AWS Custom AMI

Notes:

- Only upgrades among major releases are supported. For example, upgrade from **9.0**.1 to **9.0**.6 is supported, upgrade from **8.1**.4 to **9.0**.5.xfr is not.
- Script takes a licensed VM-Series EC2 instance and upgrade configuration as input and creates an AMI based on the upgrade configuration.
- Steps 1 to 6 followed in Custom AMI Documentation have been automated in this script.
- Script runs for approximately 90 minutes.

Steps:

1. On AWS, create a VPC with Internet Gateway and a subnet. Save the subnet-id for use.
2. Create a Key Pair in EC2. Save the key name and private key file for use.(Create Key-pair)
3. Get the AMI-ID for the marketplace image that you want to start as a base instance.(Obtain the AMI)
4. Prepare an auth-code for VM-Series to allow upgrade.(BYOL only)
5. Set up a Unix/Linux machine/virtual-machine with internet access to run the script from.
6. On AWS, create a security group and allow inbound TCP-port 22 connections from machine/virtual-machine public IP(Created in Step 5). This is to allow the script to access the VM-Series EC2 Instance.
7. Install Python 3.6.10 and git on the machine/virtual-machine.
8. Clone the Palo Alto Networks AWS repository in the machine/virtual-machine. `git clone git@github.com:PaloAltoNetworks/aws.git`
9. Copy the private key file(from STEP 2) to the machine/virtual-machine with correct permissions. `chmod 400 private_key.pem`
10. Enter the directory custom-ami. `cd aws/custom_ami`
11. Install the requirements. `pip install -r requirements.txt`
12. Edit config.yaml file based on your requirement of the following AWS and PanOS parameters:

Keys	Requirement	Explanation	Sample Values
secret-key-id	mandatory	AWS Secret Access Key ID	secret-key-id: 'AK**XH'
secret-access-key	mandatory	AWS Secret Access Key	secret-access-key: 'Bh****i3'
region	mandatory	AWS Region for Custom AMI Creation	region: 'us-west-1'
ami-id	mandatory	Your AMI-ID from Step 3	ami-id: 'ami-03801628148e17514'
mgmt-subnet-id	mandatory	Subnet ID from Step 1	mgmt-subnet-id: 'subnet-04fbcf63f1cc4fffc'
sg-id	mandatory	Security Group ID from Step 6	sg-id: 'sg-0bc54b68a3ff9c226'
key-pair-name	mandatory	Key Pair Name from Step 2	key-pair-name: 'my-key-pair'
instance-type	mandatory	AWS Instance Type: Depends on AWS region available instance types and Vm-Series license	instance-type: 'm4.xlarge'
instance-pkey	mandatory	On machine/virtual-machine, absolute path to private key from Step 9	instance-pkey: '/path/to/directory/custom*ami/private*key.pem'
auth-code	optional	VM-Series auth code for licensing. Not required for Bundle1 and Bundle2 AMIs.	auth-code: 'M0101010' #For BYOL Only auth-code: # For Bundle/PAYG
delicensing-api-key	optional	Delicensing API key. Not required for PAYG/Bundle1/Bundle2 Deployments. Required for BYOL deployment only.	delicensing-api-key: '6*d' # For BYOL delicensing-api-key: # For Bundle/PAYG

Keys	Requirement	Explanation	Sample Values
vm-series-plugin-version	optional	Desired VM-Series Plugin version	vm-series-plugin-version: 'vm_series-1.0.9' vm-series-plugin-version: # For not upgrading the plugin
software-version	mandatory	Desired PanOS version	software-version: 'PanOSXFR*vm-9.0.5.xfr'* *software-version: 'PanOS*vm-9.0.6'
content-version	optional	Desired content/apps version	content-version: 'latest' # Works in all cases content-version: 'panupv2-all-apps-8241-5972' # For BYOL content-version: 'panupv2-all-contents-8244-5985' # For PAYG/Bundle content-version: # For not upgrading content
antivirus-version	optional	Desired anti-virus version	antivirus-version: 'latest' # Works in all cases antivirus-version: 'panup-all-antivirus-3267-3778' # For PAYG/Bundle Only antivirus-version: # For BYOL # For not upgrading anti-virus

13. Execute the script. `python start.py`
14. Once the script completes, it will dump a new AMI in the region configured in config.yaml file.