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SYSTEM MANAGEMENT UPDATE

Fred van Zwieten
Solution Architect Platform & Cloud
10-10-2017

RED HAT®
ANSIBLE®
Tower

RED HAT®
ANSIBLE®
Engine

RED HAT®
CLOUDFORMS

RED HAT®
INSIGHTS

RED HAT®
SATELLITE

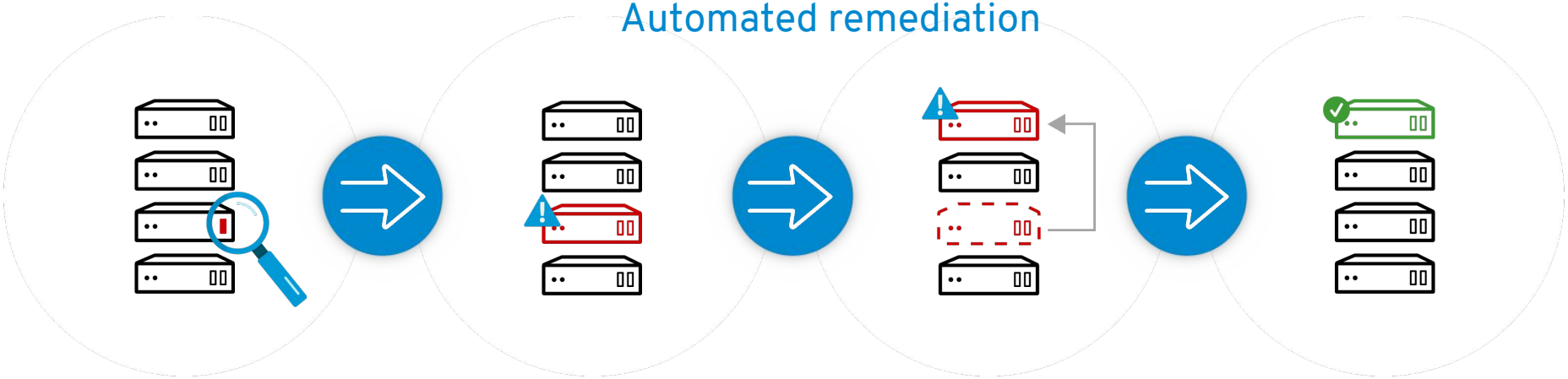
RED HAT®
ENTERPRISE
LINUX®

RED HAT®
INSIGHTS

RED HAT INSIGHTS

MANAGING INFRASTRUCTURE RISK

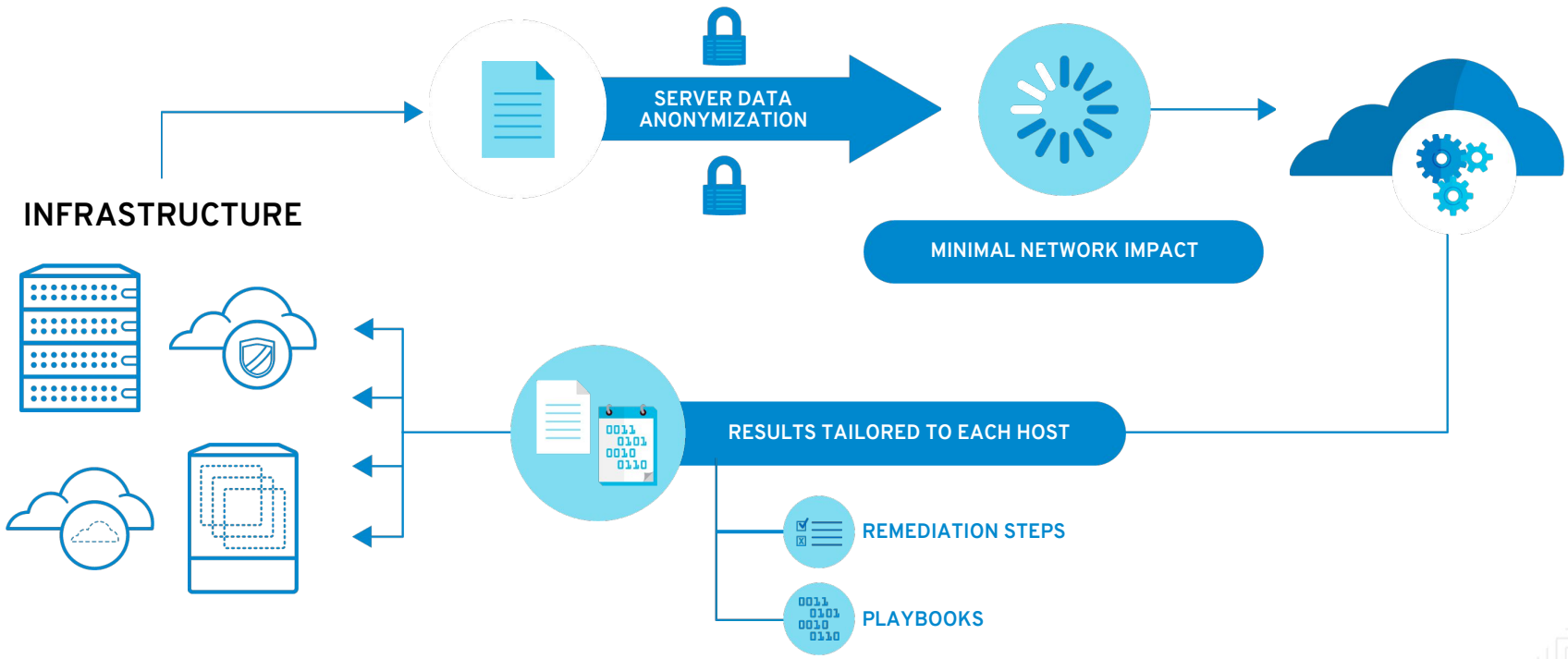
Automated remediation



ANALYZE | IDENTIFY | PRIORITIZE | RESOLVE

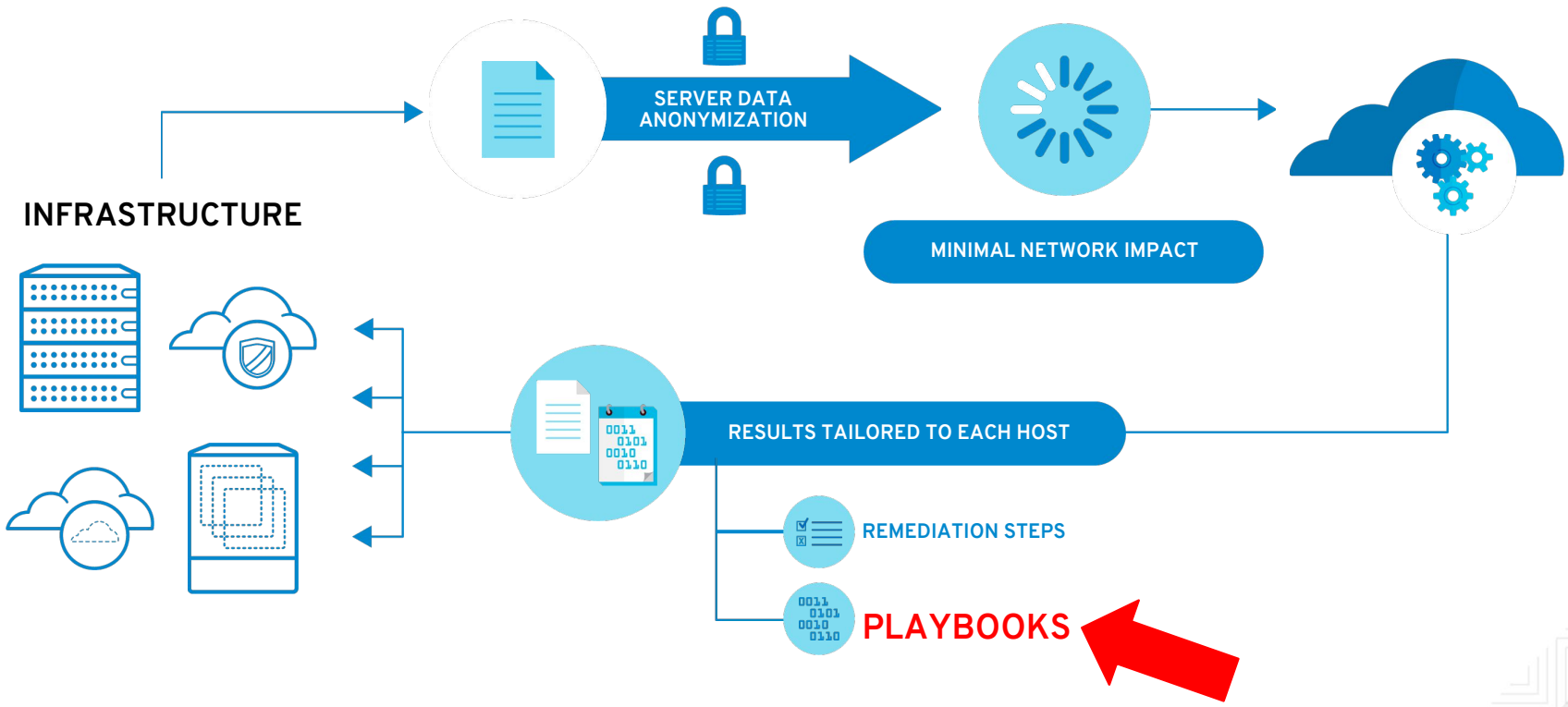
RED HAT INSIGHTS

ARCHITECTURE



RED HAT INSIGHTS

ARCHITECTURE



RED HAT INSIGHTS

GETTING STARTED

ALREADY A RED HAT® ENTERPRISE LINUX® CUSTOMER?

