Create a Data Factory Custom Contributor Role

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Issue

 Customer has the need to have an ADF Contributor Role with restricted permissions

Resolution

We can achieve this by using the Az Module for Powershel.

Install Azure CLI:
https://docs.microsoft.com/en-us/cli/azure/install-azure-cli-windows?view=azure-cli-latest

Open Powershell in Admin mode, and login into the account, and select the right subscription:

```
az login

Select-AzSubscription -SubscriptionId "<SubscriptionId>"
```

Get the built-in permission and attribute it to a variable:

```
PS C:\> $role = Get-AzRoleDefinition -Name "Data Factory Contributor"
```
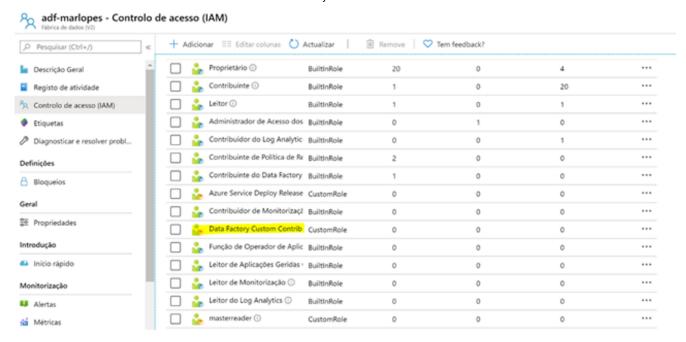
Check the role actions:

```
PS C:\> $role.Actions
Microsoft.Authorization/*/read
Microsoft.DataFactory/dataFactories/*
Microsoft.DataFactory/factories/*
Microsoft.Insights/alertRules/*
Microsoft.ResourceHealth/availabilityStatuses/read
Microsoft.Resources/deployments/*
Microsoft.Resources/subscriptions/resourceGroups/read
Microsoft.Support/*
```

Taking into account what kind of actions does the customer wants to implement,
take the last output and edit the lines, according to your needs, in this example we wanted to change the
following permissions:

```
"Microsoft.Authorization/*/read",
"Microsoft.DataFactory/dataFactories/*/read",
"Microsoft.DataFactory/factories/*/read",
"Microsoft.Insights/alertRules/* ",
"Microsoft.ResourceHealth/availabilityStatuses/read",
```

```
"Microsoft.Resources/deployments/* ",
"Microsoft.Resources/subscriptions/resourceGroups/read",
"Microsoft.Support/*/read",
```

and include all actions for triggers in the data factory environment:
```
"Microsoft.DataFactory/factories/triggers/*"
```

Clear the existent Actions and include the new ones

```
$role.Actions.Clear()
$role.Actions.Add("Microsoft.Authorization/*/read")
$role.Actions.Add("Microsoft.DataFactory/dataFactories/*/read")
$role.Actions.Add("Microsoft.DataFactory/factories/*/read")
$role.Actions.Add("Microsoft.Insights/alertRules/*")
$role.Actions.Add("Microsoft.ResourceHealth/availabilityStatuses/read")
$role.Actions.Add("Microsoft.Resources/deployments/*")
$role.Actions.Add("Microsoft.Resources/subscriptions/resourceGroups/read")
$role.Actions.Add("Microsoft.Support/*")
$role.Actions.Add("Microsoft.DataFactory/factories/triggers/*")
```

 Clear and change the properties below accordingly:

```
PS C:\> $role.Id = $null
PS C:\> $role.Name = "Data Factory Custom Contributor"
PS C:\> $role.Description = "Data Factory Contributor with restricted permissions"
PS C:\> $role.AssignableScopes.Clear()
PS C:\> $role.AssignableScopes.Add("/subscriptions/[SUBSCRIPTION_ID]")
```

Finally create the role:

```
PS C:\> New-AzRoleDefinition -Role $role
```

This will be the typical output:

```
Name              : Data Factory Custom Contributor
Id                : [NEW_ID]
IsCustom          : True
Description       : Data Factory Contributor with restricted permissions
Actions           : {Microsoft.Authorization/*/read, Microsoft.DataFactory/dataFactories/*/read, Micros
oft.DataFactory/factories/*/read, Microsoft.Insights/alertRules/*/read...}
NotActions        : {}
DataActions       : {}
NotDataActions    : {}
AssignableScopes : {/subscriptions/[SUBSCRIPTION_ID]}
```

You will see the role created in ADF IAM
(the picture below is in portuguese 😊):

Additional Information

All the permissions that you can assign to a custom role for ADF:

https://docs.microsoft.com/en-us/azure/role-based-access-control/resource-provider-operations#microsoftdatafactory

There's a document built in case you want to share this with the customer, feel free to use it and change it accordingly,

Creating a Data Factory Custom Contributor Role using Azure CLI.docx

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Created with Microsoft OneNote 2016.

How good have you found this content?