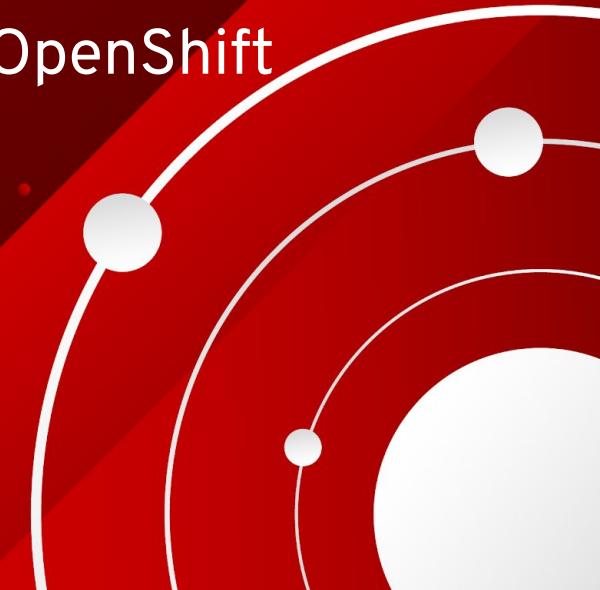


DevSecOps with disconnected Red Hat OpenShift

Improving mission agility for the US Air Force

5/9/18





Cameron Wyatt
Architect



Chris Grimm
Architect



Jeremy Sontag
DOD Sales Manager



Mike Battles
Senior Architect

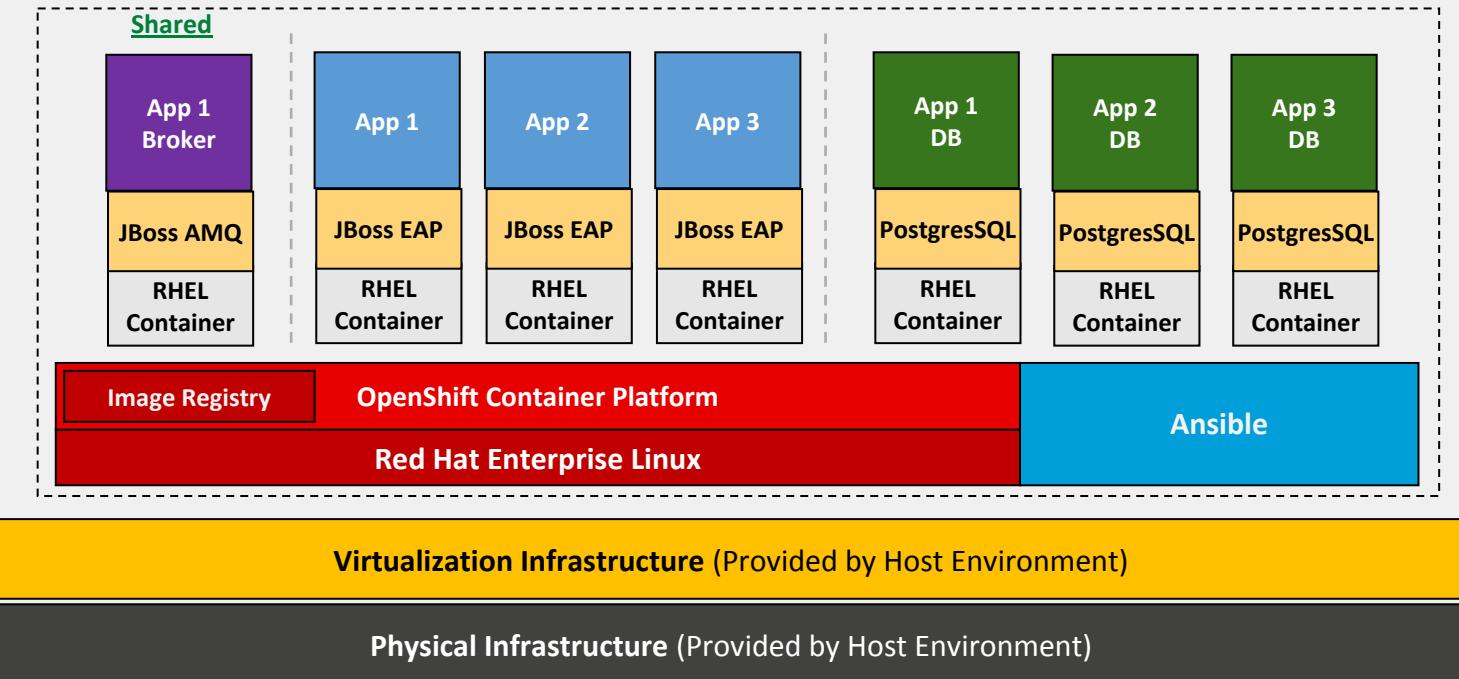


Stuart Bain
Security Architect

Installer Primary Capabilities

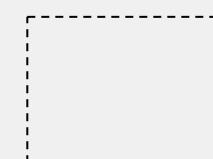
