# PCF Dev Overview

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This guide describes ho w to install and use PCF Dev, a lightweight Pivotal Cloud Foundry (PCF) installation that runs on a single virtual machine (VM) on your workstation. PCF Dev is intended for application developers who want to develop and debug their applications locally on a PCF deployment.

PCF Dev includes Pivotal Elastic Runtime, Redis, RabbitMQ, and MySQL. It also supports all Cloud Foundry Command Line Interface (cf CLI) functionality. See the Comparing PCF Dev to Pivotal Cloud Foundry table below for more product details.

## Prerequisites

- VirtualBox: 5.0+ : PCF Dev uses VirtualBox as its virtualizer.
- The latest version of the cf CLI : Use the cf CLI to push and scale apps.
- You must have an Internet connection for DNS. See Using PCF Dev Offline if you do not have an Internet connection.
- At least 3 GB of available memory on your host machine. Pivotal recommends running on a host system with at least 8 GB of total RAM.

## Installing PCF Dev

- Installing PCF Dev on Mac OS X
- Installing PCF Dev on Linux
- Installing PCF Dev on Microsoft Windows

## Configuring and Using PCF Dev

- Configuring PCF Dev
- Using PCF Dev
- Using Services in PCF Dev
- Using Spring Cloud Services in PCF Dev
- Using PCF Dev Behind a Proxy
- Using PCF Dev Offline
- PCF Dev on AWS
- Frequently Asked Questions

## Comparing PCF Dev to Pivotal Cloud Foundry

PCF Dev mirrors PCF in its key product offerings. If an application runs on PCF Dev, it runs on PCF with no modification in almost all cases. Review the table below for key product details.

| | PCF Dev | PCF | CF |
|---|---|---|---|
| Space required | 20 GB | 100GB+ | 50GB+ |
| Memory required | 3 GB | 50GB+ | variable |
| Deployment | `cf dev start` | Ops Manager | `bosh deploy` |
| Estimated time-to-deploy | 10 Minutes | Hour+ | Hour+ |

| | PCF Dev | PCF | CF |
|---|---|---|---|
| Out-of-the-Box Services | Redis<br>MySQL<br>RabbitMQ | Redis<br>MySQL<br>RabbitMQ<br>GemFire | N/A |
| Elastic Runtime | ✓ | ✓ | ✓ |
| Logging/Metrics | ✓ | ✓ | ✓ |
| Routing | ✓ | ✓ | ✓ |
| Compatible with CF CLI | ✓ | ✓ | ✓ |
| Deploy apps with any supported buildpack | ✓ | ✓ | ✓ |
| Supports Multi-Tenancy | ✓ | ✓ | ✓ |
| Diego Support | ✓ | ✓ | ✓ |
| Docker Support | ✓ | ✓ | ✓ |
| User-Provided Services | ✓ | ✓ | ✓ |
| High Availability | | ✓ | ✓ |
| Integration with 3rd party Authorization | | ✓ | ✓ |
| Bosh Director<br>(i.e., can perform additional BOSH deployments) | | ✓ | ✓ |
| Day Two Lifecycle Operations<br>(e.g., rolling upgrades, security patches) | | ✓ | ✓ |
| Ops Manager | | ✓ | |
| Apps Manager | ✓ | ✓ | |
| Tile Support | | ✓ | |
| Developers have root-level access across cluster | ✓ | | |
| Pre-provisioned | ✓ | | |
| Does not depend on BOSH | ✓ | | |