Chapter 14: Debugging your network inside Docker

Learning Bluemix & Blockchain

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The Plan: 30 minute Chapters with an hour or two of practice

Chapter 1: What is Blockchain? Concept and Architecture overview
Chapter 2: What's the story we're going to build
Chapter 2.1: Architecture for the Story
Chapter 3: Set up local HyperLedger V1 development environment
Chapter 4: Build and test the network
Chapter 5: Administration User Experience
Chapter 6: Buyer Support and User Experience
Chapter 7: Seller Support and User Experience
Chapter 8: Shipper Support and User Experience
Chapter 9: Provider Support and User Experience
Chapter 10: Finance Company Support and User Experience
Chapter 11: Combining for Demonstration
Chapter 12: Events and Automating for Demonstration

Chapter 13: Installing your network on Bluemix/Kubernetes
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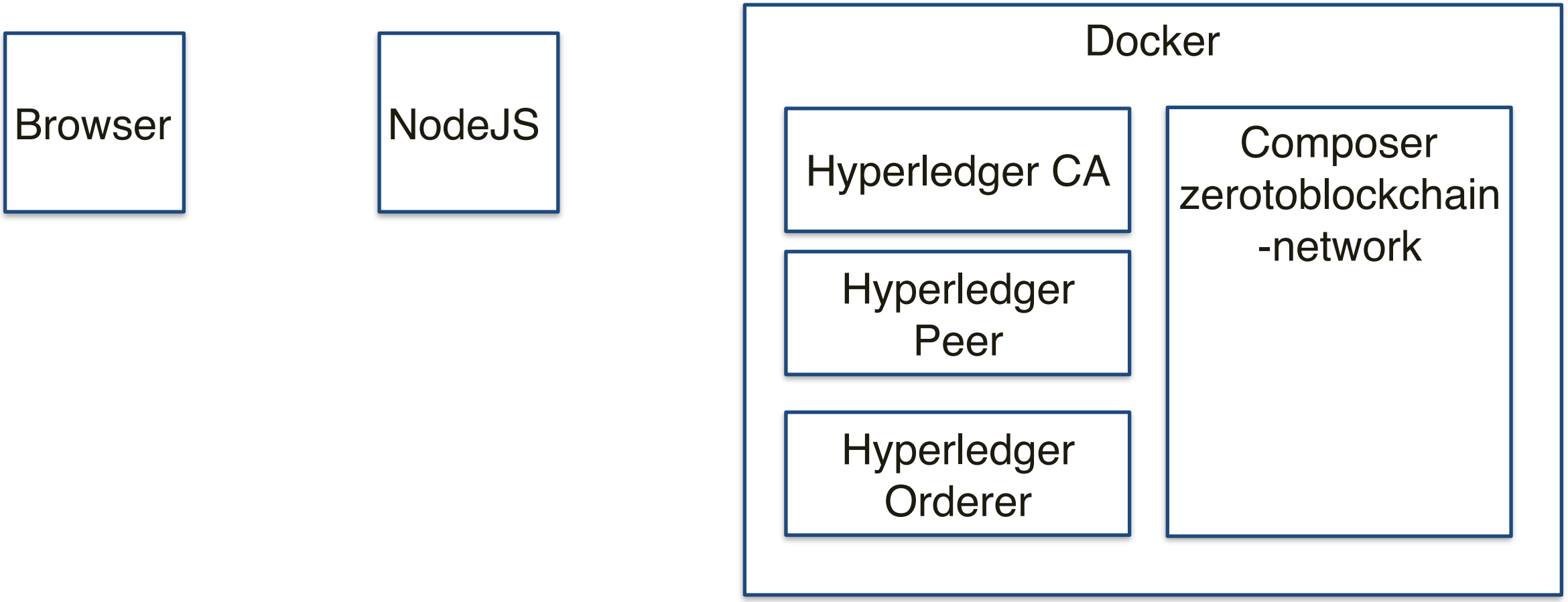
Where is my stuff?



