

Deploying and Scaling a Simple Application

Topics

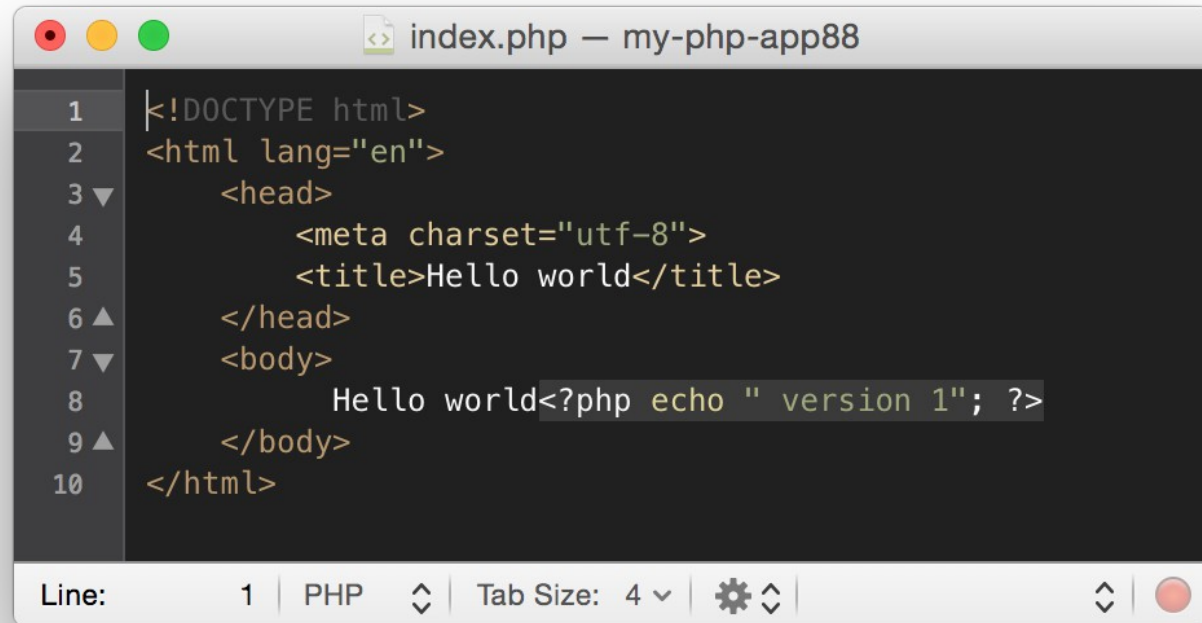
- **Deploy a Simple Application**
- Containers
- Application Logs and Events
- Introduction to Buildpacks

Deploy an Application Using the cf CLI

- You need a deployable application
 - For example with Java: a jar or war
 - Can build with tools like Ant, Maven or Gradle
 - Cloud Foundry doesn't care how you build your application
 - Non-compiled languages (Ruby, Node.js, PHP, etc.) just use the source code

Deploy a Simple PHP Application to Cloud Foundry (1 of 4)

1) Create a simple html file including PHP:

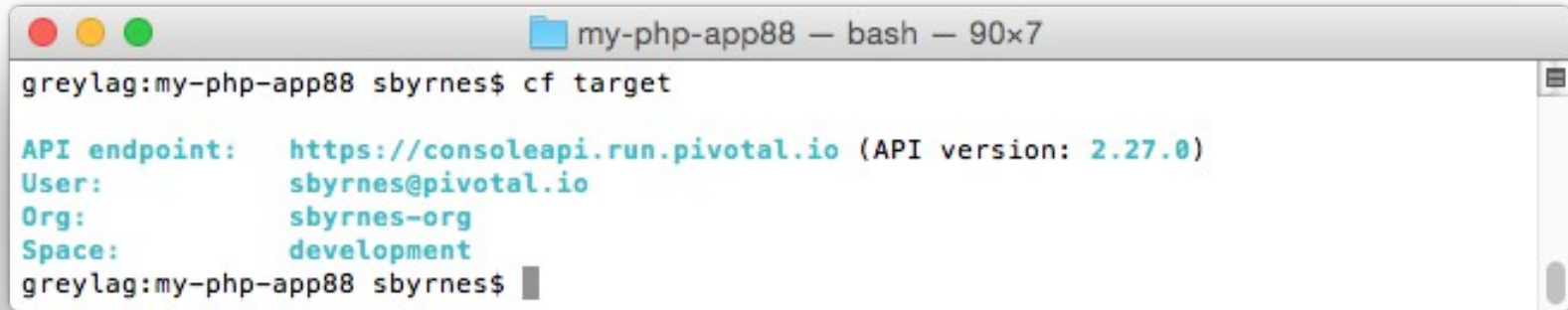


```
1 |<!DOCTYPE html>
2 |<html lang="en">
3 |   <head>
4 |     <meta charset="utf-8">
5 |     <title>Hello world</title>
6 |   </head>
7 |   <body>
8 |     Hello world<?php echo " version 1"; ?>
9 |   </body>
10| </html>
```

Line: 1 | PHP | Tab Size: 4

Deploy a Simple PHP Application to Cloud Foundry (2 of 4)

- 2) In a terminal/command window, navigate to the directory containing the PHP file
- 3) Make sure you are targeting the org and space that you want

