Automated Tag Propagation from Resource Group Tags to Child Resources

Last updated by | Paul Kelleher | 17 Jun 2020 at 07:40 GMT

Introduction

Instructions to deploy an azure automation runbook that will tag all resources in a resource group within a subsfription with the tags that are present on the parent resource group, which means that only the resource groups need to be audited and reviewed to ensure all assets in the subscription are tagged - massively minimising the administration of the tags

Requirements

all non alphanumeric characters should be avoided as this can break reporting

Resource Group Tags

The resource groups in the target subscription must have tags with values in order for the script to work

Required Tags & Values

Please ensure tags are created lowercase and avoid spaces in the tag name; tag values should be lowercase and may include spaces but should be consistent with others in the subscription

Tag Name	Values
costcode	data, commercial, ops
environment	dev, systest, uat, prod
engineer	Engineer Name
project	Project Name

Recommended Tags

While not required, these tags can help in management

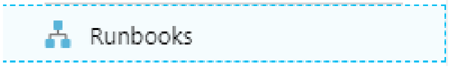
Tag Name	Values
created	date the instances created
app-engineer	
business-owner	
special-instructions	
last-reviewed	

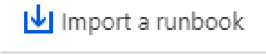
Automation Tags

We will also be using automation to start and stop VMs and information will be inserted here

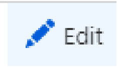
Azure Automation Account

Either create an azure automation account (ensuring to tick the "Create RunAs Account" option) and once the account is created, select and click runbooks. remove the examples

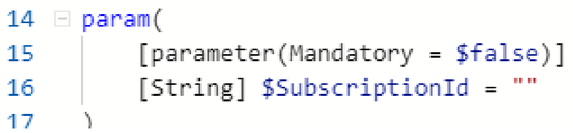
- select runbooks 

- select import 

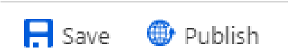
Import the following runbook : SetResourceGroupTagsOnChildResources.ps1

- click 

- update the subscription ID default



```
param(
    [parameter(Mandatory = $false)]
    [String] $SubscriptionId = ""
)
```

- Save and Publish 

Ensure to use the attached ps1 file as it corrects an error in the Gallery Playbook

Scheduling

see the Microsoft Documentation ↗ for scheduling this RunBook. You can run the script in the test pane to verify it works

Logic

You can read about the base of this runbook from the Microsoft Powershell Gallery ↗ but be aware of the error in the powershell where it passes `Subscription` rather than `SubscriptionId` which has been corrected in the attached RunBook

Recommended Deployment

- ☑ Review and Clean tags in subscription.
- ☑ see This Repo for azure cli tag scripts but use with caution
- ☑ clear all resource tags
- ☑ Review RG tags and ensure they are as desired
- ☑ Manually run the RunBook to see results and validate child resources

Additional Assurance

In addition to this automation, you can also run Azure Policy to Audit and Enforce Resource Group tags

**to be completed at a later date **

Find Current Tags

The following script finds all tags in the subscription and lists the resource groups and whether the tags exist. where no tags exist, there is no data.

```
#!/bin/bash
subtags=$(az tag list --query [].tagName  -o tsv --subscription ${1}| egrep -v '\-|\$' | sed 's/ //g' | uniq | tr '\n'

echo " "
echo $subtags
echo " "
echo $(az account list | grep ${1} -A2 | tail -n1 | awk -F\" '{print $4}')
az group list --subscription $1 --query [].[name,tags.[${subtags}]] -o table | sed "s/Column2/$subtags/g" | sed 's/Colu
#az group list --subscription $1 --query [*].[name,tags.*] -o table
echo " "
```

sample output 17/06/19 current-tags.txt

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