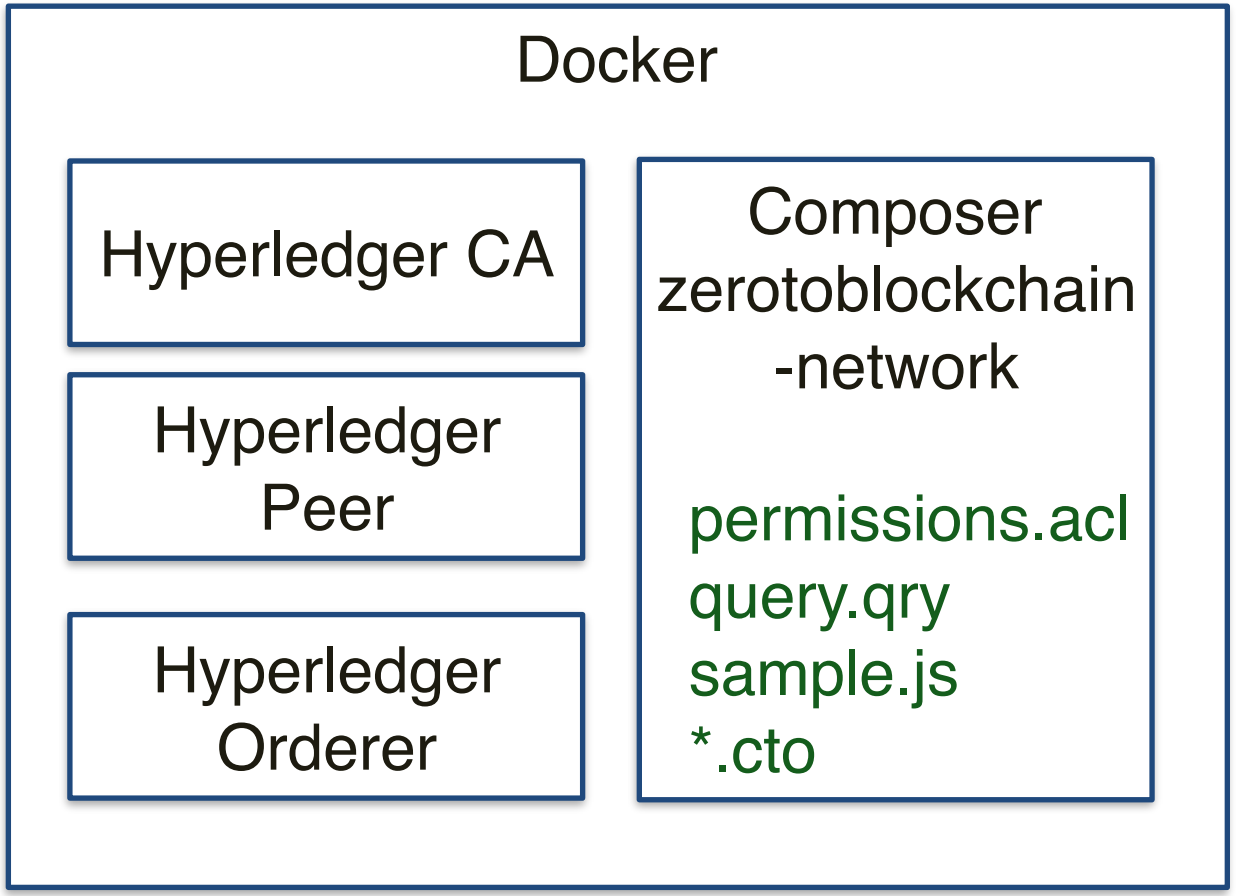
Where is my stuff?

Browser

z2b-admin.js
z2b-buyer.js
z2b-seller.js
Etc.

NodeJS

autoLoad.js
hlcAdmin.js
hlcClient.js
queryBlockChain.js
Z2B_Services.js
Z2B_Utilities.js



