# TACACS+ W/ CISCO ISE AND ARUBAOS-SWITCH

## CONTENTS



## REQUIREMENTS

- Aruba Switch (2930M/F, 3810M, 5400)
- Cisco ISE (2.3 And Above)

## OVERVIEW

This document will cover how to configure TACACS with ArubaOS-Switch.

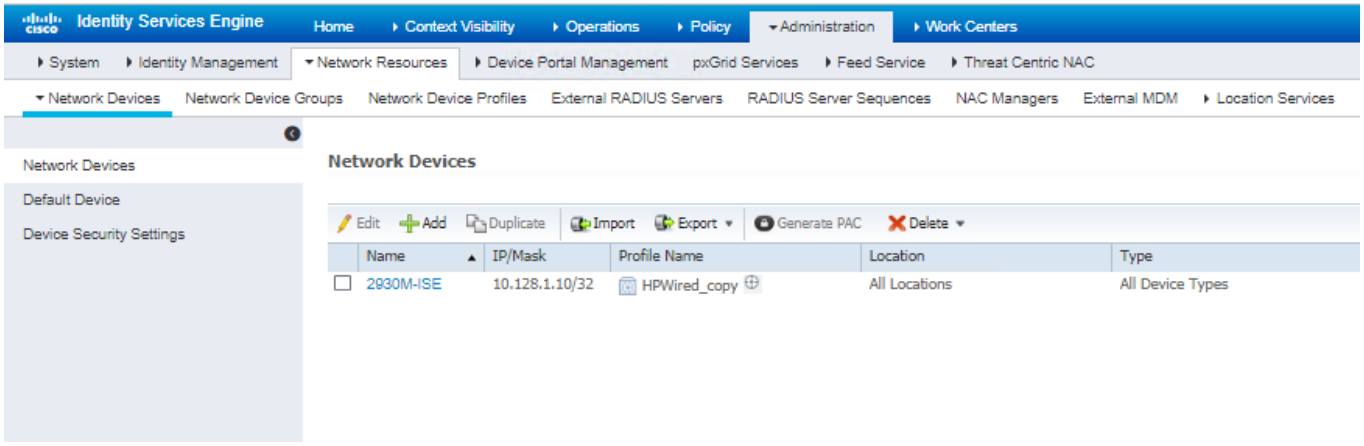
In this scenario, we will create a Jr. Admin TACACS user locally with ISE and restrict the Jr. admins commands so that the admin can ping and show the running configuration of the switch.

# ADDING A DEVICE TO ISE

## Description

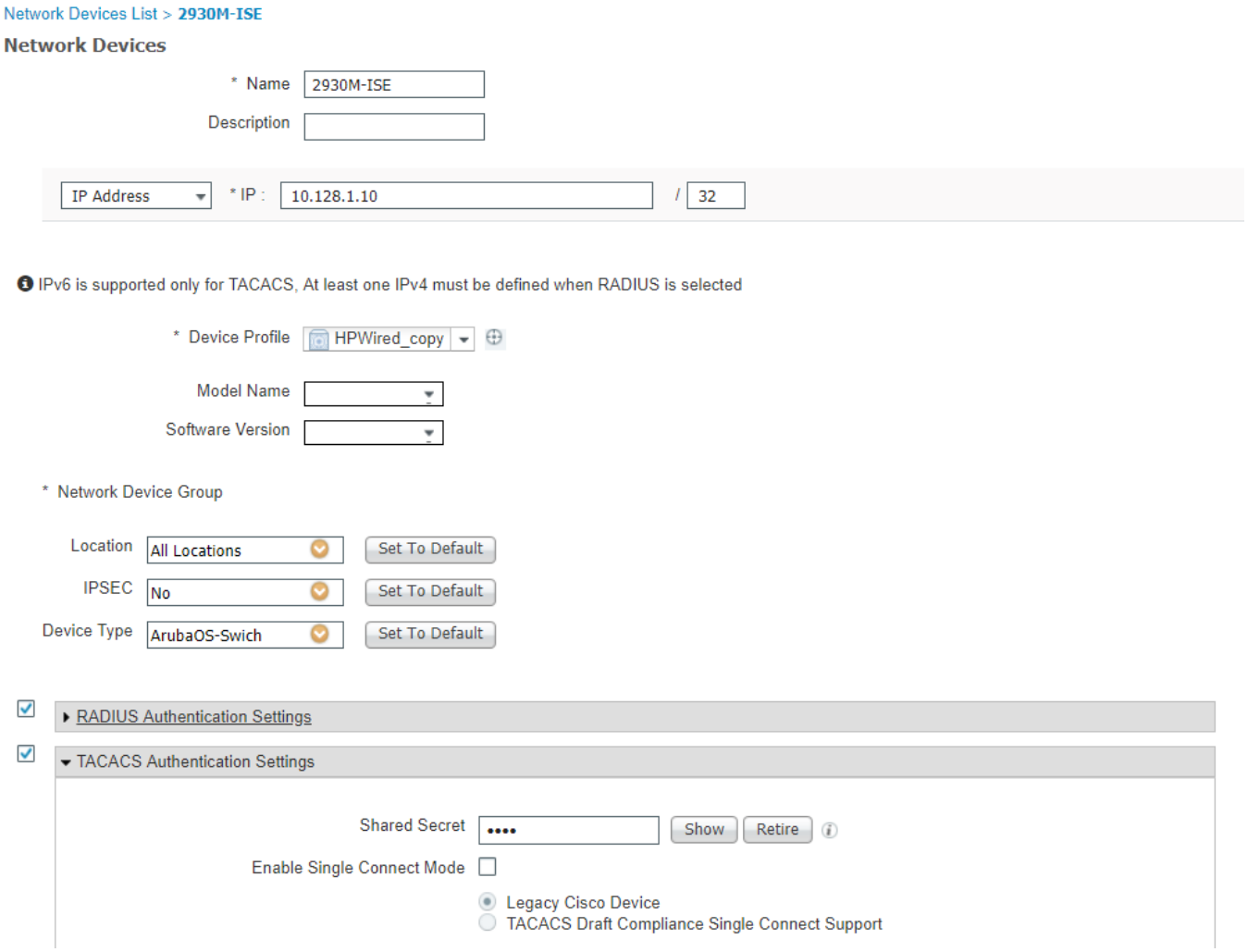
This section will go over adding a device into Cisco ISE.

