

## LLAP cluster classic monitoring test

**Test:** To follow the given steps and check if install and uninstall script of classical monitoring is working fine and data is getting populated or not inside the log analytics workspace.

Cluster Used:

Name: llapclassiccluster

Cluster Type: Interactive Hive (LLAP)

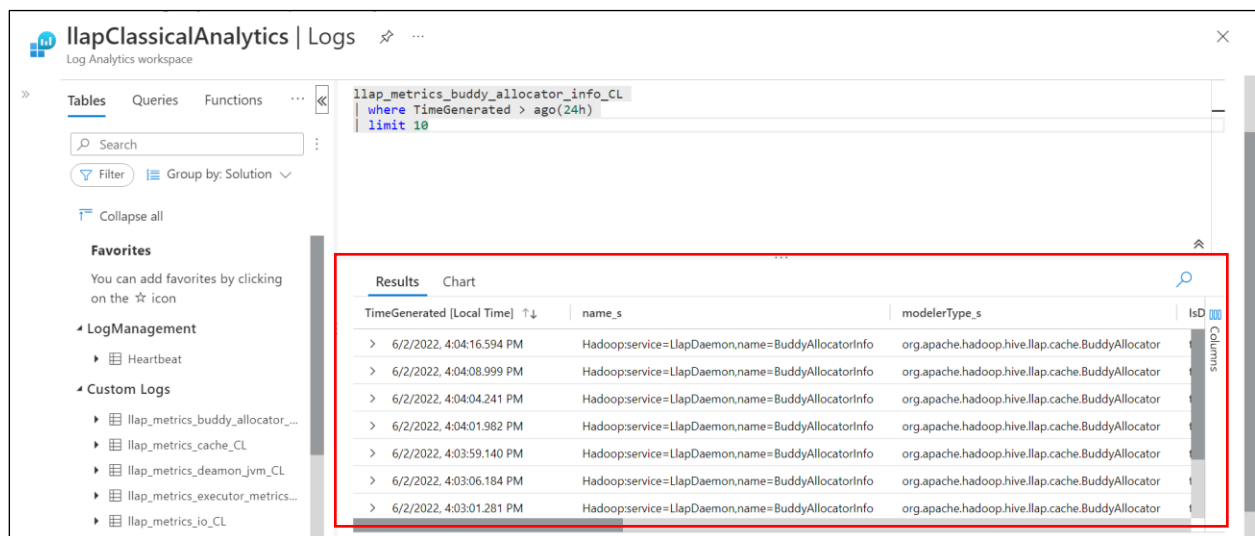
Workspace Connected: llapClassicalAnalytics

Workspace ID: 1ef573a9-bc56-4df7-89d0-62b19dd032ca

### Enable Classical Monitoring from portal

Turned on Classic Monitoring at 4:00 PM local time

Verified that data is getting populated inside the tables



The screenshot shows the 'llapClassicalAnalytics | Logs' workspace. A query is entered in the top bar: `llap_metrics_buddy_allocator_info_CL` with filters `where TimeGenerated > ago(24h)` and `limit 10`. The 'Results' tab is active, displaying a table with 4 columns: 'TimeGenerated [Local Time]', 'name\_s', 'modelerType\_s', and 'IsD'. The table contains 10 rows of data, all from June 2, 2022, at 4:04 PM, showing 'Hadoop:service=LlapDaemon,name=BuddyAllocatorInfo' and 'org.apache.hadoop.hive.llap.cache.BuddyAllocator'.

TimeGenerated [Local Time]	name_s	modelerType_s	IsD
> 6/2/2022, 4:04:16.594 PM	Hadoop:service=LlapDaemon,name=BuddyAllocatorInfo	org.apache.hadoop.hive.llap.cache.BuddyAllocator	t
> 6/2/2022, 4:04:08.999 PM	Hadoop:service=LlapDaemon,name=BuddyAllocatorInfo	org.apache.hadoop.hive.llap.cache.BuddyAllocator	t
> 6/2/2022, 4:04:04.241 PM	Hadoop:service=LlapDaemon,name=BuddyAllocatorInfo	org.apache.hadoop.hive.llap.cache.BuddyAllocator	t
> 6/2/2022, 4:04:01.982 PM	Hadoop:service=LlapDaemon,name=BuddyAllocatorInfo	org.apache.hadoop.hive.llap.cache.BuddyAllocator	t
> 6/2/2022, 4:03:59.140 PM	Hadoop:service=LlapDaemon,name=BuddyAllocatorInfo	org.apache.hadoop.hive.llap.cache.BuddyAllocator	t
> 6/2/2022, 4:03:06.184 PM	Hadoop:service=LlapDaemon,name=BuddyAllocatorInfo	org.apache.hadoop.hive.llap.cache.BuddyAllocator	t
> 6/2/2022, 4:03:01.281 PM	Hadoop:service=LlapDaemon,name=BuddyAllocatorInfo	org.apache.hadoop.hive.llap.cache.BuddyAllocator	t