Try Insights at no cost:

https://access.redhat.com/insights/getting-started

INTERESTED IN A MANAGEMENT SUITE?

Insights is included in:

Red Hat Cloud Infrastructure + Red Hat Cloud Suite

WOULD YOU LIKE TO LEARN MORE ABOUT INSIGHTS?

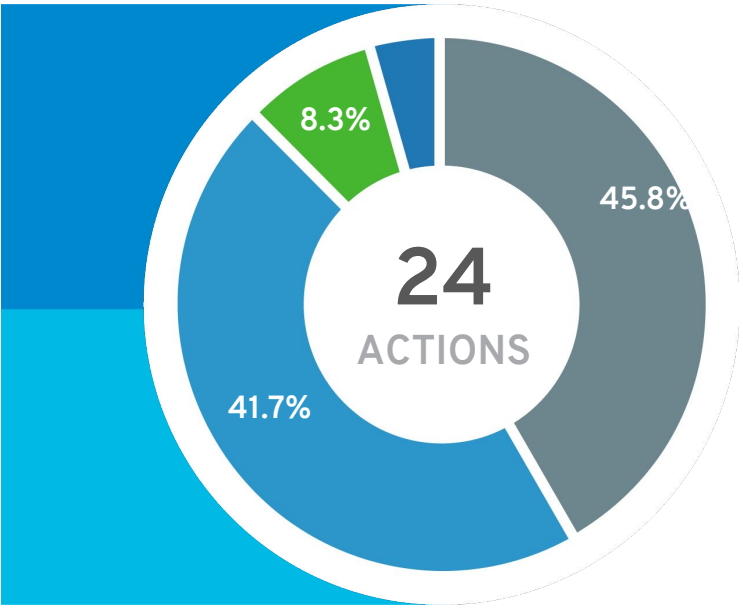
https://www.redhat.com/en/technologies/management/insights

For more info, visit: https://access.redhat.com/insights/info

RED HAT®
INSIGHTS

RED HAT INSIGHTS

ASSESSMENT @NO COST



Run an Insights assessment for 30 days:

1. Work with your account team to get an Insights eval subscription.
2. Install the Red Hat Insights RPM.
3. Register 50+ systems for best view.
4. See results immediately.
5. Schedule a best practices workshop.

