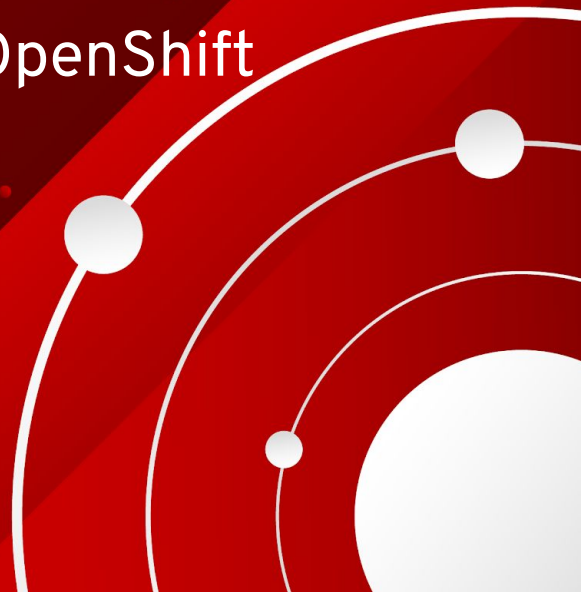




DevSecOps with disconnected Red Hat OpenShift

Improving mission agility for the US Air Force

5/9/18





Cameron Wyatt
Architect



Chris Grimm
Architect



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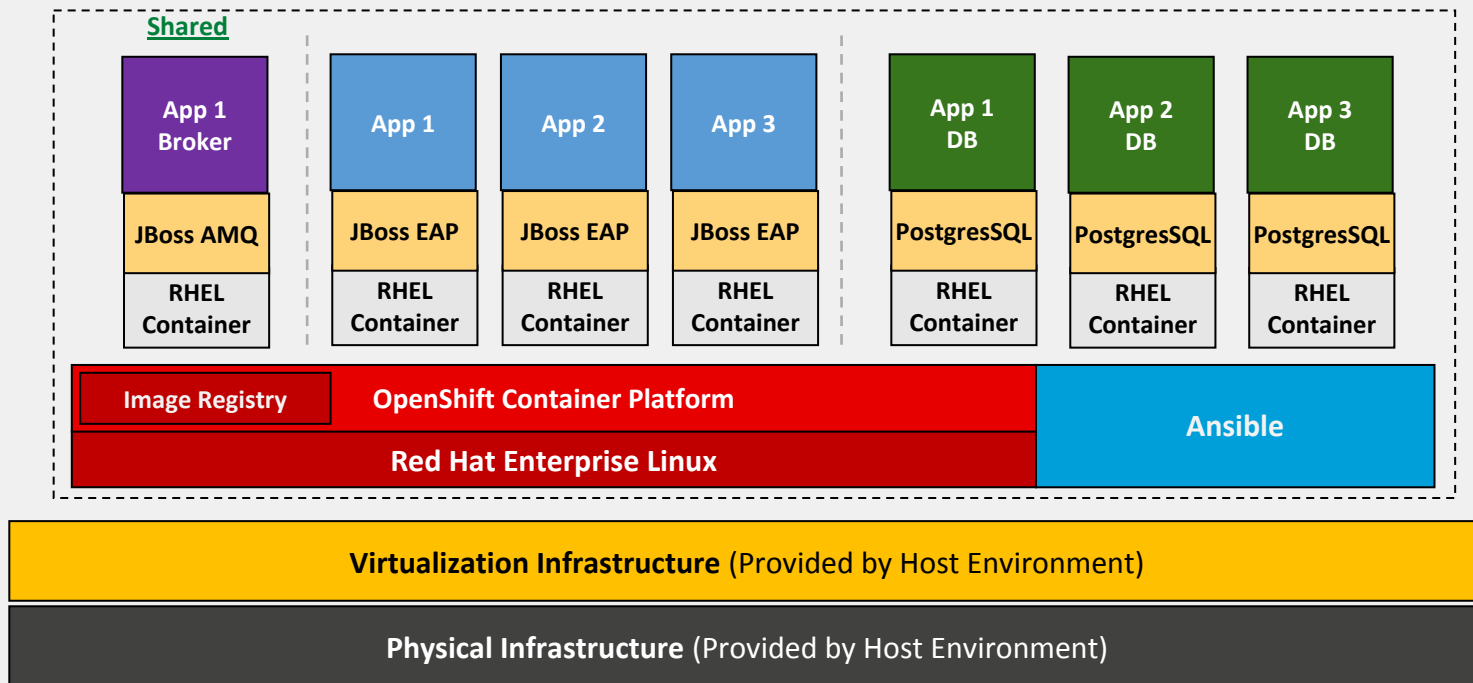


