# Vagrant
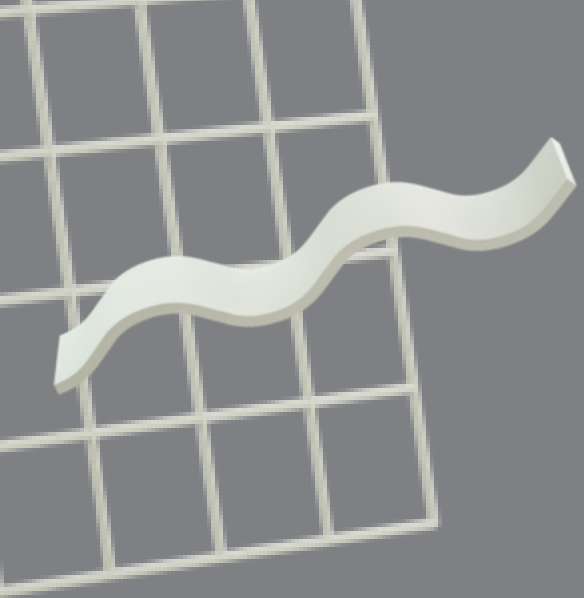
A complex technology simplified

# Agenda

- What is Vagrant
- Why do we need Vagrant
- Installing Vagrant
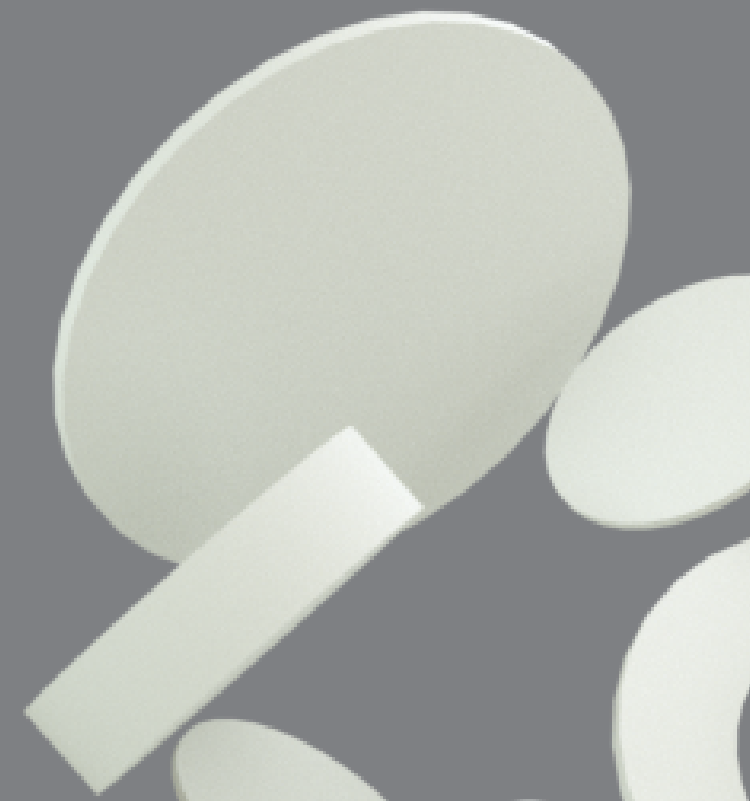- Some important commands
- Vagrant Networking
- Shared folders

# What is Vagrant

Vagrant is a tool for building complete development environments, sandboxed in a virtual machine.

Vagrant lowers development environment setup time, increases development /production parity,and brings the idea of disposable compute resources down to the desktop.

# Why Vagrant

. Creates a virtual machine for you based on an operating system of your choice.
• Modifies the physical properties of this virtual machine (e.g., RAM, number of CPUs, etc.).
• Establishes network interfaces so that you can access your virtual machine from your own computer, another device on the same network, or even from another virtual machine.
• Sets up shared folders so that you can continue editing files on your own machine and have those modifications mirror over to the guest machine.
• Boots the virtual machine so that it is running.
• Sets the hostname of the machine, since a lot of software depends on this being properly set.
• Provisions software on the machine via a shell script or configuration management solution such as Chef, Puppet, or a custom solution.

# Installation

**Installing Vagrant**
**• Download Oracle VM VirtualBox and VirtualBox Extension Pack**
**https://www.virtualbox.org/wiki/Downloads**
**• Download Vagrant**
**https://www.vagrantup.com/downloads.html**
**• Download GIT/GIT Bash**
**https://git-scm.com/download/win**

# Vagrant Terminology

**Vagrant base box** - a stored VirtualBox machine packaged into a single file. Think of this as the template for your Vagrant box.

**Vagrant box** - an instance of a VirtualBox VM that has been provisioned and started using

**Provision** - the configuration step that comes after the Vagrant box loads.

**Vagrantfile** - a single file that defines what a particular Vagrant box is, including the base box, network settings, and provisioning.

# Vagrant Command

- **vagrant -version** - Display version of Vagrant installed
- **vagrant box add** - Add a new base box
- **vagrant box list** - List all the boxes
- **vagrant box remove**- List all the boxes
- **vagrant init** - initialize a new vagrant box in the current directory
- **vagrant up** - start an existing vagrant environment (box) and provision it
- **vagrant ssh** - shell into a running vagrant box
- **vagrant halt** - stop a running vagrant box (shut down the computer)
- **vagrant reload** - restartes a virtual machine
- **vagrant suspend** -- Suspends a virtual machine (remembers state)
- **vagrant resume** -- Resume a suspended machine (vagrant up works just
- fine for this as well)
- **vagrant destroy** - completely destroy a vagrant box (delete all the things).
- **vagrant global-status** - display the status of the all the vagrant boxes
- **vagrant box outdated** -checks for updates for vagrant boxes
- **vagrant box update**-updates the vagrant boxes

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