AirGap Deployment with Porter

Setup Developer Environment

(I'll use WSL with Ubuntu 20.04 as the environment.)

Requirement

- Docker
- Docker Hub Account (to simulate central registry)

Install Porter

`curl -L https://cdn.porter.sh/latest/install-linux.sh | bash`

Setup of AirGap Simulated Environment

1. Create Ubuntu VM
2. Install Docker
3. Install Porter. I think we need to have the a preview of of version 1.

Create CNAB bundle in Developer Environment

1. Create new directory "strawberry"
2. Go to this directory and run:
   `porter create`
3. Install mixin Docker
   `porter mixins install docker`
4. Create a new porter.yaml file

`------------------- COPY BELOW ----------------`

```
name: whalesay
version: 0.2.1
description: "An example bundle that uses docker through the magic of whalespeak"
registry: [YOUR-DOCKER-HUB-ID]

required:
  - docker

parameters:
  - name: msg
    description: a message for the whales to speak
    type: string
    default: "whale hello there!"
    applyTo:
      - say

mixins:
  - docker

images:
  whalesayd:
      description: "Whalesay as a service"
      imageType: "docker"
      repository: "carolynvs/whalesayd"
      digest: "sha256:8b92b7269f59e3ed824e811a1ff1ee64f0d44c0218efefada57a4bebc2d7ef6f"

install:
  - docker:
      run:
        image: "{{ bundle.images.whalesayd.repository }}@{{ bundle.images.whalesayd.digest }}"
        rm: true
        arguments:
          - cowsay
          - Hello World

upgrade:
  - docker:
      run:
        image: "{{ bundle.images.whalesayd.repository }}@{{ bundle.images.whalesayd.digest }}"
        rm: true
        arguments:
          - cowsay
          - World 2.0

say:
  - docker:
```

```
      run:
        image: "{{ bundle.images.whalesayd.repository }}@{{ bundle.images.whalesayd.digest }}"
        rm: true
        arguments:
          - cowsay
          - "{{ bundle.parameters.msg }}"

uninstall:
  - docker:
      run:
        image: "{{ bundle.images.whalesayd.repository }}@{{ bundle.images.whalesayd.digest }}"
        rm: true
        arguments:
          - cowsay
          - Goodbye World
------------------- COPY ABOVE ---------------
```

5. Show section: **images** and **install**.
6. Run: **`porter build`**
7. Verify that image exist in docker: **`docker images.`**
   You should see a **`whalesay-installer:v0.2.1`**.
8. Run: **`porter publish`**
   This command will publish the bundle to Docker Hub. Verify that it exists in that registry.
9. Run: **`porter archive whalegap-021.tgz --reference buzzfrog/whalesay:v0.2.1`**
10. Look at size of file: **`ls -l --block-size=M whalegap-021.tgz`**
11. This file can we copy to a memory stick or other transport. We will emulate this by coping it to our VM. In our case we use scp: **`scp whalegap-021.tgz ture@m2b3.northeurope.cloudapp.azure.com:/home/ture`**

Deploy CNAB bundle in Host Environment

1. We need a local registry to host our images.
   Run: **`docker run -d -p 5000:5000 --name registry registry:2`**
2. Publish our bundle to that registry
   Run: **`porter publish --archive whalegap-021.tgz --reference localhost:5000/whalesay:v0.2.1`**
3. Look what is inside the registry: **`curl localhost:5000/v2/_catalog`**
4. Execute the installation:
   `porter install dagk-example-2 --reference localhost:5000/whalesay:v0.2.1 --allow-docker-host-access`
5. Show that it is installed:
   `porter list`
6. sdf