Stuart Bain
Security Architect

Installer Primary Capabilities

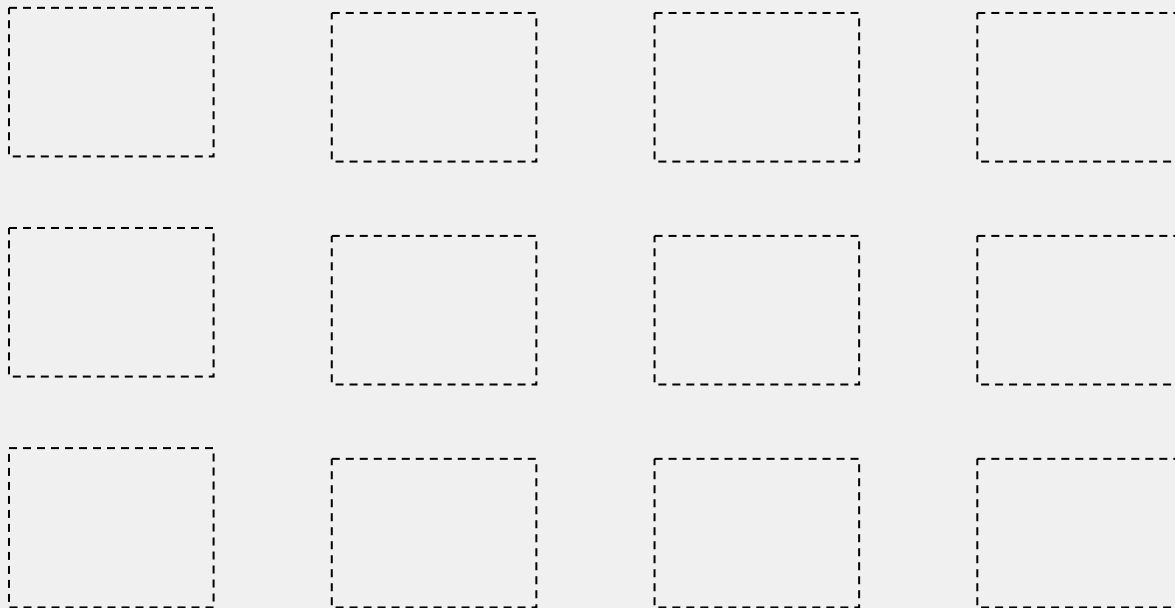
- Automated Installation & Configuration Management
- Disconnected Environment on physical DVD Media (DVD)
- Standardized Application Deployment Concepts
- Security Lockdowns / Automated IA Controls & STIGs

Architecture Logical Overview



Installation Process

Provision Servers



Blank VMs or bare metal blades are created by the site administrator per system requirements

Installation Process

Automated installation of JumpHost



```
Red Hat      JumpHost 0.6.1.0+20180413-11-52-21

Install      JumpHost (Text)
Install      JumpHost (GUI)
Kickstart    VM Prompt

Troubleshooting
Boot from local drive

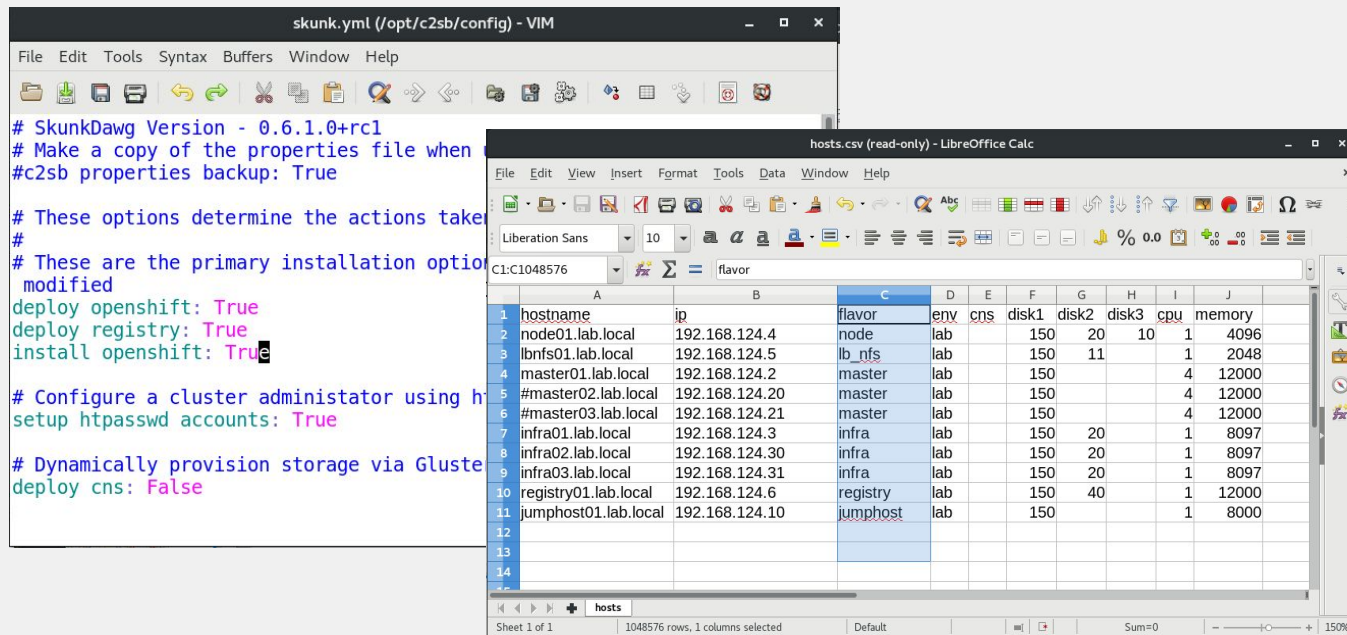
>

This option will install a JumpHost using the GUI
Please follow the Runbook
```