Navigate to “Administration> Network Devices. Click Add.”



Enter the IP address, TACACS shared secret, and Model of the switch and select the proper switch profile. Set the device type to something that can be used to group devices in this case we created “ArubaOS-Switch” this will be used later when setting up the policy.

In this example, a copy of the HPWired Profile “HPWired _Copy” is being used, there is no issues using the default HPWired Profile this will work for TACACS  as well.



## Switch Configuration

TACACS Switch configuration

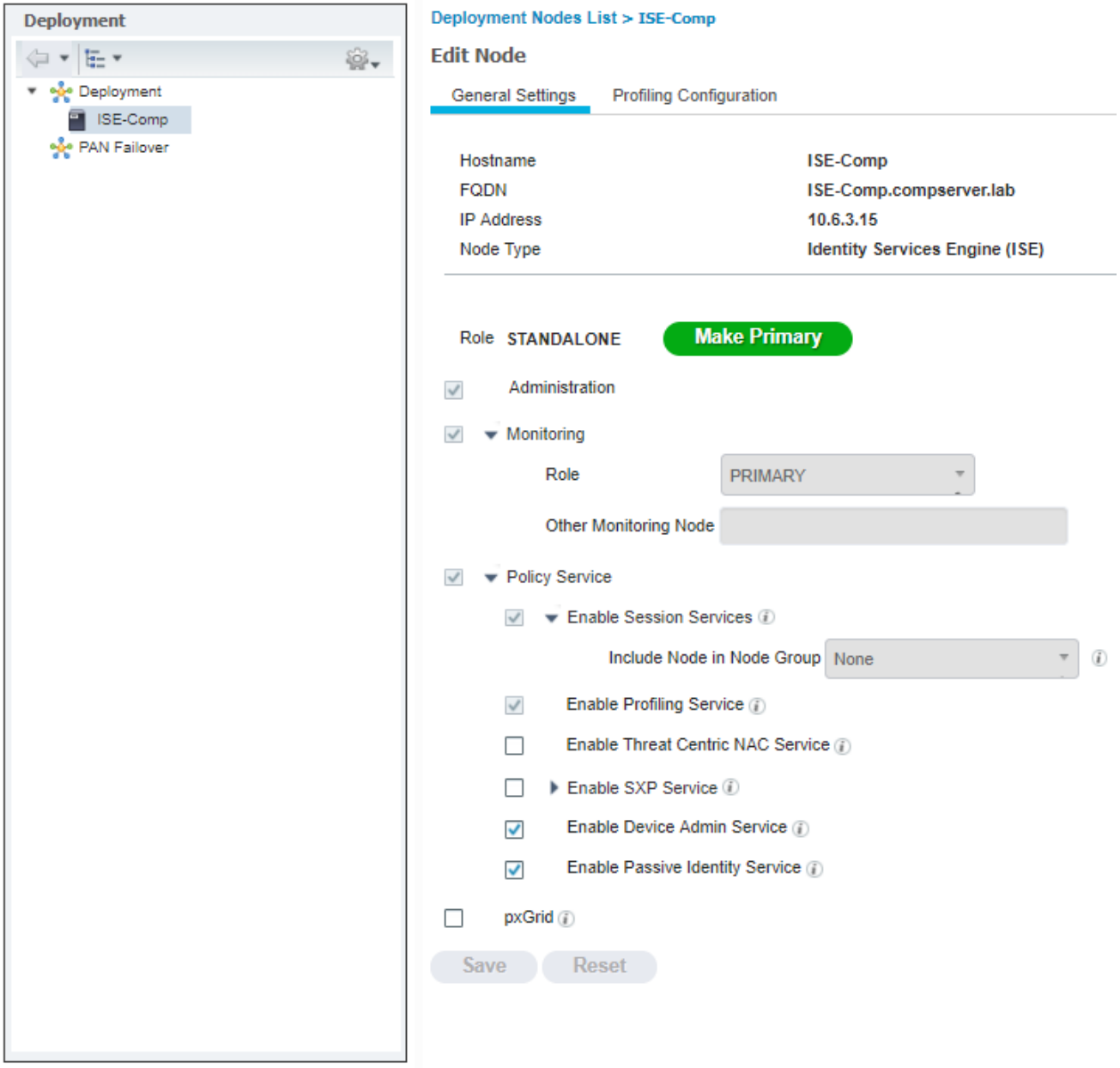
```
password manager user-name <name> plaintext <password>

TACACS-server host <IP-Address> key <key>
TACACS-server timeout 50
TACACS-server dead-time 20

aaa authentication console login TACACS local
aaa authentication console enable TACACS local

aaa authentication ssh login TACACS local
aaa authentication ssh enable TACACS local

aaa authentication login privilege-mode
aaa authorization commands tacacs
```

