

Red Hat Financial Forum



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AUTOMATION FOR EVERYONE

김용기 부장

Sr. Solution Architect

한국레드햇



Automation for Everyone

자동화: 비즈니스 변화의 키포인트

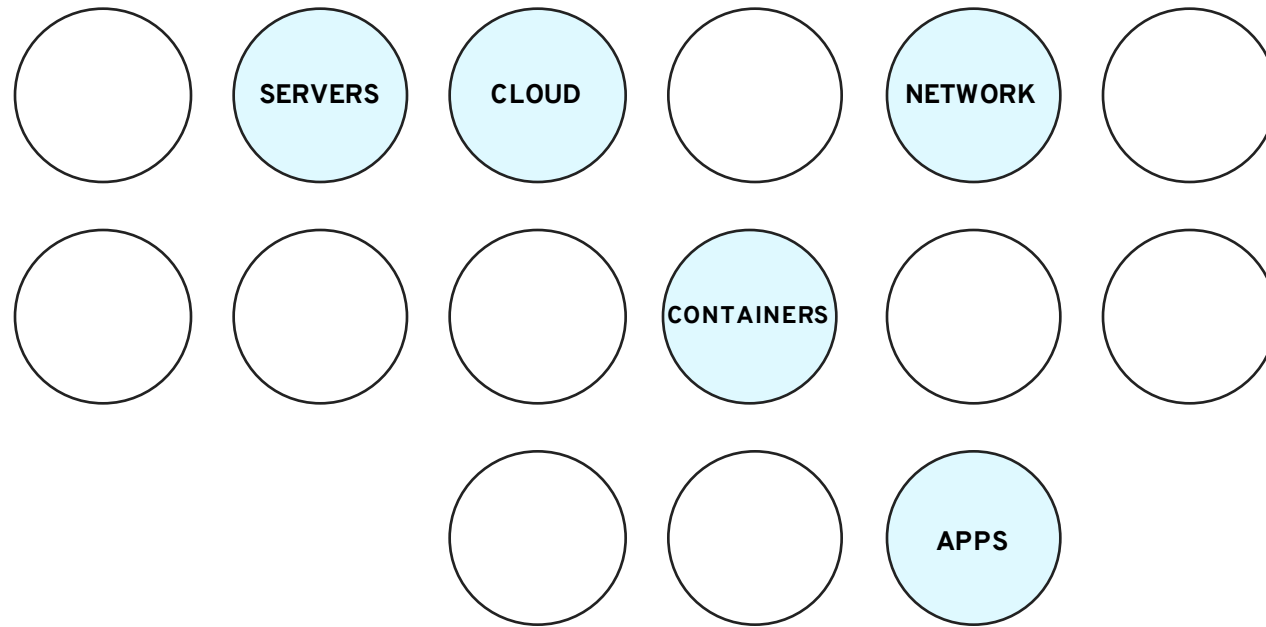
“Digital business gives IT infrastructure and operations leaders a mandate to implement **organization-wide automation...**

The benefits are compelling - automation improves accountability, efficiency and predictability, while **reducing cost, variability and risk...**”

