



RED HAT TECH EXCHANGE

RED HAT TECH EXCHANGE HOUSE RULES

100% ATTENTION

TAKE NOTES, NOT CALLS

RECEIVE KNOWLEDGE, NOT MESSAGES

MUTE NOTIFICATIONS FOR SLACK QQ WHATSAPP IMESSAGE EMAIL
TELEGRAM SNAPCHAT FACEBOOK WEIBO HANGOUTS VOXER SIGNAL G+
TWITTER VIBER SKYPE WECHAT LINE SMS ...



Button Push Deployments With Integrated Red Hat Open Management

The power of Red Hat automation



About Me



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RHCA VI

Red Hat



Live Demo

RHT Management



What Is Red Hat Open Management

DELIVER



SATELLITE

BUILD A TRUSTED & SECURE
RED HAT ENVIRONMENT

Manage the Red Hat Lifecycle
Provision & Configure at Scale
Standardize Your Environment



CLOUDFORMS

DELIVER SERVICES ACROSS
YOUR HYBRID CLOUD

Hybrid Cloud Management
Self-Service Provisioning
Policy-driven Compliance

CONTROL

AUTOMATE



ANSIBLE TOWER

AUTOMATE YOUR IT
PROCESSES & DEPLOYMENTS

Simple & powerful language
No agents to install
Scale with Ansible Tower



INSIGHTS

PREVENT CRITICAL ISSUES
BEFORE THEY OCCUR

Continuous Insights
Verified Knowledge
Proactive Resolution

KNOW



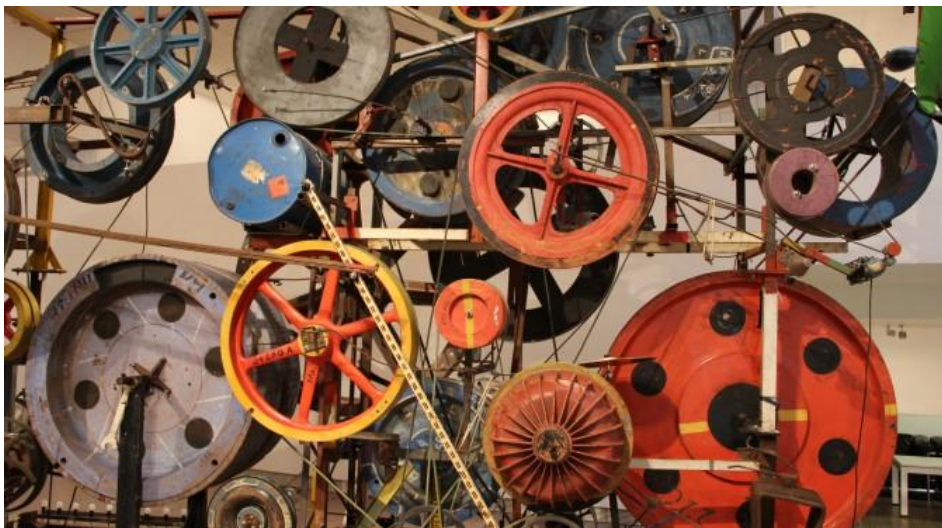
Red Hat Open Management = Ultimate Value



**INTEGRATION IS
POWER !**



How To Build Red Hat Open Management



Red Hat Open Management - Prerequisites

- <https://github.com/ldomb/summit2017>
- Minimum requirement ansible 2.3.x
- Ansible vault file with your passwords, private keys ...
- Ansible Tower License can be requested here:
- <https://www.ansible.com/license>
- Satellite 6 Manifest
- An AWS account (AWS Cli)
- Private key for AWS instances
- CloudForms image in AWS (uploadcfme.yaml)
- VPC and subnet need to be defined



CloudForms / Ansible Catalog item

Credentials

		Name [▲]	Type	User	Created On	Updated On
<input type="checkbox"/>		aws	Credential (Amazon)	AKIAI4YHYQ6N373GCFSA	08/21/17 18:09:59 UTC	08/21/17 18:09:59 UTC
<input type="checkbox"/>		CFME Default Credential	Credential (Machine)		08/21/17 18:06:14 UTC	08/21/17 18:06:14 UTC
<input type="checkbox"/>		gitlab	Credential (SCM)	ldomb	08/21/17 18:08:25 UTC	08/21/17 18:08:25 UTC
<input type="checkbox"/>		techexchangevault	Credential (Machine)	ec2-user	08/21/17 18:09:07 UTC	08/21/17 18:20:35 UTC

CloudForms / Ansible Catalog item

Edit Repository "techexdemo"

Name	<input type="text" value="techexdemo"/>
Description	<input type="text"/>
SCM type	<input type="text" value="GIT"/>
URL	<input type="text" value="https://gitlab.com/ldomb/summit2017.git"/>
SCM credentials	<input type="text" value="gitlab"/>
SCM Branch	<input type="text"/>
SCM Update Options	<input type="checkbox"/> Clean <input checked="" type="checkbox"/> Delete on Update <input type="checkbox"/> Update on Launch



CloudForms / Ansible Catalog item

Editing Service Catalog Item "build_rh_mgmt"

Name

Description

Display in Catalog Yes

Catalog

Provisioning

Retirement

Repository

Playbook

Machine Credential

Cloud Type

Cloud Credential

Hosts

Escalate Privilege No

Verbosity

Variables & Default Values

Variable

Default value

Dialog Use Existing

Create New



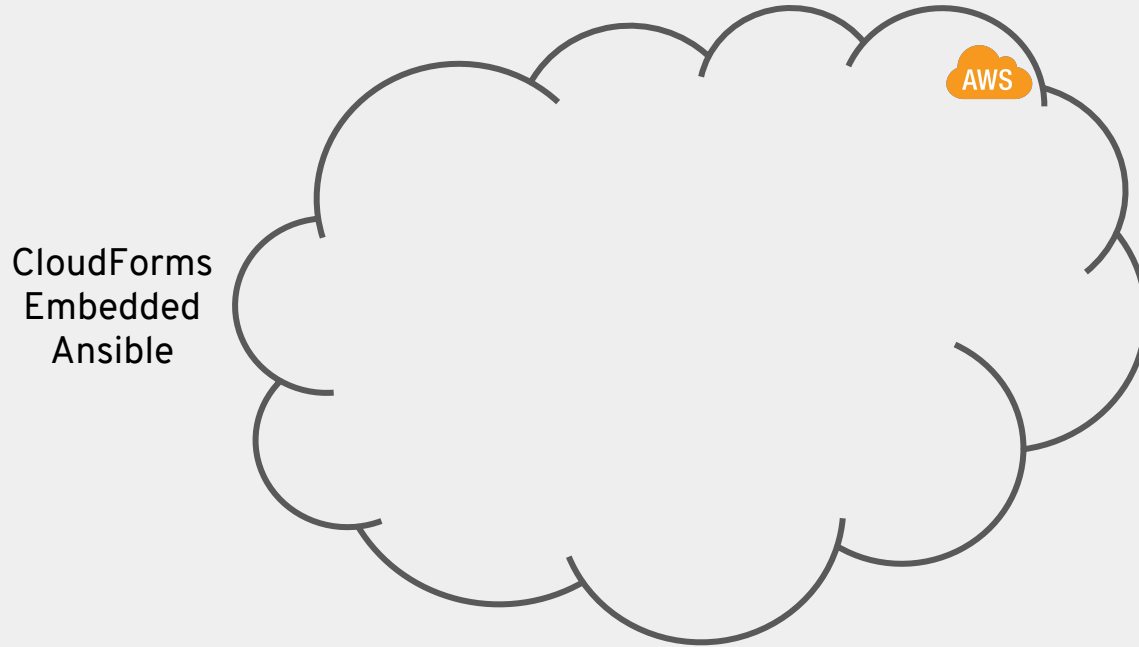
RH Open Management - One Button Push Away

