

Top 8 considerations for choosing a local development environment



Not a Demo



What questions should I ask of local environments as a tech lead?



In case you have to go:

Got skillz? Use Lando (or BLT)

Windows 10 pro or not at all

It's still "easier" to use an installed native stack

Team leads need composability!!!!

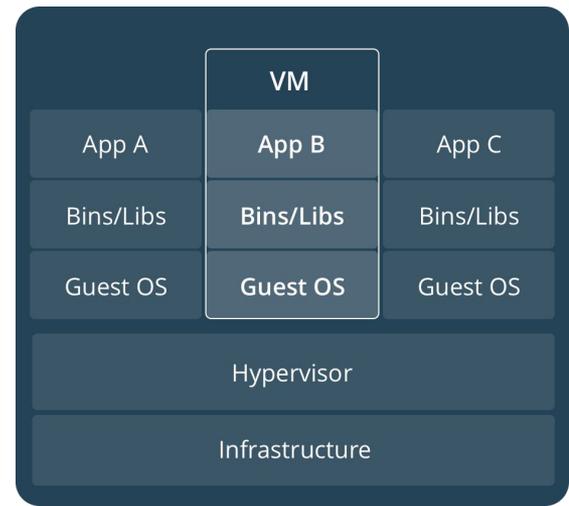
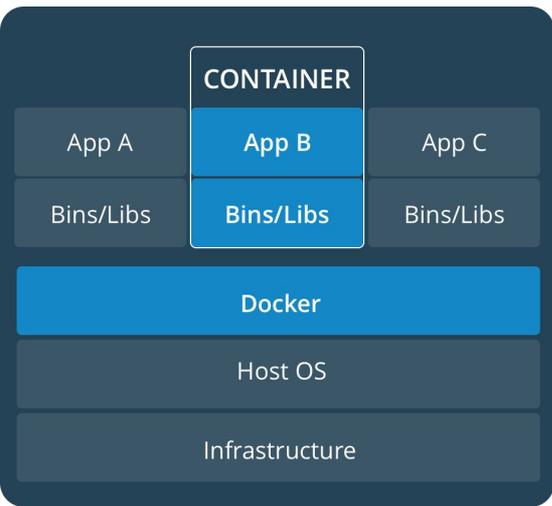
Agenda

1. **Architecture: Native Stack vs Native DYI vs VM vs Docker vs Docker+**
2. **CLI support**
3. **Composability of environments and configurability of tests**
4. **Support for other languages**
5. **Toolset vs application**
6. **Open-Sourciness**
7. **Implications of popularity**
8. **Options for commercial support**
9. **Current Solutions and approaches**

Architectures

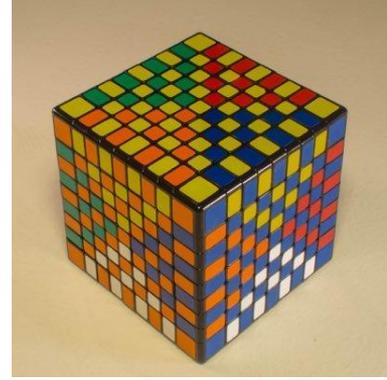
	Docker	Docker +	Native Stack	Native DIY	VM
Tools	Docker docker4drupal	Lando DDev	MAMP Acquia Dev Desktop	Linux Mac with Brew Windows with pain	DrupalVM VirtualBox VB + Vagrant

Docker is the ubiquitous installer for OSS



Docker Issues:

- “Getting in to that machine to do a task”
- Running CLI
- Running Builds
- Running Tests
- File system performance
- File system permissions



