ACMS Setup Walkthrough

Rory Arnone-Wheat

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1 Introduction

What follows is the walk-through for the process we follow to set up and connect to the ACMS instance. To follow this is it will be necessary to download the "AMD Provisioning Console" and "DASH CLI - Command Line Application" from the link below: https://www.amd.com/en/support/downloads/manageability-tools.html

2 Login Info

The login info for the AWS service is:

1. Username: redacted for privacy reasons
2. Password: redacted for privacy reasons
3. Sign-in URL: redacted for privacy reasons

The login info for the WinSCP service is:

1. Host name: IPv4 of the "ACMS Ser" instance
2. User name: redacted for privacy reasons
3. Password: redacted for privacy reasons

For this to work you will need to go into the "Advanced Site Settings" when setting the login profile and in "SSH-Authentication" set the "Private key file:" field to the "redacted for privacy reasons" file attached in the email.

3 Starting ACMS Instance

When following the given link all necessary info other than username and password should be filled in. From the page you are brought to on logging in type **EC2** into the search bar and select the **Instances** option.

The ACMS Ser instance is the one necessary for running the ACMS services. To initialize it, select it, select Instance State in the top right, and select Start Instance. Once the instance is started you can start the Provisioning process.

4 Provisioning Process

We use the "AMD Provisioning Console" App for the provisioning process discussed in this document.

4.1 Configuration and Package Sections

The path I have selected for the "Secure location" field under "Configuration" is **C:\Users\PC\Documents\AMD Provisioning Console**. If the attached "AMD Provisioning Console" zip is extracted to a file of the name "AMD Provisioning Console" in the "Documents", when selecting a "Crypto Store" in the "Package" step you should be able to select "AIM-T-CRYPTO" which will allow for you to re-provision the devices that our team is using. This is because unless the device is un-provisioned the same Crypto Store needs to be used for re-provisioning.

4.2 User & Roles Section

In the "User & Roles" section it is necessary to create a "Standard" user and an "Admin" user.

4.3 Network & Wifi Section

In the "Network & Wifi" section "Network" does not need to be adjusted, "Wi-Fi" requires the Wi-Fi that the client's computer is connected to to be input, and "Cloud" is the part that is necessary for the ACMS.

In "Cloud" we have not changed the toggle-able fields. We set ACMS server to the IPv4 DNS that is generated upon starting the "ACMS Ser" instance, we haven't changed the Port number, and the "Domains" we added are "amd.com" and "us-east-2.compute.amazonaws.com". We then generated the cloud certificates using the "AMD Provisioning Console" App.

A side note on generating the Certificates is that sometimes this feature will not work properly and won't end itself. Sometimes the files will still be generated and sometimes they won't. Usually if you stop the generation process and start it again it will work, but on occasion you will have to fully restart the "AMD Provisioning Console" App potentially a few times before this feature actually works. It is possible to manually add the necessary certs if this feature is not working for you.

The process for generating certs shouldn't take more than a couple of seconds.

4.4 Security Section

In the "Security" section we have left the "Ports" section as is and used the App to generated the certs for "TLS Certificate" and "KVM Key". We have not toggled "Enable Mutual Authentication" as of yet as we have not seen it change anything.

The two cert generators in the "Security" section have not had any of the issues that the one for the "Cloud" section did.

4.5 Profiles & Alerts Section

The "Profiles & Alerts" section has been left alone at this time.

4.6 Summary Section

This section list all of the input values during the use of the App and on clicking the "Submit" button will generate all necessary files.

4.7 Result Section

This section provides links to the specific files containing all certs that have been generated as well as the "Package" generated for provisioning.

4.8 Provisioning

Once the files have been generated you will need to send files to three different locations. The "AMD Provisioning Console" folder that opens into three folders: "Configurations", "CryptoStore", and "Packages" will need to be sent to the computer that needs to be provisioned. Technically only the "Package" that was just generated will need to be sent over, however the files contained within will throw flags when being sent through most file transferring services as they contain an executable, so for ease as the files are small we send the whole folder.

4.8.1 Client Computer

In the generated "Package" folder there will be another folder named "AIM-T". In this folder will the executable necessary for provisioning, so in order to provision the AMD Pro computer you will need to open "Command Prompt" as an admin and cd into the "AIM-T" folder. The command for provisioning will be "AIM-TProvisioningApp.exe -i AIM-T-CRYPTO_ ACMSTest2_ oMt" (This is based off of the "ACMSTest2" package attached to the email sent, change the name for _ oMt file accordingly with the package you generate). If you are re-provisioning a computer you will instead use the _ M file with the same command.