build_rh_mgmt

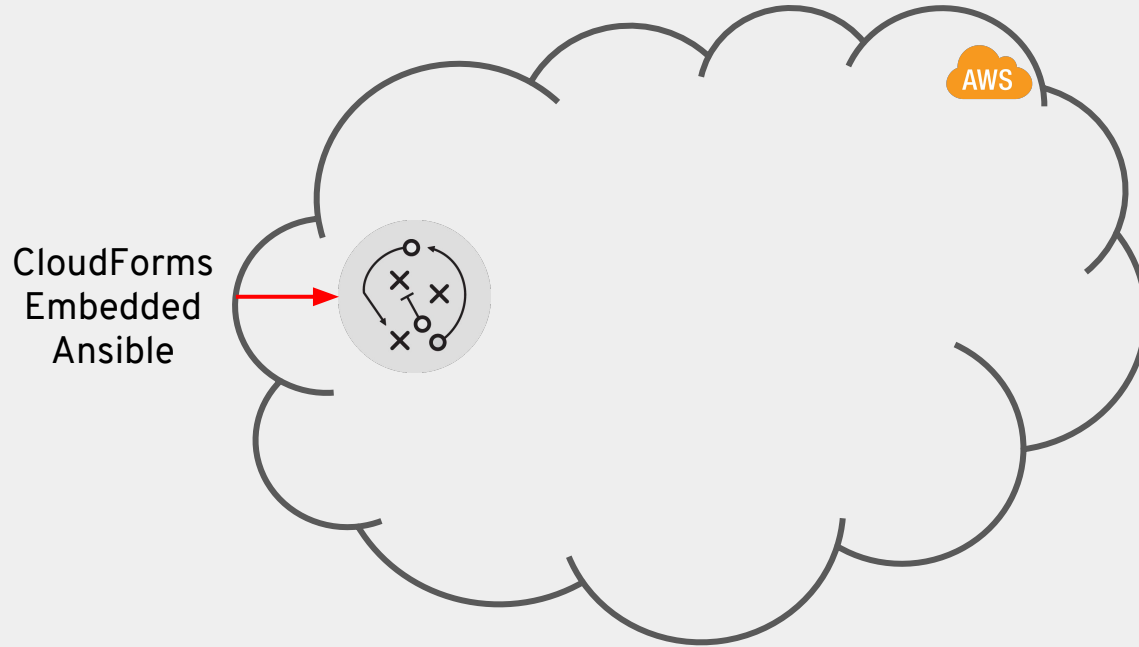


Description ⓘ

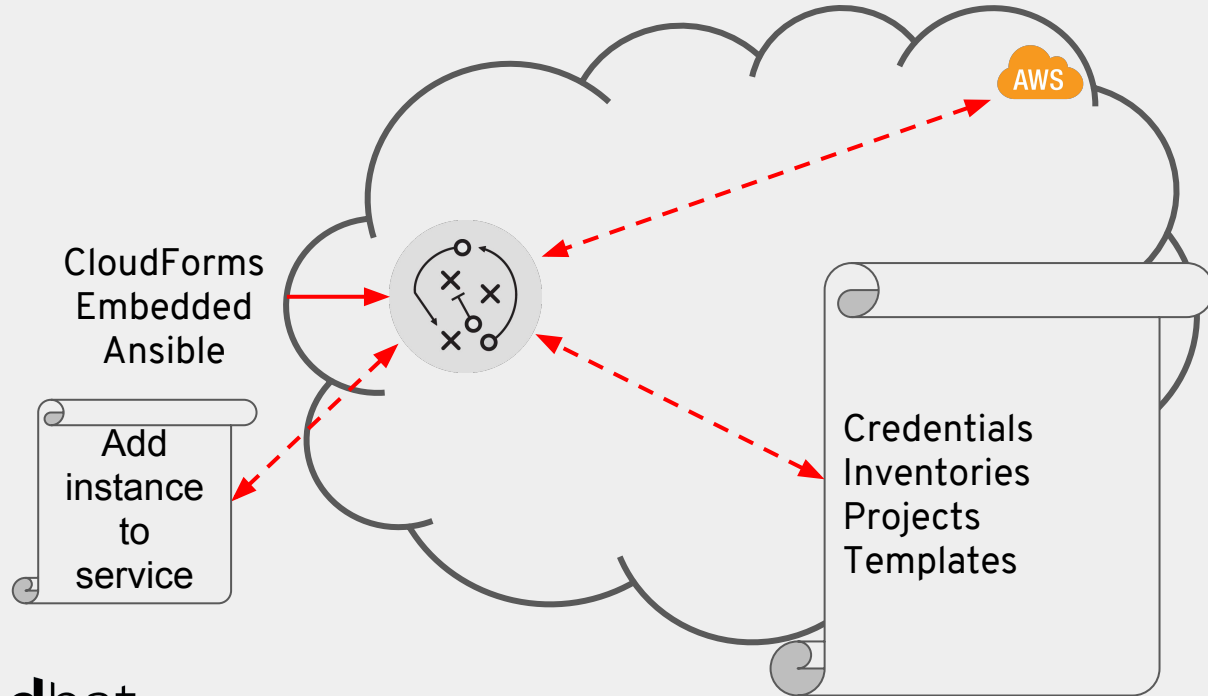
Build the Stack - CloudForms Ansible Automation



Building Ansible Tower



Building Ansible Tower



CloudForms / Ansible Integration

- `manageiq.api_url` - URL of a CFME appliance running the Ansible Automation Inside role.
- `manageiq.api_token` - Authentication token (valid for 15mins)
- `manageiq.service` - ID of the service
- `manageiq.event_target` - The object in CloudForms that raised the event.