Automation: The Next Frontier for IT Gartner
May 2016

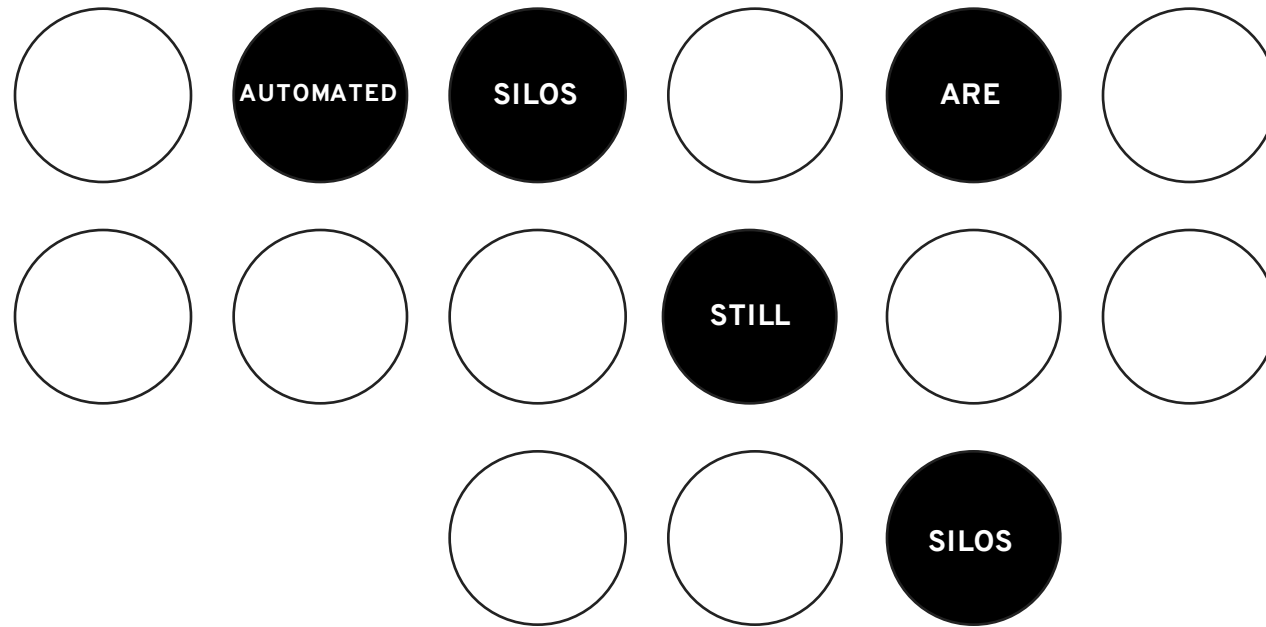
Automation for Everyone

엔터프라이즈 IT 환경에서의 자동화



Automation for Everyone

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엔터프라이즈 IT 환경에서 자동화 방해 요소

1

PEOPLE PROBLEMS

Skills gaps & org charts
get in the way

2

POINT TOOLS

Proliferation of point solutions
and vendor-specific tools

3

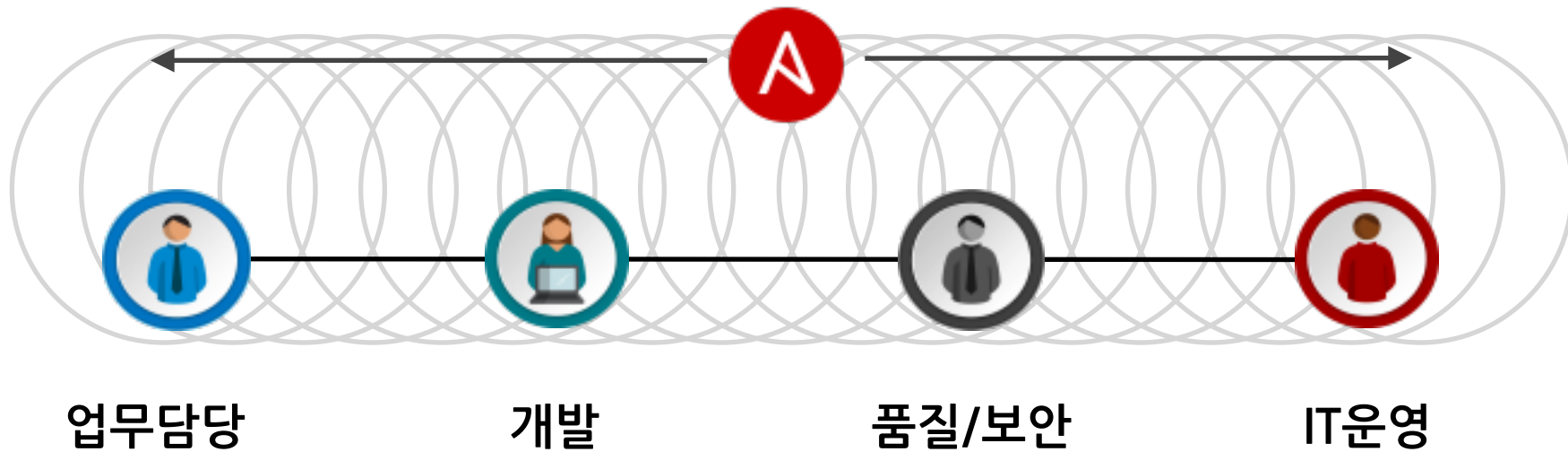
PACE OF INNOVATION

Automation requires integration
across domains

자동화를 확산하기 위해서는
단순화

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Ansible: 공통의 언어



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ANSIBLE ENGINE 특징

SIMPLE

- Human readable automation
- No special coding skills needed
- Tasks executed in order
- Usable by every team