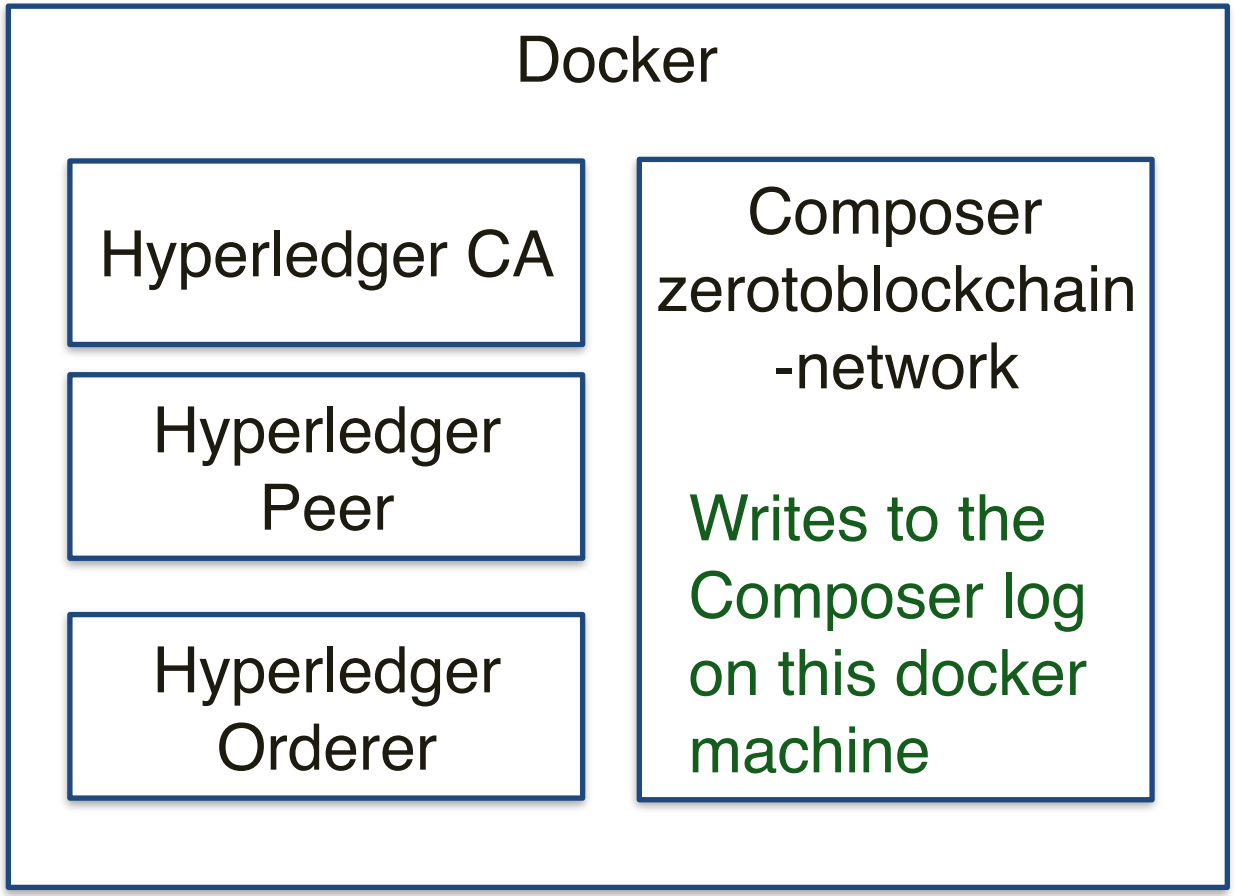
Logging: console.log

Browser

Writes to the browser console.

NodeJS

Writes to the Terminal window



Commands:

- buildAndDeploy invokes:
  - createArchive.sh
    - This reads the information in the network folder, specifically the permissions.acl file, the query.qry file, the /lib/sample.js file and the models.*.cto files and creates the ".bna" file.
  - startup.sh
    - This accesses the Docker Compose file to Stop the network, Remove the containers and then Start the network. All of this is done from the same Docker Composer yaml file.
  - deployNetwork.sh
    - This connects to the hyper ledger network using the PeerAdmin id and card
    - Deploys the archive file created earlier in this flow and, while deploying the archive file, creates the business network admin user id and card. This creates a 4th docker container, which is not described in the docker composer file.
    -

What's running on my system?

