

Abstract

When working with a large Azure environment, customers often add and remove subscriptions on a regular basis. The collection via Forward Networks does not account for these regular changes, as we require an interactive powershell script to be run to create the appropriate credentials and generate the file needed for the app. This document outlines the **azure_sp_update.ps1** script needed to generate new credentials and updates to Forward Enterprise on a regular basis.

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Requirements

- Script is a powershell script - must be run in an environment that has powershell (linux or windows)
- User must be logged into azure. Script will prompt for Azure login interactively if not completed
- User must have credentials to post API to Forward Enterprise (or API key). This is stored in a file called **creds.txt** that should have appropriate access controls
- This script will delete and re-create the cloud setup in Forward. A backup of the original .json file is recommended.
- The script can be run as often as desired, and will output a new .json file each time to show the changes in accounts.
- It will apply the account to **ALL** subscriptions found, as opposed to the interactive script where individual subscriptions can be chosen.
- This script will also update the service principal password to a new autogenerated value (also located in the json)
 - If the service principal already exists, however, the logged in user must be an owner

Setup

Obtain the **azure_sp_update.ps1** script from here:

https://drive.google.com/file/d/19SXnuremYxdgRd19Kn84pt0oUX_tVj2d/view?usp=share_link

Create a file called **creds.txt** with the Forward Enterprise username and password, one per line.
An API key may also be used:

```
PS /home/craig> more creds.txt
nq26-uw7w3-mt6i
aep5btq6zeqeow75v5ccvkeo5usdlejj
```

Modify the beginning of **azure_sp_update.ps1** with appropriate user credentials:

```
PS /home/craig> more azure_sp_update.ps1
$apphost = 'fwd.app'
$networkid = '154682'
$setupid = 'azure_collect'
$sp_name = 'ForwardServicePrincipal'
```

\$apphost = The Forward Enterprise instance (leave fwd.app for SaaS, change to hostname for on-prem)

\$networkid = The network ID used in Forward for this network (retrieve from address bar)

\$setupid = The name of the azure identifier used (leave as default, or modify if multiple copies of the script are needed for different tenants)

\$sp_name = The service principal IAM name in Azure

Usage

In powershell, run **./azure_sp_update.ps1** to execute the script. The script is non-interactive unless there are insufficient permissions. You may see several error messages like:

```
New-AzRoleAssignment: /home/craig/azure_sp_update.ps1:146
Line |
146 |         New-AzRoleAssignment -ObjectId $sp.id -RoleDefinitionName Contrib ...
      |         ~~~~~
      |         Operation returned an invalid status code 'Conflict'
```

These are normal, and only indicate that the service principal is already assigned. Any numbers listed (i.e. 146 as above) only refer to the line numbers associated with the script and can be ignored.

This script will also output a .json file with the updates, date and timestamped:

```
-rw-r--r-- craig      craig      11/15/2022 00:47      1437 azure_subscriptions_20221115-004736.json
-rw-r--r-- craig      craig      11/15/2022 00:49      1437 azure_subscriptions_20221115-004918.json
-rw-r--r-- craig      craig      11/15/2022 00:50      1437 azure_subscriptions_20221115-005032.json
-rw-r--r-- craig      craig      11/15/2022 00:54      1438 azure_subscriptions_20221115-005417.json
-rw-r--r-- craig      craig      11/15/2022 00:55      1437 azure_subscriptions_20221115-005524.json
-rw-r--r-- craig      craig      11/15/2022 00:56      1437 azure_subscriptions_20221115-005613.json
-rw-r--r-- craig      craig      11/15/2022 00:57      1437 azure_subscriptions_20221115-005755.json
-rw-r--r-- craig      craig      11/15/2022 00:59      1437 azure_subscriptions_20221115-005902.json
-rw-r--r-- craig      craig      11/15/2022 01:00      1437 azure_subscriptions_20221115-010034.json
-rw-r--r-- craig      craig      11/15/2022 01:02      1437 azure_subscriptions_20221115-010218.json
-rw-r--r-- craig      craig      11/15/2022 01:03      1437 azure_subscriptions_20221115-010330.json
-rw-r--r-- craig      craig      11/15/2022 01:04      1437 azure_subscriptions_20221115-010405.json
-rw-r--r-- craig      craig      11/15/2022 01:05      1437 azure_subscriptions_20221115-010537.json
-rw-r--r-- craig      craig      11/15/2022 01:10      1437 azure_subscriptions_20221115-011013.json
-rw-r--r-- craig      craig      11/15/2022 01:17      1437 azure_subscriptions_20221115-011700.json
-rw-r--r-- craig      craig      11/15/2022 01:17      1437 azure_subscriptions_20221115-011743.json
-rw-r--r-- craig      craig      11/15/2022 01:35      1437 azure_subscriptions_20221115-013546.json
-rw-r--r-- craig      craig      11/15/2022 02:01      93 azure_subscriptions_20221115-020103.json
-rw-r--r-- craig      craig      11/15/2022 02:05      390 azure_subscriptions_20221115-020509.json
-rw-r--r-- craig      craig      11/15/2022 02:06      1285 azure_subscriptions_20221115-020659.json
-rw-r--r-- craig      craig      11/15/2022 02:08      1289 azure_subscriptions_20221115-020819.json
-rw-r--r-- craig      craig      11/15/2022 02:10      1277 azure_subscriptions_20221115-021041.json
-rw-r--r-- craig      craig      11/15/2022 02:11      1277 azure_subscriptions_20221115-021144.json
-rw-r--r-- craig      craig      11/15/2022 02:12      1277 azure_subscriptions_20221115-021255.json
-rw-r--r-- craig      craig      11/15/2022 02:14      1277 azure_subscriptions_20221115-021428.json
-rw-r--r-- craig      craig      11/15/2022 02:16      1437 azure_subscriptions_20221115-021648.json
-rw-r--r-- craig      craig      11/15/2022 02:20      1437 azure_subscriptions_20221115-022004.json
-rw-r--r-- craig      craig      11/15/2022 02:20      1437 azure_subscriptions_20221115-022053.json
-rw-r--r-- craig      craig      11/15/2022 02:33      1437 azure_subscriptions_20221115-023321.json
```

These are very small, but can be deleted as necessary

Conclusion

Please forward any questions/enhancements ideas to craigjohnson@forwardnetworks.com