CloudForms Service - Add Objects to Service

- name: Add vms to the service

uri:

url: "{{ manageiq.api_url }}/api/services"

method: POST

body_format: json

body:

action: add_resource

resources: "{{ vms }}"

validate_certs: false

headers:

X-Auth-Token: "{{ manageiq.api_token }}"

Content-Type: "application/json"

status_code: 200



CloudForms Service - Add Objects to Service

Services

- Active Services
 - build_rh_mgmt**
- Retired Services

Service "build_rh_mgmt"


Details | Provisioning

Properties	
Name	build_rh_mgmt
Description	Build Satellite6 Ansible Tower Red Hat CloudForms
Management Engine GUID	fe9aa898-87a0-11e7-821f-123c5e1ee6a8

Lifecycle	
Retirement Date	⌚ Never
Retirement State	
Owner	Administrator
Group	EvmGroup-super_administrator
Created On	Wed, 23 Aug 2017 01:18:39 +0000

Smart Management	
Redhat Tags	🏷️ No Redhat Tags have been assigned

VMs



towertechex

CloudForms Service - Playbook Build Tower

Services

- Active Services
 - build_rh_mgmt**
- Retired Services

```
TASK [buildansibletower : get tar for ansibletower] *****
changed: [52.91.254.141]

TASK [buildansibletower : untar /tmp/ansible-tower-setup-bundle.tar.gz] *****
changed: [52.91.254.141]

TASK [buildansibletower : replace /tmp/ansible-tower-setup-bundle-3.1.4-1.el7/roles/nginx,
changed: [52.91.254.141]

TASK [buildansibletower : add /etc/tower path to setting.py] *****
changed: [52.91.254.141]

TASK [buildansibletower : copy inventory to setup folder] *****
changed: [52.91.254.141]

TASK [buildansibletower : execute the tower installation] *****
changed: [52.91.254.141]

TASK [buildansibletower : change perms on tower.cert] *****
changed: [52.91.254.141]

TASK [buildansibletower : add license] *****
FAILED - RETRYING: add license (5 retries left).
```



CloudForms Service - Playbook Output

Services

- Active Services
 - build_rh_mgmt**
- Retired Services

Service "build_rh_mgmt"

Details **Provisioning**

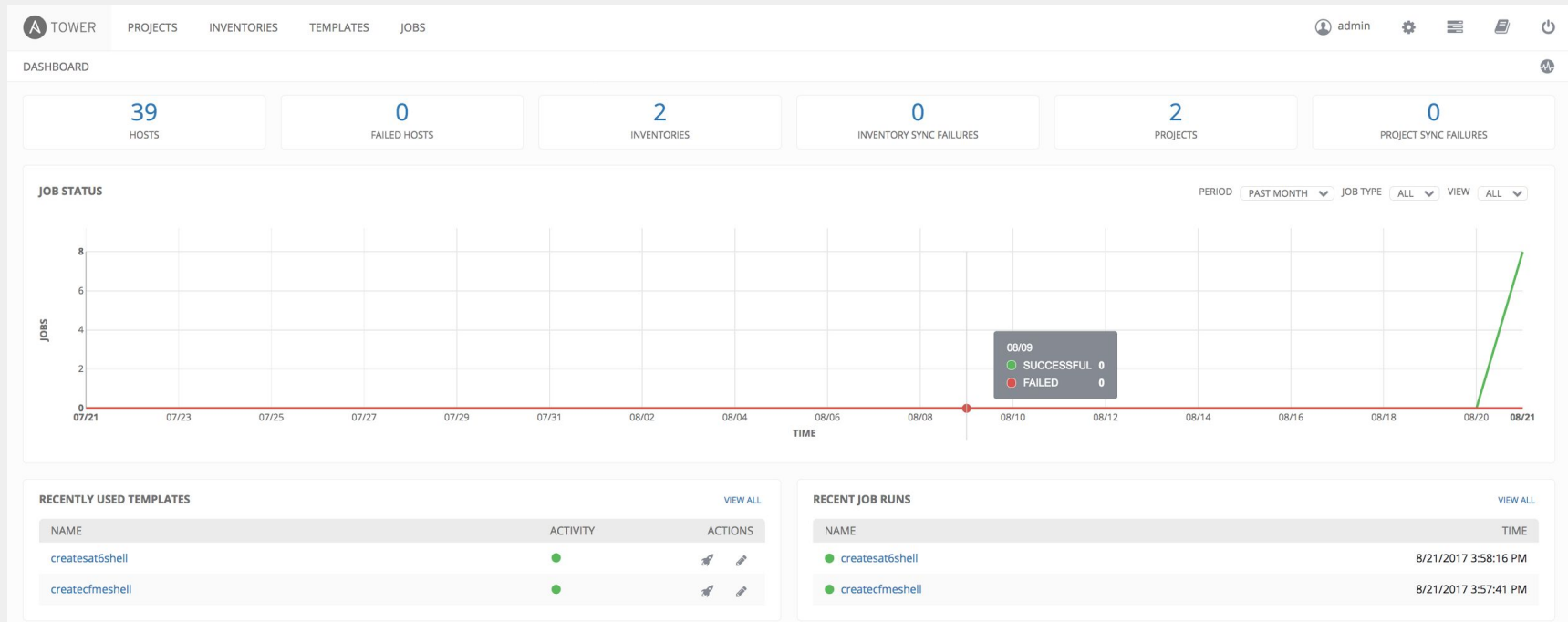
Results	
Status	successful
Started	Wed, 23 Aug 2017 01:18:47 +0000
Finished	Wed, 23 Aug 2017 01:36:28 +0000
Elapsed	00:17:41
Owner	Administrator

Plays			
Name	Started	Finished	Elapsed
build ec2 instance	Wed, 23 Aug 2017 01:18:52 +0000	Wed, 23 Aug 2017 01:20:27 +0000	00:01:34
create tower	Wed, 23 Aug 2017 01:20:27 +0000	Wed, 23 Aug 2017 01:36:28 +0000	00:16:01

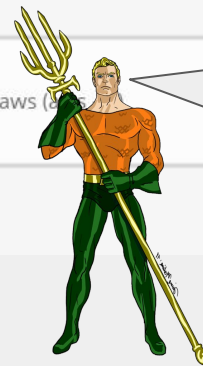
Details	
Playbook	buildrhmgmt.yaml
Repository	techexchange
Verbosity	2
Hosts	localhost