- npm start gets the nodes application running. You've been interacting with this throughout the course.
- buildAndDeploy gets the docker containers running and connected.
- Most of these containers were started using the docker-compose.yml file located in:
  - ~\fabric-tools\fabric-scripts\hlfv1\composer\docker-compose.yml
- Let's look at that file

- docker ps -a lists all of the currently active docker containers.
  - Let's look at the output from that command

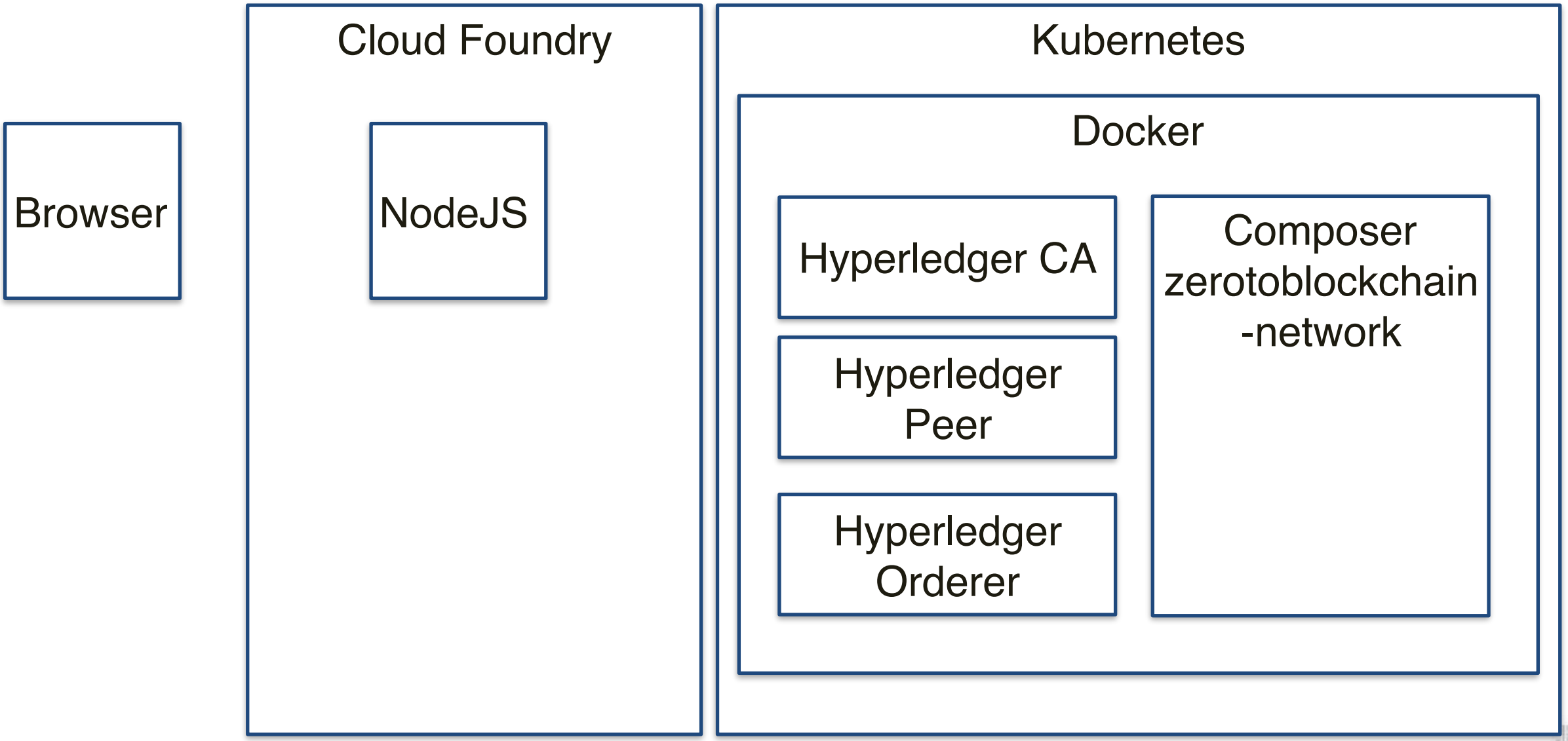
Testing console.log from within sample.js

- We’re going to update the Create Order function in sample.js to have it log information.
- We’ll then attach to the log file for our network and watch the output.

For more information

- I recommend the following book for more information:
  - The Docker Book
  - https://smile.amazon.com/gp/product/B00LRROTI4/ref=oh_aui_d_detailpage_o01_?ie=UTF8&psc=1

What about inside the Cloud?



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