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Virtualization of Alexa AVS W/O Raspberry Pi

Requirements:
Ubuntu 18.04.5 iso file
Oracle VM Virtualbox
AVS SDK Dependencies (Installed later)

Set up the VirtualBox VM:
- New
- Name it whatever you'd like, I named mine 'dev'
- Type: Linux
- Version: Ubuntu (64-bit)
- Memory Size: Dependent on your PC, I initially tried with 2Gb but ran out of space
I increased it to 8Gb to be safe and ensure it properly executed. 4Gb would probably function fine
- Select 'Create' for the next couple menus
- Storage: can be set to 10Gb and work just fine
- Once VM is created
-- Select the VM in the manager
-- Go to settings > storage > under 'controller: IDE' in the drop menu select the disc icon
-- Navigate your directory to find the Ubuntu 18.04 iso
- Return to the manager
- Start the VM
- Confirm the Ubuntu iso in the pop up

Wait (this takes a while)

After startup it will prompt you to 'try' or 'install'
- Select 'try' functionality because it is a VM it won't matter

Wait again (it takes some time to initialize)

Follow the guide at: https://developer.amazon.com/en-US/docs/alexa/avs-device-sdk/ubuntu.html

Before Step 2 (Update your Ubuntu package list) run the following:

sudo add-apt-repository universe

This will ensure all the required repos containing dependencies are available

Otherwise, you will run into errors with clang and gstreamer dependencies

Follow the Alexa SDK guide again

Step 4 (Build the AVS Device SDK sample app) will take a long time
- Monitor for errors
- You may consistently see 'usr/local/lib-libcurl.so.4: no version information available'
-- This is okay and the app will still work because it should compile with lib-libcurl.so.2

Step 5 (Set up your configuration file)
- Here you will need the config.json file
-- Because we are using a VM I did not download it into the VM
-- Either use winSCP to transfer the download or create a config.json with nano and copy it over

Step 6 (Run and authorize the sample app)

After this AVS should work
- Use "t 'enter'" to begin an interaction
-- The sensory wake word 'alexa' does not work on ubuntu but this triggers voice interactions

When you close the VM
- DO NOT, I repeat DO NOT power off the machine
- After extensive (like 5 days) experience working with this VM, it is my conclusion that the 'shut down' option will lose everything
-- You will hate your life otherwise