Change SQL instance type(service tier)

Overview

Platform:	Azure
Owner of this SOP:	Fully Managed POD A
Cloud Services:	Domain Joined Virtual Machines

Problem

When requesters are asking for change SQL instance type(service tier).

tester	Reviewer
@ Subhankar Ghosh	

Solution

Cloud Services operators will perform basic health checks and update the associated record as required. In most cases, the record will be an Incident Task (which may be assigned or manually created).

Pre-requisites

- The operator needs to have access to the **Cloud Factory** ServiceNow Dashboard. If this access is missing raise a request for Access to ServiceNow and request the group "Cloud Factory - Dashboard Access".
- Must be a member of the "Cloud Svcs- CloudOne" assignment group to work on ServiceNow tickets. As well access to the required report in this SOP. Use the same Access to ServiceNow request to gain this group if needed.
- The operator needs to be part of **OperationsCloudOneAccess** role in AWS & **CloudOne Operator** role in Azure . If this is missing raise a Manage Cloud Access request to get this custom role.

## Procedure

Steps to create & manage Incident Task

Create Incident Task

Follow the below steps to create incident task. This step is required when the operator has received only an Incident.

On *Incident Tasks* Tab of the Incident ticket, click *New* and assign it to "CloudOne" team. Populate the Assignment group and Configuration item (CI). (Hint the CI is the VM on which the health check is being performed)
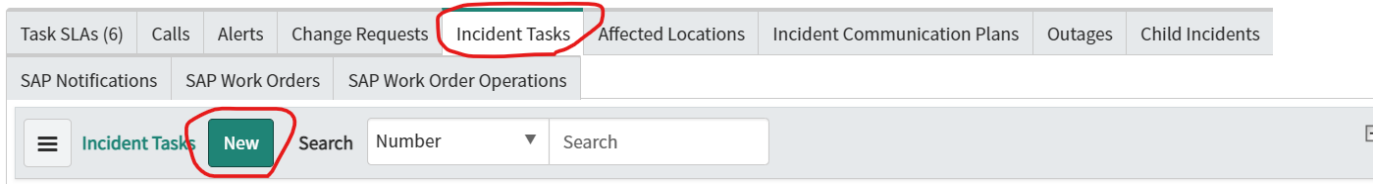
Process

Raise a Normal Change Request

Please open a Normal change request and get it approved before executing the SQL database service tier change activity, And respective stake holders and application owners should be informed prior to this activity as accessing to database some intermittent or latency issue may occur.

Regardless, the databases remain online during this step, and connections continue to be directed to the databases.

Note: If the SQL database service tier is Hyperscale, it will destroy and create the resource during service tier change to any other.

Steps

- Logon to Gitlab and go to the respective repo.
- Clone the repo to your local machine and edit using Visual Studio code.

Find file Web IDE ⌄   ⌄ Clone ⌄

Clone with SSH

git@gitlab.com:bhp-cloudfactory/to 📋

Clone with HTTPS

https://gitlab.com/bhp-cloudfactor 📋

Open in your IDE

Visual Studio Code (SSH)

Visual Studio Code (HTTPS)

- Check current SKU(service tier)

```
"test1" = {
  name                          = "aue1-npe-fmpoda-sql-db" # rename
  create_mode                   = "Default"
  collation                     = ""
  sku_name                      = "S0" # Use dedicated SKUs if you
  license_type                  = ""
  auto_pause_delay_in_minutes   = 0
  max_size_gb                   = 5
  min_capacity                  = 0
  read_replica_count            = 0
```

Service and compute tier

Select from the available tiers based on the needs of your workload. The vCore model provides a wide range of configuration controls and offers Hyperscale and Serverless to automatically scale your database based on your workload needs. Alternately, the DTU model provides set price/performance packages to choose from for easy configuration. Learn more

Service tier   Standard (For workloads with typical performance requirements)   ∨

Compare service tiers ☑

- Change the sku name as per request and Save it. Push the code to trigger the pipeline

```
39 ∨ sql_db = {
40 ∨     "test1" = {
41         name                              = "aue1-npe-fmpoda-sql-db" #
42         create_mode                       = "Default"
43         collation                         = ""
44         sku_name                          = "P2" # Use dedicated SKUs i
45         license_type                      = ""
46         auto_pause_delay_in_minutes = 0
47         max_size_gb                       = 5
48         min_capacity                      = 0
49         read_replica_count                = 0
```

PROBLEMS   OUTPUT   TERMINAL   DEBUG CONSOLE

```
                                        >git add .

                                        >git commit -m "Service tier
[               ] Service tier change
 1 file changed, 2 insertions(+), 2 deletions(-)

C:\Users\2075199\Downloads\clone\sql-pass>git push
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 366 bytes | 366.00 KiB/s, done.
Total 4 (delta 2), reused 0 (delta 0), pack-reused 0
```

- Check the respective terraform workspace once the plan stage completed in GitLab pipeline.
- Check the terraform plan and confirm that NO RESOURCE IS DESTROYED and sku(service tier) is changing as per request.

```
∨ ~ ⚠ module.sql_db["test1"].azurerm_mssql_database.this ⧉

    id :                      "/subscriptions/01818878-c294-4617-a15a-8b7934a433c4/resourceGroups/it-aue1-npe-arg-sql/providers/Microsof
                              t.Sql/servers/it-aue1-npe-fmpoda-sql-dbs-ndtywa/databases/it-aue1-npe-fmpoda-sql-db"
    name :                    "it-aue1-npe-fmpoda-sql-db"
  ~ sku_name :                "S0"  →  "P2"
```

- Execute Apply manually.

Commit

Stages

main -o- 0e2ec00d
Service tier change

apply

main -o- 1119e3ab

~ module.sql_db["test1"].azurerm_mssql_database.this

✓ Updated   id=/subscriptions/01818878-c294-4617-a15a-8b7934a433c4/resourcegroups/it-aue1-npe-arg-sql/providers/microsoft.sql/servers/i

- Check in azure portal

Search (Ctrl+/)   «   Feedback

Settings

⊙ Compute + storage

Service and compute tier

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🖉 Connection strings

Service tier

Premium (For IO-intensive workloads)   ▾

Maintenance

Compare service tiers ⧉

Properties

Only changing service tier from Hyperscale to another tier will force a new resource to be created

✓ Plan finished   4 minutes ago   Resources: **1** to add, **0** to change, **1** to destroy   ⌃

Started 4 minutes ago   >   Finished 3 minutes ago

+ 1 to create   — 1 to destroy

+	restore_point_in_time :	*Known after apply*
+	sample_name :	*Known after apply*
~	sku_name :	"HS_Gen5_2" → "S0" *Forces replacement*
	tags :	{
	⋯ 10 unchanged attributes hidden	

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