Credentials	
Machine	techexchangevault

The Power of Ansible Tower

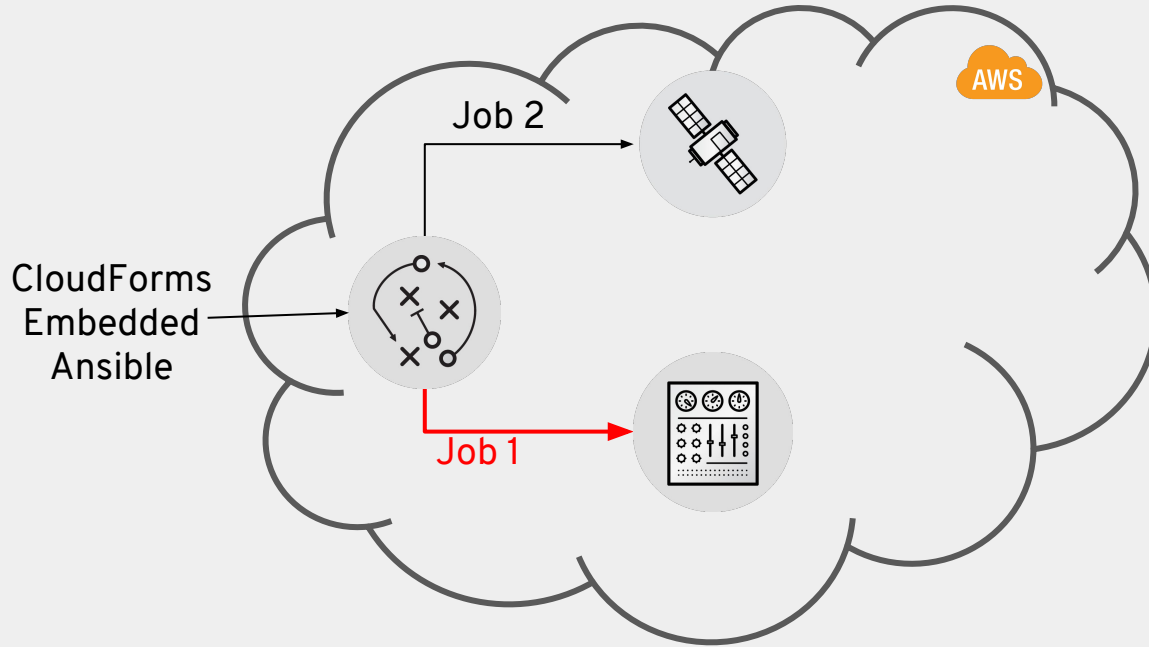


Ansible Tower Workflow - Easy Orchestration

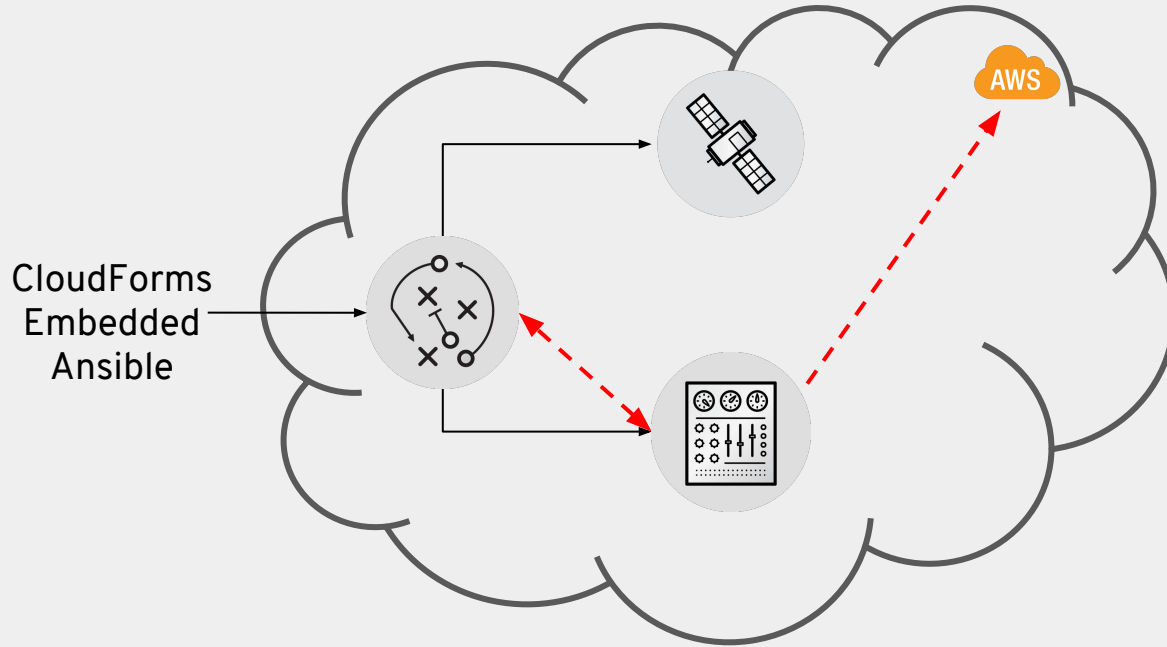


Ansible Tower
orchestrates your
infrastructure in a
secure fashion

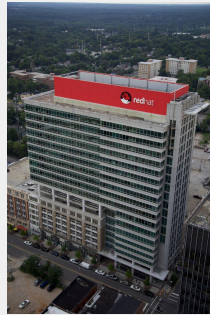
Deploying CloudForms via Ansible Tower Job



Integrations - AWS / Ansible Tower / CFME



Integrations - Tower Security (gotcha)



Ansible - Cross Product Communication



Register



Providers / Inventories

CloudForms

Ansible Tower

Providers

All Ansible Tower Providers

Search

		Provider Name	URL	Type	Zone	Last Refresh Date	Region Description	Status	Total Configured Systems
<input type="checkbox"/>		Ansible Tower Automation Manager	https://ip-172-31-132-212.ec2.internal/api/v1	Automation Manager (Ansible Tower)	default	08/21/17 20:21:02 UTC	Region 99	Valid	57

INVENTORIES / cloudforms

My View

GROUPS 1

RUN COMMANDS + ADD GROUP

SEARCH [] KEY []

GROUPS ACTIONS

cloudforms 15 [refresh] [copy] [calendar] [edit] [trash]

ITEMS 1 - 1 OF 1

HOSTS 18

SYSTEM TRACKING + ADD HOST

SEARCH [] KEY []

HOSTS ACTIONS

AisaTechExchangeDemo [copy] [edit] [trash]

bastion.workshop.osecloud.com [copy] [edit] [trash]

cfmetechex [copy] [edit] [trash]



CloudForms / Ansible Tower Integration

CloudForms

- > Providers
- ▼ Configured Systems
 - ▼ All Ansible Tower Co... >
 - Ansible Tower Co...
 - Global Filters
 - My Filters

All Ansible Tower Configured Systems

		Hostname	Type	Last Checkin	Build State	Zone	Environment
<input type="checkbox"/>		13.56.189.88	Configured System (Ansible Tower)			default	
<input type="checkbox"/>		13.57.0.208	Configured System (Ansible Tower)			default	
<input type="checkbox"/>		13.58.162.93	Configured System (Ansible Tower)			default	
<input type="checkbox"/>		13.58.232.223	Configured System (Ansible Tower)			default	

- > Providers
- > Configured Systems
- ▼ Job Templates
 - ▼ All Ansible Tower Job Templates >
 - > Ansible Tower Automation Manager
 - Global Filters
 - My Filters

All Ansible Tower Job Templates

		Name	Type	Description	Created On	Updated On
<input type="checkbox"/>	T	createcfme	Job Template (Ansible Tower)		08/21/17 20:06:34 UTC	08/21/17 20:06:34 UTC
<input type="checkbox"/>	T	createcfmeshell	Job Template (Ansible Tower)		08/21/17 20:06:34 UTC	08/21/17 20:06:34 UTC
<input type="checkbox"/>	T	createsat6	Job Template (Ansible Tower)		08/21/17 20:06:34 UTC	08/21/17 20:06:34 UTC
<input type="checkbox"/>	T	createsat6shell	Job Template (Ansible Tower)		08/21/17 20:06:34 UTC	08/21/17 20:06:34 UTC
<input type="checkbox"/>	T	Demo Job Template	Job Template (Ansible Tower)		08/21/17 20:06:34 UTC	08/21/17 20:06:34 UTC