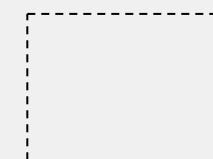
- Automated Installation & Configuration Management
- Disconnected Environment on physical DVD Media (DVD)
- Standardized Application Deployment Concepts
- Security Lockdowns / Automated IA Controls & STIGs

Architecture Logical Overview



Installation Process

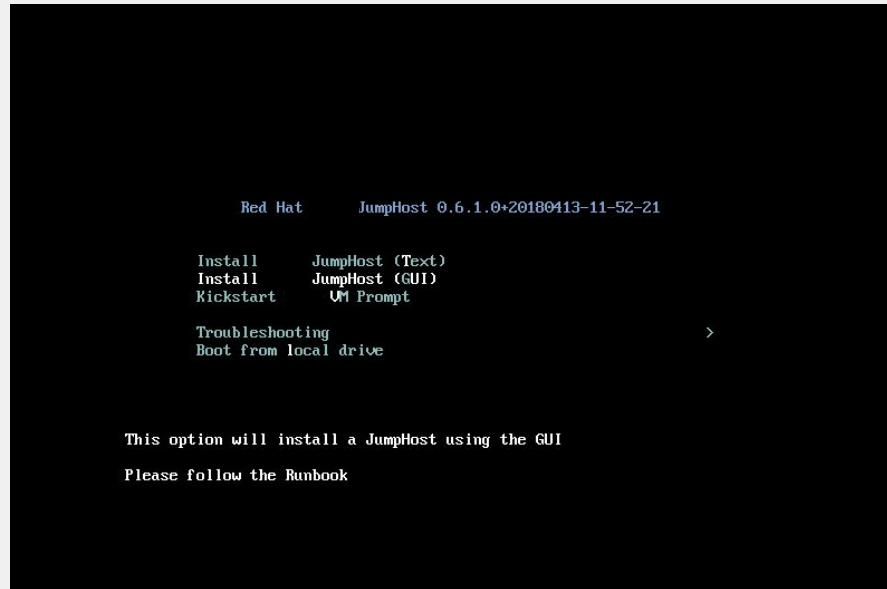
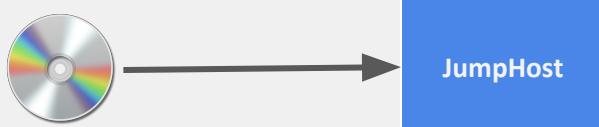
Provision Servers