Several Tables with data got populated inside the log analytics workspace connected to the cluster.

## Manually disabled LA by running uninstall script action

Uninstall oms script run through script action in the cluster.

Script Link: [https://hdiconfigactions.blob.core.windows.net/log-analytics-patch/OMS\\_INSTALL\\_NEW/uninstall.bash](https://hdiconfigactions.blob.core.windows.net/log-analytics-patch/OMS_INSTALL_NEW/uninstall.bash)

Script parameters:

interactivehive 1ef573a9-bc56-4df7-89d0-62b19dd032ca

uv0KNdme2ONZ82AJY4CalUrPpTuK5XkK/bQzmnlnsf8QsUh/aogo4zf5/GnQqRDtp9CTb9rIASCcpXBkh

AzmUQ== testGroup123 null

Home > testGroup123 > llapclassiccluster

llapclassiccluster | Script actions

Search (Ctrl+/) Submit new Refresh

Customize Azure HDInsight clusters by using script actions. [Learn More](#)

PERSISTED SCRIPT ACTIONS

Name
HDI_MONITORING_INSTALL_ce6570

SCRIPT ACTION HISTORY

Status	Name
✓	uninstall LA script action
✓	uninstall script action
✓	HDI_MONITORING_INSTALL_ce6570

Properties

Name: uninstall LA script action

URI: [https://hdiconfigactions.blob.core.windows.net/log-analytics-patch/OMS\\_INSTALL\\_NEW/uninstall.bash](https://hdiconfigactions.blob.core.windows.net/log-analytics-patch/OMS_INSTALL_NEW/uninstall.bash)

Parameters: interactivehive 1ef573a9-bc56-4df7-89d0-62b19dd032ca uv0KNdme2ONZ82AJY4CalUrPpTuK5XkK/bQzmnlnsf8QsUh/aogo4zf5/GnQqRDtp9CTb9rIASCcpXBkh AzmUQ== testGroup123 null

Roles: Head, Worker, Zookeeper

Status: Succeeded

Debug information: { "href": "http://hn1-llapcl.iwt2bqsw1de3gddrwuf51e51c.bx.internal.cloudapp.net:8080/api/v1/clusters/llapcl/tasks/...", "href": "http://hn1-

## Manually run the install script action to enable the LA

Home > testGroup123 > llapclassiccluster

llapclassiccluster | Script actions

Search (Ctrl+/) Submit new Refresh

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PERSISTED SCRIPT ACTIONS

Name
HDI_MONITORING_INSTALL_ce6570

SCRIPT ACTION HISTORY

Status	Name
✓	install LA script action
✓	uninstall LA script action
✓	uninstall script action
✓	HDI_MONITORING_INSTALL_ce6570

Properties

Name: install LA script action

URI: [https://hdiconfigactions.blob.core.windows.net/log-analytics-patch/OMS\\_INSTALL\\_NEW/oms\\_install.sh](https://hdiconfigactions.blob.core.windows.net/log-analytics-patch/OMS_INSTALL_NEW/oms_install.sh)

Parameters: interactivehive 1ef573a9-bc56-4df7-89d0-62b19dd032ca uv0KNdme2ONZ82AJY4CalUrPpTuK5XkK/bQzmnlnsf8QsUh/aogo4zf5/GnQqRDtp9CTb9rIASCcpXBkh AzmUQ== testGroup123 null

Roles: Head, Worker, Zookeeper

Status: Succeeded

Debug information: { "href": "http://hn1-llapcl.iwt2bqsw1de3gddrwuf51e51c.bx.internal.cloudapp.net:8080/api/v1/clusters/llapcl/tasks/...", "href": "http://hn1-

