Database restore keeps ongoing with multiple Dumps

Last updated by | Vitor Tomaz | Feb 24, 2023 at 3:29 AM PST

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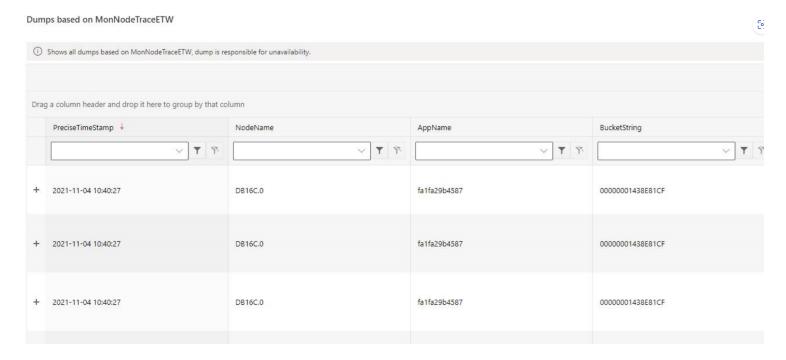
Issue

Customer might report that a restore from a backup that has been taken on on-prem is slow/stuck or that has been cancelled after long hours.

The Managed Instance where the backup is being restored is on General Purpose.

Investigation/Analysis

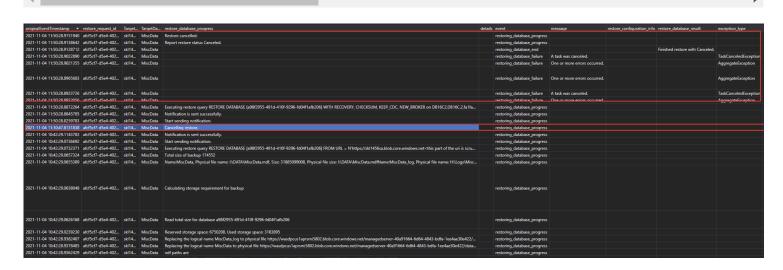
On ASC multiple dumps ocuring:



The restore could show that has been canceled:

```
MonRestoreRequests
```

```
where start time >= datetime(2021-10-29 00:00:00) and start time <= datetime(2021-11-05 13:27:00
extend SourceServer = iif(archived_backup_resource_id!= '',
                                                                            extract('/longTermRet
    source managed server name)
extend SourceDatabase = iif(archived_backup_resource_id!= '',
                                                                     extract('/longTermRetentio
   source managed database name)
| extend TargetServer = target_managed_server_name, TargetDatabase = target_managed_database_name
 where (SourceServer =~ 'server'
   and (isempty('') or SourceDatabase =~ '')
(TargetServer =~ 'server'
   and (isempty('') or TargetDatabase =~ '')
 summarize arg max(TIMESTAMP, *) by restore request id
| project restore_request_id = tolower(restore_request_id), TargetServer, TargetDatabase
| join kind=inner (
MonRestoreEvents
| project originalEventTimestamp, restore request id = tolower(restore request id), restore databa
) on restore request id
sort by originalEventTimestamp desc nulls last
 project originalEventTimestamp, restore request id = tolower(restore request id), TargetServer,
limit 100
```



But the database is still in creation mode:

Database	SLO	FsmState	TIMESTAMP
MiscData	MIGP16G5	Waiting For Physical Database Creation	2021-11-04 17:36:00.9982389
MiscData	MIGP16G5	Waiting For Physical Database Creation	2021-11-04 17:06:09.9176535
MiscData	MIGP16G5	Waiting For Physical Database Creation	2021-11-04 16:35:31.9303832
MiscData	MIGP16G5	Waiting For Physical Database Creation	2021-11-04 16:05:54.9897063
MiscData	MIGP16G5	${\bf Waiting For Physical Database Creation}$	2021-11-04 15:36:00.0181900

The database had memory-optimized objects while onprem.

Mitigation

The RCA is that the customer DB is already corrupted on onprem.

Suggested mitigation is to:

- create a new database
- verify the Hekaton fields in the bootpage are zeroed out use query

```
DBCC DBINFO('<db_name>') WITH TABLERESULTS
```

and these fields value should be zero: dbi_hkRecoveryLSN, dbi_hkLogTruncationLSN, dbi_hkRootFile, dbi_hkRootFileWatermark, dbi_hkTrimLSN

- migrate data to new database -
- verify the Hekaton fields in the bootpage are zeroed out

use query

```
DBCC DBINFO('<db_name>') WITH TABLERESULTS
```

and these fields value should be zero: dbi_hkRecoveryLSN, dbi_hkLogTruncationLSN, dbi_hkRootFile, dbi_hkRootFileWatermark, dbi_hkTrimLSN

- take a full backup
- restore on Managed Instance

The PG is already working on a fix where the customer is prompted about the issue.

Internal reference

Work item: <u>1852942</u> ☑

ICM:

356531097 🗷

<u>352490213</u> 🗹

<u>309687205</u> ☑

<u>270529546</u> ☑

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