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

Installation Process

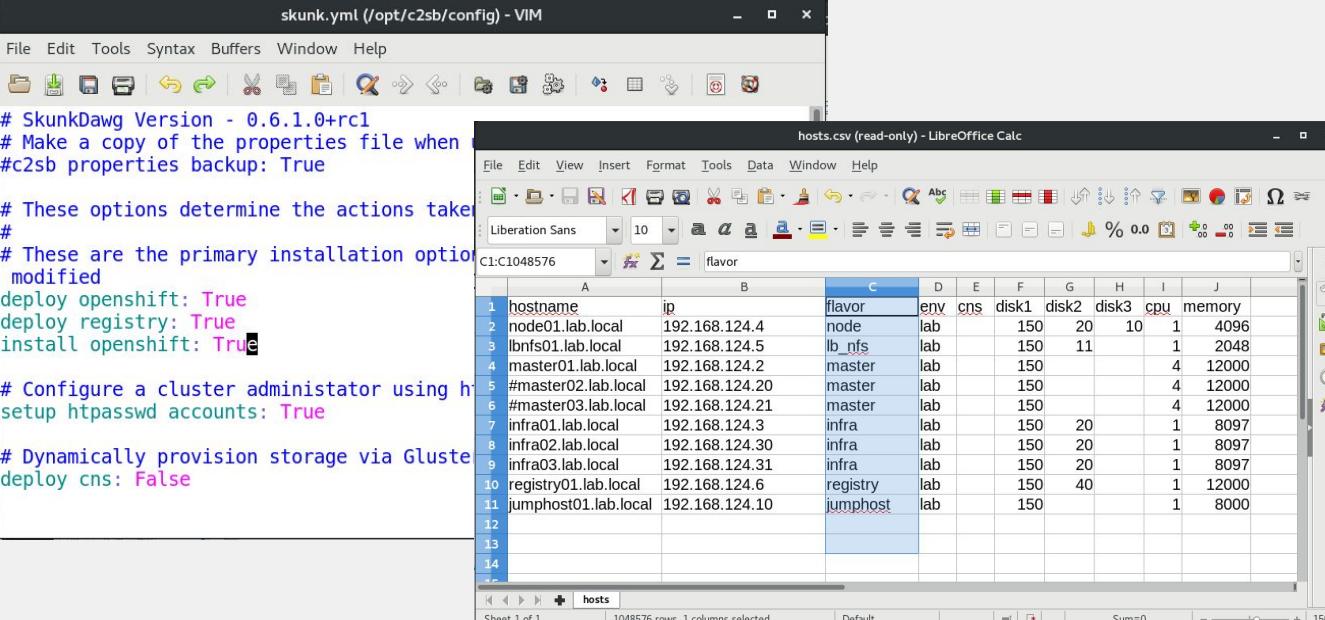
Automated installation of JumpHost



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 shows a terminal window with two tabs open. The left tab, titled 'skunk.yaml (/opt/c2sb/config) - VIM', contains a YAML configuration file. The right tab, titled 'hosts.csv (read-only) - LibreOffice Calc', contains a CSV file with server host inventory data.