Install Script Link: [https://hdiconfigactions.blob.core.windows.net/log-analytics-patch/OMS\\_INSTALL\\_NEW/oms\\_install.sh](https://hdiconfigactions.blob.core.windows.net/log-analytics-patch/OMS_INSTALL_NEW/oms_install.sh)

Install script parameters:

interactivehive 1ef573a9-bc56-4df7-89d0-62b19dd032ca

uv0KNdme2ONZ82AJY4CalUrPpTuK5XkK/bQzmnlnsf8QsUh/aogo4zf5/GnQqRDtp9CTb9rlASCcpXBkh

AzmUQ== testGroup123 null

## Running workloads in llap cluster

Create Table

Create table xyz (id int,som string);

Around 1000 queries were run to insert data in the table

insert into xyz values(2 ,"som");

```
sshuser@hn0-llapcl: ~
INFO : org.apache.hadoop.hive.llap.counters.LlapWmCounters:
INFO : GUARANTEED_QUEUED_NS: 0
INFO : GUARANTEED_RUNNING_NS: 0
INFO : SPECULATIVE_QUEUED_NS: 344914
INFO : SPECULATIVE_RUNNING_NS: 1439309128
INFO : org.apache.hadoop.hive.llap.daemon.impl.StatsRecordingThreadPool$WrappedCallable$LlapExecutorCounters:
INFO : EXECUTOR_CPU_NS: 159416557
INFO : EXECUTOR_USER_NS: 130000000
INFO : Starting task [Stage-2:DEPENDENCY_COLLECTION] in serial mode
INFO : Starting task [Stage-0:MOVE] in serial mode
INFO : Loading data to table default.xyz from wasb://llapclassiccluster-2022-06-02t09-59-52-823z@llapclassic.blob.core.windows.net/hive/warehouse/managed/xyz/.hive-staging_hive_2022-06-02_11-24-37_713_287448829584456265-2/-ext-10000
INFO : Starting task [Stage-3:STATS] in serial mode
INFO : Completed executing command(queryId=hive_20220602112437_82e35b29-7cd0-4150-ae5f-e81bb3b7ccb9); Time taken: 5.395 seconds
INFO : OK
No rows affected (6.681 seconds)
0: jdbc:hive2://zk0-llapcl.lwt2bqsw1de3gddrw> insert into xyz values(2 ,"som");
INFO : Compiling command(queryId=hive_20220602112444_6038829c-e131-485b-b939-29d16e175b44): insert into xyz values(2 ,"som")
INFO : Semantic Analysis Completed (retry: false)
INFO : Returning Hive schema: Schema(fieldSchemas:[FieldSchema(name:col1, type:int, comment:null), FieldSchema(name:col2, type:string, comment:null)], properties:null)
INFO : Completed compiling command(queryId=hive_20220602112444_6038829c-e131-485b-b939-29d16e175b44); Time taken: 1.228 seconds
INFO : Executing command(queryId=hive_20220602112444_6038829c-e131-485b-b939-29d16e175b44): insert into xyz values(2 ,"som")
INFO : Query ID = hive_20220602112444_6038829c-e131-485b-b939-29d16e175b44
INFO : Total jobs = 1
INFO : Launching Job 1 out of 1
INFO : Starting task [Stage-1:MAPRED] in serial mode
INFO : Subscribed to counters: {} for queryId: hive_20220602112444_6038829c-e131-485b-b939-29d16e175b44
INFO : Session is already open
INFO : Dag name: insert into xyz values(2 ,"som") (Stage-1)
INFO : Status: Running (Executing on YARN cluster with App id application_1654164559161_0005)

-----
VERTICES    MODE    STATUS  TOTAL  COMPLETED  RUNNING  PENDING  FAILED  KILLED
-----
Map 1 ..... llap    SUCCEEDED    1        1        0        0        0        0
Reducer 2 ..... llap    SUCCEEDED    1        1        0        0        0        0
-----
VERTICES: 02/02 [=====] 100% ELAPSED TIME: 1.21 s
-----
```

The install script was run at 4:45 PM and the insert queries were run at 4:55 PM

## Verify data in table

The screenshot shows the Microsoft Log Analytics workspace for 'IlapClassicalAnalytics'. A query is run for the 'application\_stats\_query\_CL' table, filtered by 'TimeGenerated > ago(24h)'. The results table is highlighted with a red border.