A terminal window titled "my-php-app88 — bash — 90x7" showing the output of the "cf target" command. The output displays the API endpoint, user, organization, and space being targeted.

```
greylag:my-php-app88 sbyrnes$ cf target

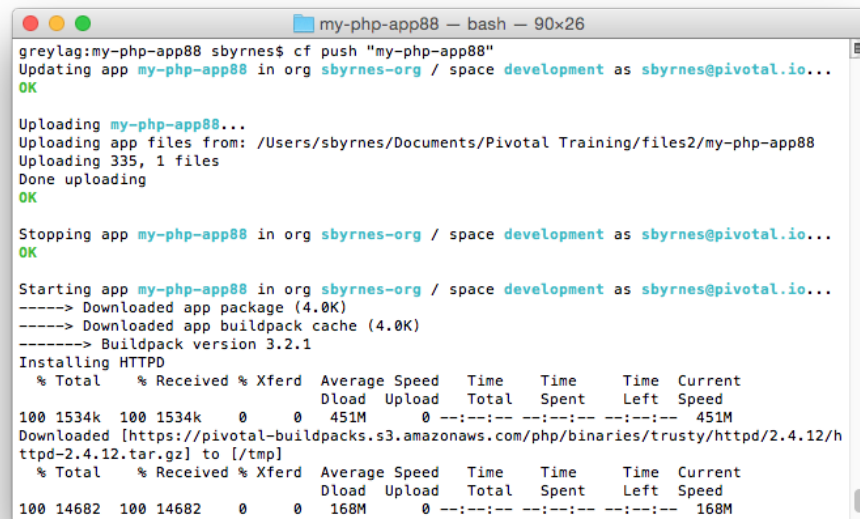
API endpoint:  https://consoleapi.run.pivotal.io (API version: 2.27.0)
User:          sbyrnes@pivotal.io
Org:           sbyrnes-org
Space:         development
greylag:my-php-app88 sbyrnes$
```

Deploy a Simple PHP Application to Cloud Foundry (3 of 4)

4) Push the app named “my-app-name” to Cloud Foundry

cf push "my-app-name"

(wait a minute for Cloud Foundry to deploy the application)



```
my-php-app88 — bash — 90x26
greylag:my-php-app88 sbyrnes$ cf push "my-php-app88"
Updating app my-php-app88 in org sbyrnes-org / space development as sbyrnes@pivotal.io...
OK

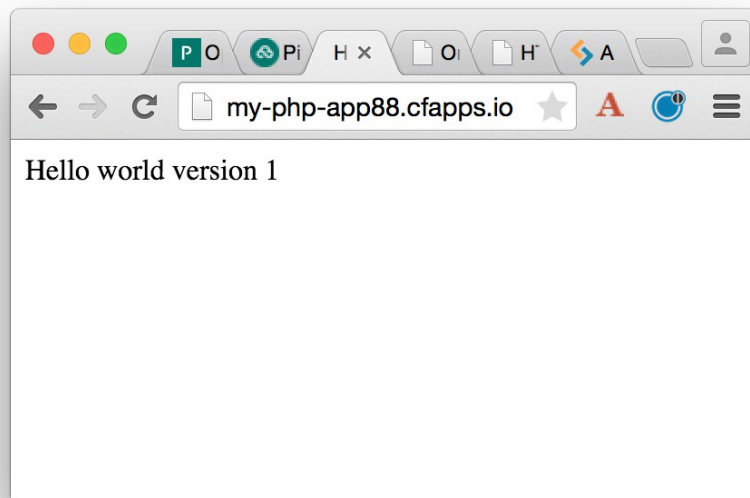
Uploading my-php-app88...
Uploading app files from: /Users/sbyrnes/Documents/Pivotal Training/files2/my-php-app88
Uploading 335, 1 files
Done uploading
OK

Stopping app my-php-app88 in org sbyrnes-org / space development as sbyrnes@pivotal.io...
OK

Starting app my-php-app88 in org sbyrnes-org / space development as sbyrnes@pivotal.io...
-----> Downloaded app package (4.0K)
-----> Downloaded app buildpack cache (4.0K)
-----> Buildpack version 3.2.1
Installing HTTPD
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 1534k  100 1534k    0     0  451M      0  --:--:-- --:--:-- --:--:--  451M
Downloaded [https://pivotal-buildpacks.s3.amazonaws.com/php/binaries/trusty/httpd/2.4.12/httpd-2.4.12.tar.gz] to [/tmp]
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 14682  100 14682    0     0  168M      0  --:--:-- --:--:-- --:--:--  168M
```

Deploy a Simple PHP Application to Cloud Foundry (4 of 4)

- 5) Navigate to (for PWS) my-app-name.cfapps.io and see your running app
- Your app is now managed by Cloud Foundry



View the Deployed App in Apps Manager

The screenshot displays the Pivotal Apps Manager interface for an application named 'my-php-app88'. The interface is divided into a left sidebar, a central main area, and a right configuration panel.

Left Sidebar: Contains navigation links for 'sbyrnes-org', 'SPACES' (with 'development' selected), 'labtest', 'Marketplace', 'Docs', 'Support', 'Tools', 'Blog', and 'Status'.

Main Area: Features a large circular graphic with the app name 'my-php-app88'. Below the name are two buttons (a blue square and a circular refresh icon) and the text 'last push: 06/03/15 @ 22:52 UTC' and 'http://my-php-app88.cfapps.io'.

Right Panel: Contains configuration and status information.

