REST API and PowerShell

Last updated by | Vitor Tomaz | Nov 16, 2022 at 12:58 PM PST

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Rest API

REST API needs to be updated to allow explicit resource pool creation or update:

Request (NEW)

Creates IP of a specific **kind** (service tier, HW Gen) in customer subnet, if such does not exist.

Method	Request URI
PUT	<primary-endpoint>/subscriptions/{SubscriptionId}/resourceGroups/ {GroupName}/providers/Microsoft.Sql/instancePool/ {instancePoolName }

Request body

```
{
   "location": "East US",
   "tags": {"key": "value"},
   "sku": {
      "name": "GP_Gen5"
      "tier": "GeneralPurpose"
       “family” : “Gen5”},
   "properties": {
            "subnetId": "/subscriptions/<subid>/resourceGroups/{GroupName}/providers/Microsoft.Network/virtualNetworks/{VNetName}/subnets/{subnetName}",
      "vCores": 24,
      "hardwareFamily": "Gen5"
   }
```

}

Request (NEW)

Deletes the IP identified in the URL. .

Method	Request URI
DELETE	<primary-endpoint>/subscriptions/{SubscriptionId}/resourceGroups/ {GroupName}/providers/Microsoft.Sql/instancePool/ {instancePoolName }

An IP can be deleted only if there are no deployed instances.

Request (UPDATED)

Creates Managed Instance within customer subnet (directly or to a pre-provisioned IP in that subnet)

Method	Request URI
PUT	<primary-endpoint>/subscriptions/{SubscriptionId}/resourceGroups/ {GroupName}/providers/Microsoft.Sql/managedInstances/{ManagedInstanceName}

New, parameter (**InstancePoolId**) is introduced to determine if a new instance needs to be placed inside of a pre-created IP or no.

With addition of this parameter, both parameters become optional, but at least one needs to be specified (otherwise operation will fail).

If both are specified, IP value takes precedence.

Request body

```
{
   "location": "East US",
   "tags": {"key": "value"},
   "sku": {
      "name": "GP_Gen5"
      "tier": "GeneralPurpose"},
   "properties": {
      "administratorLogin": "MyAdminAccount",
```

"administratorPasword": "MyAdminPassword",

"subnetId": "/subscriptions/<subid>/resourceGroups/{GroupName}/providers/Microsoft.Network/virtualNetworks/{VNetName}/subnets/{subnetName}",

"licenseType": "LicenseIncluded",

"vCores": 16,

"storageSizeInGB": 32,

"hardwareFamily": "Gen4"

"instancePoolId": ">/subscriptions/<subid>/resourceGroups/{GroupName}/providers/Microsoft.Sql/instancepool/{instance_resource_pool_name}"

},

"identity": {

"type": "systemAssigned"

}

}

Request (NEW)

Returns information for selected IP

Method	Request URI
GET	<primary-endpoint>/subscriptions/{SubscriptionId}/resourceGroups/{GroupName}/providers/Microsoft.Sql/instancePool/{instancePoolName}

Response body

[

{

"id": "/subscriptions/.../resourceGroups/.../providers/Microsoft.Sql/instancePool/myGPPool1",

"name": "myGPPool1",

"type": "Microsoft.Sql/ instancePool ",

"location": "East US",

"tags": {"key": "value"},

"sku": {

"name": "GP_Gen5"

"tier": "GeneralPurpose"},

"properties": {

"vCores ": 24,

“availablevCores” : 12,

"storageSizeInGB": 1200,

"subnetId": "/subscriptions/<subid>/resourceGroups/{GroupName}/providers/Microsoft.Network/virtualNetwork/{myvnet}/subnets/mysubnet1",

"instances[SB10] ":

[[JK11] [BN12] [JK13]

“/subscriptions/…/resourceGroups/…/providers/Microsoft.Sql/managedInstance/i1”,

" /subscriptions/…/resourceGroups/…/providers/Microsoft.Sql/managedInstance/i2"

]

}

}

]

Request (NEW)

Returns information about all IRPs on active subscription

Method	Request URI
GET	<primary-endpoint>/subscriptions/{SubscriptionId}/resourceGroups/{GroupName}/providers/Microsoft.Sql/instancePools

Response body

[

--RESPONSE FOR THE FIRST IP (myGPPool1)


```
{
    "id": "/subscriptions/…/resourceGroups/…/providers/Microsoft.Sql/instancePool/myGPPool1",
    "name": "myGPPool1",
    "type": "Microsoft.Sql/ instancePool ",
    "location": "East US",
    "tags": {"key": "value"},
    "sku": {
          "name": "GP_Gen5"
           "tier": "GeneralPurpose"},

  "properties": {
          "vCores": 24,
          "storageSizeInGB": 1200,
           "subnetId": "/subscriptions/<subid>/resourceGroups/{GroupName}/providers/Microsoft.Network/virtualNetwork/{myvnet}/subnets/mysubnet1",
            "instances":
        [
"/subscriptions/…/resourceGroups/…/providers/Microsoft.Sql/managedInstance/i1",
" /subscriptions/…/resourceGroups/…/providers/Microsoft.Sql/managedInstance/i2"
        ]
      }
  },
```


