Relayr Docker Install Instruction

1. Find Docker using snap command: snap find Docker
2. Install docker: sudo snap install Docker
3. Connect the Interfaces:

>$ sudo snap connect docker:home :home

>$ sudo snap connect docker:docker-cli docker:docker-daemon

>$ sudo snap connect docker:firewall-control

>$ sudo snap connect docker:support

1. Restart the service:

>$ sudo service snap.docker.dockerd stop

>$ sudo service snap.docker.dockerd start

1. Create Yocto Linux skeleton image:

>$ sudo docker pull gmacario/build-yocto

1. See what the name of the Docker instance is

>$ sudo docker ps

1. Create the container:

>$sudo docker run –p 1880:1880 –p 1883:1883 -ti <Docker image name>

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You are now inside the Docker container

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1. Clone the Yocto metadata:

>$ mkdir -p ~/shared && sudo chown build:build ~/shared

>$ cd ~/shared

>$ git clone -b jethro git://git.yoctoproject.org/poky

>$ cd ~

1. Update the Yocto metadata:

>$ cd ~/shared/poky && git pull --all --prune

>$ cd ~

1. Install the following applications and libraries

>$ sudo apt-get install systemd rpm python-dev python-rpm libxml2-dev libxslt1-dev

Commands to interact with Docker

To disconnect from a Docker instance = Ctrl-P+Ctrl-Q

To connect to a Docker instance = sudo docker attach <Container ID>

Installing Smart Package Manager (within the Docker image)

1. Download the source code:

>$ git clone git://github.com/smartpm/smart.git

1. Install the Smart application

>$ cd smart/

>$ sudo python setup.py install

>$ cd ~

1. Install may throw the following errors but can be ignored

* error: can't copy 'locale/fr/LC\_MESSAGES/smart.mo': doesn't exist or not a regular file
* Error while running msgfmt on locale/sv/LC\_MESSAGES

Install Relayr Edge Agent on the Dell IoT Starter Kit Started

1. Add a channel to the package manager:

>$ sudo smart channel --add https://packages.relayr.io/windriver/relayr.repo

1. Get the relayr-pub-GPG.txt file:

>$ sudo wget https://packages.relayr.io/windriver/relayr-pub-GPG.txt

1. Import and remove the relayr-pub-GPG.txt file:

>$ sudo rpm --import relayr-pub-GPG.txt && sudo rm relayr-pub-GPG.txt

1. Update and upgrade the package manager:

>$ sudo smart update && sudo smart upgrade

1. Install NodeJS

>$ sudo smart install nodejs

1. Download the following packages: redis, node-red, relayr-system-health-adapter and relayr-vertex.

>$ sudo smart download <PackageName>

1. Install the following packages: redis, node-red, relayr-system-health-adapter and relayr-vertex.

>$ sudo rpm -i <PackageName> --nodeps

Note - All packages are installed but ignore the following errors error in redis, node-red, relayr-system-health-adapter and relayr-vertex mention below:

* Operation failed: Invalid argument
* Failed to get D-Bus connection: No connection to service manager.
* warning: %post(<PackageName>) scriptlet failed, exit status 1

1. Create init services for node-red, redis, relayr-vertex and relayr-system-health-adapter using the following commands:

~~>$ sudo vi /etc/<PackageName>~~ (relayr to send the init scripts separately)

>$ sudo chmod 755 <PackageName>

>$ sudo update-rc.d <PackageName> defaults

1. Create folders and files

>$ cd /

>$ sudo mkdir data

>$ sudo chown build:build ./data

>$ cd ./data

>$ vi package\_config.ini (leave as empty file)

>$ mkdir logs

>$ cd ./logs

>$ vi node-red.log (leave as empty file)

>$ cd ~

1. Change the swagger URL in vertex-configure

>$ cd /usr/lib/node\_modules/vertex\_configure

>$ sudo vi index.js

The correct URL is:

http://services-docs.relayr.io/swaggers/vertex-backend\_prod.yaml

1. Run setup script for relayr gateway agent:

>$ sudo vertex-configure <gateway agent name> <gateway agent location> <Brearer token>

<gateway agent name> = name the agent. Example = gatewayagent

<gateway agent location> = physical location. Example = TX

<Brearer token> = The Brearer token is located on the Account link on left navigation panel of developer.relayr.io excluding “Bearer” keyword

1. Start the relayr services (or reboot)

>$ sudo /etc/init.d/redis-server start

>$ sudo /etc/init.d/relayr-vertex start

>$ sudo /etc/init.d/relayr-system-health-adapter start

>$ sudo /etc/init.d/nodered start