CloudForms Self Service Catalog - Made to Order

RED HAT® CLOUDFORMS MANAGEMENT ENGINE

Service Catalog

Name Filter by Name Name

24 Results

Azure Provision
Microsoft Azure
Description

Create CloudForms User
A
Description

Create Lambda Function
AWS
Description

Create new AWS ELB
A
Description

Deploy AWS Stack
A
Description

Deploy RHEL7 on AWS
A
Description

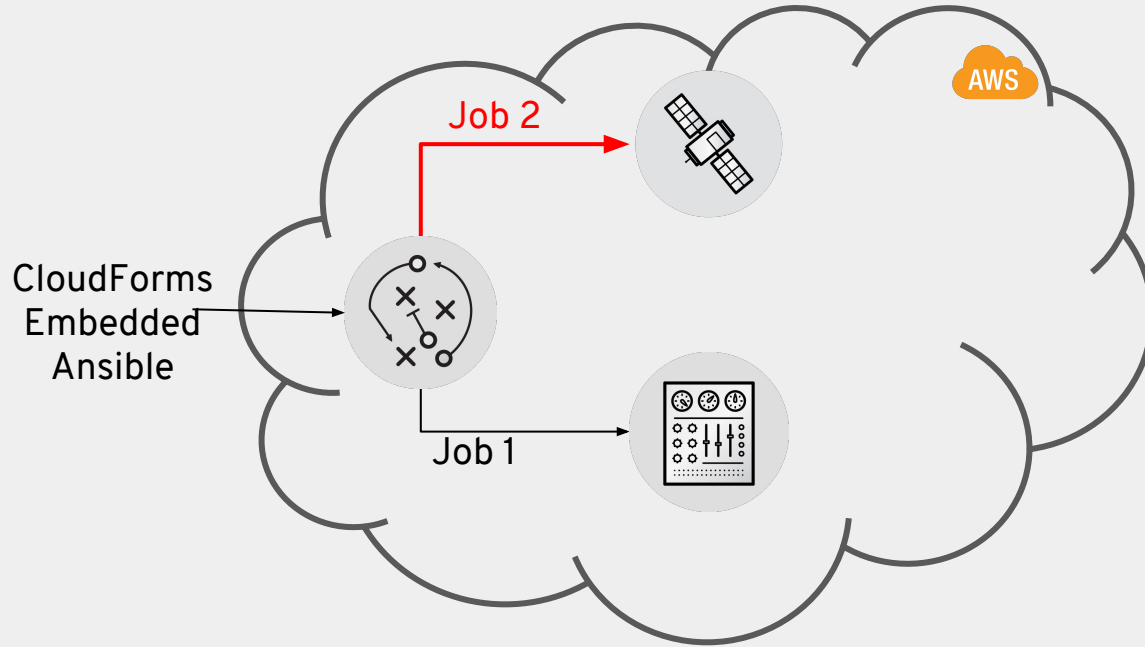
Deploy RHEL7 on VMware
A
Description

Deploy Ticket Master on AWS
A
Description

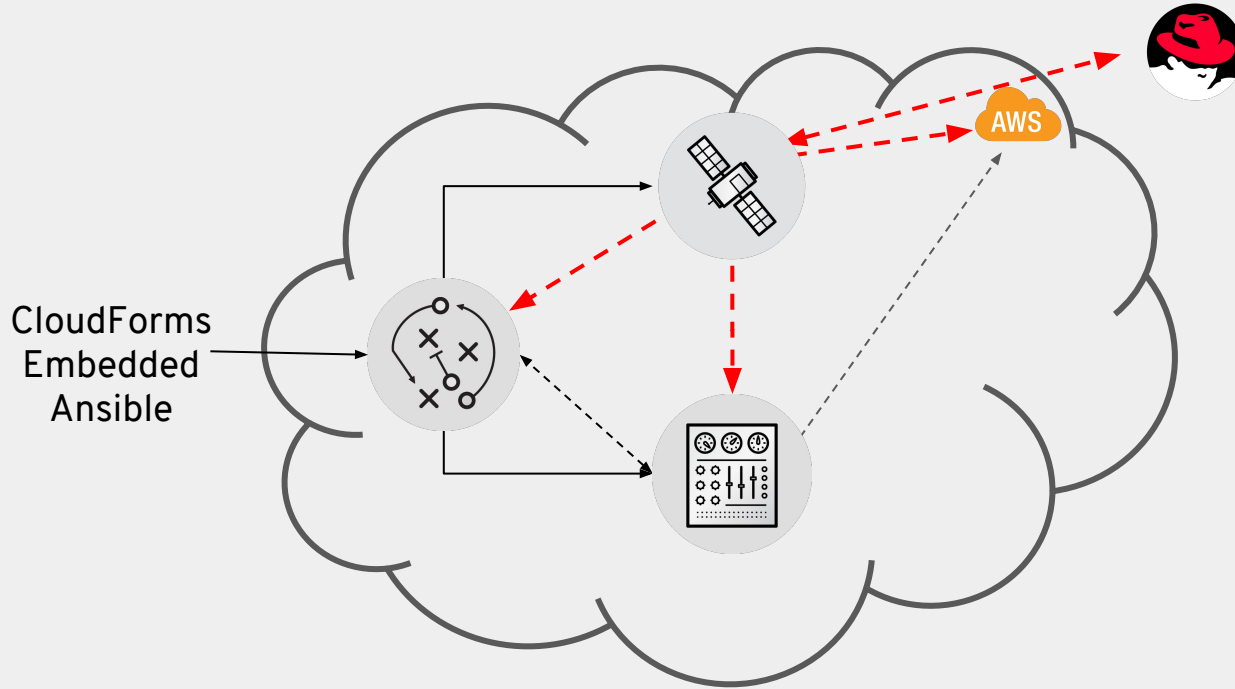
CloudForms + Ansible Tower = Build anything anywhere, any time



Deploy Satellite 6 via Ansible Tower Job



Integrations - AWS / Ansible Tower / CFME / Sat6



Satellite 6 - AWS Integration

aws

Associate VMs Edit **New Image**

Compute Resource **Virtual Machines** Images Compute profiles

Search:

Name	DNS	Type	State	Actions
AisaTechExchangeDemo	ec2-54-147-82-228.compute-1.amazonaws.com	c4.2xlarge	On	Power Off
bastion.workshop.osecloud.com	ec2-34-203-112-173.compute-1.amazonaws.com	t2.micro	On	Power Off
bobatredhat2	ip-172-31-50-215.ec2.internal	c4.2xlarge	Off	Power On
cfmetechex	ec2-54-175-150-209.compute-1.amazonaws.com	m3.xlarge	On	Power Off
Coke-amazon	ec2-54-85-253-26.compute-1.amazonaws.com	m3.medium	On	Power Off
Coke-ami	ec2-54-84-55-252.compute-1.amazonaws.com	m3.medium	On	Power Off
Kavitha3scaleOnPrem	ip-172-31-85-78.ec2.internal	m4.xlarge	Off	Power On
Kavitha3scalePOCs	ip-172-31-74-123.ec2.internal	t2.medium	Off	Power On
KavithaRBC3scaleOnPrem	ec2-34-203-170-152.compute-1.amazonaws.com	t2.xlarge	On	Power Off
KOcp35Master	ip-172-31-168-200.ec2.internal	t2.xlarge	Off	Power On