# ENABLING TACACS IN CISCO ISE

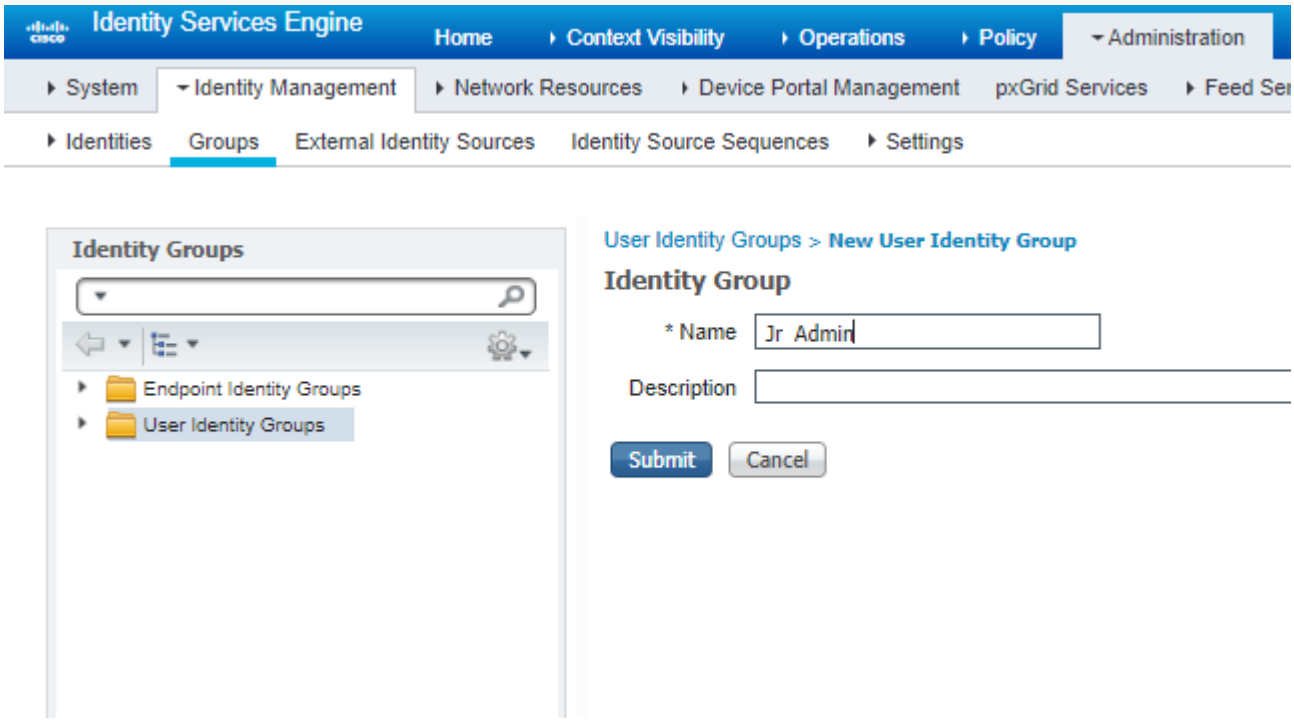
## Description

This section will show how to enable the TACACS service within Cisco ISE this section will also go over creating a user and user groups.

1. Navigate to “Administration>System>Deployment” Check the “Enable Device Admin Service” and “Enable Passive Identity Service” boxes.