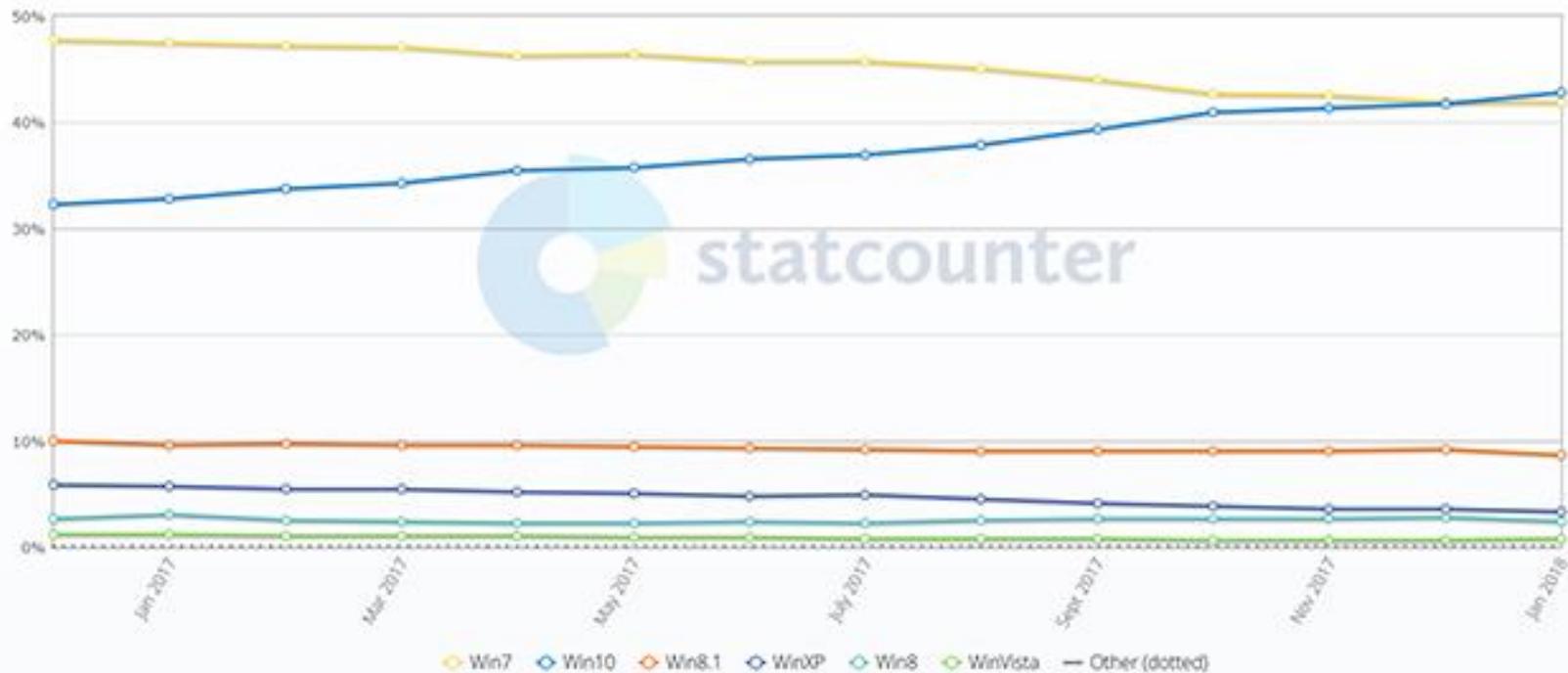
Docker Issues:

- Docker for Windows requires Windows 10 Pro (not home)
- Docker Toolbox is Legacy (blerg)

Windows

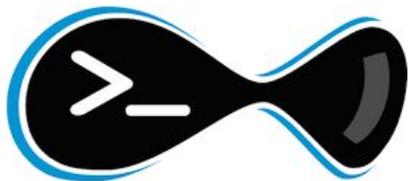


Desktop Windows Version Market Share Worldwide
Dec 2016 - Jan 2018



CLI Tools

More than ever, a Drupal developer can benefit from CLI tools:



behat



RoboTask

CLI Tools

- **Drush 9 & Drupal Console:** Snapshot, export config, generate code, run operations on sites
- **Composer:** PHP package management
- **PHPUnit:** Unit Testing for PHP - *can lead to TDD*
- **Behat:** Behavioural Testing for PHP - *can lead to BDD*
- **Phing / Robo:** Build tools
- **NPM:** Javascript package management
- **Gulp / Grunt:** Javascript minification, compilation, unit testing, and linting
- **BLT:** Built, Launch, Test

Feature	Docker	Docker +	Native Stack	DYI Native	VM
Ease of CLI Tool Execution					

Environment configuration and Testing

- How long does it take for a developer to be on-boarded?
Can that developer be fully productive? (IDEs are critical for D8)
- Can I match versions of services with the ones run in my production cloud?
- Can I write my configurations in code, commit them to git and have all team members upload them?