**GET PRODUCTIVE
QUICKLY**

POWERFUL

- App deployment
- Configuration management
- Workflow orchestration
- Network automation

**ORCHESTRATE
THE APP LIFECYCLE**

AGENTLESS

- Agentless architecture
- Uses OpenSSH & WinRM
- No agents to exploit or update
- Get started immediately

**MORE EFFICIENT
& MORE SECURE**

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Ansible 자동화란?

앤서블 프로젝트는 레드햇이 후원하는 오픈소스 커뮤니티.
앤서블은 쉬운 자동화 언어로서 플레이북을 통해 IT 환경을 완벽하게 구현 가능

Ansible Engine은 앤서블 커뮤니티 프로젝트에서 만들어진 앤서블을 지원받을 수 있는 제품

Ansible Tower는 앤서블 기능을 확장하여 관리, 보안, 가시성을 높이는 엔터프라이즈 프레임워크. UI와 RESTful API를 통한 관리 기능 확장



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자동화로 구현할 수 있는 것들

Do this...

Orchestration

Configuration
Management

Application
Deployment

Provisioning

Continuous
Delivery

Security and
Compliance

On these...

Firewalls

Load Balancers

Applications

Containers

Clouds

Servers

Infrastructure

Storage

Network Devices

And more...

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THE ANSIBLE WAY

CROSS PLATFORM

Agentless support for all major OS variants, physical, virtual, cloud and network devices.

HUMAN READABLE

Perfectly describe and document every aspect of your application environment.

PERFECT DESCRIPTION OF APPLICATION

Every change can be made by Playbooks, ensuring everyone is on the same page.

VERSION CONTROLLED

Playbooks are plain-text. Treat them like code in your existing version control.

DYNAMIC INVENTORIES

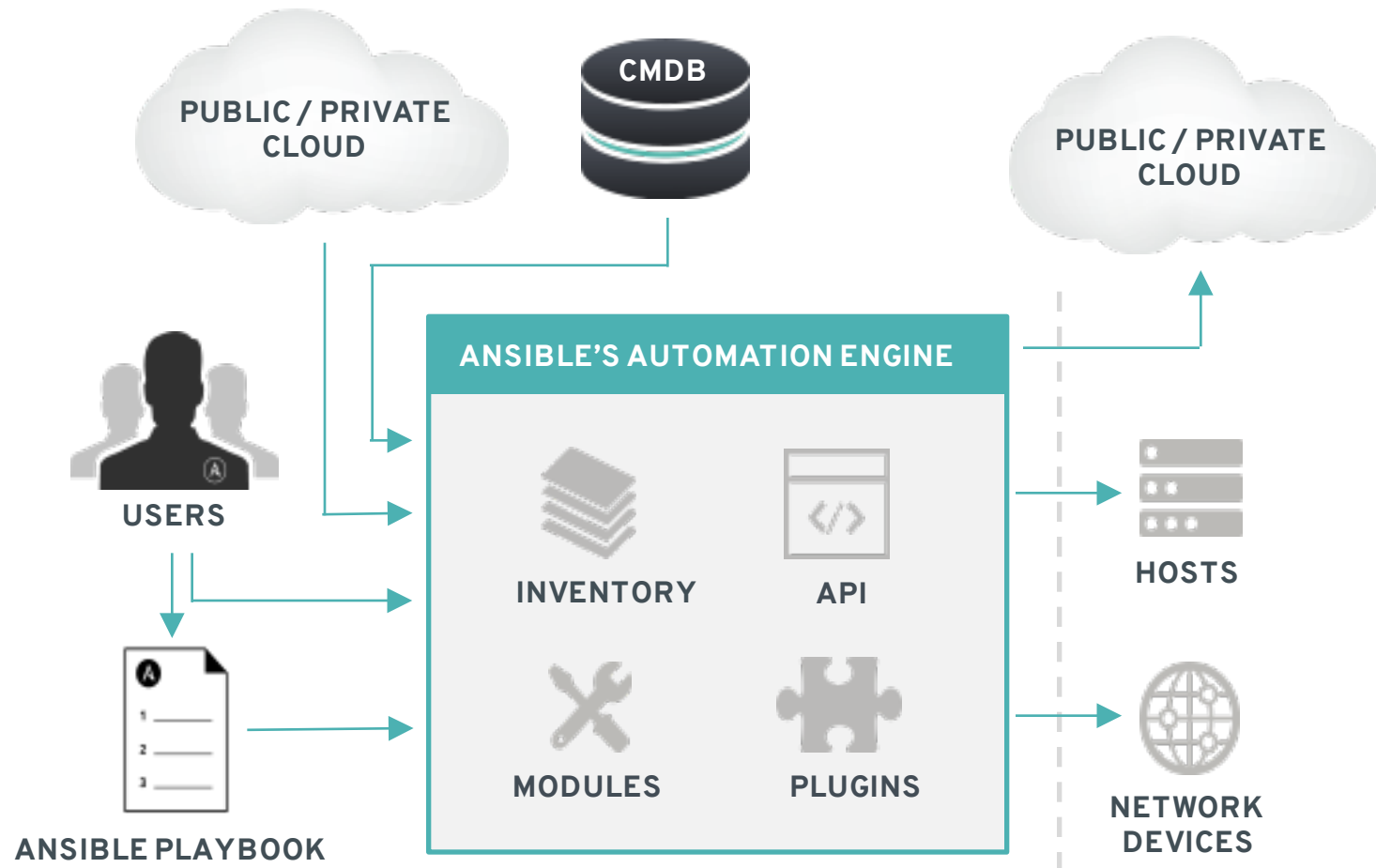
Capture all the servers 100% of the time, regardless of infrastructure, location, etc.