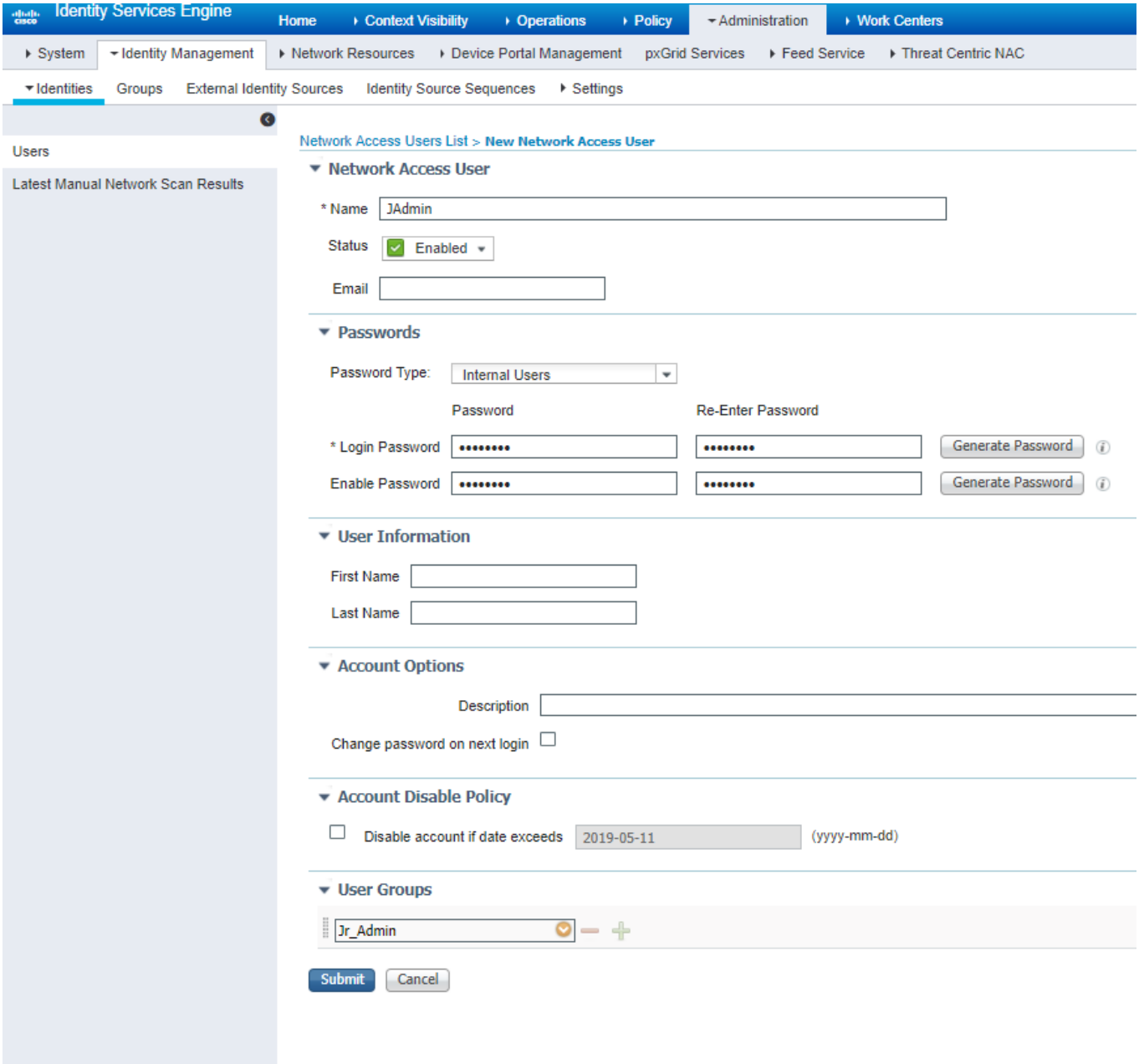


2. Next create a user group within ISE this is to make the policy easier to configure in the future. Navigate to “Administration>Identity management> Groups”