See valuable insights in minutes:

1. Activate eval: https://access.redhat.com/insights/evaluation.
2. Installation: https://access.redhat.com/insights/getting-started.

QUESTIONS?

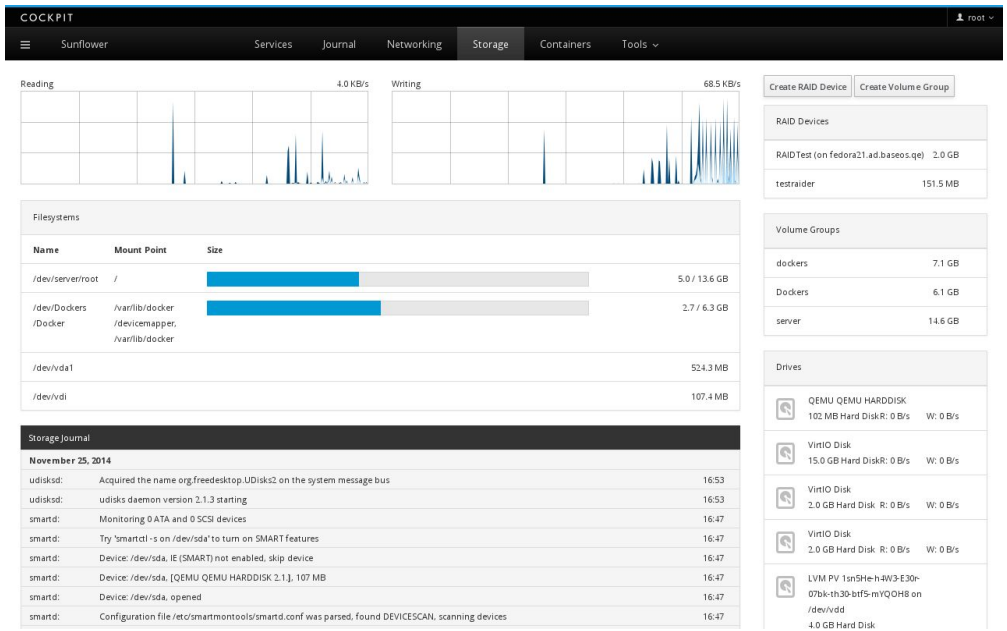
insights@redhat.com

RED HAT® ENTERPRISE LINUX®

RED HAT ENTERPRISE LINUX

EASE OF MANAGEMENT

Using WEB GUI
COCKPIT



Using ANSIBLE
SYSTEM ROLES

RED HAT ENTERPRISE LINUX

SYSTEM ROLES

CURRENT ROLES

- email (postfix)
- kdump (kernel crash dump)
- network
- selinux
- timesync

FUTURE ROLES

- Subscription Management
- firewall
- system logging
- storage
- kerberos authentication
- bootloader
- tuned (power management)
- etc

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RED HAT ENTERPRISE LINUX

SYSTEM ROLES

Roles and Ansible CLI delivered with RHEL
Extras channel, upstream on git and galaxy
yum --enablerepo=rhel-7-server-extras-rpms install rhel-system-roles ansible

From RHEL 6.9+
Abstraction, RHEL version agnostic

Support on System Roles included
Ansible CLI support only in system role use-cases

Control Node on RHEL 7.4+
Managed Nodes RHEL 6.9+

RED HAT SATELLITE

ANSIBLE

Choice:

- Now: Puppet Inside or Puppet Enterprise and/or Ansible Tower
- V6.3: Puppet v3 and/or Puppet v4 and/or Ansible Tower
- V6.4: Puppet and/or Ansible Inside and/or Ansbile Tower

For Configuration Management use-cases

Integration with Insights

V6.4: Including Ansible remediation playbook support

Integration with CloudForms

Bare metal insights, utilize Satellite from Ansible Inside CloudForms

Integration with Ansible Tower

Satellite as Inventory Source and Ansible Callbacks

RED HAT
ANSIBLE
Automation
RED HAT ANSIBLE TOWER
Scale + operationalize your automation
CONTROL
KNOWLEDGE
DELEGATION
RED HAT ANSIBLE ENGINE
Support for your Ansible automation
SIMPLE
POWERFUL
AGENTLESS
FUELED BY AN INNOVATIVE OPEN SOURCE COMMUNITY

RED HAT®
ANSIBLE®
Engine

RED HAT ANSIBLE ENGINE

SUPPORT FOR ANSIBLE PROJECT!

NEW PRODUCT OFFERING!

