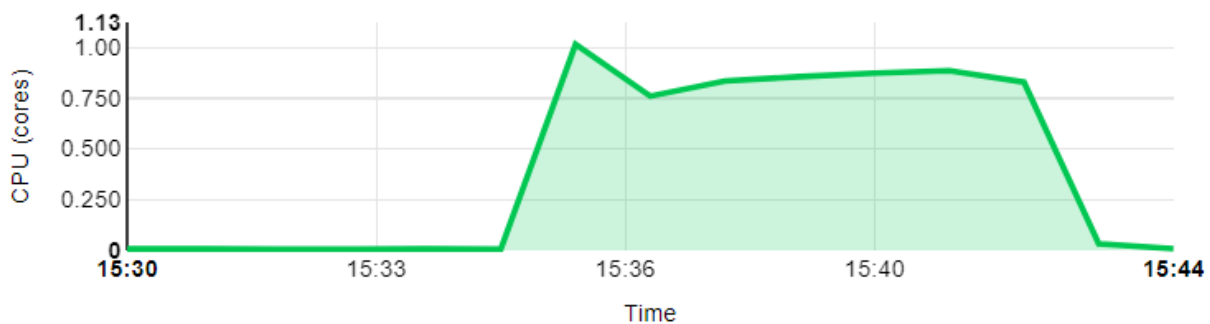


Execution time for this batch job is **00:00:00** sec , Batch job execution completed successfully without any issues ,Verified in DB that this job created slots for 90 days.

We have taken the CPU and memory utilization graphs of the slot availability batch job (pods), They are below:

CPU Utilization:

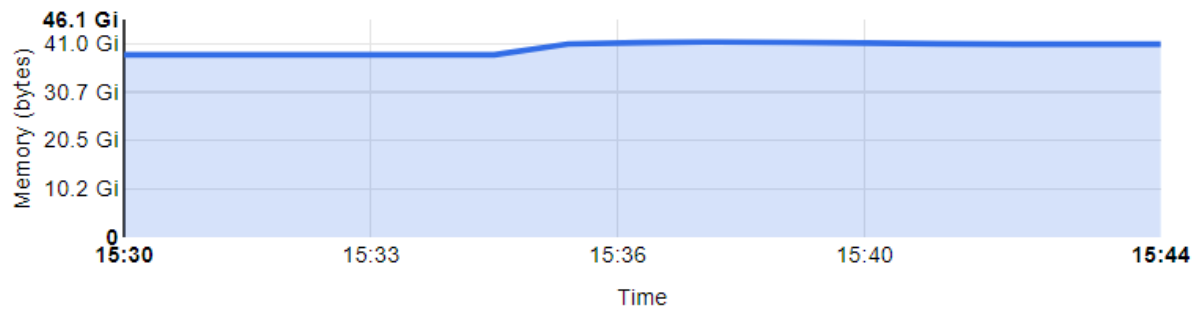
CPU usage



Memory utilization:



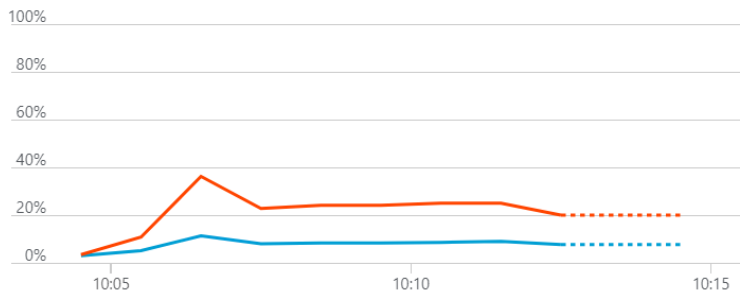
Memory usage ⓘ



CPU and Memory utilization from Kubernetes cluster:

Node CPU utilization %
1m granularity

Avg Min 50th 90th 95th Max



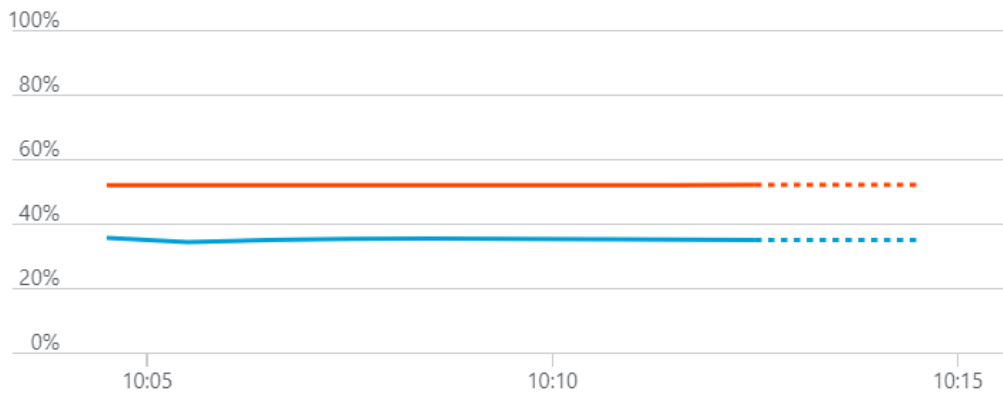
Average
MOSIP-PT-Kubernetes
7.92 %

Maximum
MOSIP-PT-Kubernetes
36.45 %



Node memory utilization % 1m granularity

Avg Min 50th 90th 95th Max



Average
MOSIP-PT-Kubernetes
35.27 %

Maximum
MOSIP-PT-Kubernetes
52.24 %

Node count 1m granularity

Total Ready Not Ready



Ready
MOSIP-PT-Kubernetes
4

Not Ready
MOSIP-PT-Kubernetes
0

4 months slots availability Batch Job execution details:

For the execution of 4 months slot availability batch job below are pre-requisites:

- 3 month slots available in DB before the executing the batch job
- 30K pre –registrations are available in DB

Executed the 4 months (120 days) batch job after restarting batch service below are the details:

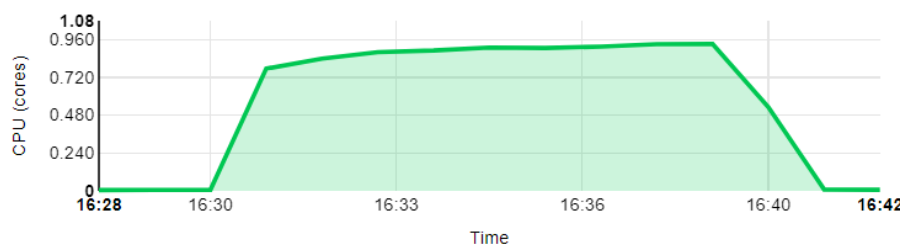
instance_id	Create_Time	Start_Time	End_Time	Execution Time	Status	Slots available (DB)	Days (DB)
1104	2019-06-21 10:59:43.398	2019-06-21 10:59:43.425	2019-06-21 11:09:30.043	00:09:47	Completed	48159	120

Execution time for this batch job is **00:09:47** sec ,Batch job execution completed successfully without any issues ,Verified in DB that this job created slots for 120 days.