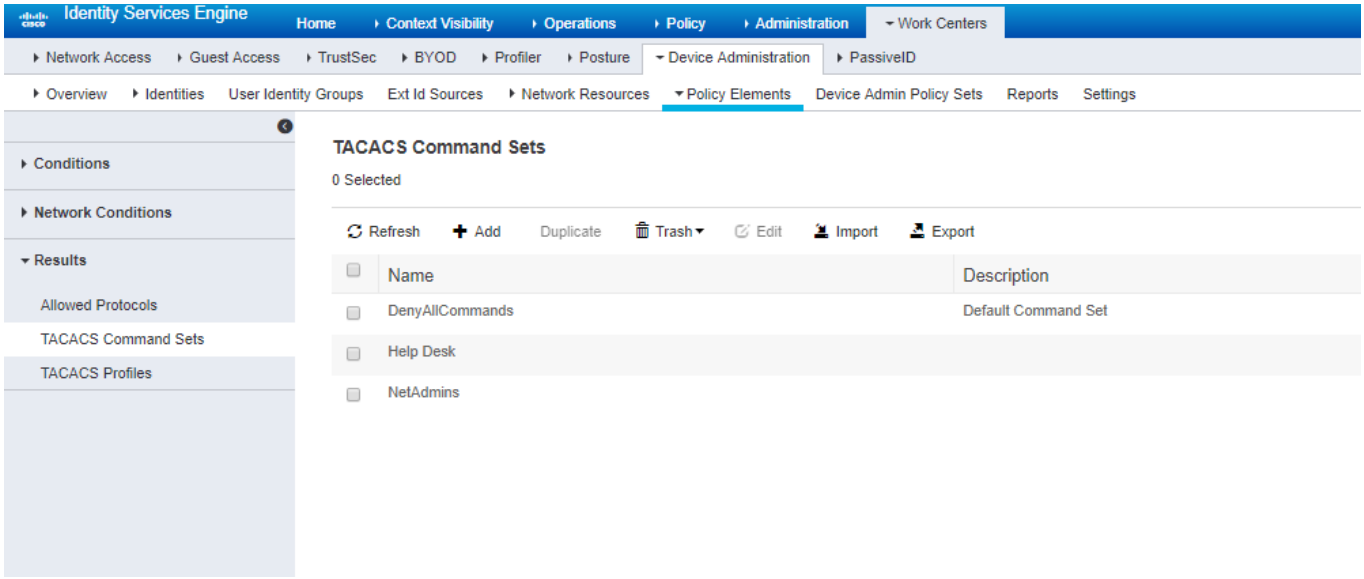


3. Next Create a user Navigate to “Administration> Identity Management> Identities” and Click “+ Add”

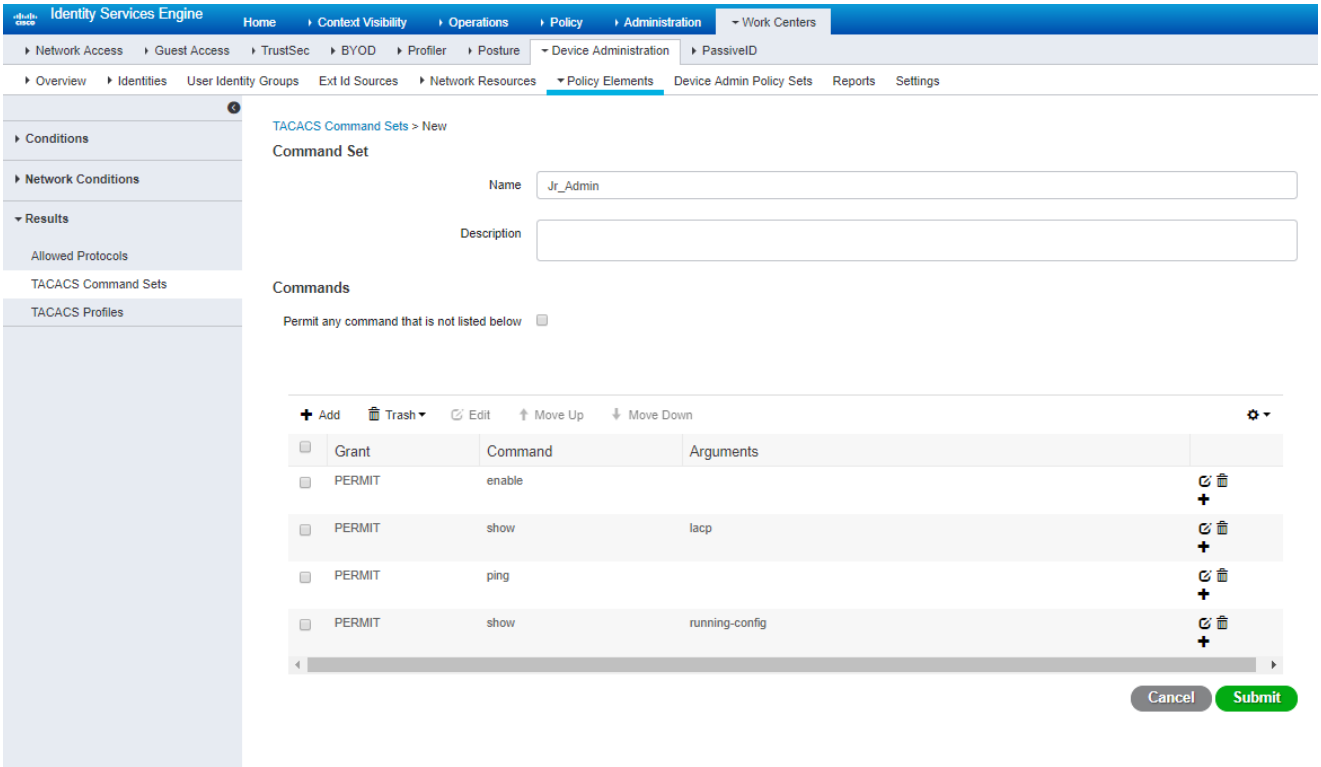
   Here set the login password and enable password also set the user to the proper group in this case it will be the Jr.Admin Group



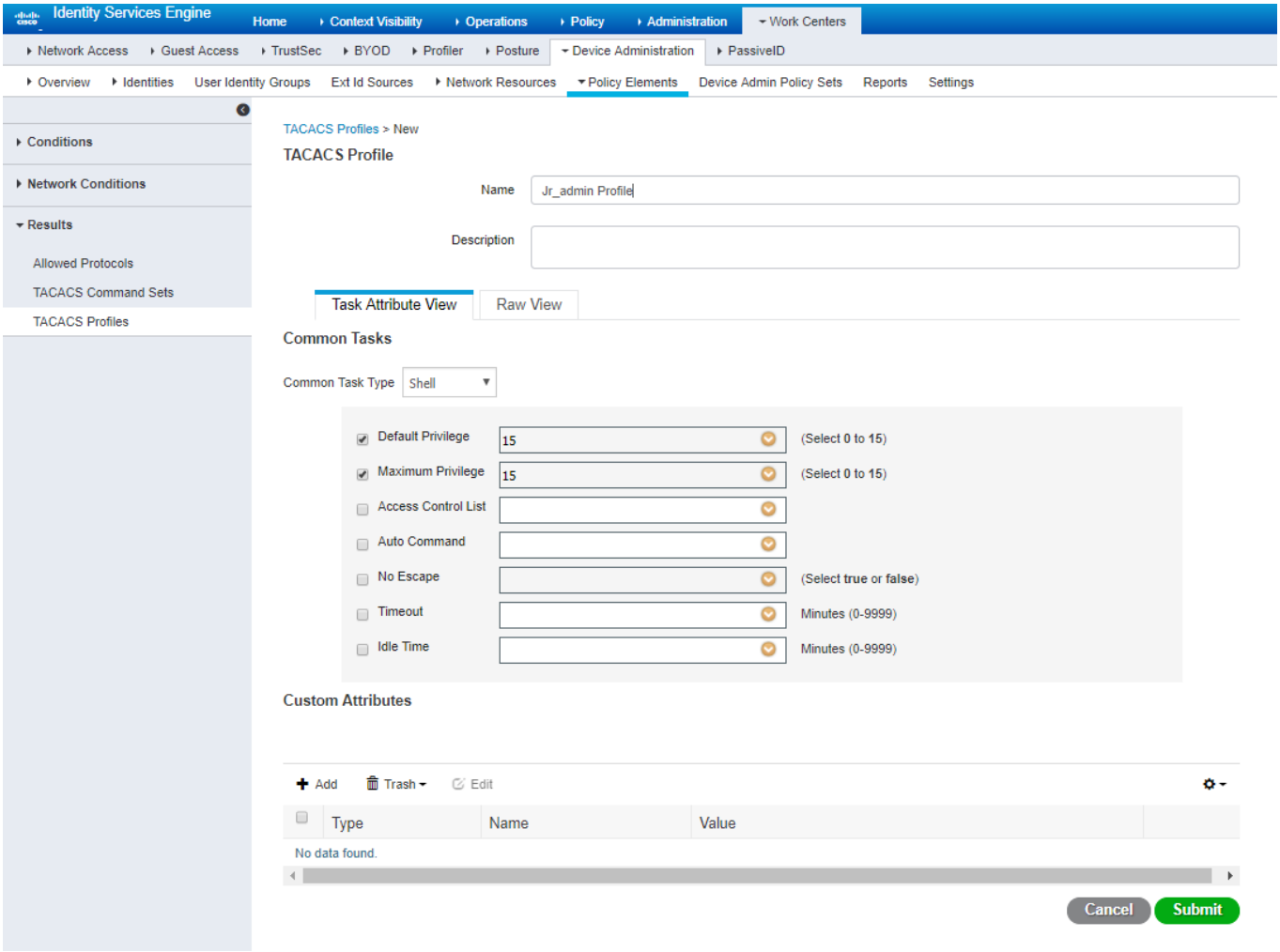
4. Next is to restrict the amount of commands the Jr. Admins can use. Navigate to “Work Centers> Device Administration> Policy Elements” Click Results and “Command sets” Click Add to add another command set