Support for Ansible CLI & Core Modules

SUPPORT FOR NETWORK MODULES

Add-on to Red Hat Engine *

OVER 1250 MODULES INCLUDED

Core, Networking, Certified & Community

*Premium support only

RED HAT
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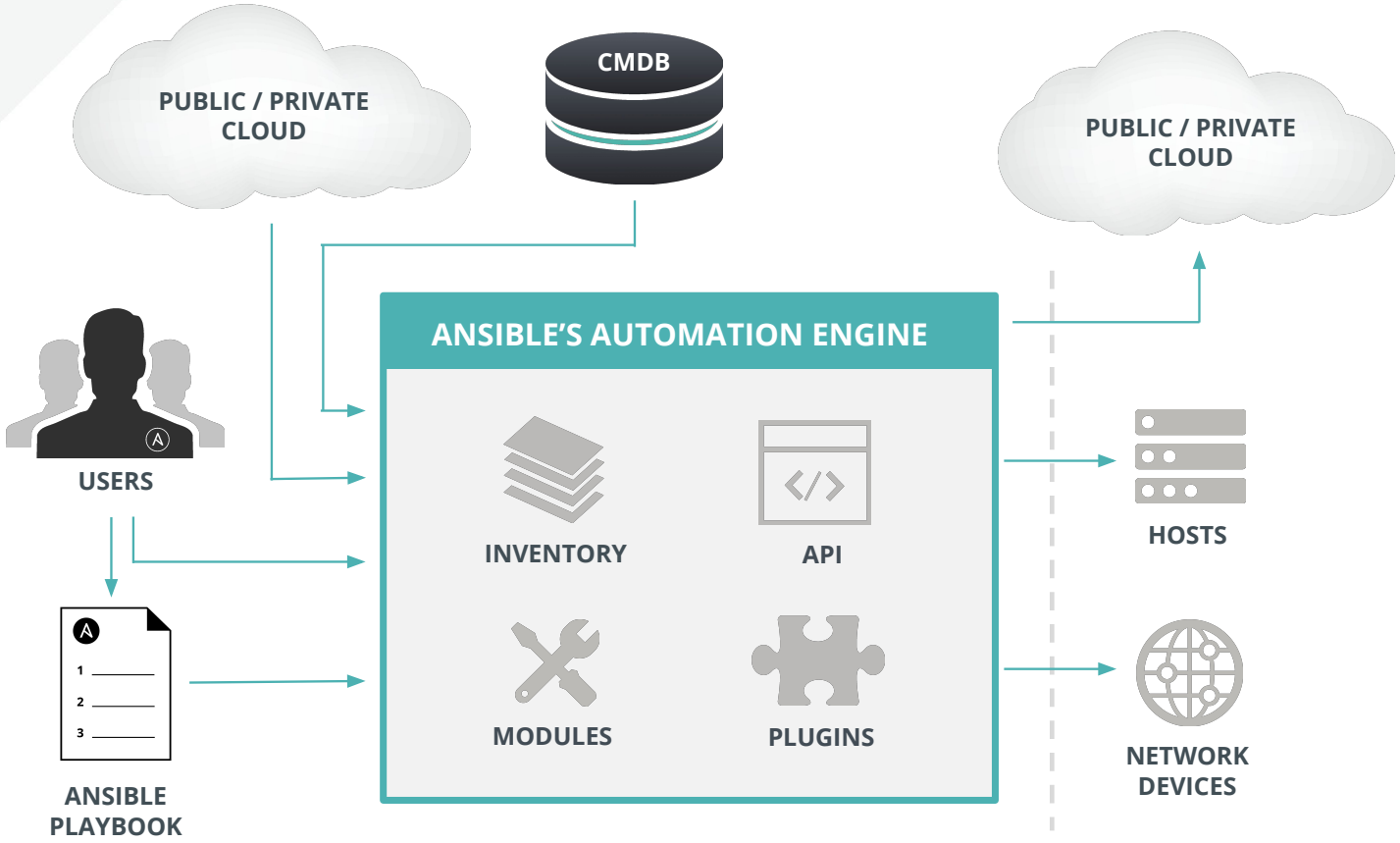
Engine

RED HAT ANSIBLE ENGINE

HOW IT WORKS



CLOUD

OpenStack, VMware, EC2, Rackspace, GCE, Azure, Spacewalk, Hanlon, Cobbler

CUSTOM CMDB

```
---
- name: install and start apache
  hosts: web
  become: yes
  vars:
    http_port: 80

  tasks:
  - name: httpd package is present
    yum:
      name: httpd
      state: latest

  - name: latest index.html file is present
    copy:
      src: files/index.html
      dest: /var/www/html/

  - name: httpd is started
    service:
      name: httpd
            state: started
```

EXAMPLE

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RED HAT ANSIBLE ENGINE

NETWORK AUTOMATION

Use Ansible to manage, validate, and continuously track heterogeneous network device configurations and deployments.

Network modules are included as part of the Ansible distribution.

33+
Networking platforms

460+
Networking Modules

ansible.com/networking

```
---
- name: configure ios interface
  hosts: ios01
  tasks:
    - name: collect device running-config
      ios_command:
        commands: show running-config interface GigabitEthernet0/2
        provider: “{{ cli }}”
      register: config

    - name: verify operational status
      ios_command:
        commands:
                - show interfaces GigabitEthernet0/2
                - show cdp neighbors GigabitEthernet0/2 detail
        waitfor:
                - result[0] contains ‘line protocol is up’
                - result[1] contains ‘iosxr03’
                - result[1] contains ’10.0.0.42’
        provider: “{{ cli }}”
```

EXAMPLE

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RED HAT ANSIBLE ENGINE

WINDOWS AUTOMATION

Use Ansible to deploy and manage Windows systems and applications.