Delivered as a single DVD that includes an automated RHEL kickstart installation and disconnected media for OCP, Ansible, JBoss, Postgres, etc.

Installation Process

Configuration Files



The image displays two application windows side-by-side. The left window is a VIM editor showing the contents of a file named `skunk.yml` located at `/opt/c2sb/config`. The file contains configuration parameters for SkunkDaw, including version, backup settings, deployment options, and cluster administrator setup. The right window is a LibreOffice Calc spreadsheet showing a `hosts.csv` file. The spreadsheet contains a table with 11 columns: `hostname`, `ip`, `flavor`, `env`, `cns`, `disk1`, `disk2`, `disk3`, `cpu`, and `memory`. The data rows list various server hosts and their configurations.

```
# SkunkDaw Version - 0.6.1.0+rc1
# Make a copy of the properties file when
#c2sb properties backup: True

# These options determine the actions taken
#
# These are the primary installation options
modified
deploy openshift: True
deploy registry: True
install openshift: True

# Configure a cluster administrator using helm
setup httpasswd accounts: True

# Dynamically provision storage via GlusterFS
deploy cns: False
```

	A	B	C	D	E	F	G	H	I	J
1	hostname	ip	flavor	env	cns	disk1	disk2	disk3	cpu	memory
2	node01.lab.local	192.168.124.4	node	lab		150	20	10	1	4096
3	lbns01.lab.local	192.168.124.5	lb_nfs	lab		150	11		1	2048
4	master01.lab.local	192.168.124.2	master	lab		150			4	12000
5	#master02.lab.local	192.168.124.20	master	lab		150			4	12000
6	#master03.lab.local	192.168.124.21	master	lab		150			4	12000
7	infra01.lab.local	192.168.124.3	infra	lab		150	20		1	8097
8	infra02.lab.local	192.168.124.30	infra	lab		150	20		1	8097
9	infra03.lab.local	192.168.124.31	infra	lab		150	20		1	8097
10	registry01.lab.local	192.168.124.6	registry	lab		150	40		1	12000
11	jump01.lab.local	192.168.124.10	jump01	lab		150			1	8000
12										
13										
14										

A series of YAML files that define various parameters. Also, the server host inventory is defined in a CSV file.

