

# Application Performance Monitoring (APM) Integration

# Application Performance Monitoring (APM)



- APM is for real-time monitoring of applications
- Used to find and fix performance problems
  - An agent in the application container monitors down to the line of code
  - Can include client-side performance
- Examples:
  - New Relic
  - AppDynamics

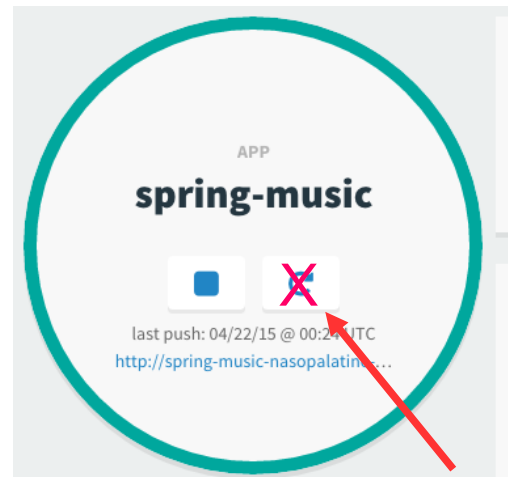
# Example- Pivotal Web Services and New Relic



- PWS offers a simple interface to New Relic
  - Available as a marketplace service
  - Tracks different instances of an application
- How to use:
  - Create a New Relic service instance in a space
  - Bind to the desired application(s)
  - Re-stage or push the application
    - PHP and Java buildpacks includes New Relic agent
    - For others, include the agent with the application
  - APM available as a link from within PWS

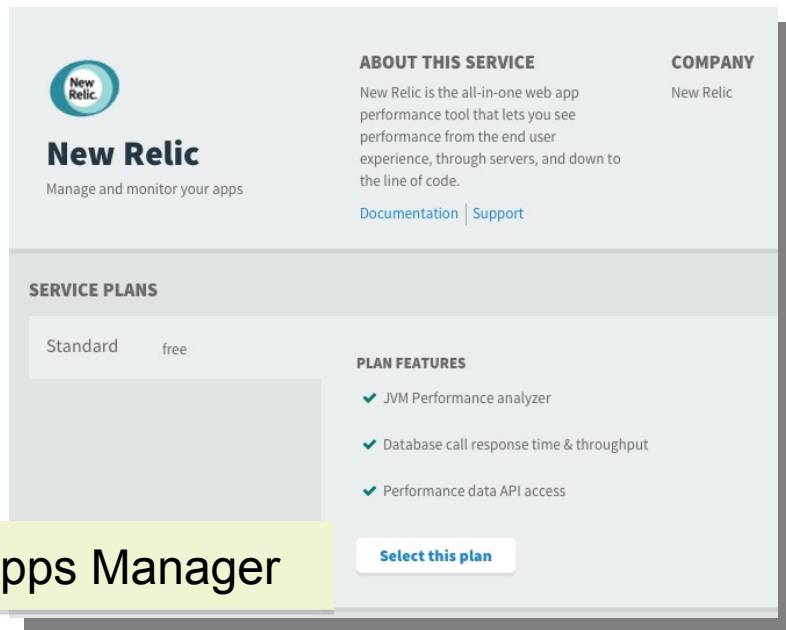
# Pushing, Staging, Restarting

- When you turn on APM for an existing application, the PHP and Java buildpacks add the agent when creating the droplet
- This means that restarting the application will not turn on APM
  - **cf push** uploads files and creates a droplet, optionally starts the app
  - **cf restage** creates a droplet
  - **cf restart** creates new app instances from the existing droplet- will not create a new droplet



restart uses the *existing* droplet

# Creating the New Relic Service Instance



The screenshot shows the New Relic service page in the Apps Manager. It includes the New Relic logo, a description of the service, and a list of service plans. The 'Standard' plan is highlighted, and its features are listed.