--RESPONSE FOR ANOTHER IP (myBCPool1)


```
{
    "id": "/subscriptions/…/resourceGroups/…/providers/Microsoft.Sql/instancePool/myBCPool1",
```

```
        "name": "myBCPool1",
        "type": "Microsoft.Sql/ instancePool ",
        "location": "East US",
        "tags": {"key": "value"},
        "sku": {
              "name": "BC_Gen5"
               "tier": "BusinessCritical"},

    "properties": {
             "vCores": 24,
             "storageSizeInGB": 1200,
              "subnetId": "/subscriptions/<subid>/resourceGroups/{GroupName}/providers/Microsoft.Network/virtualNetwork/{myvnet}/subnets/mysubnet1",

          "childInstances":
          [
 "/subscriptions/.../resourceGroups/.../providers/Microsoft.Sql/managedInstance/i1",
" /subscriptions/.../resourceGroups/.../providers/Microsoft.Sql/managedInstance/i2"

           ]
       }
   }

]
```

Request (UPDATED)

Returns information about virtual clusters and contained objects.

This method is updated to return all IRPs and instances deployed on these pools (see **bold part of the response**)

Method	Request URI
GET	<primary-endpoint>/subscriptions/{SubscriptionId}/resourceGroups/ {GroupName}/providers/Microsoft.Sql/ virtualClusters/{VirtualClusterName}

Response body


```
[
   {
      "id": "/subscriptions/.../resourceGroups/.../providers/Microsoft.Sql/virtualClusters/eastus-myvnet-mysubnet1-58234",
      "name": "eastus-myvnet-mysubnet1-58234",
      "type": "Microsoft.Sql/virtualClusters",
      "location": "East US",
      "tags": {"key": "value"},
   "properties": {
         "subnetId": "/subscriptions/<subid>/resourceGroups/{GroupName}/providers/Microsoft.Network/virtualNetwork/{myvnet}/subnets/mysubnet1",

          "singleInstances":
           [
  "/subscriptions/.../resourceGroups/.../providers/Microsoft.Sql/managedInstance/i1",
" /subscriptions/.../resourceGroups/.../providers/Microsoft.Sql/managedInstance/i2"              ]

           instancePools
          [
              { "name" : "Pool1",
                 "sku": {
```

```
                    "name": "GP_Gen5"

                  "tier": "GeneralPurpose"},


                 "vCores": 24,

                "storageSizeInGB": 1200,


                  "instances":

                  [

          "/subscriptions/…/resourceGroups/…/providers/Microsoft.Sql/managedInstance/i5",

" /subscriptions/…/resourceGroups/…/providers/Microsoft.Sql/managedInstance/i6"

                   ]


           }


--Pool 2 definition goes here….

           ]

        ]

     }

  }

]
```


Request (UPDATED)

Returns information about all virtual clusters and contained objects.

This method is updated to return all IRPs and instances deployed on these pools (see **bold part of the response**)

Method	Request URI
GET	<primary-endpoint>/subscriptions/{SubscriptionId}/resourceGroups/{GroupName}/providers/Microsoft.Sql/ virtualClusters

Response body

Similar to previous method

Powershell

```
// Create virtual network

$virtualNetwork = New-AzureRmVirtualNetwork ...

// Create subnet in virtual network

$subnetConfig = Add-AzureRmVirtualNetworkSubnetConfig ...

// Create Instance Pool

// - transparently creates virtual cluster if not exist in subnet

// - vCores and numRemainingVCores should be same on initial creation

$IP = New-AzureRmSqlInstancePool <resourceGroupName> <subnetId> <tags> <name>
<skuName> <edition> <computeGeneration> <vnetName> <subnetName> <vCores>

// Add managed instances to IP

$mi = $IP | New-AzureRmSqlManagedInstance <vCore> <storageSize>

// Getting latest IP response should show updated numRemainingVCore capacity

// should be vCore size - (sum of MIs vcore in IP)

$IP | Get-AzureRmSqlInstancePool

// Add managed db to MI

$mi | New-AzureRmSqlManagedDatabase ...

// Scale IP – increase vCore size of vm – TBD with size depending on service tier and gen

$IP = Set-AzureRmSqlInstancePool … <vCores>

// Delete IP – removes all MIs in pool

// If no other IRPs or MIs in same subnet, this should transparently remove VC too.

$IP | Remove-AzureRmSqlInstancePool
```

How good have you found this content?