Docker on the Raspberry Pi

scale down to the minimum

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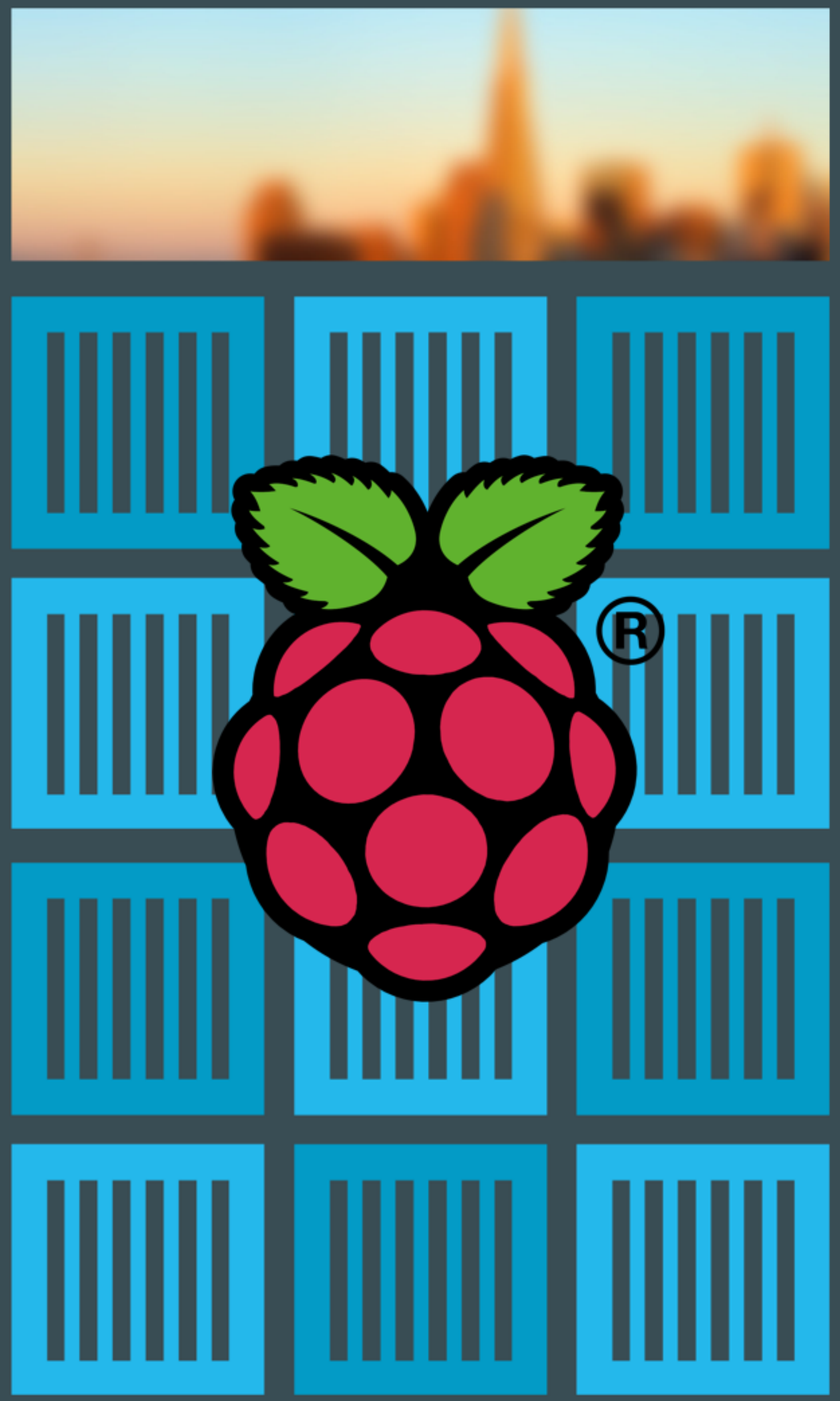
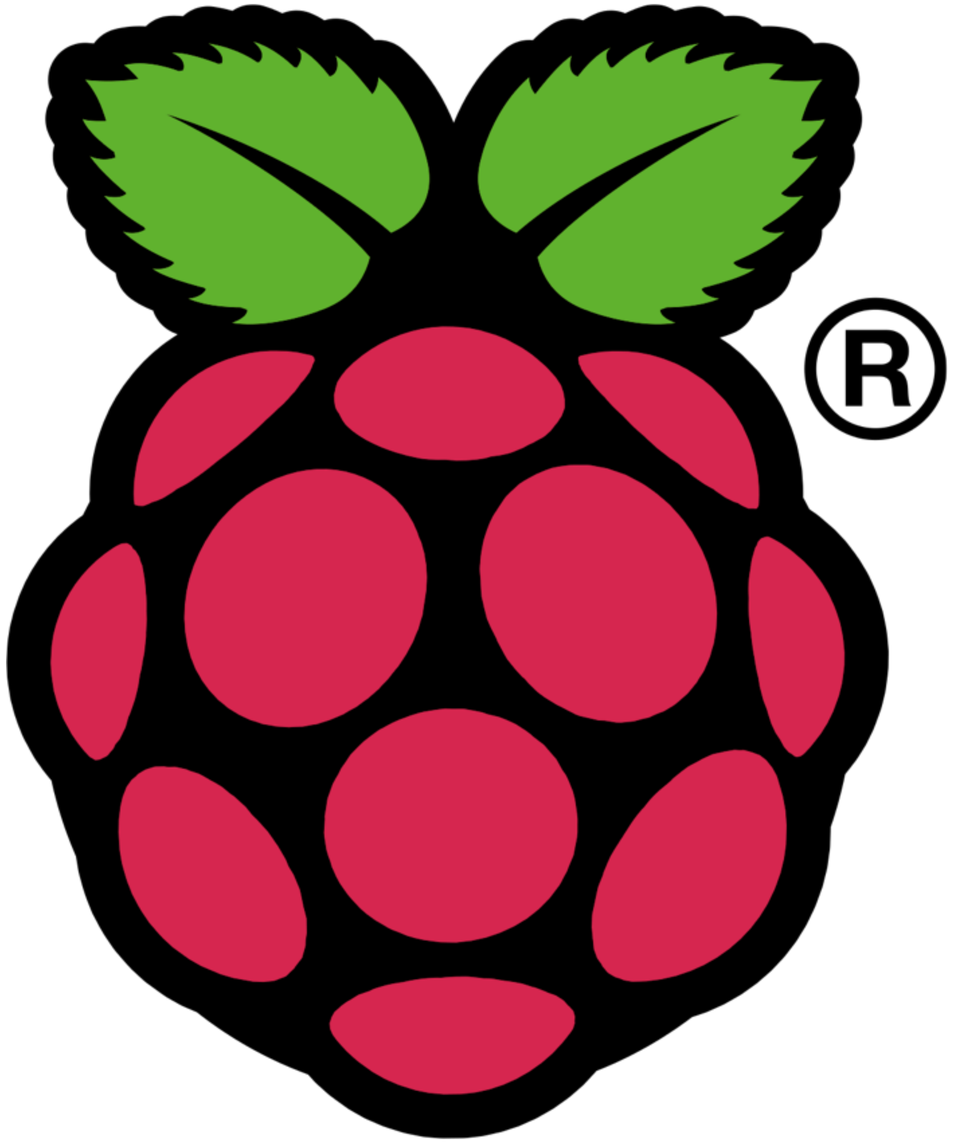
dockercon 15

