New Behavior on Local User's Access and Local User Fallback when External Authentication is Configured

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RBAC - EXTERNAL AUTHENTICATION FALLBACK

New Behavior

With the new Wolverine Release (2.1.x.x), There has been some changes in behavior on Local User's Access and Local User Fallback. In previous releases of the Cisco DNA Center and External Authentication is Enabled, the Cisco DNA Center would fallback to Local User Authentication if the AAA Authentication didn't go thru. This behavior has changed in the new Wolverine Release (2.1.x.x). The Local User Authentication fallback will occur only when the AAA Server is NOT Reachable.

In addition with the changes, Maglev CLI admin user authentication has also changed when External Authentication is ENABLED. The Local User "admin" will fail authentication unless the proper AAA Server configuration takes this into account. If using ISE, the problem arises if you used "admin" as the username when setting up ISE. You may see Authentication failures for the Cisco DNA Center Local User “admin".

Working with the Changes

In order to address this change, you can chose some different options:

1. Revert back to the Older Local User Authentication workflow using the “*magctl rbac external_auth_fallback enable”*.
2. Use the "*maglev login -u <username>*" command to assign a new "Admin" user that can be used for the Maglev CLI on the Cisco DNA Center.
3. Configure the ISE or AAA server to Authenticate the "admin" user for Super-Admin-Role permissions.

I have included some examples for Options 1 & 2 below.

Reference Information:

- Cisco DNAC Version 2.1.1.0 [2.1.210.72138]
- Cisco ISE version 2.6.0.156 Patches 1,2

CISCO SYSTEMS - CX CENTERS ENTERPRISE NETWORKING

OPTION #1 - REVERT BACK TO THE OLDER LOCAL USER AUTHENTICATION WORKFLOW USING THE *"MAGCTL RBAC EXTERNAL_AUTH_FALLBACK ENABLE"*.

In this example, External Authentication is enabled. Local Users will fail Login Attempts in the UI and CLI on the Cisco DNA Center. In order to Revert back to the old behavior "Where there are no authentication for admin user or local users" issue the following command:

CLI Commands:

$ magctl rbac --help

$ **magctl rbac external_auth_fallback enable**

For Example:

```
$ magctl rbac --help
Usage: magctl rbac [OPTIONS] COMMAND [ARGS]...

  RBAC related operations

Options:
  --help  Show this message and exit.

Commands:
  custom_role_reconciliation  custom roles related operations
  external_auth_fallback      External authentication fallback related...
  resource_type               RBAC resource types related operations for...
```

```
$ magctl rbac external_auth_fallback enable
```

OPTION #2 - USE THE "MAGLEV LOGIN -U <USERNAME>" COMMAND TO ASSIGN A NEW "ADMIN" USER THAT CAN BE USED FOR THE MAGLEV CLI ON THE CISCO DNA CENTER.

In this example, External Authentication is enabled. Local Users will fail Login Attempts in the UI and CLI on the Cisco DNA Center. The Local User Authentication fallback will occur only when the AAA Server is NOT Reachable. The main issue is that the Local Maglev “admin” fails external authentication using the CLI. As a result, “maglev” command cannot be perform until a maglev user is authenticated. Use the following commands to assign a new maglev username to the Cisco DNA Center Cluster.

With External Authentication enabled, The local "admin" username will not work. You will need to identify the Cluster Admin Username that has Super-Admin-Role permissions and is configured on the External Authentication Servers.

CLI Commands:

$ maglev login --help

$ **maglev login -u < external username >**

$ cat .maglevconf | grep username

MAGLEV LOGIN BEHAVIOR FOR CISCO DNA CENTER RELEASE FOR WOLVERINE RELEASE (2.1.x.x)

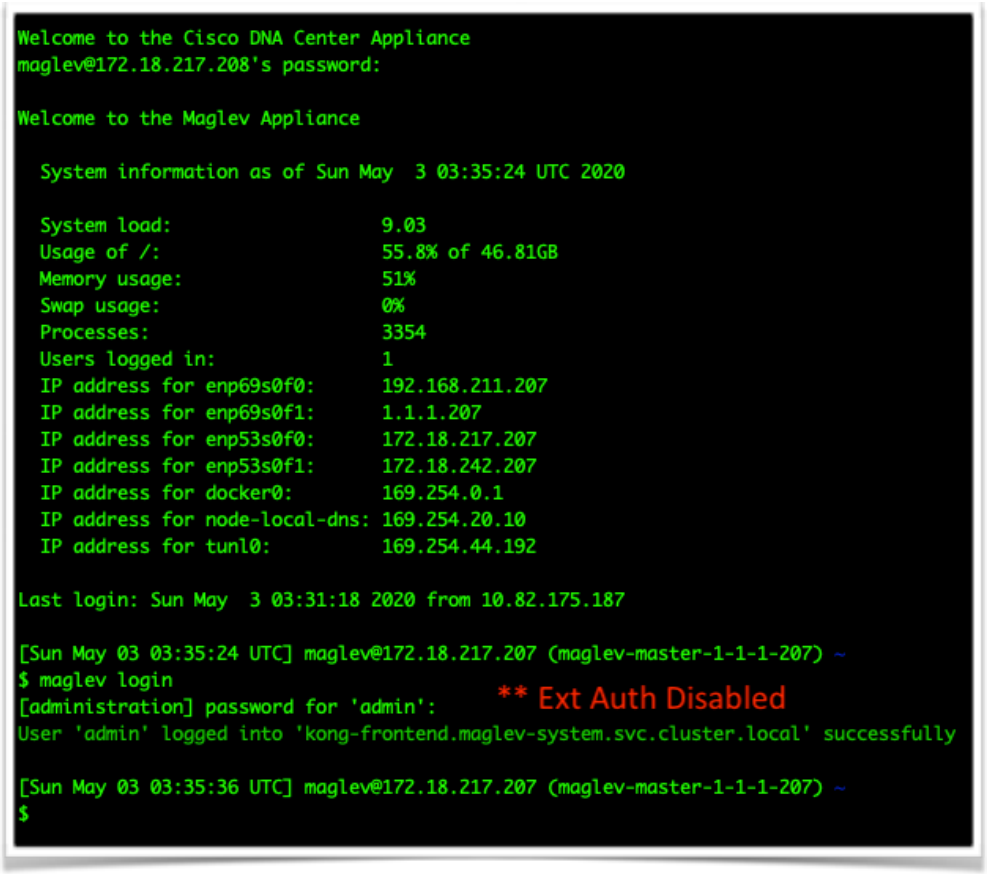
For Example:

No External Authentication

```
Welcome to the Cisco DNA Center Appliance
Welcome to the Maglev Appliance

  System load:                  9.03
  Usage of /:                   55.8% of 46.81GB
  Memory usage:                 51%
  Swap usage:                   0%
  Processes:                    3354
  Users logged in:              1


$ maglev login
[administration] password for 'admin':
User 'admin' logged into 'kong-frontend.maglev-system.svc.cluster.local' successfully
```



External Authentication Enabled

```
Welcome to the Cisco DNA Center Appliance
Welcome to the Maglev Appliance

  System load:                  9.25
  Usage of /:                   55.8% of 46.81GB
  Memory usage:                 51%
  Swap usage:                   0%
  Processes:                    3353
  Users logged in:              1

$ maglev login
[administration] password for 'admin':
ERROR: Invalid username and/or password.
```

```
$ maglev login -u tdeleon
[administration] password for 'tdeleon':
User 'tdeleon' logged into 'kong-frontend.maglev-system.svc.cluster.local' successfully

$ cat .maglevconf | grep username
username = tdeleon
```