**New Relic**  
Manage and monitor your apps

**ABOUT THIS SERVICE**  
New Relic is the all-in-one web app performance tool that lets you see performance from the end user experience, through servers, and down to the line of code.  
[Documentation](#) | [Support](#)

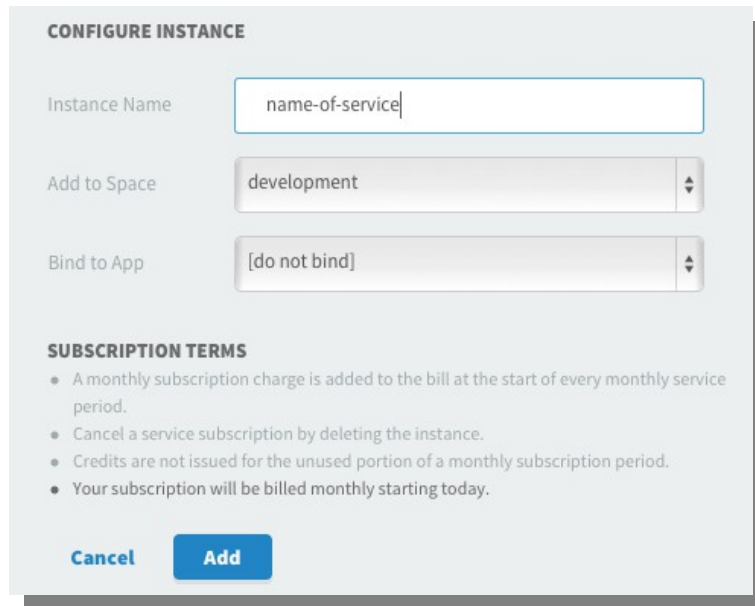
**COMPANY**  
New Relic

**SERVICE PLANS**

Standard	free
<b>PLAN FEATURES</b> <ul style="list-style-type: none"><li>✓ JVM Performance analyzer</li><li>✓ Database call response time &amp; throughput</li><li>✓ Performance data API access</li></ul>	

[Select this plan](#)

Apps Manager



The screenshot shows the 'CONFIGURE INSTANCE' page. It includes fields for Instance Name, Add to Space, and Bind to App. Below these are the subscription terms and buttons for Cancel and Add.

**CONFIGURE INSTANCE**

Instance Name:

Add to Space:

Bind to App:

**SUBSCRIPTION TERMS**

- A monthly subscription charge is added to the bill at the start of every monthly service period.
- Cancel a service subscription by deleting the instance.
- Credits are not issued for the unused portion of a monthly subscription period.
- Your subscription will be billed monthly starting today.

[Cancel](#) [Add](#)

cf CLI

```
>$ cf create-service newrelic standard apm
```

# Bind Service Instance to an Application

- Bind in Apps Manager when creating the service instance or from the Services tab for the application
- Use the cf CLI

**CONFIGURE INSTANCE**

Instance Name

Add to Space

Bind to App

**SUBSCRIPTION TERMS**

- A monthly subscription charge is added to the bill at the start of every monthly service period.
- Cancel a service subscription by deleting the instance.
- Credits are not issued for the unused portion of a monthly subscription period.
- Your subscription will be billed monthly starting today.

[Cancel](#) [Add](#)

**Events** **Services** **Env Variables** **Routes** **Logs**

**BOUND SERVICES** [+ Bind a Service](#)

No services bound to this app

```
>$ cf bind-service your-app apm
```

# Access Data for the Service Instance via the *Manage* Link in Apps Manager

The image shows a screenshot of the New Relic interface. At the top, a navigation bar for 'my-apm' includes links for 'Manage', 'Documentation', 'Support', and 'Delete'. The 'Manage' link is circled in red, with an arrow pointing to the 'Monitoring' tab in the main dashboard. The dashboard displays the 'Web transactions response time' graph for the 'cf-session-demo' application. The graph shows a sharp peak in response time at 11:20, reaching 250 ms. The current response time is 13 ms. The dashboard also includes a sidebar with navigation options like Applications, Browser, Transactions, Mobile, Servers, Dashboards, Plugins, and Tools.

my-apm New Relic Standard 1

Manage | Documentation | Support | Delete

New Relic. Try New Relic INSIGHTS

Applications cf-session-demo Monitoring Events Reports Settings

Browser Transactions Mobile Servers Dashboards Plugins Tools

Overview Map Transactions External services JVMs

Web transactions response time 13 ms App server

250 ms 200 ms 150 ms 100 ms 50 ms 0 ms

11:00 11:05 11:10 11:15 11:20

# Lab

## Configuring APM with Cloud Foundry