5. All the commands that the Jr. Admin can use will be defined here. A few commands are defined below for example. Click Submit.



6. Next a profile has to be configured. This is to set the privileged level with ArubaOS-Switch it will be set to 15, but based on the command set, it will allow/disallow the user to use certain commands. Navigate to “Work Centers>Device Administration>Policy Elements” “Results >TACACS Profiles”
“Click Add”



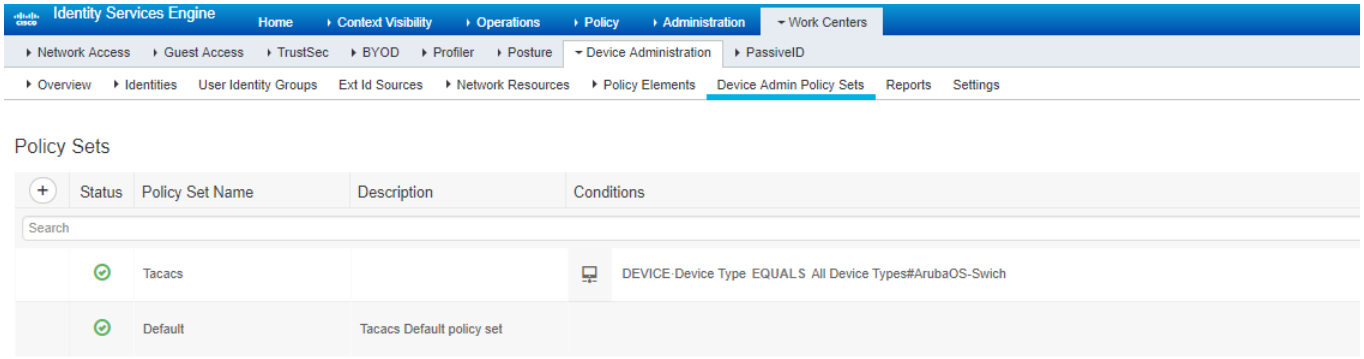
# CREATING A TACACS POLICY

## Description

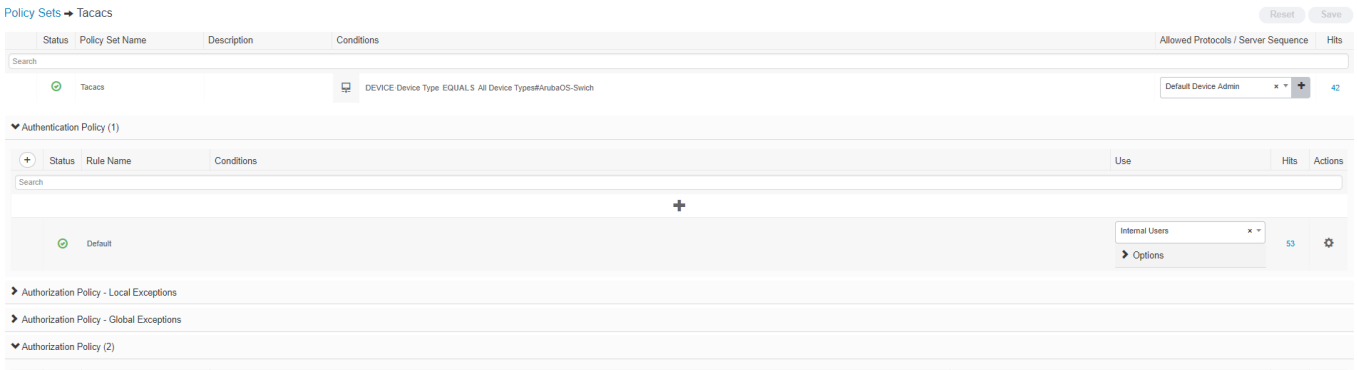
This section will go over how to create a TACACS policy .