Showing 1 to 10 of 25 entries

← Previous 1 2 3 Next →



CloudForms - Satellite 6 Integration


CloudForms

- Providers
 - All Configuration ... >
 - Red Hat Satellit...
 - Satellite 6 ...
 - Unassi...
- Configured Systems

- Providers
- Configured Systems
 - All Configured Sys... >
 - Red Hat Satellit...
 - Global Filters
 - My Filters

All Configuration Management Providers

Search

		Provider Name ^	URL	Type	Zone	Last Refresh Date	Region Description	Status	Total Configured Systems
<input type="checkbox"/>		Satellite 6 Configuration Manager	https://ip-172-31-249-34.ec2.internal	Configuration Manager (Red Hat Satellite)	default	08/21/17 22:04:56 UTC	Region 99	Valid	1

All Configured Systems

Search

		Hostname ^	Type	Last Checkin	Build State	Zone	Environment	Configuration Profile
<input type="checkbox"/>		ip-172-31-249-34.ec2.internal	Configured System (Red Hat Satellite)	08/21/17 21:37:06 UTC		default	production	



RH - Management Core - Baremetal Deploy

Red Hat Satellite Provider » Add ConfiguredSystem

Request Purpose **Catalog** Customize Schedule

Configured Systems

Configured Systems

Hostname	Configuration Location	Configuration Organization	Operating System	Provider
host79.rdu.salab.redhat.com	nyc	redhat		sat6ldo

Configuration Profile *

RHEL7_Crash_Base

Note: Fields marked with * are required.



Ansible Tower - Cross Product Inventories

INVENTORIES **3**

SEARCH



KEY

NAME ^

ORGANIZATION ▾

 ● aws

Default

 ● cloudforms

Default

 ● satellite6

Default



















Compliance A La Carte - Cross Platform

Satellite 6

Hosts

Filter ... x Search

<input type="checkbox"/>	Name	Operating system
<input type="checkbox"/>	 ip-172-31-159-178.ec2.internal	 RedHat 7.3
<input type="checkbox"/>	 ip-172-31-165-67.ec2.internal	 RedHat 7.3
<input type="checkbox"/>	 ip-172-31-177-77.ec2.internal	 RedHat 7.3
<input type="checkbox"/>	 ip-172-31-238-93.ec2.internal	 RedHat 7.3
<input type="checkbox"/>	 ip-172-31-45-59.ec2.internal	 RedHat 7.3
<input type="checkbox"/>	 ip-172-31-47-45.ec2.internal	 RedHat 7.3
<input type="checkbox"/>	 ip-172-31-54-120.ec2.internal	 RedHat 7.3
<input type="checkbox"/>	 ip-172-31-96-218.ec2.internal	 RedHat 7.3

Displaying all 8 entries - 0 selected

CloudForms

- Compliance: OpenSSL Security
 - VM and Instance Compliance: DROWN OpenSSL Vulnerability
 - Vulnerable DROWN openssl packages (RHEL5/6/7)
 - VM Compliance Check
 - Generate log message
 - Mark as Non-Compliant
- Compliance Check on: 03/01/16 13:35:07 AEST
 - Policy: DROWN OpenSSL Vulnerability
 - Condition: Vulnerable DROWN openssl packages (RHEL5/6/7)
- Compliance Check on: 03/01/16 12:58:47 AEST
 - Policy: DROWN OpenSSL Vulnerability
 - Condition: Vulnerable DROWN openssl packages (RHEL5/6/7)
- Compliance Check on: 03/01/16 12:50:58 AEST

Automated Vulnerability Remediation

Satellite 6

Installable Errata

Show: Current Environment (Dev/Ct) from:

Search... Showing 20 of 51 (51 Total)

20 Selected

Apply Selected

- via Katello agent
- via remote execution
- via remote execution - customize first

