

Fixing CentOS 7 systemd conflicts with docker

Wednesday , 16, December 2015

Jim Perrin

Uncategorized

2 Comments

With the release of 7.2, we've seen a rise in bugs filed for container build failures in docker. Not to worry, we have an explanation for what's going on, and the solution for how to fix it.

The Problem:

You fire off a docker build, and instead of a shiny new container, you end up with an error message similar to:

```
Transaction check error:
file /usr/lib64/libsystemd-daemon.so.0 from install of systemd-libs-219-19.el7.x86_64 conflicts with file from package systemd-
container-libs-208.20-6.el7.centos.x86_64
file /usr/lib64/libsystemd-id128.so.0 from install of systemd-libs-219-19.el7.x86_64 conflicts with file from package systemd-
container-libs-208.20-6.el7.centos.x86_64
file /usr/lib64/libsystemd-journal.so.0 from install of systemd-libs-219-19.el7.x86_64 conflicts with file from package systemd-
container-libs-208.20-6.el7.centos.x86_64
file /usr/lib64/libsystemd-login.so.0 from install of systemd-libs-219-19.el7.x86_64 conflicts with file from package systemd-
container-libs-208.20-6.el7.centos.x86_64
file /usr/lib64/libudev.so.1 from install of systemd-libs-219-19.el7.x86_64 conflicts with file from package systemd-container-libs-
208.20-6.el7.centos.x86_64
file /usr/lib64/security/pam_systemd.so from install of systemd-libs-219-19.el7.x86_64 conflicts with file from package systemd-
container-libs-208.20-6.el7.centos.x86_64
```

This is due to the transition from systemd-container-* packages to actual systemd. For some reason, the upstream package doesn't obsolete or conflict, and so you'll get errors when installing packages.

The fix:

The fix for this issue is very simple. Do a fresh docker pull of the base container.

```
# docker pull centos:latest
```

or

```
# docker pull centos:7
```

Your base container will now be at the appropriate level, and won't have this conflict on package installs so you can simply run your docker build again and it will work.

But I have to use 7.1.1503!

If for some reason you must use a point-in-time image like 7.1.1503, then a package swap will resolve things for you. 7.1.1503 comes with fakesystemd, which you must exchange for systemd. To do this, execute the following command in your Dockerfile, prior to installing any packages:

```
RUN yum clean all && yum swap fakesystemd systemd
```

This will ensure you get the current package data, and will replace the fakesystemd package which is no longer needed. That's all there is to solving the file conflicts and systemd dependency issues for CentOS base containers.