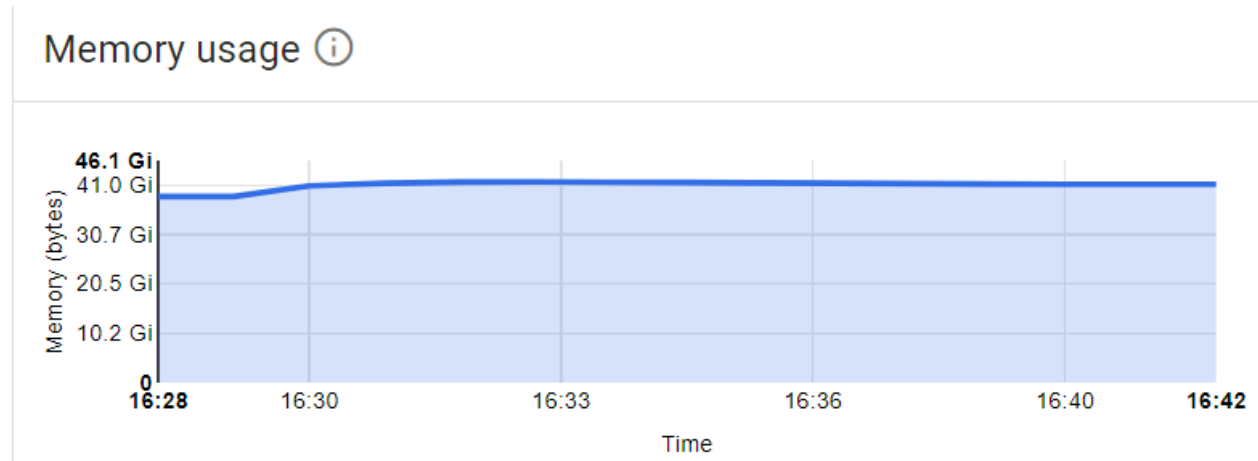
We have taken the CPU and memory utilization graphs of the slot availability batch job (pods), They are below:

CPU Utilization:

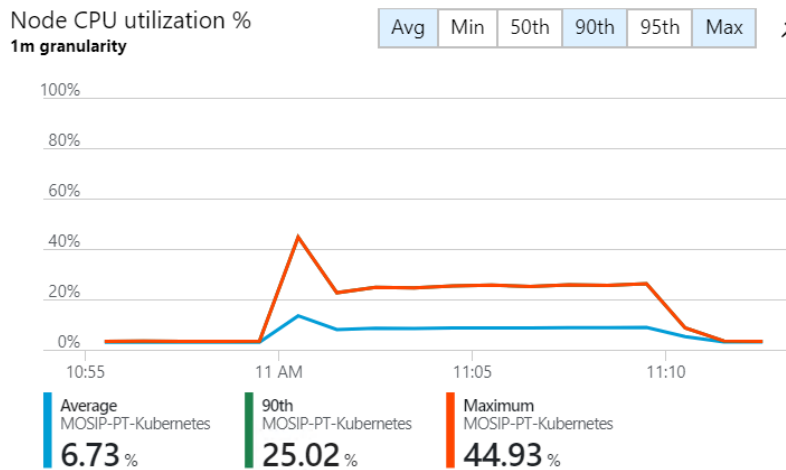
CPU usage



Memory utilization:



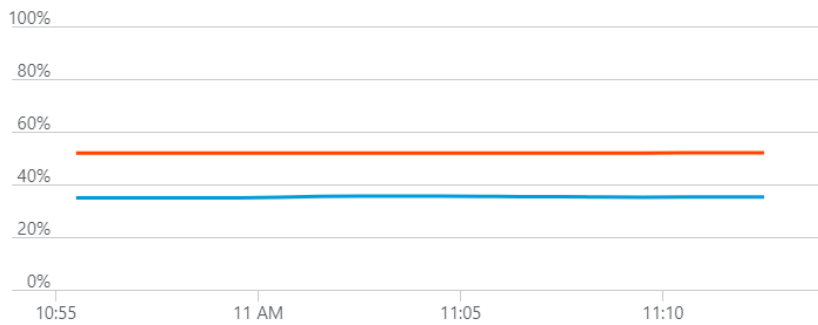
CPU and Memory utilization from Kubernetes cluster:





Node memory utilization % 1m granularity

Avg Min 50th 90th 95th Max

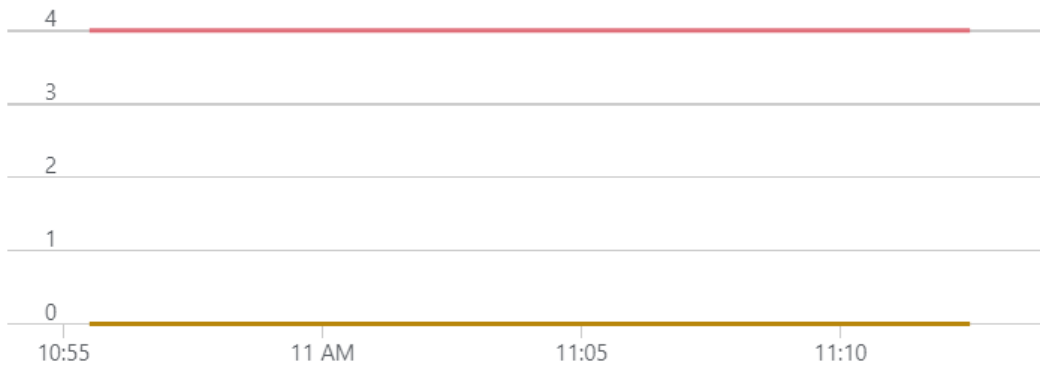


Average
MOSIP-PT-Kubernetes
35.42 %

Maximum
MOSIP-PT-Kubernetes
52.27 %

Node count 1m granularity

Total Ready Not Ready



Ready
MOSIP-PT-Kubernetes
4

Not Ready
MOSIP-PT-Kubernetes
0

5 months slots availability Batch Job execution details:

For the execution of 5 months slot availability batch job below are pre-requisites:

- 4 month slots available in DB before the executing the batch job
- 30K pre –registrations are available in DB

Executed the 5 months (152 days) batch job after restarting batch service below are the details:

instance_id	Create_Time	Start_Time	End_Time	Execution Time	Status	Slots available (DB)	Days (DB)
1107	2019-06-21 11:26:58.514	2019-06-21 11:26:58.543	2019-06-21 11:40:32.634	00:13:34	Completed	60573	152

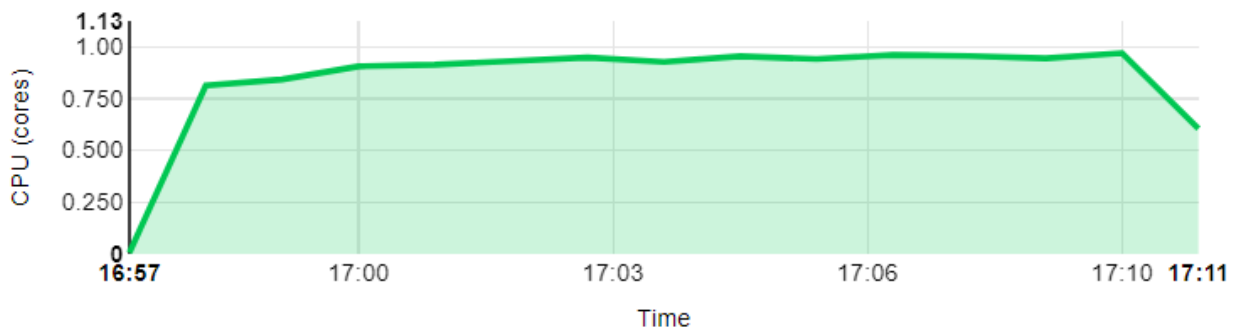
Execution time for this batch job is **00:13:34** sec, Batch job execution completed successfully without any issues, Verified in DB that this job created slots for 152 days.

We have taken the CPU and memory utilization graphs of the slot availability batch job (pods), they are below:

CPU Utilization:

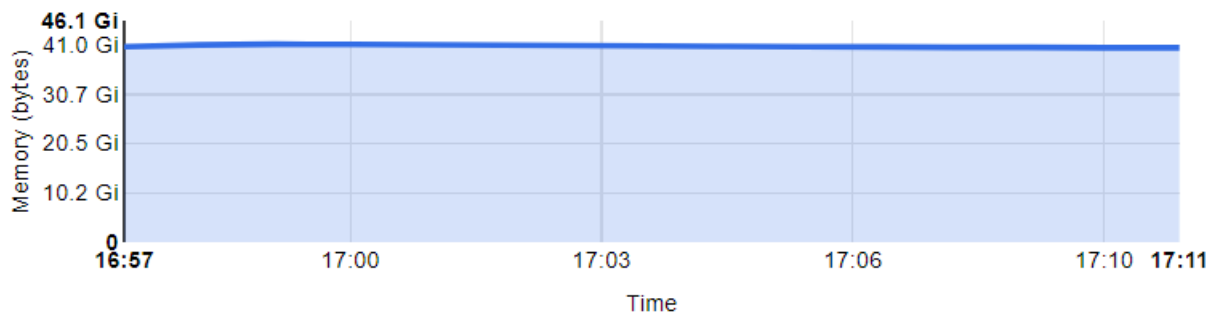


CPU usage



Memory utilization:

Memory usage ⓘ

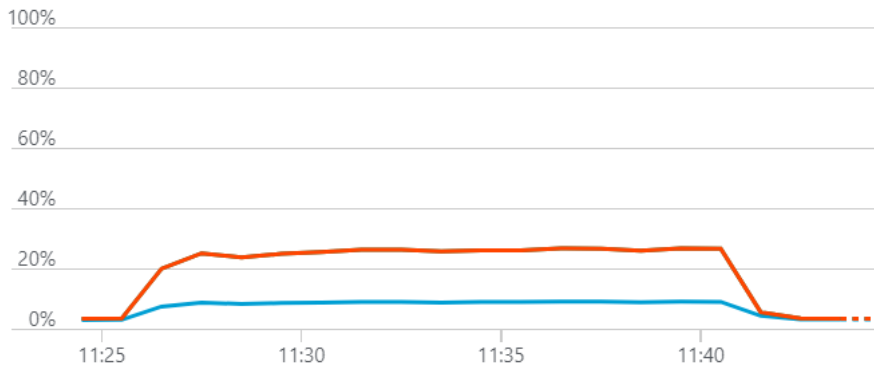


CPU and Memory utilization from Kubernetes cluster:



Node CPU utilization % 1m granularity

Avg	Min	50th	90th	95th	Max
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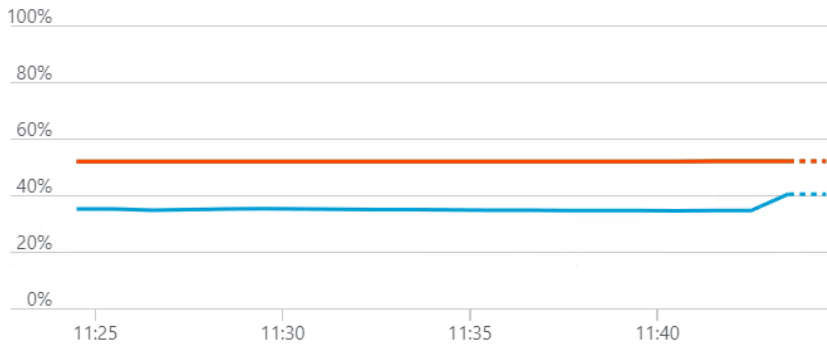
Average
MOSIP-PT-Kubernetes
7.66 %

90th
MOSIP-PT-Kubernetes
26.18 %

Maximum
MOSIP-PT-Kubernetes
26.88 %

Node memory utilization % 1m granularity

Avg	Min	50th	90th	95th	Max
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Average
MOSIP-PT-Kubernetes
35.17 %

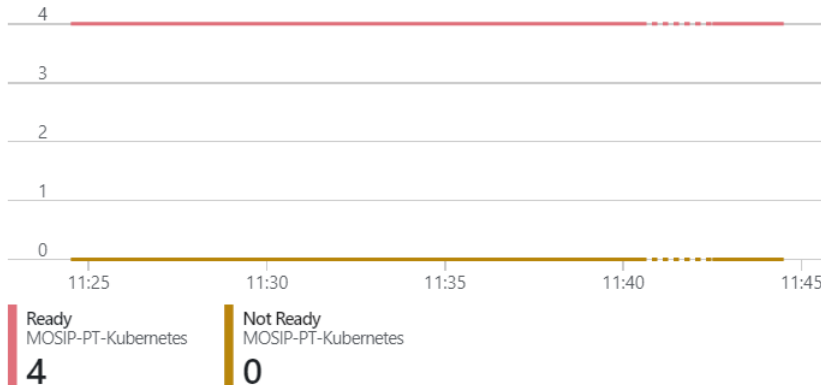
90th
MOSIP-PT-Kubernetes
52.16 %

Maximum
MOSIP-PT-Kubernetes
52.27 %



Node count
1m granularity

Total Ready Not Ready



6 months slots availability Batch Job execution details:

For the execution of 6 months slot availability batch job below are pre-requisites:

- 5 month slots available in DB before the executing the batch job
- 30K pre –registrations are available in DB

Executed the 6 months (182 days) batch job after restarting batch service below are the details:

instance_id	Create_Time	Start_Time	End_Time	Execution Time	Status	Slots available (DB)	Days (DB)
1110	2019-06-21 12:04:56.496	2019-06-21 12:04:56.525	2019-06-21 12:21:41.841	00:16:45	Completed	73173	182

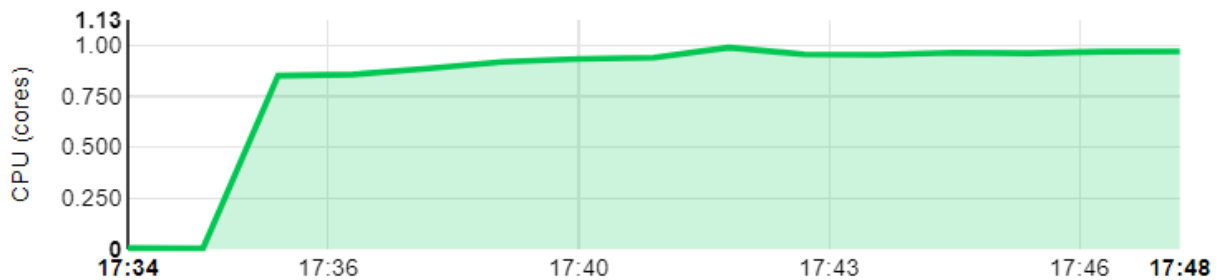
Execution time for this batch job is **00:16:45** sec ,Batch job execution completed successfully without any issues ,Verified in DB that this job created slots for 182 days.



We have taken the CPU and memory utilization graphs of the slot availability batch job (pods), They are below:

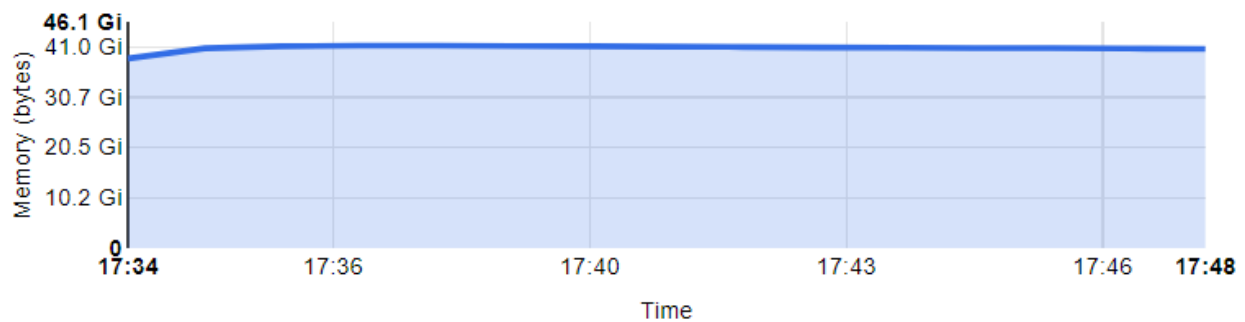
CPU Utilization:

CPU usage



Memory utilization:

Memory usage ⓘ

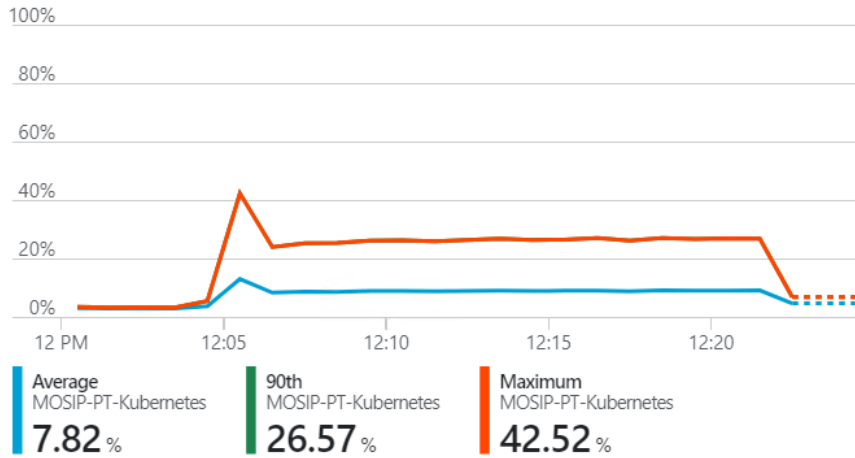


CPU and Memory utilization from Kubernetes cluster:



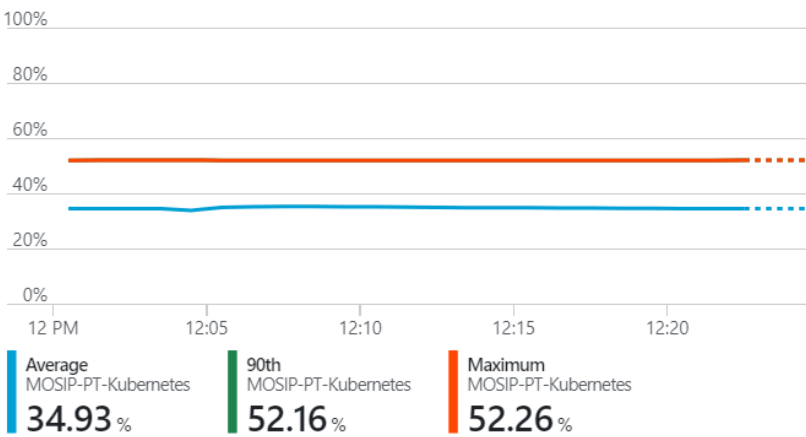
Node CPU utilization % 1m granularity

Avg Min 50th 90th 95th Max




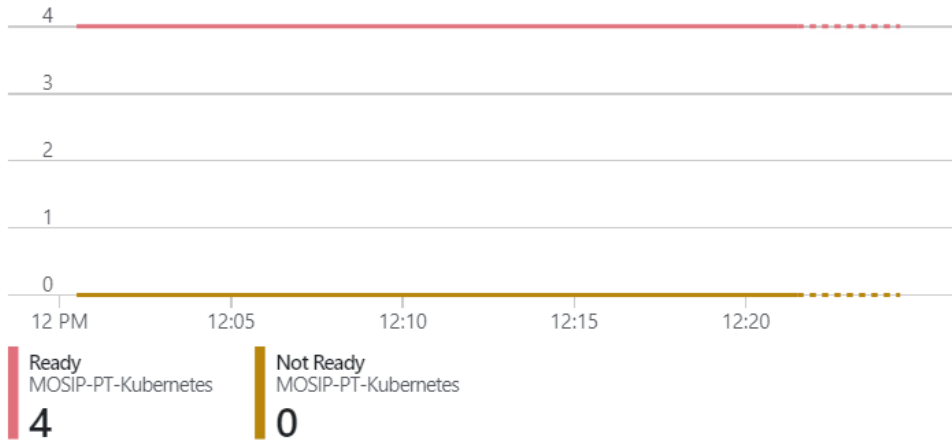
Node memory utilization % 1m granularity

Avg Min 50th 90th 95th Max



Node count
1m granularity

Total Ready Not Ready 



Conclusion and Next Steps:

We have completed slots availability batch job execution until 6 months as per performance testing approach document when already we have slots created for earlier months in database, There were no issues observed while executing jobs. Once the backup is in place, we will continue to test until 2 years of slots creations.