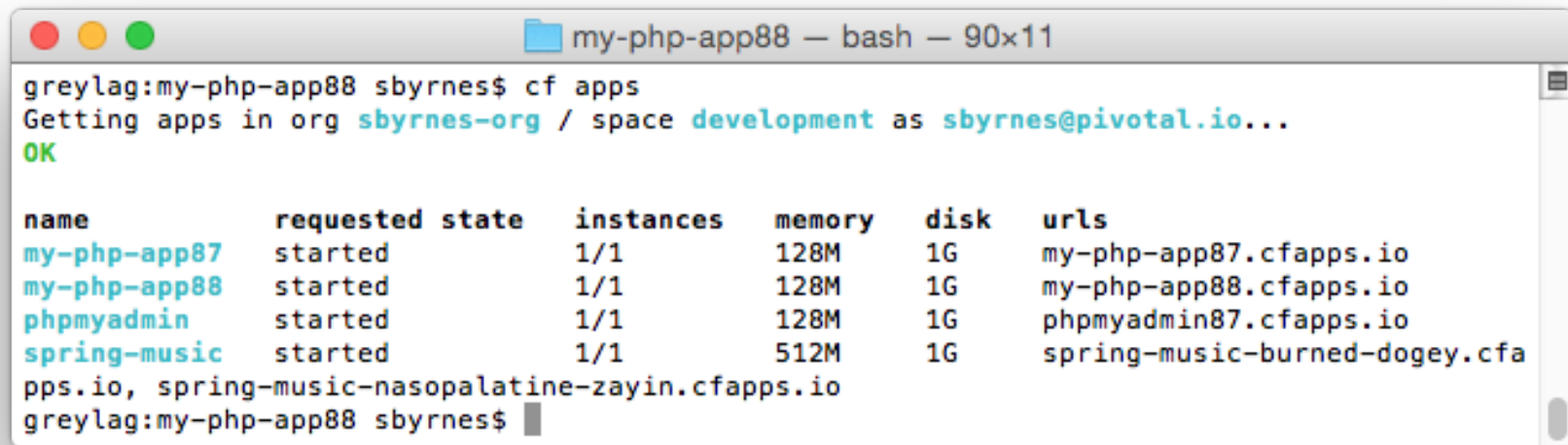
CONFIGURATION

- Instances:** 1 (with '+' and '-' buttons)
- Memory Limit:** 128 MB (with a dropdown arrow)
- Disk Limit:** 1024 MB

STATUS

#	STATUS	CPU	MEMORY	DISK	UPTIME
0	Running	0%	22.8 MB	37.4 MB	17 min

View the Deployed App Using the cf CLI



A terminal window titled "my-php-app88 — bash — 90x11" showing the output of the 'cf apps' command. The output lists four applications: my-php-app87, my-php-app88, phpmyadmin, and spring-music, all in a 'started' state with 1 instance each. It also shows the URLs for each application.

```
greylag:my-php-app88 sbyrnes$ cf apps
Getting apps in org sbyrnes-org / space development as sbyrnes@pivotal.io...
OK
```

name	requested state	instances	memory	disk	urls
my-php-app87	started	1/1	128M	1G	my-php-app87.cfapps.io
my-php-app88	started	1/1	128M	1G	my-php-app88.cfapps.io
phpmyadmin	started	1/1	128M	1G	phpmyadmin87.cfapps.io
spring-music	started	1/1	512M	1G	spring-music-burned-dogey.cfa

pps.io, spring-music-nasopalatine-zayin.cfapps.io
greylag:my-php-app88 sbyrnes\$

cf push Options

- **cf push <name-of-your-app>**
 - Many options/parameters
 - -i Number of instances
 - -m Memory limit (e.g. 256M, 1024M, 1G)
 - -n Hostname (e.g. my-subdomain)
 - -p Local path to app directory, jar, war, zip file
 - ...
- Use **cf help push** to view the options

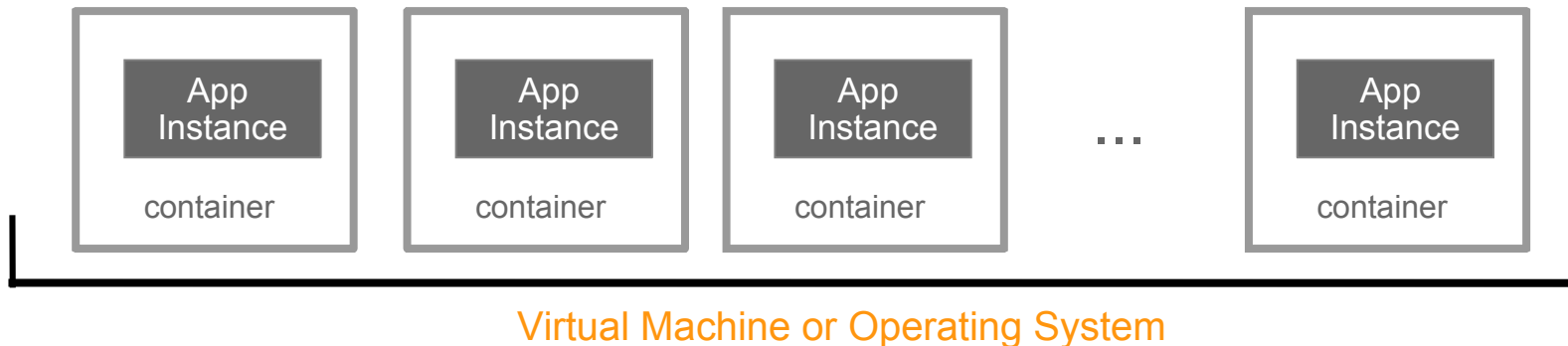
Using Push Correctly

- `cf push "my-app-name"`
 - This uploads all files in your *current directory* as an application called *my-app-name*
- A common mistake is to run `cf push "index.php"`
 - This will upload the contents of your current directory to an application named *"index.php"*
 - If your current directory is your /Documents folder, it will be uploaded to Cloud Foundry!
 - Make sure to change to the directory with your application
 - An alternative is to use the `-p` option to specify the path to the app directory, jar, war or zip file

