

Create a Data Factory Custom Contributor Role

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09:41

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 Powershell.

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, Microsoft.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 😊):

adf-marlopes - Controlo de acesso (IAM)
Fábrica de dados (V2)

Pesquisar (Ctrl+F)

Descrição Geral

Registo de atividade

Controlo de acesso (IAM)

Etiquetas

Diagnosticar e resolver probl...

Definições

Bloqueios

Geral

Propriedades

Introdução

Início rápido

Monitorização

Alertas

Métricas

+ Adicionar

≡ Editar colunas

↺ Atualizar

🗑 Remove

💖 Tem feedback?

<input type="checkbox"/>	Proprietário	BuiltInRole	20	0	4	...
<input type="checkbox"/>	Contribuinte	BuiltInRole	1	0	20	...
<input type="checkbox"/>	Leitor	BuiltInRole	1	0	1	...
<input type="checkbox"/>	Administrador de Acesso dos	BuiltInRole	0	1	0	...
<input type="checkbox"/>	Contribuidor do Log Analytic	BuiltInRole	0	0	1	...
<input type="checkbox"/>	Contribuinte de Política de R	BuiltInRole	2	0	0	...
<input type="checkbox"/>	Contribuinte do Data Factory	BuiltInRole	1	0	0	...
<input type="checkbox"/>	Azure Service Deploy Release	CustomRole	0	0	0	...
<input type="checkbox"/>	Contribuidor de Monitorizaçã	BuiltInRole	0	0	0	...
<input type="checkbox"/>	Data Factory Custom Contrib	CustomRole	0	0	0	...
<input type="checkbox"/>	Função de Operador de Aplic	BuiltInRole	0	0	0	...
<input type="checkbox"/>	Leitor de Aplicações Geridas	BuiltInRole	0	0	0	...
<input type="checkbox"/>	Leitor de Monitorização	BuiltInRole	0	0	0	...
<input type="checkbox"/>	Leitor do Log Analytics	BuiltInRole	0	0	0	...
<input type="checkbox"/>	masterreader	CustomRole	0	0	0	...

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?