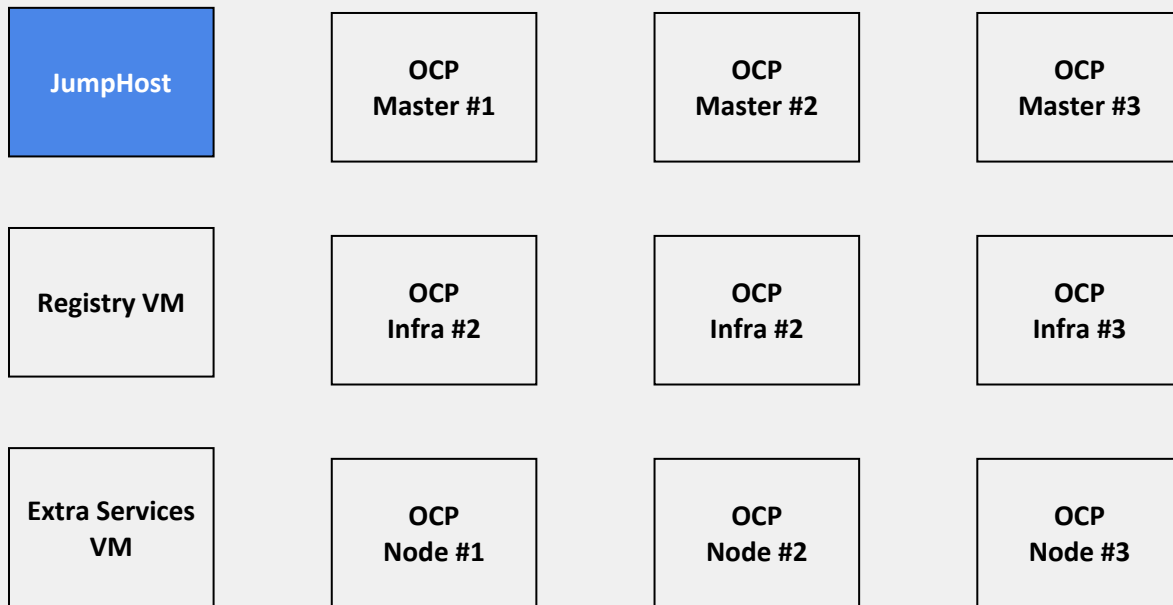
Installation Process

Execute the `skunk configure` command

```
Warning: Permanently added 'jumphost01.lab.local,192.168.124.10' (ECDSA) to the  
list of known hosts.
```

Installation Process

Kickstart Servers



Each VM is then installed using a kickstart script, these can be installed using PXE boot.

Installation Process

Execute the `skunk install` command

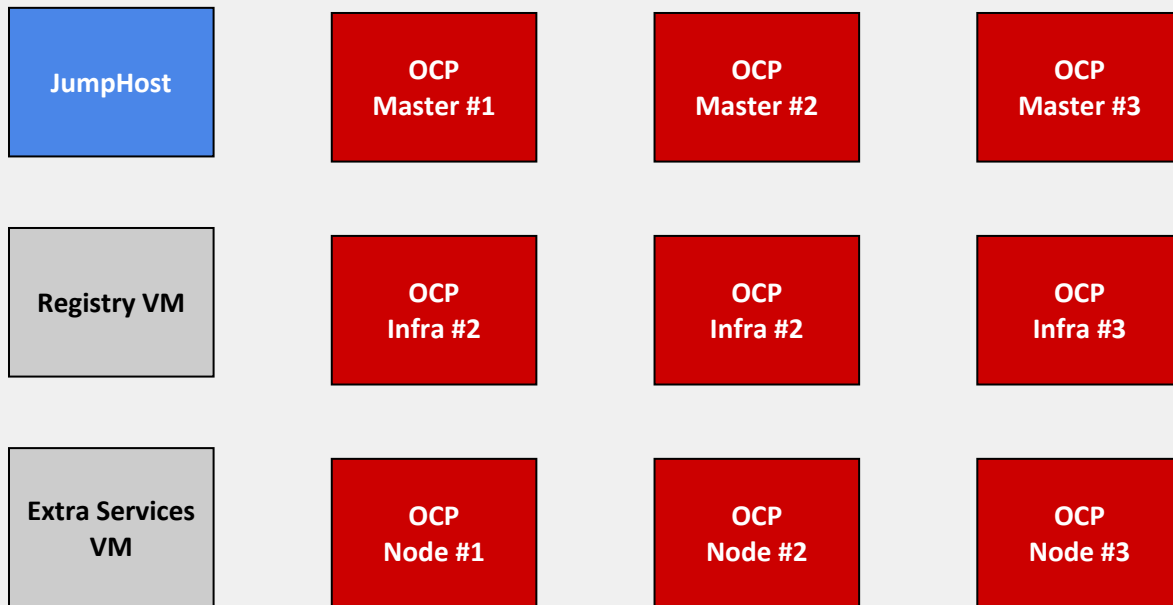
```
Warning: Permanently added 'jumphost01.lab.local,192.168.124.10' (ECDSA) to the  
Last login: Mon Apr 23 16:41:38 2018 from gateway
```

```
Skunk Dawg Release 0.6.1.0+20180413-11-52-21
```

```
|
```

Installation Process

Provision Servers



The stack is now fully deployed ready for the client applications.

RED HAT
SUMMIT

THANK YOU



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