Topics

- Deploy a Simple Application
- **Containers**
- Application Logs and Events
- Introduction to Buildpacks

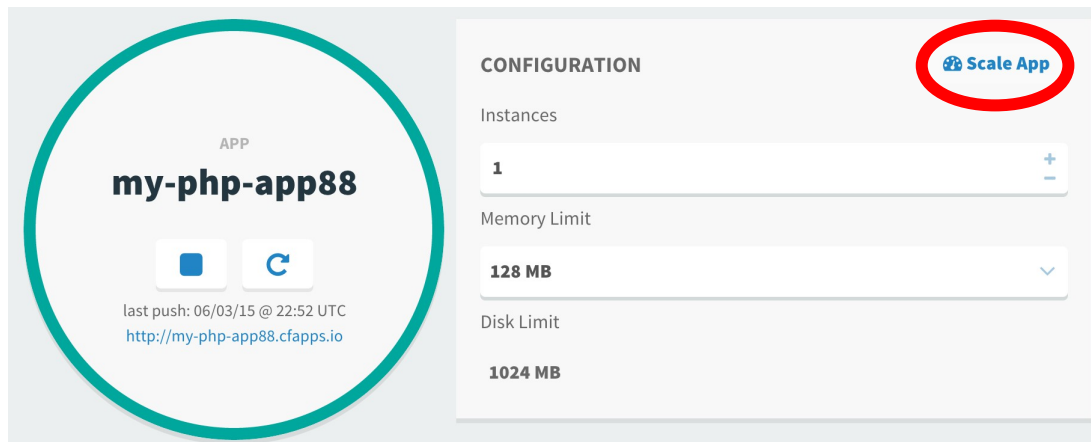
Application Instances Run Inside Containers



- Containers provide isolated environments for applications
- They are resource-friendly and start very quickly
- Application instances in Cloud Foundry run inside containers
 - One app instance per container
- See <http://en.wikipedia.org/wiki/LXC> (Linux containers)

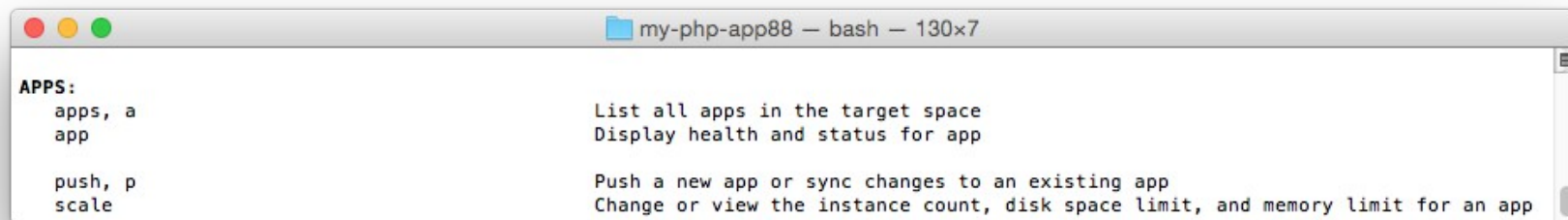
Increasing the Number of App Instances– Apps Manager

- Select the app and increase the number of instances
 - Your app now runs in more containers
 - Requests to your app will now be distributed among the instances
 - This is horizontal scaling- just keep adding instances



Increasing the Number of App Instances—Using *cf cli*

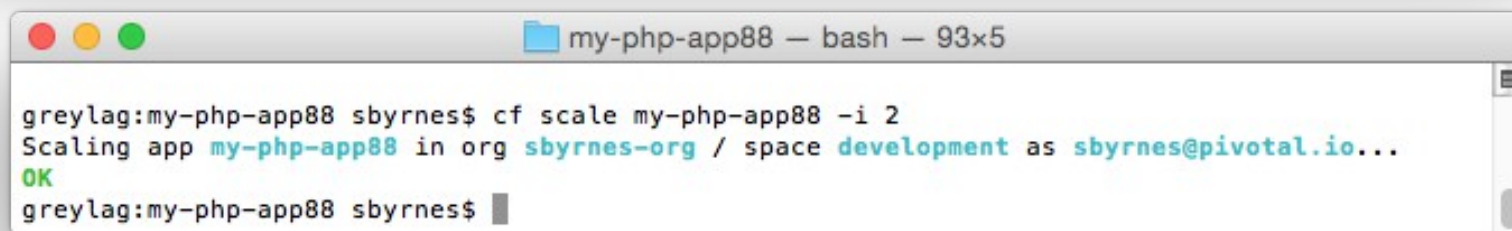
- In *cf help*, under apps, see the scale command



```
my-php-app88 — bash — 130x7

APPS:
  apps, a      List all apps in the target space
  app          Display health and status for app

  push, p      Push a new app or sync changes to an existing app
  scale        Change or view the instance count, disk space limit, and memory limit for an app
```



```
my-php-app88 — bash — 93x5

greylag:my-php-app88 sbyrnes$ cf scale my-php-app88 -i 2
Scaling app my-php-app88 in org sbyrnes-org / space development as sbyrnes@pivotal.io...
OK
greylag:my-php-app88 sbyrnes$
```