70+
Windows Modules

350+
Powershell DSC resources

```
---
- hosts: new_servers
  tasks:
  - name: ensure common OS updates are current
    win_updates:
    register: update_result

  - name: ensure domain membership
    win_domain_membership:
      dns_domain_name: contoso.corp
      domain_admin_user: '{{ domain_admin_username }}'
      domain_admin_password: '{{ domain_admin_password }}'
      state: domain
    register: domain_result

    - name: ensure common tools are installed
    win_chocolatey:
      name: '{{ item }}'
    with_items: ['sysinternals', 'googlechrome']
```

EXAMPLE

RED HAT ANSIBLE Engine

RED HAT ANSIBLE ENGINE

SUPPORTED PLATFORMS

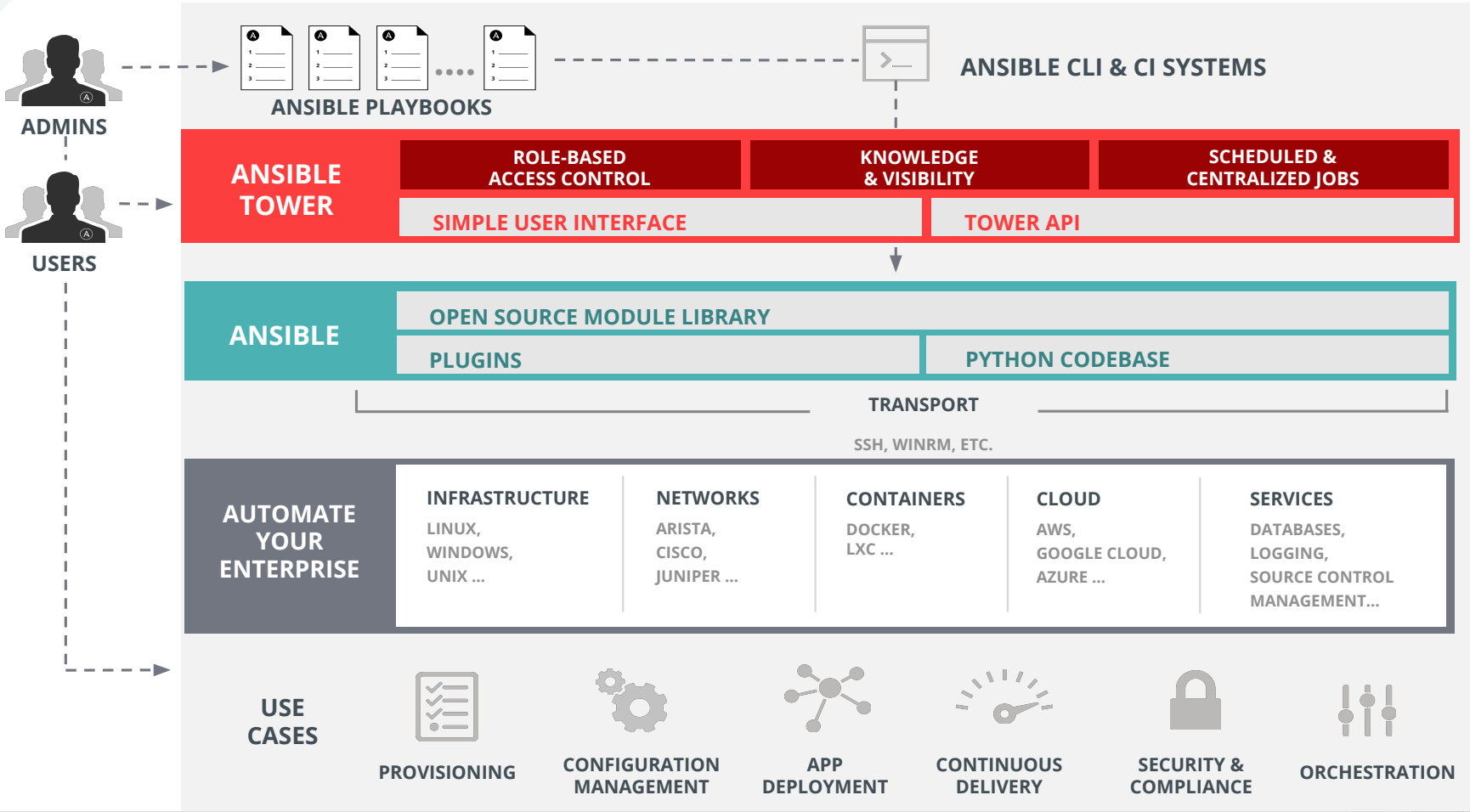
Control nodes
Red Hat Enterprise Linux 7.2 and later (x86_64 only)
Ubuntu 14.04 LTS (x86_64 only)
Ubuntu 16.04 LTS (x86_64 only)

Managed Nodes
Red Hat Enterprise Linux 6.3 and later (x86_64 only
Red Hat Enterprise Linux 7.2 and later (x86_64 only)
Ubuntu 14.04 * 16.04 LTS (x86_64 only)
Windows Server 2008, 2008 R2
Windows Server 2012, 2012 R2
Windows Server 2016
Network Devices (Arista EOS, Cisco IOS, IOS-XE, IOS-XR, NX-OS, Juniper Junos OS, VyOS)
Others - unlisted RHEL variants, SuSE, Solaris, AIX, etc. Commercially reasonable support only

RED HAT ANSIBLE Tower

RED HAT ANSIBLE TOWER

USE CASES



RED HAT ANSIBLE TOWER

WHAT IS NEW?

BUILT-IN FACT CACHING

Facts stored in Tower database

SMART INVENTORIES

Dynamic fact based grouping

INVENTORY FROM SOURCE CONTROL

Version controlled inventories

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WHAT IS NEW?