1. Create a policy for a TACACS  rule, the rule, in this case, is set to match on the devices in the ArubaOS-Switch Group.  This is set under the device type when adding a device into ISE.

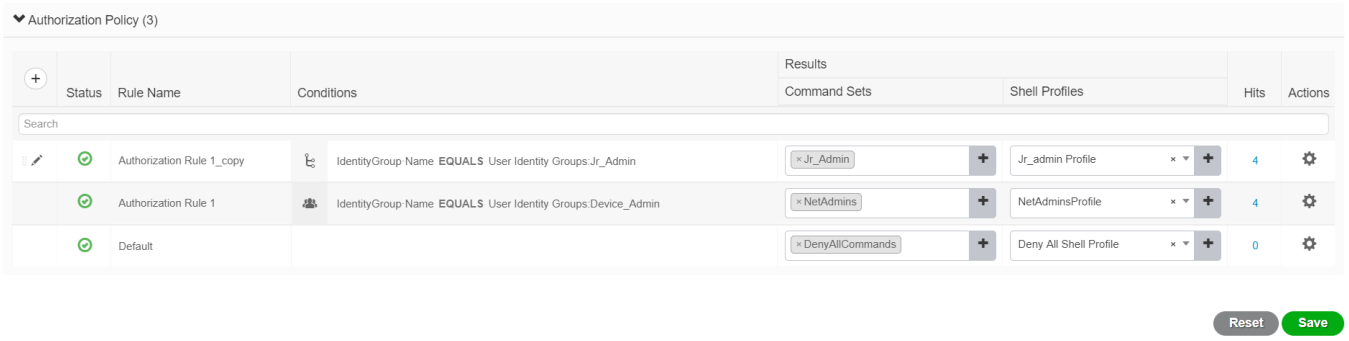
Navigate to “Work Centers>Device Administration> Device Admin Policy Sets”




2. Set the authentication mechanism in this case its set to internal users

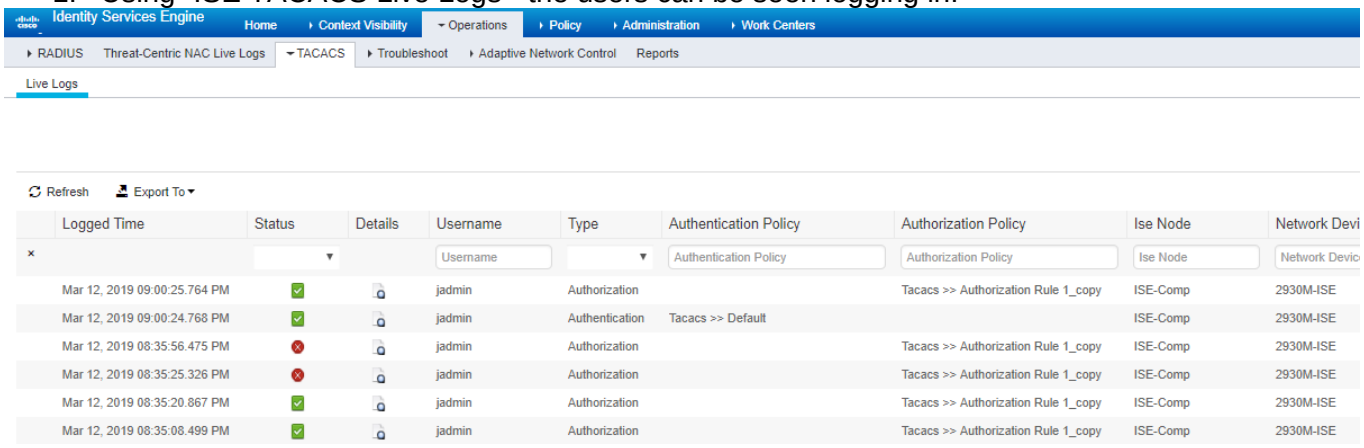


3. Create an Authorization policy and in this set up it the condition to trigger the authorization command set and profile will be the “User Identity Group of Jr.Admin” that was configured before. The command set result will be the “JrAdmin command set” as well, the profile will be set to the “Jr_Admin Profile”