skunk.yaml (Content):

```
# SkunkDawg 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 htpasswd
setup htpasswd accounts: True

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

hosts.csv (Content):

	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	lbnfs01.lab.local	192.168.124.5	lb_nfs	lab		150	11	1	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	jumphost01.lab.local	192.168.124.10	jumphost	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.

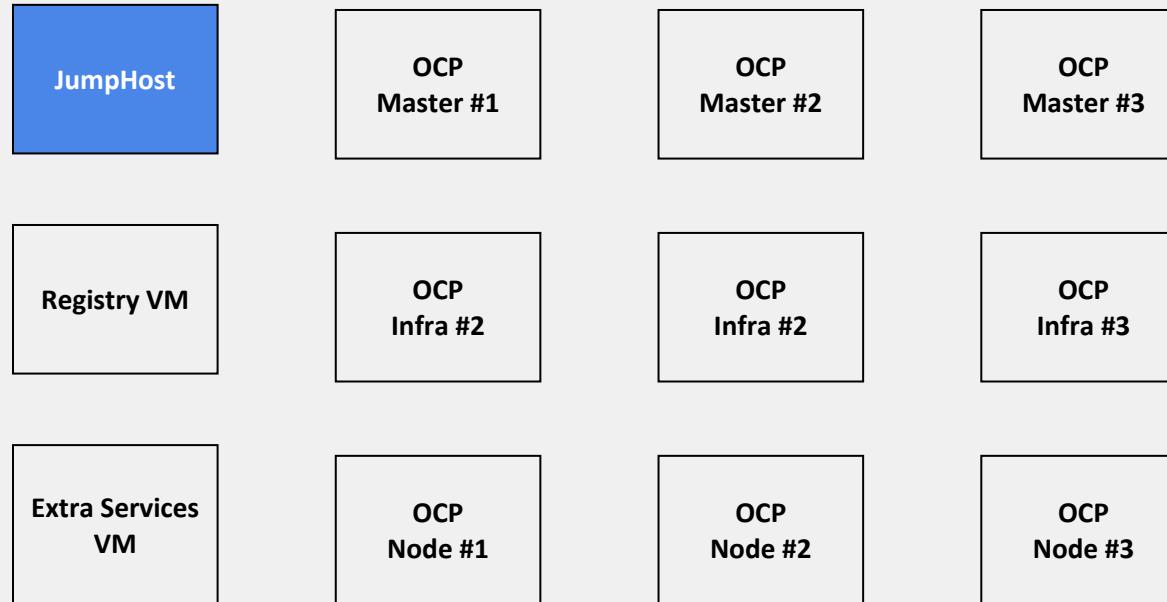
Installation Process

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

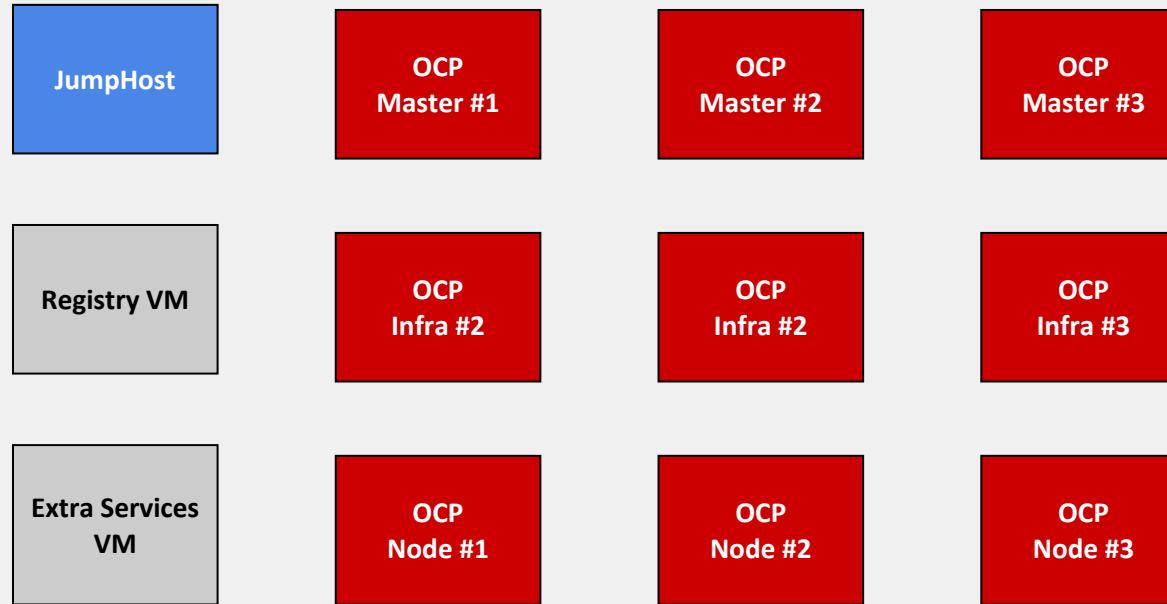
Execute the **skunk install** command

```
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.



THANK YOU



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