SpringOne Platform

Java Buildpack Developer Enhancements

Ben Hale

@nebhale

Pivotal

Cloud Foundry – The Best Place to Run Java

- Over the last couple of years, the team has pushed very hard to be the best place to run Java applications

- These efforts have focused on production workloads

- 8 JVM application types

- 5 Application Performance Monitor providers

- Hardware Security Modules

Production is Not Development

- The focus on production is because the experience of developing inside a container isn't great

- However, there are times when you just *need* to see what's going on inside the container

- The core ideas isolation and immutable infrastructure are at odds with container access

JMX, Debugging, and Profiling

- Cloud Foundry provides first-class support for JMX, Debugging, and the YourKit Profiler

- Based on the new(-ish) Cloud Foundry SSH container access

- Requires Pivotal Cloud Foundry 1.6+, Java Buildpack 3.4+

SSH Container Access

JMX

- Supports JConsole or VisualVM

- Configuration
  - Enabled/Disabled
  - Port

JMX

```
$ cf set-env java-main-application JBP_CONFIG_JMX \
  '{enabled: true}'
...
$ cf restage java-main-application
...
$ cf ssh -N -T -L 5000:localhost:5000 java-main-
application
```

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JMX

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Debug

- Supports all IDE debuggers

- Configuration
  - Enabled/Disabled
  - Port
  - Suspend on Start

Debug

```
$ cf set-env java-main-application JBP_CONFIG_DEBUG \
  '{enabled: true}'
...
$ cf restage java-main-application
...
$ cf ssh -N -T -L 8000:localhost:8000 java-main-
application
```

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Debug

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YourKit Profiler

- Supports many versions of the YourKit Profiler
  - If you have prefer something else, let me know
- Configuration
  - Session Name
  - Enabled/Disabled
  - Port
  - Version

YourKit Profiler

```
$ cf set-env java-main-application JBP_CONFIG_YOUR_KIT_PROFILER \
  '{enabled: true}'
...
$ cf restage java-main-application
...
$ cf ssh -N -T -L 10001:localhost:10001 java-main-application
```

YourKit Profiler

Developer Enhancements

- Based on Cloud Foundry SSH access

- Currently comprised of JMX, Debug, and the YourKit Profiler

- We're not done yet

- Let us know what tools you'd like to use in Cloud Foundry

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Learn More. Stay Connected.

https://github.com/nebhale/java-buildpack