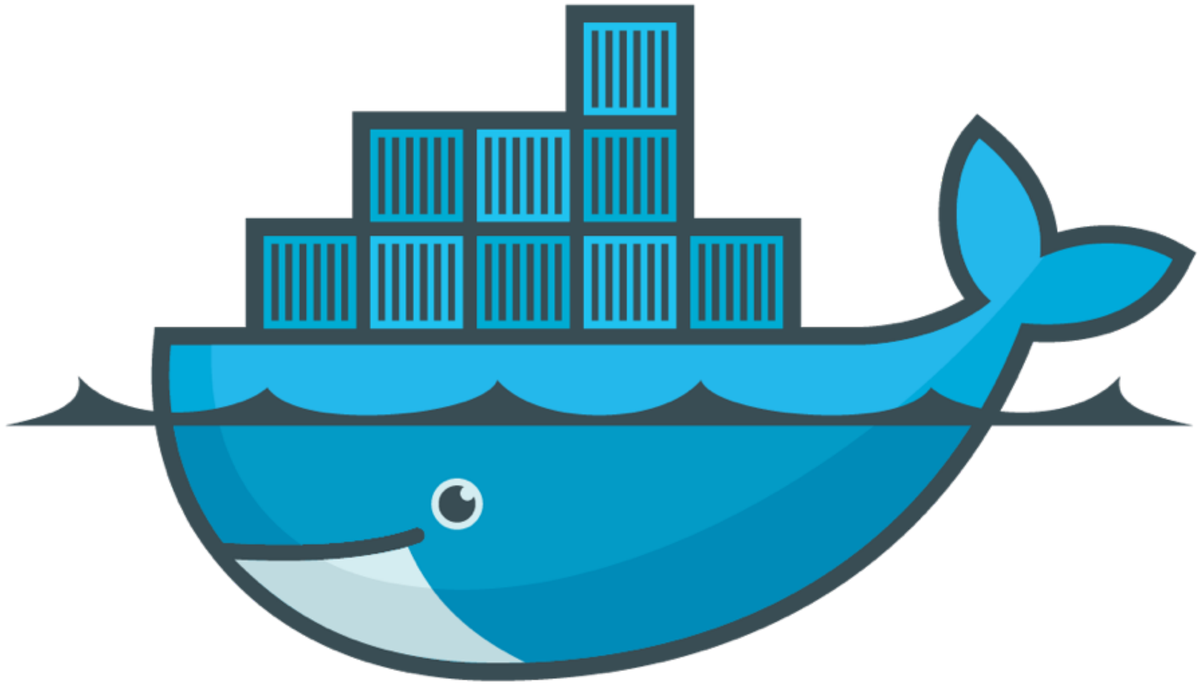
SF JUNE 22-23



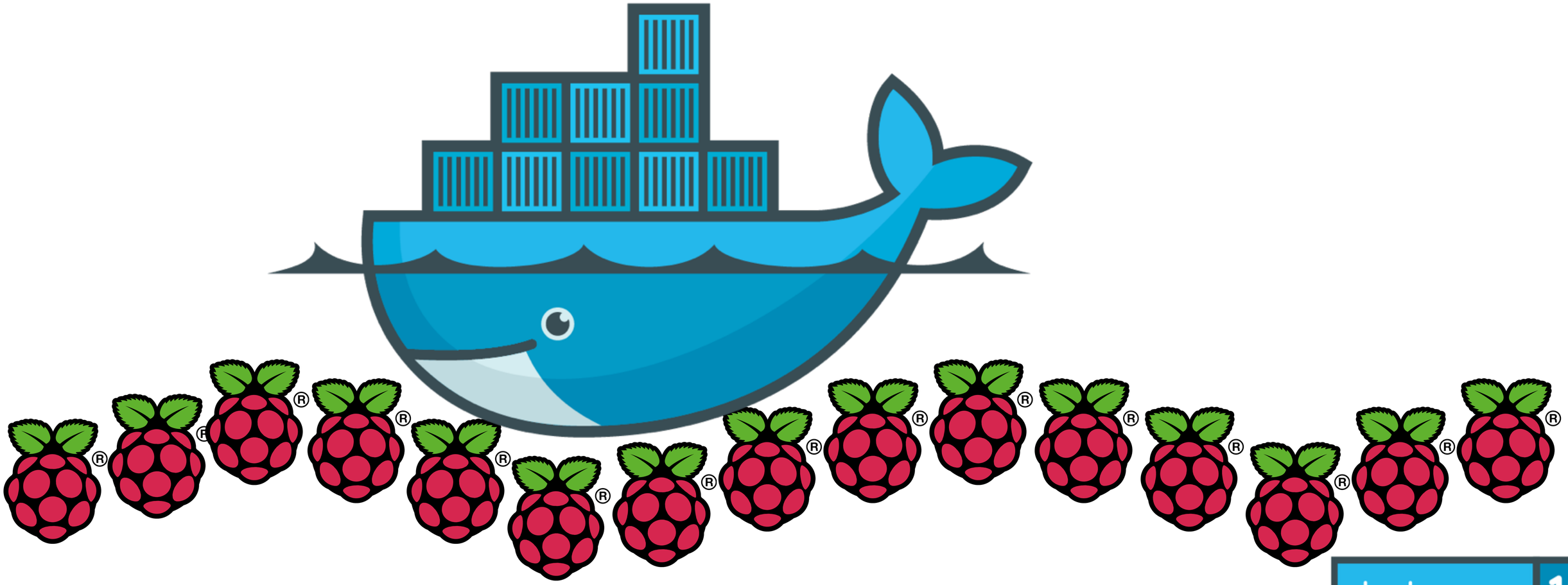
Docker, a „lightweight“ virtualization?

Let’s proof it on an IoT device





docker



Live Demo

3. /home/pi? (ssh)

```
COUNTER=246, PORT=10246
5439dcb61816fa8c8a2dd74980bcc71a6736607add5aaaac19456d17fef1d88b
COUNTER=247, PORT=10247
2a132e2b7a9b69bb5b0f62ee37e76b71781169356ba3bbeb8e9f2963abdcf982
COUNTER=248, PORT=10248
10f3277bd4a9cdd38d3176615a0b02d5f80ad82a480fb618311ab27a291caad5
COUNTER=249, PORT=10249
57c75adab73a3b83abf8a6041b6c5bbd50aa5b2df4497e6d544941d58c333928
COUNTER=250, PORT=10250
ead8138a114fbbd401ed2ef0e28667a0cb67404dbc97c80cdf92850390aab6a2

real    4m3.063s
user    0m33.150s
sys     0m8.690s
HypriotOS: pi@hypriot in ~/DockerCon2015/rpi-busybox-httpd on master
$
```

4. /home/pi? (ssh)

```
  1 [|                                  0.5%]     Tasks: 279, 1012 thr; 1 running
  2 [||                                 1.5%]     Load average: 2.06 1.59 0.76
  3 [||||||||||                        25.9%]     Uptime: 00:07:10
  4 [                                   0.0%]
  Mem[||||||||||||||||||||||||      336/925MB]
  Swp[                                0/0MB]

  PID USER      PRI  NI  VIRT   RES   SHR S CPU% MEM%   TIME+  Command
 2154 pi         20   0  5536  3040  1952 R 25.0  0.3  1:09.87 htop
 1580 root       20   0 28964  2316  2000 S  0.0  0.2  0:01.92 /usr/sbin/rsyslogd -c5
 1585 root       20   0 28964
 1739 ntp        20   0  5684
 1685 root       20   0 1789M
10616 root       20   0 1789M
F1Help  F2Setup F3SearchF4Filter
```

```
[  421.000233] docker0: port 250
[  421.008818] docker0: port 250
[  422.339519] docker0: port 242
[  424.099504] docker0: port 243(veth685dc43) entered forwarding state
[  426.539565] docker0: port 244(veth6b81fd2) entered forwarding state
[  428.139516] docker0: port 245(veth36912ba) entered forwarding state
[  429.459513] docker0: port 246(vethf65f6ae) entered forwarding state
[  431.379524] docker0: port 247(vethd5f85c1) entered forwarding state
```