SSH'ing into Containers

- **cf ssh <app name>** – SSH into container instances
 - Make sure to install the latest **cf** CLI
- This works on PWS
 - You must configure this on other installations
 - http://docs.pivotal.io/pivotalcf/customizing/cloudform_elb_ssh_proxy.html
- Example
 - View *php-config* file in the *first* container instance of *my-php-app*

```
$ cf ssh my-php-app -i 0
vcap@7nm5vdpikp7:~$ ls
app logs staging info.yml tmp
vcap@7nm5vdpikp7:~$ cd app/php/bin
vcap@7nm5vdpikp7:~/app/php/bin$ ls
php-config phpize
vcap@7nm5vdpikp7:~/app/php/bin$ exit
```


Topics

- Deploy a Simple Application
- Containers
- **Application Logs and Events**
- Introduction to Buildpacks

Viewing the Logs for your App using Apps Manager

In Apps Manager, select your app, then select Logs



The screenshot shows the Apps Manager interface with a navigation bar at the top. The 'Logs' tab is highlighted with a red circle. Below the navigation bar, there is a 'RECENT LOGS' section with a refresh icon and a 'Tail Logs' link. The log entries are displayed in a list format, showing timestamps, log levels, and messages.

Events	Services	Env Variables	Routes	Logs	Delete App
RECENT LOGS  Tail Logs					
<p>2015-12-08T00:57:32.000+00:00 [CELL] OUT Successfully created container</p> <p>2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 php-fpm [08-Dec-2015 00:57:36] NOTICE: fpm is running, pid 31</p> <p>2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 php-fpm [08-Dec-2015 00:57:36] NOTICE: ready to handle connections</p> <p>2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd [Tue Dec 08 00:57:36.497003 2015] [mpm_event:notice] [pid 29:tid 140562639148864] AH00489: Apache/2.4.16 (Unix) configured -- resuming normal operations</p> <p>2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd [Tue Dec 08 00:57:36.497108 2015] [mpm_event:info] [pid 29:tid 140562639148864] AH00490: Server built: Jul 22 2015 20:20:52</p> <p>2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd [Tue Dec 08 00:57:36.497122 2015] [core:notice] [pid 29:tid 140562639148864] AH00094: Command line: '/app/httpd/bin/httpd -f /home/vcap/app/httpd/conf/httpd.conf -D FOREGROUND'</p> <p>2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 php-fpm [08-Dec-2015 00:57:36] NOTICE: fpm is running, pid 27</p> <p>2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 php-fpm [08-Dec-2015 00:57:36] NOTICE: ready to handle connections</p> <p>2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd [Tue Dec 08 00:57:36.514493 2015] [mpm_event:notice] [pid 26:tid 140164087265088] AH00489: Apache/2.4.16 (Unix) configured -- resuming normal operations</p> <p>2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd [Tue Dec 08 00:57:36.514655 2015] [mpm_event:info] [pid 26:tid 140164087265088] AH00490: Server built: Jul 22 2015 20:20:52</p> <p>2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd [Tue Dec 08 00:57:36.514716 2015] [core:notice] [pid 26:tid 140164087265088] AH00094: Command line: '/app/httpd/bin/httpd -f /home/vcap/app/httpd/conf/httpd.conf -D FOREGROUND'</p>					