TimeGenerated [Local Time]	entitytype_s	entity_s	starttime_d	events
6/2/2022, 4:56:08.559 PM	HIVE_QUERY_ID	hive_20220602112549_50499e...	1,654,169,149,521	1,654,169,149,521
6/2/2022, 4:56:08.559 PM	HIVE_QUERY_ID	hive_20220602112542_bf31da1...	1,654,169,142,967	1,654,169,142,967
6/2/2022, 4:56:08.559 PM	HIVE_QUERY_ID	hive_20220602112535_31d13e...	1,654,169,135,425	1,654,169,135,425
6/2/2022, 4:56:08.559 PM	HIVE_QUERY_ID	hive_20220602112528_357258...	1,654,169,128,438	1,654,169,128,438
6/2/2022, 4:56:08.559 PM	HIVE_QUERY_ID	hive_20220602112521_fd35dce...	1,654,169,121,320	1,654,169,121,320
6/2/2022, 4:56:08.559 PM	HIVE_QUERY_ID	hive_20220602112513_95922a2...	1,654,169,113,919	1,654,169,113,919
6/2/2022, 4:56:08.559 PM	HIVE_QUERY_ID	hive_20220602112506_1788b6...	1,654,169,106,167	1,654,169,106,167
6/2/2022, 4:56:08.559 PM	HIVE_QUERY_ID	hive_20220602112458_9544f78...	1,654,169,098,818	1,654,169,098,818
6/2/2022, 4:56:08.559 PM	HIVE_QUERY_ID	hive_20220602112451_8075f32...	1,654,169,091,664	1,654,169,091,664

We can see data generated around 4:56 PM, which means data is getting populated after the oms was installed manually using script action.

Data for queries coming in application\_stats\_query\_CL table

## Uninstall LA using script action again

The screenshot shows the HDInsight cluster 'Ilapclassiccluster' with a list of script actions. The 'uninstall LA script' action is highlighted in the 'SCRIPT ACTION HISTORY' section. The 'Properties' panel on the right shows details for the 'uninstall LA script' action.

Status	Name
✓	uninstall LA script
✓	install LA script action
✓	uninstall LA script action
✓	uninstall script action
✓	HDI_MONITORING_INSTALL_ce6570

**Properties**

Name: uninstall LA script

URI: [https://hdiconfigactions.blob.core.windows.net/log-analytics-patch/OMS\\_INSTALL\\_NEW/uninstall.bash](https://hdiconfigactions.blob.core.windows.net/log-analytics-patch/OMS_INSTALL_NEW/uninstall.bash)

Parameters: interactivehive 1ef573a9-bc56-4df7-89d0-62b19dd032ca uvOKNdme2ONZ82AJY4CaIUrpTuK5Xkk/bQzmnlnsf8QsUh/aogo4zf5/GnQqRDtp9CTb9r testGroup123 null

Roles: Head, Worker, Zookeeper

Status: Succeeded

Debug information: { "href": "http://hn1-llapcl.iwt2bqsw1de3gddnwuf51e51c.bx.internal.cloudapp.net:8080/api/v1/clusters/llapcl... "task": "..." }

run this command - `sudo cat /etc/opt/microsoft/omsagent/sysconf/installinfo.txt`

[ there should be no result]

```
sshuser@llapclassiccluster-ssh.azurehdinsight.net's password:
Welcome to Ubuntu 18.04.6 LTS (GNU/Linux 5.4.0-1070-azure x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

 * Super-optimized for small spaces - read how we shrank the memory
   footprint of MicroK8s to make it the smallest full K8s around.

   https://ubuntu.com/blog/microk8s-memory-optimisation

151 updates can be applied immediately.
127 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

New release '20.04.4 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

*** /dev/sda1 will be checked for errors at next reboot ***

Welcome to LLAP on HDInsight.

Last login: Thu Jun  2 11:18:19 2022 from 49.36.191.209
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

sshuser@hn0-llapcl:~$ sudo cat /etc/opt/microsoft/omsagent/sysconf/installinfo.txt
cat: /etc/opt/microsoft/omsagent/sysconf/installinfo.txt: No such file or directory
sshuser@hn0-llapcl:~$
```

As we can see there is no result upon running the command since the oms was uninstalled using the script action.