CUSTOM CREDENTIALS

Define your own credential types

INSTANCE GROUPS

Dynamic fact based grouping

ISOLATED NODES

Offload execution to remote control nodes

RED HAT ANSIBLE Tower

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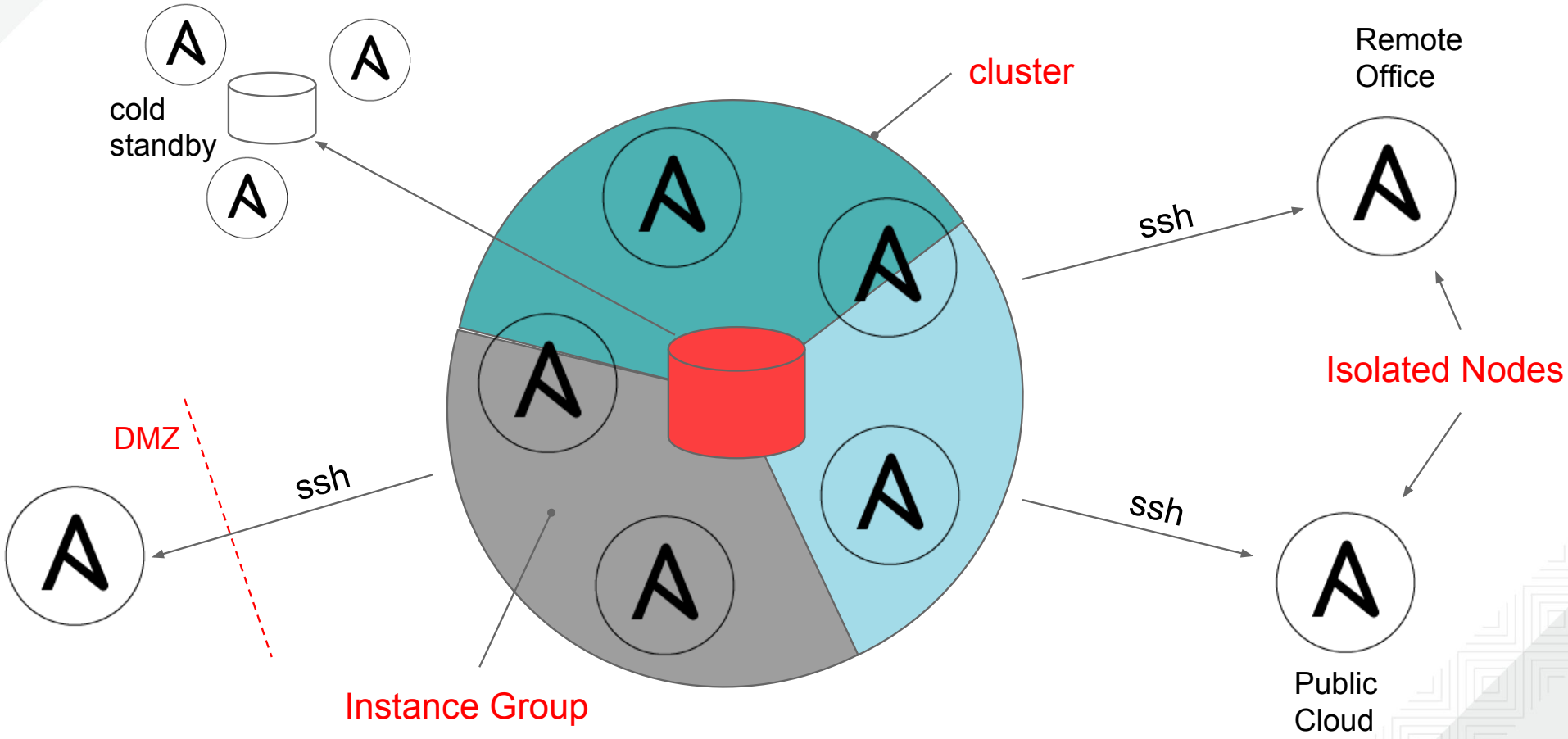
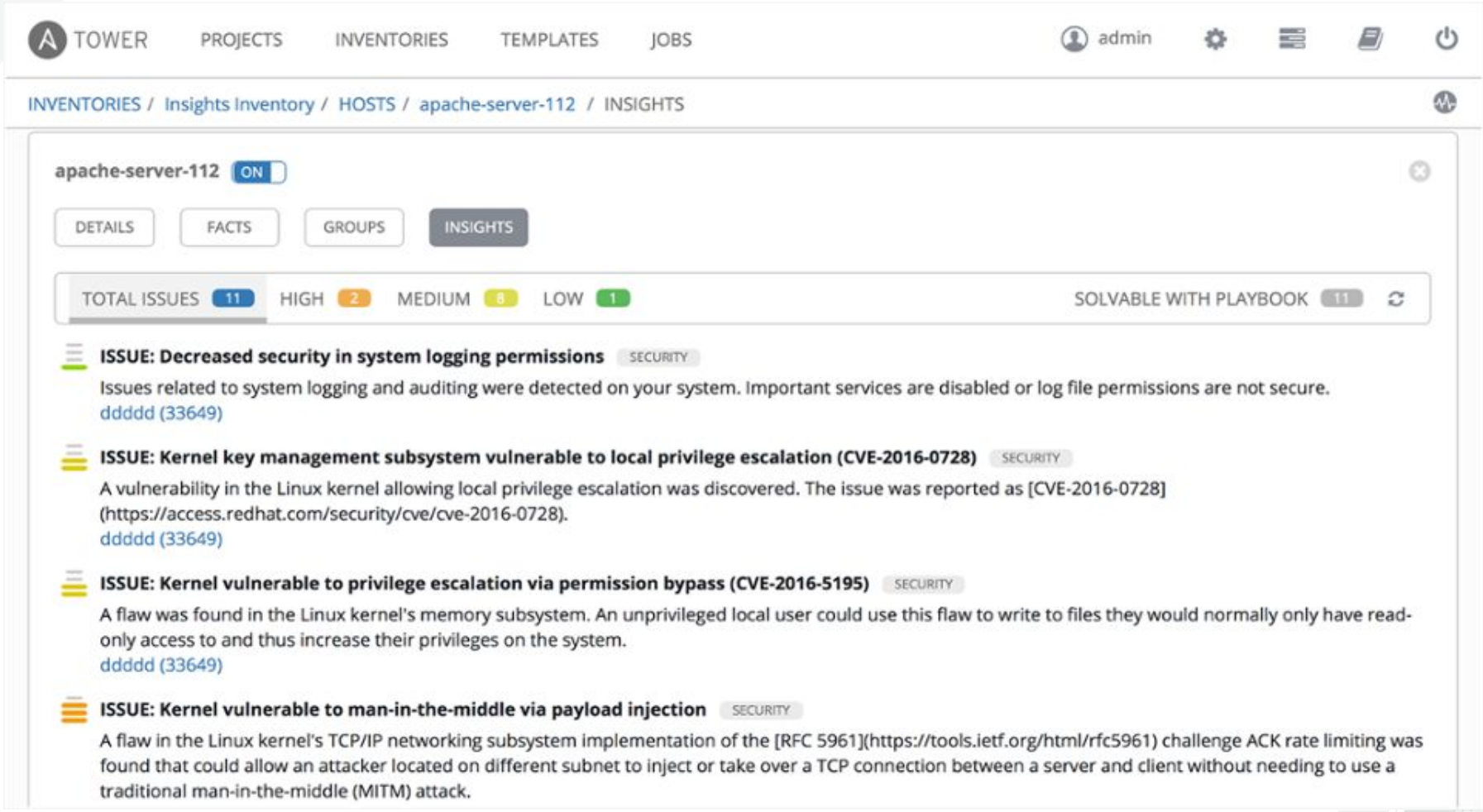
WHAT IS NEW?