Viewing Recent Logs For an App using the cf CLI

Use `cf logs <app_name> --recent`

```
my-php-app88 — bash — 66x10
greylag:my-php-app88 sbyrnes$ cf help logs
NAME:
  logs - Tail or show recent logs for an app

USAGE:
  cf logs APP_NAME

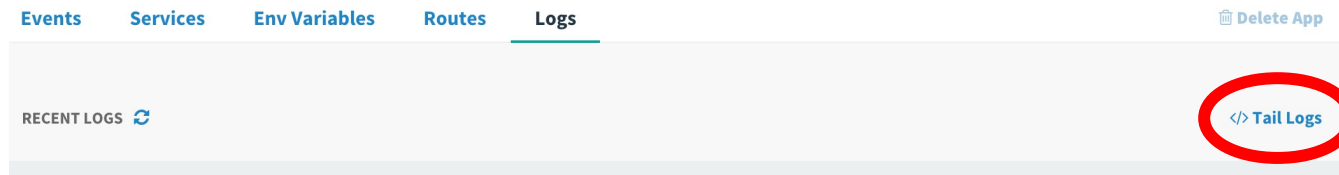
OPTIONS:
  --recent      Dump recent logs instead of tailing
greylag:my-php-app88 sbyrnes$
```

```
greylag:repos sbyrnes$ cf logs my-php-app88 --recent
Connected, dumping recent logs for app my-php-app88 in org sbyrnes-org / space development as sbyrnes@pivotal.io...

2015-12-22T13:14:36.13-0800 [CELL/0] OUT Creating container
2015-12-22T13:14:36.83-0800 [CELL/0] OUT Successfully created container
2015-12-22T13:14:40.13-0800 [APP/0] OUT 21:14:40 php-fpm | [22-Dec-2015 21:14:40] NOTICE: fpm is running, pid 27
2015-12-22T13:14:40.13-0800 [APP/0] OUT 21:14:40 php-fpm | [22-Dec-2015 21:14:40] NOTICE: ready to handle connections
2015-12-22T13:14:40.16-0800 [APP/0] OUT 21:14:40 httpd | [Tue Dec 22 21:14:40.153683 2015] [mpm_event:notice] [pid 25:
tid 140364163196736] AH00489: Apache/2.4.12 (Unix) configured -- resuming normal operations
2015-12-22T13:14:40.16-0800 [APP/0] OUT 21:14:40 httpd | [Tue Dec 22 21:14:40.153867 2015] [mpm_event:info] [pid 25:ti
d 140364163196736] AH00490: Server built: Mar 2 2015 15:50:48
2015-12-22T13:14:40.16-0800 [APP/0] OUT 21:14:40 httpd | [Tue Dec 22 21:14:40.153925 2015] [core:notice] [pid 25:tid 1
40364163196736] AH00094: Command line: '/home/vcap/app/httpd/bin/httpd -f /home/vcap/app/httpd/conf/httpd.conf -D FOREGROUND'
2015-12-22T13:14:40.28-0800 [HEALTH/0] OUT healthcheck passed
2015-12-22T13:14:40.28-0800 [HEALTH/0] OUT Exit status 0
2015-12-22T13:14:44.76-0800 [RTR/1] OUT my-php-app87.cfapps.io - [22/12/2015:21:14:44 +0000] "GET / HTTP/1.1" 200 0 185
"- "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_2) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/47.0.2526.80 Safari/537.36
" 10.10.2.247:23755 x_forwarded_for:"209.234.137.222" x_forwarded_proto:"http" vcap_request_id:f210e3a5-24c1-41ca-7edd-56d406
da2cf7 response_time:0.00228655 app_id:a4263c77-3ada-4030-9ae9-fa2d0e6c5579
2015-12-22T13:14:44.77-0800 [APP/0] OUT 21:14:44 httpd | 209.234.137.222 - - [22/Dec/2015:21:14:44 +0000] "GET / HTTP/
1.1" 200 185 vcap_request_id=f210e3a5-24c1-41ca-7edd-56d406da2cf7 peer_addr=10.10.16.16
2015-12-22T13:14:48.88-0800 [APP/0] OUT 21:14:48 httpd | [Tue Dec 22 21:14:48.853886 2015] [core:info] [pid 36:tid 140
364103026432] [client 209.234.137.222:37018] AH00128: File does not exist: /home/vcap/app/htdocs/favicon.ico, referer: http:/
/my-php-app87.cfapps.io/
2015-12-22T13:14:48.88-0800 [APP/0] OUT 21:14:48 httpd | 209.234.137.222 - - [22/Dec/2015:21:14:48 +0000] "GET /favico
n.ico HTTP/1.1" 404 209 vcap_request_id=0968141d-f21a-44ab-53e7-ce571fbb9020 peer_addr=10.10.80.16
2015-12-22T13:15:10.30-0800 [HEALTH/0] OUT healthcheck passed
2015-12-22T13:15:10.30-0800 [HEALTH/0] OUT Exit status 0
```

Tailing Logs for an App using Apps Manager (1 of 2)

Select your app, then Logs, then Tail Logs



A new window opens and waits for something to generate a log...



Tailing Logs for an App using Apps Manager (2 of 2)

- Do something like refreshing the browser app (of the application itself)
 - You see the GET request logged



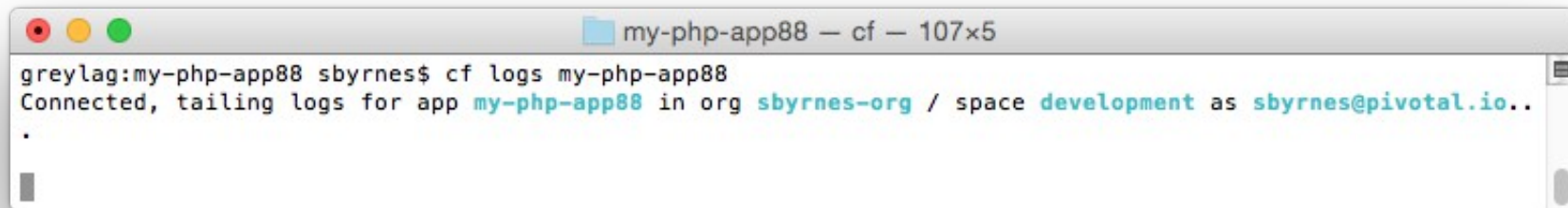
The screenshot shows a web browser window with the address bar displaying `https://console.run.pivotal.io/organizations/f50d6560-ae7d-45af-aff4-8...`. The main content area is titled "TAILING LOGS" and shows the breadcrumb path `sbyrnes-org > development > my-php-app89`. The logs are displayed in a dark-themed interface with the following content:

```
Wed Feb 03 2016 11:22:29 GMT-0800 (PST) [ ] OUT Starting websocket connection to:
wss://loggregator.run.pivotal.io:443/tail/?app=2fd91034-756b-4027-9ae4-2864463f065f
[ ] CONNECTED
Wed Feb 03 2016 11:22:45 GMT-0800 (PST) [RTR] OUT my-php-app89.cfapps.io - [03/02/2016:19:22:45 +0000]
"GET / HTTP/1.1" 200 0 214 "-" "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_3) AppleWebKit/537.36 (KHTML,
like Gecko) Chrome/48.0.2564.97 Safari/537.36" 10.10.2.73:31488 x_forwarded_for:"209.234.137.222"
x_forwarded_proto:"http" vcap_request_id:54bd5cd6-a95f-474e-75fc-5e2fc4e1b497 response_time:0.03449555
app_id:2fd91034-756b-4027-9ae4-2864463f065f
Wed Feb 03 2016 11:22:45 GMT-0800 (PST) [APP] OUT 19:22:45 httpd | 209.234.137.222 - -
[03/Feb/2016:19:22:45 +0000] "GET / HTTP/1.1" 200 214 vcap_request_id=54bd5cd6-a95f-474e-75fc-5e2fc4e1b497
peer_addr=10.10.16.25
Wed Feb 03 2016 11:22:47 GMT-0800 (PST) [HEALTH] OUT healthcheck passed
Wed Feb 03 2016 11:22:47 GMT-0800 (PST) [HEALTH] OUT Exit status 0
```

