5.5 Docker

Introduction

If you don't quite get the value of Docker, or as a system admin you are can't let go of your SSH console, start with LXC. After that you might (as I have) turn to like what Docker has to offer for certain use cases where ephemeral applications make sense.

Implement Docker inside of LXC and you can increase both application and operating system density.

Latest versus Ubuntu Managed

There are two ways to install Docker on Ubuntu,

Install Method	How To	Pros	Cons
Ubuntu Managed	See Below	1. Easy. 2. Certified by Ubuntu Community.	1. Not the latest and greatest.
Directly from Docker	Docker website	You get the latest and greatest. Learn more background information on how Docker is setup.	More steps and there are multiple ways to configure.

As of 2016, recommendation is to use Ubuntu Managed. The Ubuntu package team does a great job of keeping the Docker version up to date and follow best practices outlined in the Docker setup (ie using a distinct group).

Running a Ubuntu Managed install resulted in Docker 1.11.2 build b9f10c9 which from the Docker release notes was submitted on Jun 1 2016. In comparison, directly results in 1.12.0 build 8eab29e. At the time the most up to date is Docker 1.12.1 build 0dc92ee.

Running Docker Inside of LXD

Docker and completely compatible. Set up and run as normal.

Install Docker Ubuntu Managed

For latest and greatest use the instructions on the Docker website. For easy of maintenance use Ubuntu native,

```
sudo apt-get install docker.io # not docker by itself which is a Gnome
utility
```

Check your version and verify Docker worked,

```
docker version
sudo docker run hello-world
```

Building a Docker Image

...

Orchestration

Looking top down, the real power of Docker can only be realized with orchestration technologies. Here are the leading ones, I am just starting to look at,

Docker Swarm - Built in method to orchestate Docker.

Kubernetes - Used by Google and they have a free trial to check out.

Apache Mesos - Twitter, Airbnb, Hubspot and Apple run it.

References

Docker in LXD - https://insights.ubuntu.com/2016/04/13/stephane-graber-lxd-2-0-docker-in-lxd-712/?_ga=1.131249999.1359600858.1459136071