RED HAT ANSIBLE Tower

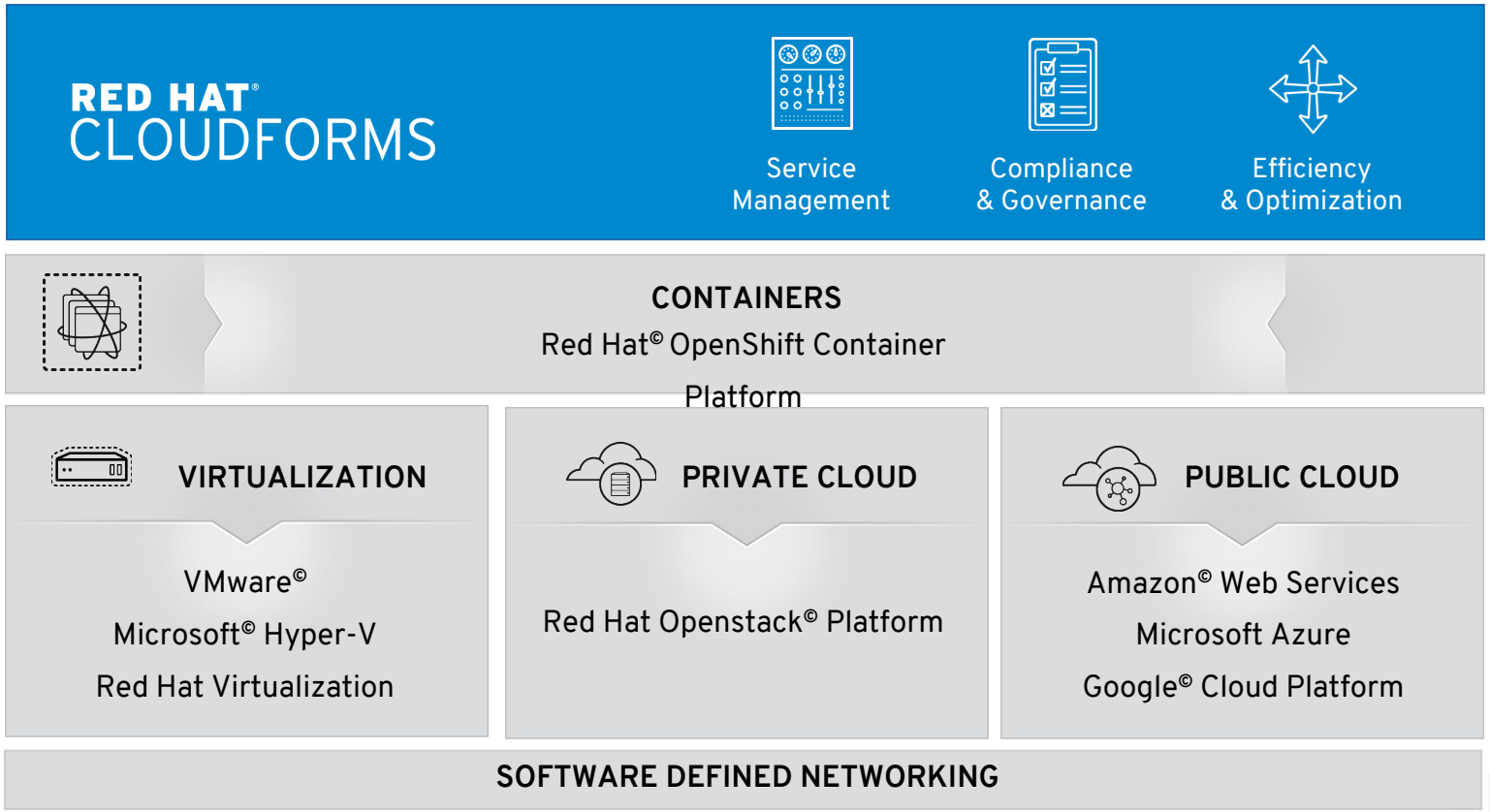
RED HAT ANSIBLE TOWER

WHAT IS NEW?