LOGIN

Containers + NEW

rpi-busybox-httpd:latest
WebServer-10235 rpi-busybox-httpd:latest
WebServer-10236 rpi-busybox-httpd:latest
WebServer-10237 rpi-busybox-httpd:latest
WebServer-10238 rpi-busybox-httpd:latest
WebServer-10239 rpi-busybox-httpd:latest
WebServer-10240 rpi-busybox-httpd:latest
WebServer-10243 rpi-busybox-httpd
WebServer-10244 rpi-busybox-httpd
WebServer-10245 rpi-busybox-httpd
rpi-busybox-httpd
WebServer-10250 rpi-busybox-httpd

DOCKER CLI

WebServer-10250 RUNNING

STOP RESTART EXEC

Home Settings

CONTAINER LOGS

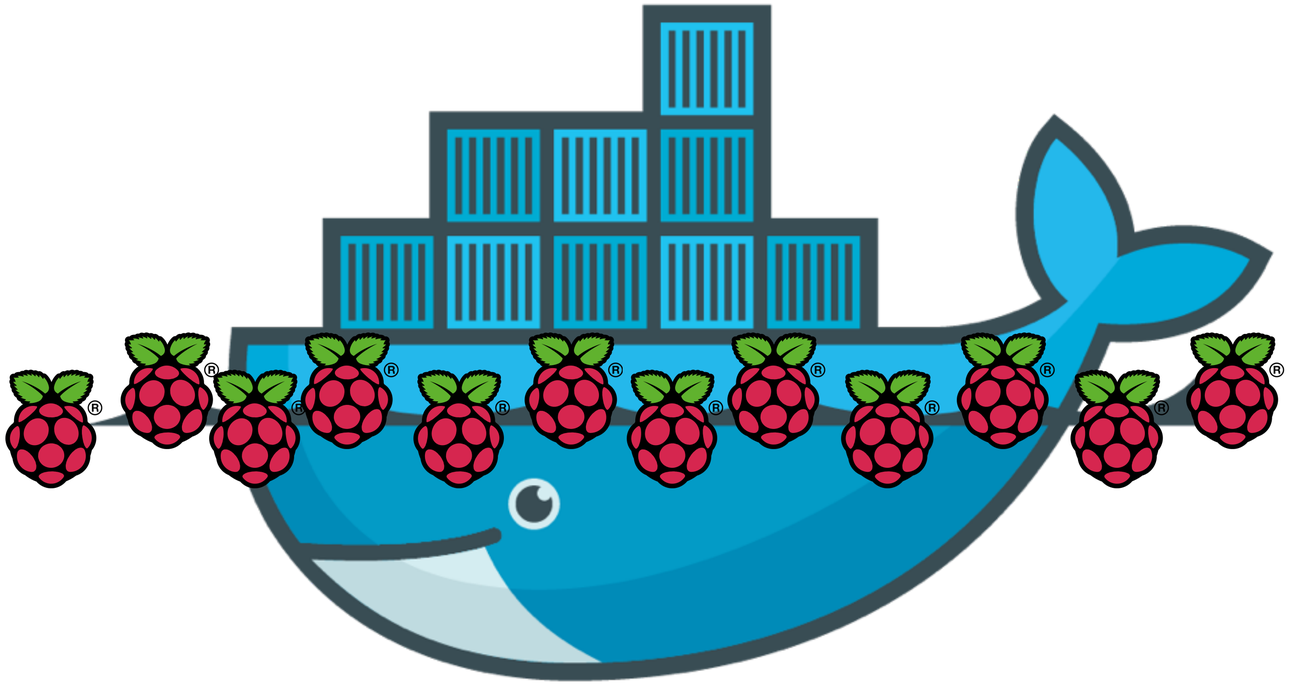
No logs for this container.