Tailing Logs for an App using the CLI (1 of 2)

Use `cf logs <app_name>`

- The terminal waits for something to generate a log event...



```
my-php-app88 — cf — 107x5
greylag:my-php-app88 sbyrnes$ cf logs my-php-app88
Connected, tailing logs for app my-php-app88 in org sbyrnes-org / space development as sbyrnes@pivotal.io..
.
```

Tailing Logs for an App using the CLI (2 of 2)

- Do something like refreshing the browser app (of the application itself)
 - You see the GET request logged
 - CTRL C to exit the tailing





A terminal window titled "my-php-app88 — bash — 107x10" showing log output. The first line indicates a connection to tail logs for app "my-php-app88" in org "sbyrnes-org" / space "development" as "sbyrnes@pivotal.io..". The log output shows a GET request from 10.10.2.122 to my-php-app88.cfapps.io. The second line shows the same request with additional details like response_time and app_id.

```
my-php-app88 — bash — 107x10
Connected, tailing logs for app my-php-app88 in org sbyrnes-org / space development as sbyrnes@pivotal.io..
.
2015-06-03T18:15:25.35-0700 [RTR/0]      OUT my-php-app88.cfapps.io - [04/06/2015:01:15:25 +0000] "GET / HTTP/1.1" 200 0 185 "-" "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_10_3) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/43.0.2357.81 Safari/537.36" 10.10.2.122:32160 x_forwarded_for:"209.234.137.222" vcap_request_id:0ab3b6bb-defb-4b3e-463e-81cf79da48ba response_time:0.004627076 app_id:a4263c77-3ada-4030-9ae9-fa2d0e6c5579
2015-06-03T18:15:25.37-0700 [App/1]      OUT 01:15:25 httpd | 209.234.137.222 - - [04/Jun/2015:01:15:25 +0000] "GET / HTTP/1.1" 200 185 vcap_request_id=0ab3b6bb-defb-4b3e-463e-81cf79da48ba peer_addr=10.10.16.15
^Cgreylog:my-php-app88 sbyrnes$
```

Viewing the Events for your App

In Apps Manager, select your app, then select Events

— Or in the cf CLI `cf events <my-app-name>`

Events	Services	Env Variables	Routes	Logs
RECENT EVENTS				
	scaled app instances to 2 sbyrnes@pivotal.io 06/04/2015 at 12:24 AM UTC			
	updated app sbyrnes@pivotal.io 06/03/2015 at 11:09 PM UTC			
	scaled app instances to 1 sbyrnes@pivotal.io 06/03/2015 at 11:09 PM UTC			
	started app sbyrnes@pivotal.io 06/03/2015 at 10:52 PM UTC			

Topics

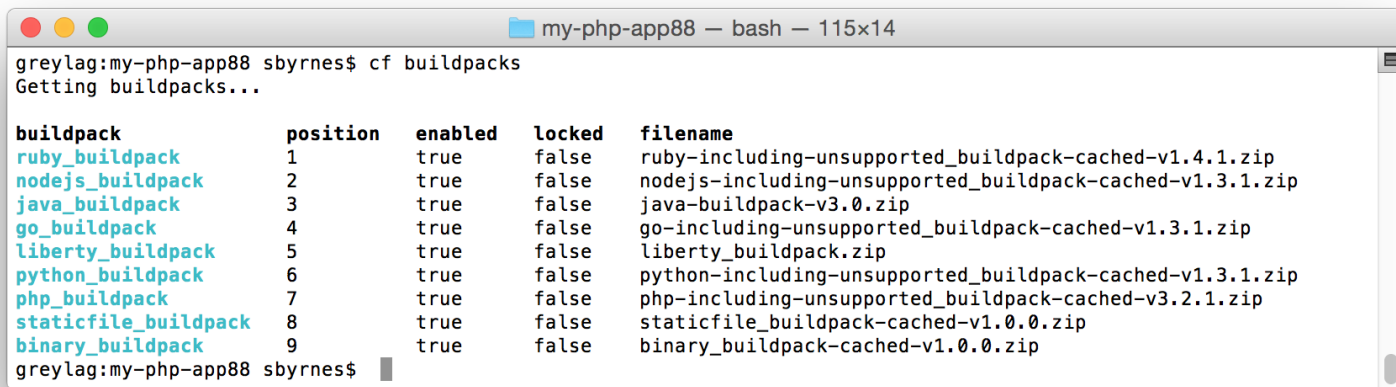
- Deploy a Simple Application
- Containers
- Application Logs and Events
- **Introduction to Buildpacks**

A Brief Look at Buildpacks

- When we deployed our simple PHP application, how did Cloud Foundry know what to do with the application?
- Buildpacks are used to detect the type of application and set up the proper execution environment
- For PHP, CF makes sure that PHP is installed on each container on which the app instance runs
- Buildpacks are used at *staging* time (during a **cf push** or **cf restage**)
 - They are not involved during the actual execution of the app

