Launch DevWorkstation from Calm Marketplace

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* Select the Credentials tab and enter desired User/Pass ((important))
* Enter the name of Application “DevWorkstation-<INITIALS>
* Press Create
* Review audit log to see packages being deployed

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Once application is in running state SSH to the DevWorkstation VM

* To get the IP address select to “Services” tab under the running application. Then select/highlight the service and the IP with show up on the right hand side

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Start the virtual environment and connect to Prism Central

* cd to the “calm-dsl” directory from your home
* Run “source venv/bin/activate” to switch to the virtual environment. You will now be able to run calm commands via command line
* **Optional:** This has been done automatically through the Blueprint Launch. Once you SSH into the DevWorkstation we can setup the connection to Prism Central by running “calm init dsl”. We can also run “calm show config” to verify the connection settings  
  + Enter Prism Central IP:
  + Enter Port:
  + Enter Prism Central Username:
  + Enter Prism Central Password:
  + Enter Project name:

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List the current blueprints in Calm

* Run “calm get bps” and you will see all the BPs in Calm with their UUID, description, application count, project, and state

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* Run “calm get bps -q” to display quiet output with only the BP names

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For the next section we will review a python based blueprint and make a modification

* Change to the “HelloBlueprint” directory and do an “ls”
  + This was automatically created during the blueprint launch.
* You will see “blueprint.py” which is a python version of a blueprint
* You will also see a “scripts” directory. This is where all bash/powershell/python is stored for the blueprint

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* Run “vi blueprint.py”
* Review the blueprint and you will see some familiar constructs
  + SSH Credentials (line 54-69)
  + OS Image (line 62-65)
  + Under class HelloPackage(Package) you will see references to the scripts in the script directory(line 139)
  + Basic VM spec information (vCPU/memory/nics) (line 153-159)
  + Guest Customization contains the cloud-init (line 161)
* In the blueprint.py modify the number of vCPU
  + Change the vCPU from 2 to 4 (line 154)

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* + Add a unique VM name using macros (line 185)
    - provider\_spec.name = "<Initials>-@@{calm\_unique}@@"



* + Write/quit of the .py file

For the next section we will modify the “pkg\_install\_task.sh”

* Change to the scripts directory and perform an “ls”. We will see 2 scripts that are being referenced inside the .py file
* Run “more pkg\_install\_task.sh” to view the current contents of the install script
* Run “curl -Sks https://raw.githubusercontent.com/bmp-ntnx/prep/master/nginx

> pkg\_install\_task.sh”

* Run “more pkg\_install\_task.sh” to view the changed script

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Now we will upload the modified .py blueprint from Calm DSL to PC

* Return to the “HelloBlueprint” directory
* Run “calm create bp --file blueprint.py --name FromDSL-<Initials>”
  + This converts the .py file to json on PC
* Optional: Run “calm compile bp -f blueprint.py to view the json format from DSL

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* Verify your new BP by running “calm get bps -q”

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The next step is to take your blueprint and to launch into an application

* Run “calm get apps” to verify all the current applications before launching your new app
  + You can also run “calm get apps -q” for less details

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* Next launch your newly uploaded BP
  + “calm launch bp <blueprint\_name> --app\_name AppFromDSL-<Initials> -i”

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* Run “calm describe app AppFromDSL-<Initials>” to see the application summary of your launch

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* Once the app status changes to “running” you will have a nginx server deployed from Calm DSL

Log into Prism Central to verify

* You can see your blueprint created from DSL
* You can see your application launched from DSL
  + On the application tab created from DSL select the “Services” tab and copy the IP.

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* + Enter the IP in a web browser and this will take you to the nginx “Welcome to DSL” web page.

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