Type	Id	Title
Product Enhancement	RHEA-2017:0460	nspr, nss-util, and nss

CloudForms

RED HAT® CLOUDFORMS MANAGEMENT ENGINE

Cloud Intel

Red Hat Insights

Configuration

Linux Ops

Windows Ops

Lifecycle

RH Insights

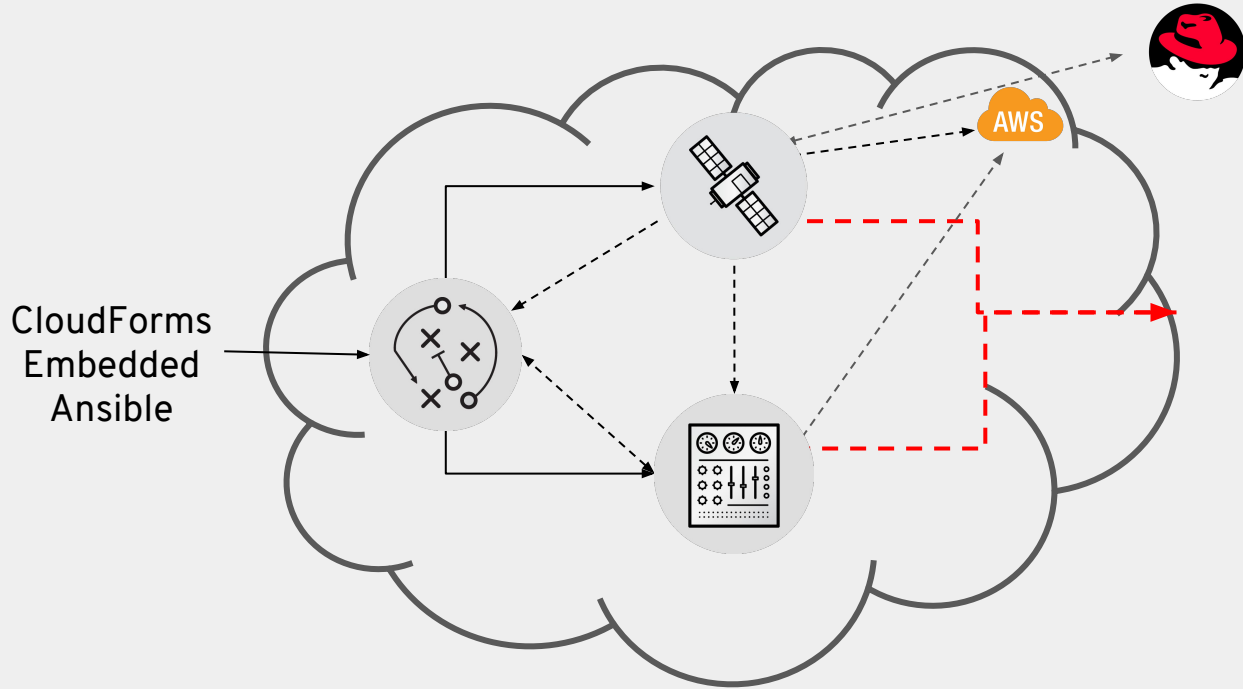
CVE-2016-0800_DR

CVE_2016_5696_KEN

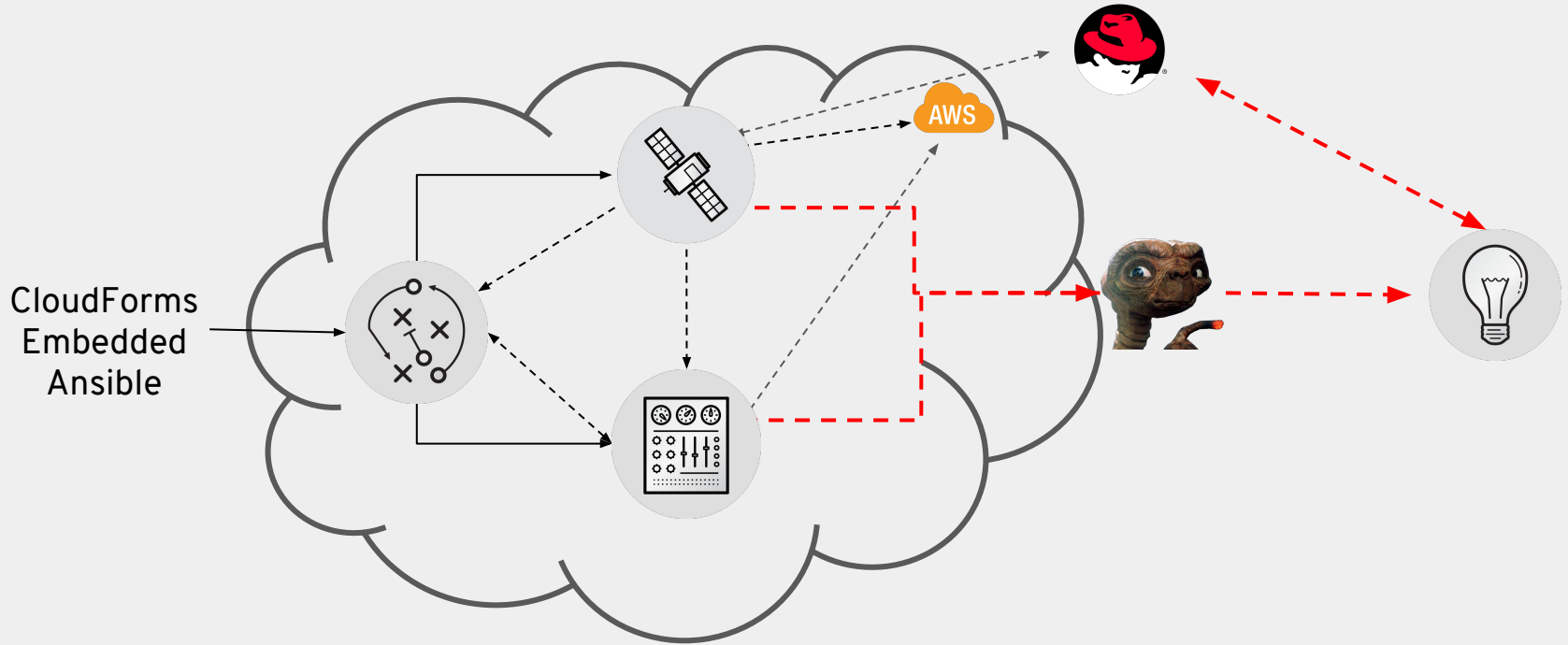
CloudForms + Ansible Tower + **Satellite** = Build anything anywhere anytime and make it **secure!**



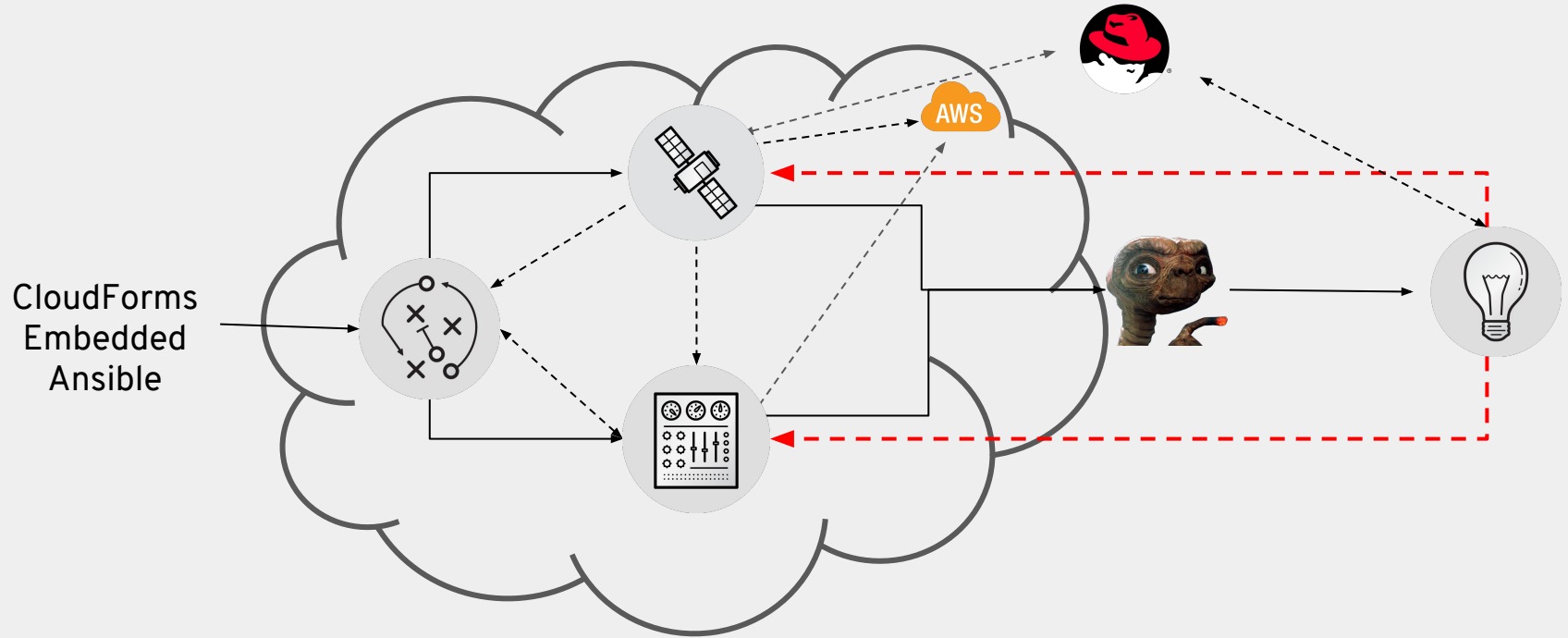
Predictive Analysis with Red Hat Insights