Viewing the Available Buildpacks

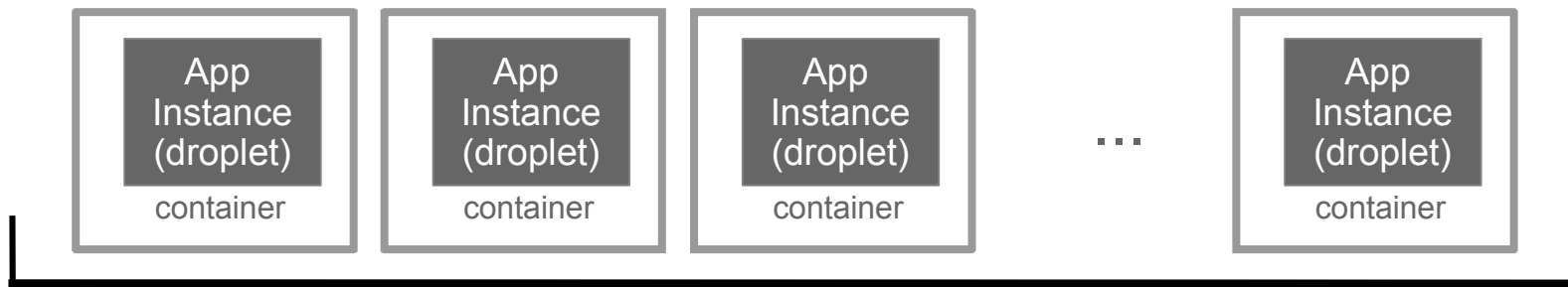
- Use `cf buildpacks` to view the system/installed buildpacks
- Buildpacks can be written for any language
- Cloud Foundry is language agnostic
- You can also specify a system or custom buildpack with `cf push -b`



```
greytag:my-php-app88 sbyrnes$ cf buildpacks
Getting buildpacks...

buildpack      position  enabled  locked  filename
ruby_buildpack 1         true    false   ruby-including-unsupported_buildpack-cached-v1.4.1.zip
nodejs_buildpack 2         true    false   nodejs-including-unsupported_buildpack-cached-v1.3.1.zip
java_buildpack 3         true    false   java-buildpack-v3.0.zip
go_buildpack 4         true    false   go-including-unsupported_buildpack-cached-v1.3.1.zip
liberty_buildpack 5         true    false   liberty_buildpack.zip
python_buildpack 6         true    false   python-including-unsupported_buildpack-cached-v1.3.1.zip
php_buildpack 7         true    false   php-including-unsupported_buildpack-cached-v3.2.1.zip
staticfile_buildpack 8         true    false   staticfile_buildpack-cached-v1.0.0.zip
binary_buildpack 9         true    false   binary_buildpack-cached-v1.0.0.zip
greytag:my-php-app88 sbyrnes$
```

Droplets and Cells/DEAs



Cell or DEA

- During staging, the buildpack combines the application's executable code with the necessary runtime files and creates a *droplet*
 - For example, a PHP droplet would contain a web server, PHP runtime and the application's code
- A virtual machine running containers with droplets is called a Cell or Droplet Execution Agent (DEA)

Cell and App Entries in the Logs

Notice the log entries related to Cells and app instances

Events

Services

Env Variables

Routes

Logs

Delete App

RECENT LOGS

[</> Tail Logs](#)

2015-12-08T00:57:32.000+00:00 [CELL] OUT Successfully created container

2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 php-fpm | [08-Dec-2015 00:57:36] NOTICE: fpm is running, pid 31

2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 php-fpm | [08-Dec-2015 00:57:36] NOTICE: ready to handle connections

2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd | [Tue Dec 08 00:57:36.497003 2015] [mpm_event:notice] [pid 29:tid 140562639148864] AH00489: Apache/2.4.16 (Unix) configured -- resuming normal operations

2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd | [Tue Dec 08 00:57:36.497108 2015] [mpm_event:info] [pid 29:tid 140562639148864] AH00490: Server built: Jul 22 2015 20:20:52

2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd | [Tue Dec 08 00:57:36.497122 2015] [core:notice] [pid 29:tid 140562639148864] AH00094: Command line: '/app/httpd/bin/httpd -f /home/vcap/app/httpd/conf/httpd.conf -D FOREGROUND'

2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 php-fpm | [08-Dec-2015 00:57:36] NOTICE: fpm is running, pid 27

2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 php-fpm | [08-Dec-2015 00:57:36] NOTICE: ready to handle connections

2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd | [Tue Dec 08 00:57:36.514493 2015] [mpm_event:notice] [pid 26:tid 140164087265088] AH00489: Apache/2.4.16 (Unix) configured -- resuming normal operations

2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd | [Tue Dec 08 00:57:36.514655 2015] [mpm_event:info] [pid 26:tid 140164087265088] AH00490: Server built: Jul 22 2015 20:20:52

2015-12-08T00:57:36.000+00:00 [APP] OUT 00:57:36 httpd | [Tue Dec 08 00:57:36.514716 2015] [core:notice] [pid 26:tid 140164087265088] AH00094: Command line: '/app/httpd/bin/httpd -f /home/vcap/app/httpd/conf/httpd.conf -D FOREGROUND'

Developer Perspective- The cf push Philosophy

Onsi Fakhouri (Pivotal engineering):

*Here is my source code
Run it on the cloud for me
I do not care how*



Haiku

Topics

- Deploy a Simple Application
- Containers
- Application Logs and Events
- Introduction to Buildpacks

Lab

Deploy a simple application, scale it
and view its logs