WEB PREVIEW

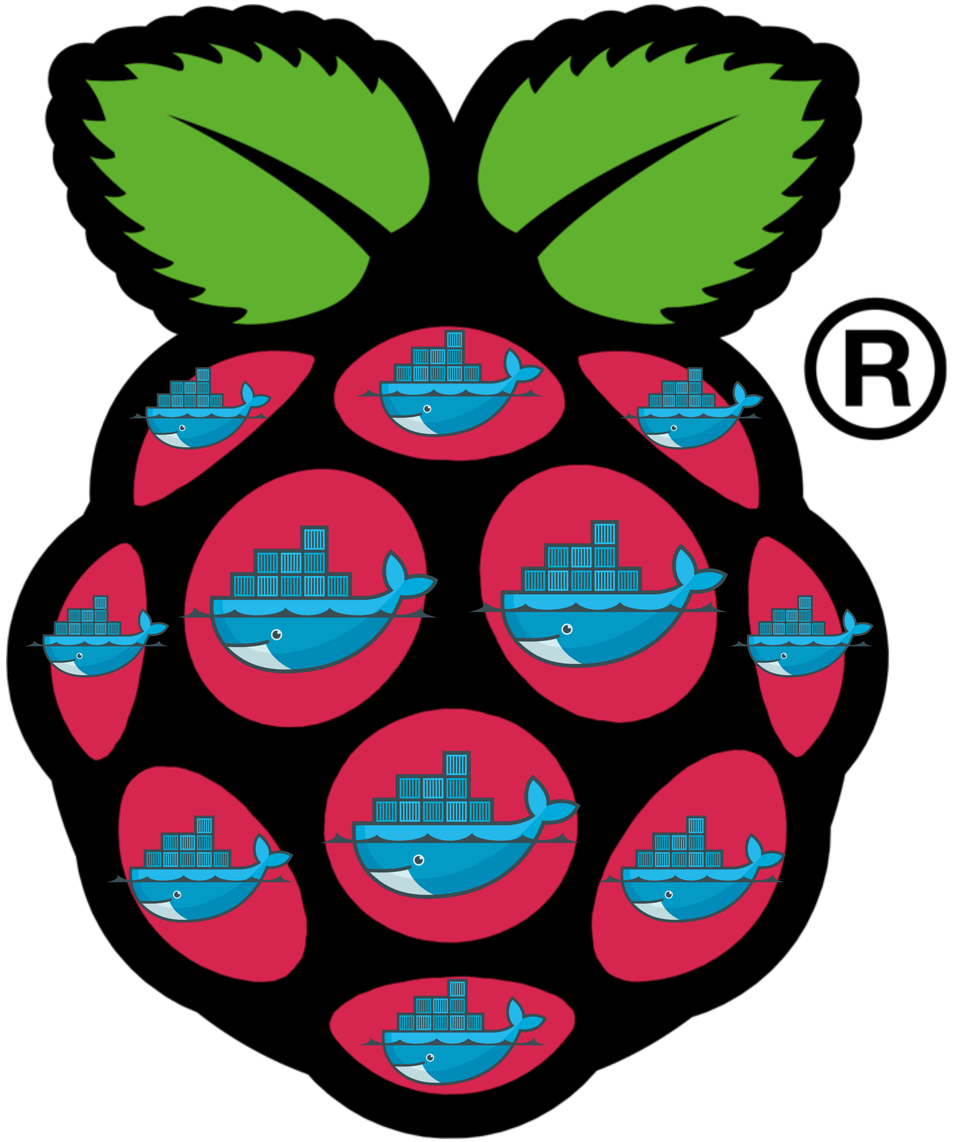
ARMed

Hyp

250 containers
7 minutes



docker



Thank you

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blog.hypriot.com/dockercon

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