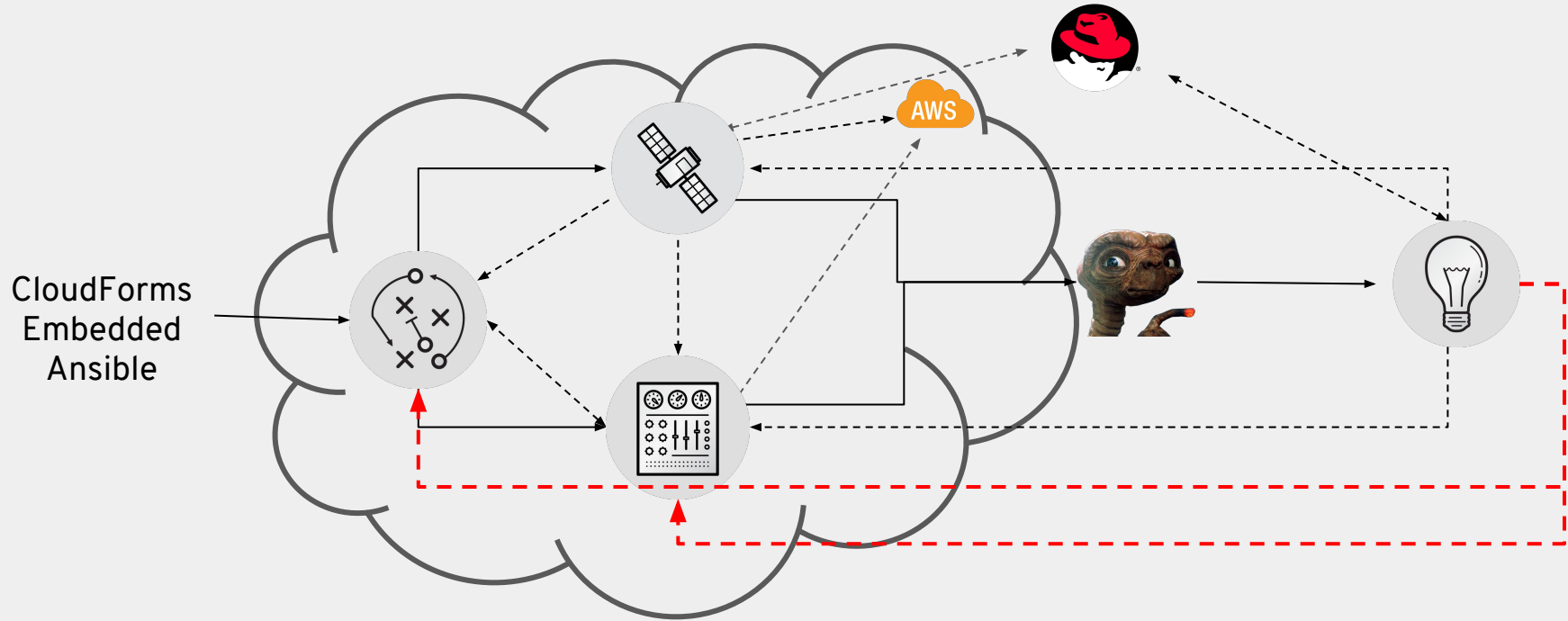
Predictive Analysis with Red Hat Insights



Predictive Analysis with Red Hat Insights



Red Hat Insights - Generate Ansible Playbooks



Red Hat Insights - Overview



Use this chart to drill down and discover problems within your organization.

There are **29** actions detected from systems in your organization.

Overview

Overview

ALL INFO WARN ERROR

Section	Count
Security	24
Stability	4
Performance	1

3 systems are not checking in

[VIEW SYSTEMS AND RESOLVE](#)



Red Hat Insights - Security

Decreased security in NFS server settings



Recommended security practices for configuring NFS server are not being followed. Option `no_root_squash` was detected in NFS server export tables. This option is considered suboptimal by various security guides. The current settings might be required by your use case or needed for your other software configurations. However, any deviation from the recommended practices should be carefully considered.

By default, NFS shares change the root user to the `nfsnobody` user, an unprivileged user account. This changes the owner of all root-created files to `nfsnobody` which prevents uploading of programs with the `setuid` bit set. If the option `no_root_squash` is used, remote root users are able to change any file on the shared file system and leave applications infected by Trojans for other users to inadvertently execute.

Red Hat recommends that you review the NFS server export tables for all your reported servers, revise them, and leave detected, potentially problematic settings only where necessary.



Impact



Likelihood



Total Risk



Red Hat Insights - Stability

⚠️ Kdump crashkernel reservation failed due to improper configuration of crashkernel parameter

Kdump is unable to reserve memory for the kdump kernel. The kdump service has not started and a vmcore will not be captured if the host crashes, which will make it difficult for our support technicians to determine why the machine crashed.

Impacted Systems

[Overview](#) / [Stability](#)

/ Kdump crashkernel reservation failed due to improper configuration of crashkernel parameter

Hostname	Reported	
<input type="text" value="Filter"/>		
demo-insights-rhel65	about 9 hours ago	View
demo-insights-rhel70.demo.mbu.redhat.com	about a month ago	View
localhost.localdomain.localdomain	2 months ago	View



Red Hat Insights - Performance

i Performance > NUMA performance regression on specific kernels ☰

Detected issue

This host is a NUMA system running kernel version **2.6.32-431.el6.x86_64**.

A change was introduced in Red Hat Enterprise Linux 6.5 to make machines with weird topologies bootable. However, for normal systems this change can lead to a NUMA mapping with incorrect `cpu_power` settings for all domains other than the first. As a result, under some workloads, performance issues can be observed.

Steps to resolve

To fix this issue, Red Hat recommends that you update the deployed kernel to version **2.6.32-431.20.3.el6** or later.

```
# yum update kernel
```

If you are unable to update your kernel at this time, an effective workaround is to use the `taskset` command to force a process to run on a specific CPU.



Red Hat Insights - Playbook Generator

13 Impacted Systems

Actions ▾

Create a new Plan/Playbook 

Add to existing Plan/Playbook 

 RHEL Server

Name
rhel70vm1.summit.example.com

 RHEL Server

rhel7vm1.summit.example.com

 RHEL Server

rhel7vm1.summit.example.com

 RHEL Server

rhel7vm1.summit.example.com



CloudForms + Ansible Tower +
Satellite + **Insights** = Build
anything, anywhere, anytime,
make it secure and keep a **piece
of mind** that you've done it
right



Red Hat Open Management - Dream Team

SATELLITE 6



INSIGHTS



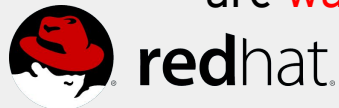
ANSIBLE TOWER



CLOUDFORMS



Provision and manage servers and networking anywhere, anytime and be sure it's secure and compliant. Keep in mind we are watching you!

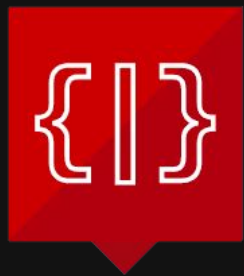


**Red Hat Open
Management =
The Sky's the limit**



Q/A?





RED HAT
**TECH
EXCHANGE**