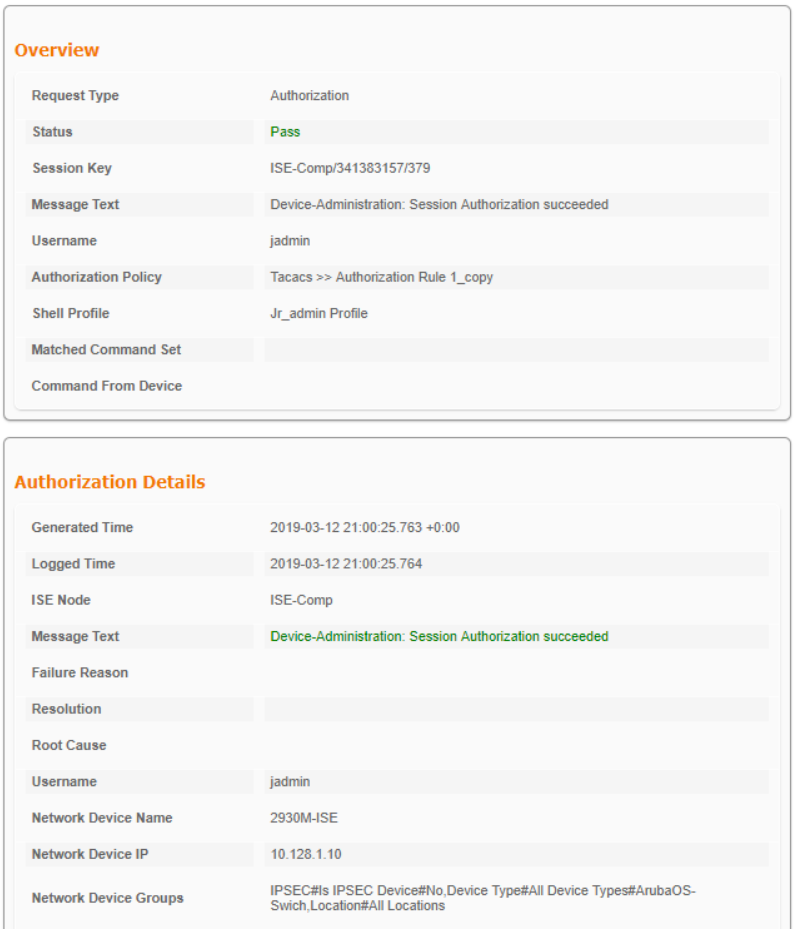


# VERIFICATION

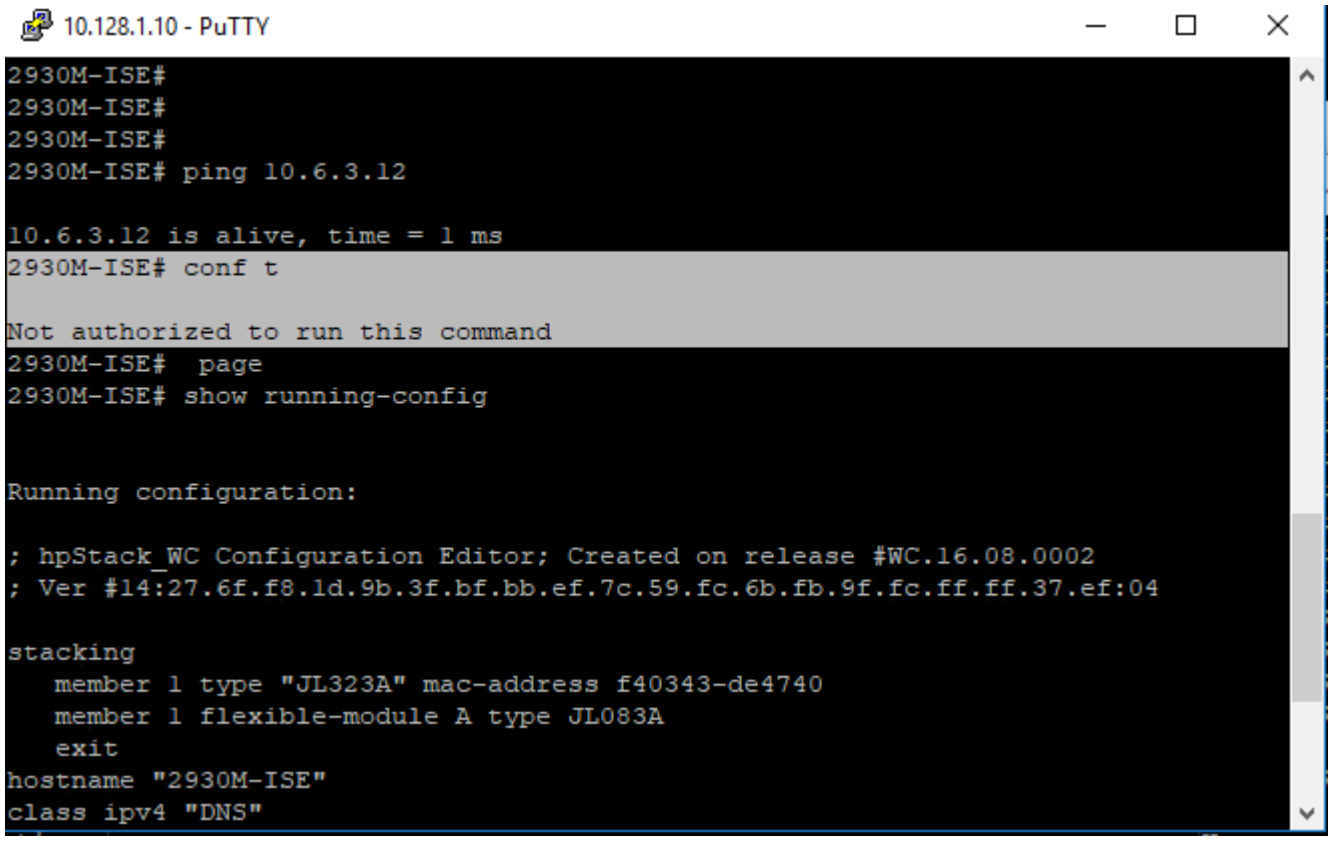
1. Using “ISE TACACS Live Logs” the users can be seen logging in.




By clicking the magnified glass, users can drill down into particular sessions.



2. When the “Jadmin” user logs in to the switch, we can see that the user cannot use certain commands as well.




3. Doing a “`show authentication last-login`” will show last login sessions on the switch.