CLOUDFORMS

AN EVOLUTIONARY PATH TO HYBRID CLOUD



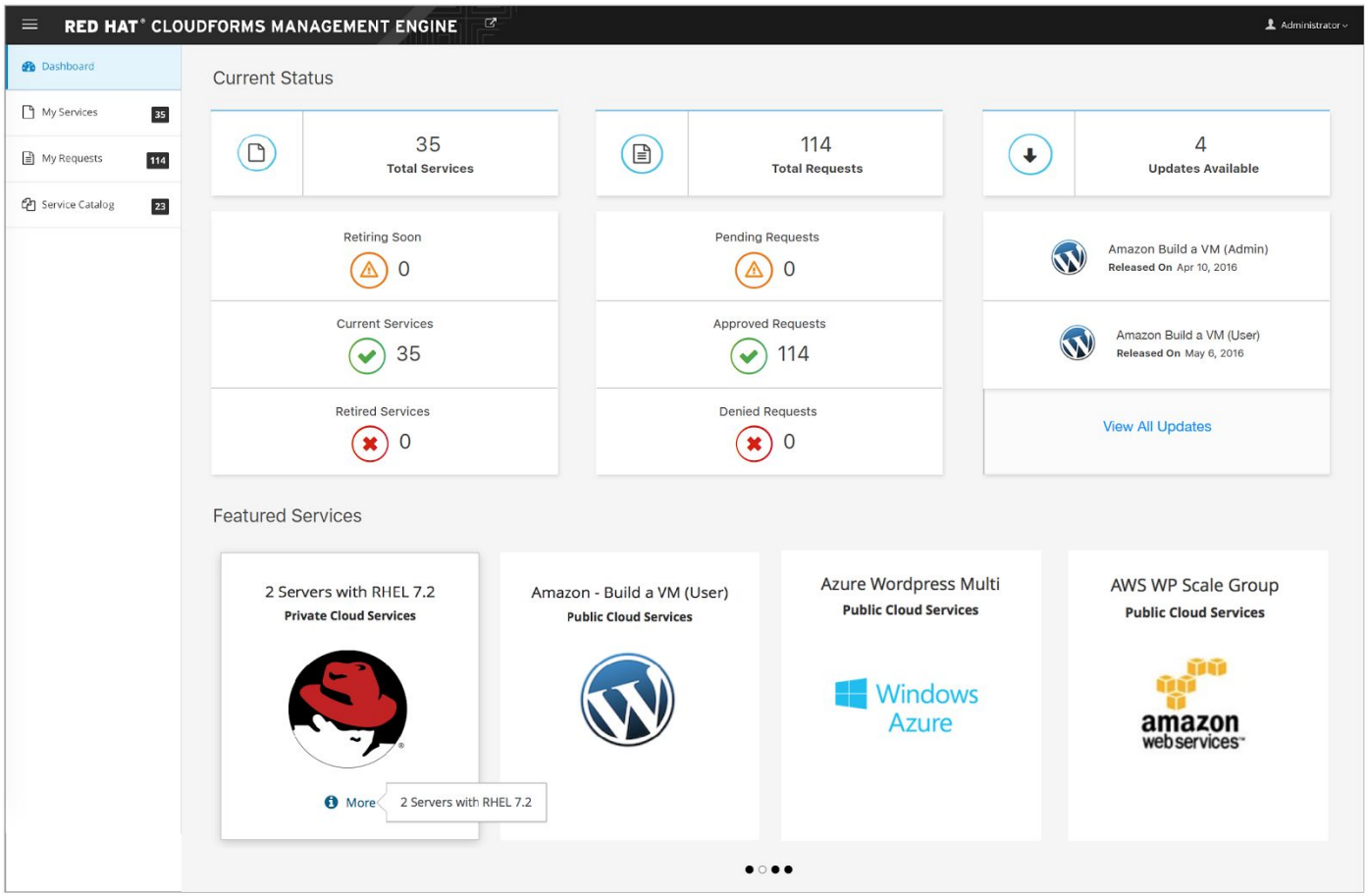
CLOUDFORMS

ANSIBLE INSIDE

Self Service Playbooks

Playbook as a Service

- Order
- Modify (roadmap)
- Retire



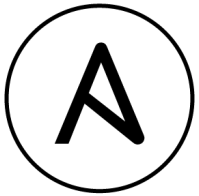
CLOUDFORMS

ANSIBLE INSIDE

Policy State Management

Playbook as a Policy Action

See events, Conditionally Process and run a Playbook



Event - Condition - Playbook

VM Powers On - Is Database Server - Connect extra Disk

Software Scan - Is Vulnerable - Update Software

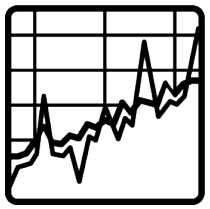
CLOUDFORMS

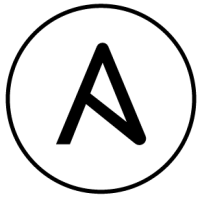
ANSIBLE INSIDE

Alerts

Playbook as a Alert Action

React to





Alert	***-***	***Playbook***
Out of Disk Space	*-*	*Expand Disk*
High CPU Long Duration	*-*	*Add More CPU*

CLOUDFORMS

ANSIBLE ROADMAP

Call Ansible Playbooks as methods in a state machine
Allows for Hybrid Ruby and Ansible Orchestration

Compute Resource Linking to CloudForms Services
Provides visibility of Compute items that Ansible deployed.

More credentials supported
OpenStack, (RHV), Azure, Google, Satellite, Subversion, GitLab
Networking

More CloudForms modules
Including secure authentication van Ansible callbacks into CloudForms

Self Service Portal Languages
In het Nederlands!

Q & A

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