Composability

Lando

```
1 # Drupal 8 recipe
2 name: d8
3
4 # Start with the default Drupal 8 recipe
5 recipe: drupal8
6
7 # Configure the Drupal8 recipe
8 config:
9
10 # See: https://www.drupal.org/docs/7/system-requirements
11
12 # Optionally specify the php version to use.
13 #
14 # If omitted this will default to the latest php version supported by Drupal 8.
15 # Consult the `php` service to see what versions are available. Note that all
16 # such versions may not be supported in Drupal 8s so YMMV.
17 #
18 # See: https://www.drupal.org/docs/7/system-requirements/php
19 #
20 # NOTE: that this needs to be wrapped in quotes so that it is a string
21 #
22 php: '7.1'
23
```

Vagrant

```
38
39 # Verify version requirements.
40 require_ansible_version ">=" #{vconfig['drupalvm_ansiible_version_min']}
41 Vagrant.require_version ">=" #{vconfig['drupalvm_vagrant_version_min']}
42
43 ensure_plugins(vconfig['vagrant_plugins'])
44
45 Vagrant.configure('2') do |config|
46 # Set the name of the VM. See: http://stackoverflow.com/a/17864388/100134
47 config.vm.define vconfig['vagrant_machine_name']
48
49 # Networking configuration.
50 config.vm.hostname = vconfig['vagrant_hostname']
51 config.vm.network :private_network,
52 ip: vconfig['vagrant_ip'],
53 auto_network: vconfig['vagrant_ip'] == '0.0.0.0' && Vagrant.has_plugin?('vagrant-auto_network')
54
55 unless vconfig['vagrant_public_ip'].empty?
56 config.vm.network :public_network,
57 ip: vconfig['vagrant_public_ip'] != '0.0.0.0' ? vconfig['vagrant_public_ip'] : nil
58 end
59
60 # SSH options.
61 config.ssh.insert_key = false

```

Environment configuration and Testing

- Do care about testing? Is it important for an everyday dev to run tests?
- How valid are my local tests?
- Can I integrate with my build/test pipeline?



Feature	Docker	Docker +	Native Stack	DYI Native	VM
Config & Testing					

Support for things other than Drupal

- What if you have a backend service that Drupal relies on?
- What if you want to run an Angular front end?

Support for things other than Drupal

- What protections do I have against dependency conflicts?
- How will I update the software?
- Can I snapshot state?
- Can I bring up other services quickly?
- How easy are they to install?
- How do I configure versions?

Feature	Docker	Docker +	Native Stack	DYI Native	VM
Support for other software					

What's in the box?

- UI?
- Installer?
- Synchronisation?
- Tools?

Feature	Docker	Docker +	Native Stack	DYI Native	VM
OOTB		 Late Game	 Early On		

It Depends!

Open-Source-iness

- Can I extend it?
- Can I contribute?
- Will it be tied to a cloud vendor?
- Will it persist?

Feature	Docker	Docker +	Native Stack	DYI Native	VM
OOSiness					

Popularity

- Can I extend it?
- Will it persist?

Popularity

- Github stars
- Downloads
- Drupal.org
- ~~Twitter~~
- ~~Blogs~~

Commercial Support

- May be important for compliance / security / etc
- Custom agreements can be made with open source developers

Local Development Comparison by Role

Feature	Docker	Docker +	Native Stack	DYI Native	VM
Sys Admin					
Developer					
Site Builder					
Developer Team Lead					

END