Once Provisioned the client's computer will need to be restarted

4.8.2 DASH-CLI

In the folder for "DASH-CLI" there is a "certs" folder. You will need to copy the "KCMSSHKey" file from the "ConsoleCertificates" folder in the "AIM-T" folder as well as both the "acmscert" file and the "consolecert" file from the "DASHCLI" folder in the "ACMS" folder in the "AIM-T" folder into the "certs" folder.

4.8.3 ACMS

In the EC2 Instance you will need to remove the three certs in "/etc/acms" and replace them with the three certs in the "Cloud" folder in the previously accessed "ACMS" folder. These certs should be named "acmscert", "acmskey", and "trustedclients". We have done this using WinSCP

Once these files are in the correct spot in the "ACMS Ser" instance you will need to restart is with this command: "sudo systemctl restart acms". You can check to verify it was restarted properly with this command: "systemctl status acms". Once it has been restarted you can use this command: "journalctl -fu acms" to verify that the AMD Pro computer is connected and to show you the error we have encountered when running the "DASH-CLI" commands.

5 DASH-CLI Commands

5.1 enumerate computersystem

Once the provisioning process is finished you can launch the "DASH-CLI" application. The command we use to check status of provisioning is: **"dashcli.exe -h <local ip for client computer> -u <username> -P <password> -S https -C -p 664 enumerate computersystem"**. We have found that using the info for either the "Standard" or "Admin" roles set up during provisioning both work. This command only works over a local network and we just run it to make sure the provisioning worked as provisioning locally and for out-of-band services is the same from the perspective of the clients computer. To run this command through ACMS we just need to change the command to: **"dashcli.exe -r <public ip for acms> -h <name of client computer on ACMS> -u <username> -P <password> -S https -C -p 664 enumerate computersystem"**. With the only differences being that the ip following "-h" is the name of client computer on ACMS instead of the local ip and the addition of the "-r <pubic ip for acms>".

5.2 startkvm

The command for starting a KVM locally is: **"dachcli.exe -h <local ip for client machine> -u <username> -P <password> -S https -C -p 664 -t kvmredirection[0] startkvm"**.

The adjustment for this command that we have done for running it through ACMS is: **"dachcli.exe -r <public ip for acms> -h <name of client computer on ACMS> -u <username> -P <password> -S https -C -p 664 -t kvmredirection[0] startkvm"**. With the only differences being that the ip following "-h" is the name of client computer on ACMS instead of the local ip and the addition of the "-r <pubic ip for acms>".

6 Errors Encountered

The following screenshots don't fit on the page when increased in size due to the text editor I am using, but they should be able to be zoomed in on without loss of readability.

Attached are the screenshots for the encountered errors when running the command through the ACMS:

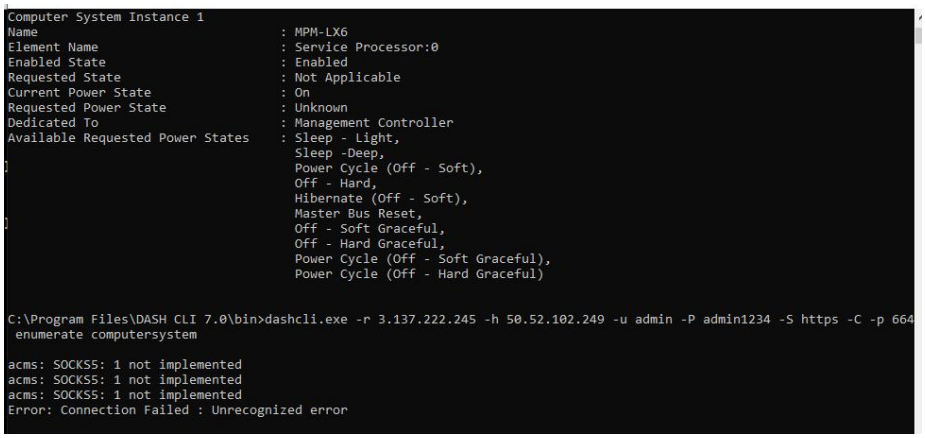

Figure 1: Error sent on the DASH-CLI App

Figure 2: Error sent on the ACMS service

This error has been fixed now the error we are working on is:

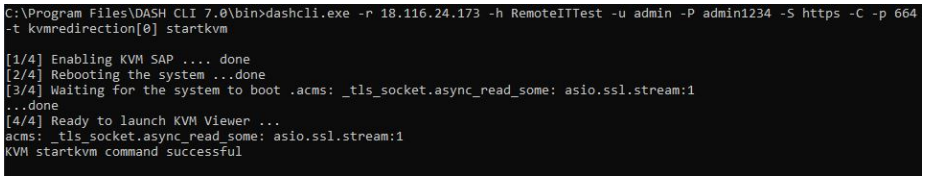

Figure 3: DASH-CLI command and Result

Figure 4: Error sent on the ACMS