Dev/Stage/Prod Parity with Vagrant

DITCH /(WIMIX)AMP(P)?/ AND NEVER LOOK BACK!

Mike Bybee, Web Developer

Parallel Public Works









Who am I?

- Web Developer, Parallel Public Works
 - http://parallelpublicworks.com
- Dual background: IT/WebDev
 - Yay DevOps!
- Linux enthusiast since late 90's





Who are We?



- Servicing public sector (mostly), with Drupal (mostly)
 - Making government digital services more efficient and affordable
- •Event-based Crowdfunding platform:
 - http://www.canopygiving.com/





realnetworks.



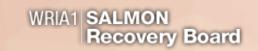
UNIVERSITY of WASHINGTON

















W4 (What's Wrong With WAMP)?

- Configuration mismatch
- Software version mismatch
- Missing performance enhancements
- Applies to MAMP, XAMPP, and other local AMP stacks as well



Why Vagrant?

- Cross-platform
- Nearly everything can be scripted
- Not a permanent resident (hence the name)
- Useful plugins
- •What about Docker?
 - Still needs VM to run on Mac/Windows
 - Usually Virtualbox (e.g. Kitematic)



Why Vagrant: Cross Platform

- Linux
- Mac
- •Windows*

*Additional/alternate configuration may be required



Why Vagrant: Scripting

- Multiple Provisioners available
 - Chef
 - Puppet
 - Ansible
 - BASH (including one-off, "inline" commands)
- Vagrantfile is a simple Ruby script
 - Configuration can be broken out into JSON files
 - Good for sensitive info



Why Vagrant: Not Permanent

- Disposable: "vagrant destroy" command
- Everything in synced folders is preserved
- Provisioner scripts preserve configuration



Why Vagrant: Plugins

- Cachier ("vagrant plugin install vagrant-cachier")
 - Caches deb, rpm, npm, Ruby Gems, Composer, etc. packages
- HostsUpdater ("vagrant plugin install vagrant-hostsupdater")
 - Adds specified domains to HOST machine's hosts file on "vagrant up", "vagrant reload".
 - Deletes on "vagrant halt", "vagrant suspend", "vagrant destroy" commands
- Many more...



Where can I use Vagrant?

- Hypervisors
- Containers
- Cloud
- •Even bare metal (once OS installed, not as useful)
- Plugins called "Providers"



Where Vagrant: Hypervisors

- Virtualbox (Linux, Windows, Mac—default provider)
- •(paid plugin) VMWare Desktop (Win), Fusion (Mac)
- (open source) VMWare Vsphere
- Hyper-V (Windows Server and desktop)
- Parallels (Mac)
- KVM, Xen (Linux)



Where Vagrant: Containers

- Linux-only
 - Mac containers on the way?
- •LXC
- Docker
 - Still requires Dockerfile configuration in addition to Vagrantfile



Where Vagrant: Cloud

- AWS
- Google
- Rackspace
- DigitalOcean
- Vultr
 - Cheap, unmanaged, KVM-based VPS, like DO



Vagrant Tips

- Store sensitive configuration details in JSON files
- Store critical synced folders outside of Vagrant box root folder
 - e.g. "../www" instead of "./www" for webroot
- Sync sites/default folder separately from webroot
 - (combined in guest VM when Vagrant syncs)
- Save commonly-used variables in Vagrantfile or external JSON
 - Can be passed to provisioner scripts as command switch



Thank You!!!

Project at https://github.com/stereoplegic/Drupal-DevStageDrop
Connect with me at http://mikebybee.com or by clicking the links below!