ORCHESTRATION PLAYS WELL WITH

Every change can be made by Playbooks, ensuring everyone is on the same page.

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ANSIBLE 작동 방식



CLOUD

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

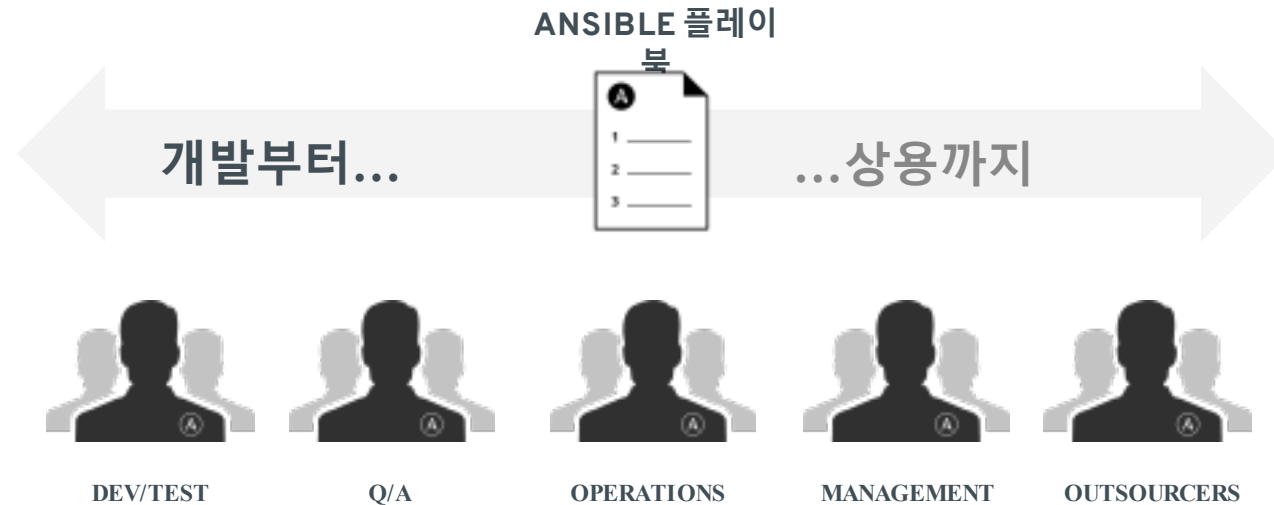
CUSTOM CMDB

ANSIBLE

THE LANGUAGE OF DEVOPS

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ANSIBLE for DevOps



앤서블은 IT 관련 모든 부서가 읽고 쓸수 있는 자동화 언어이다.

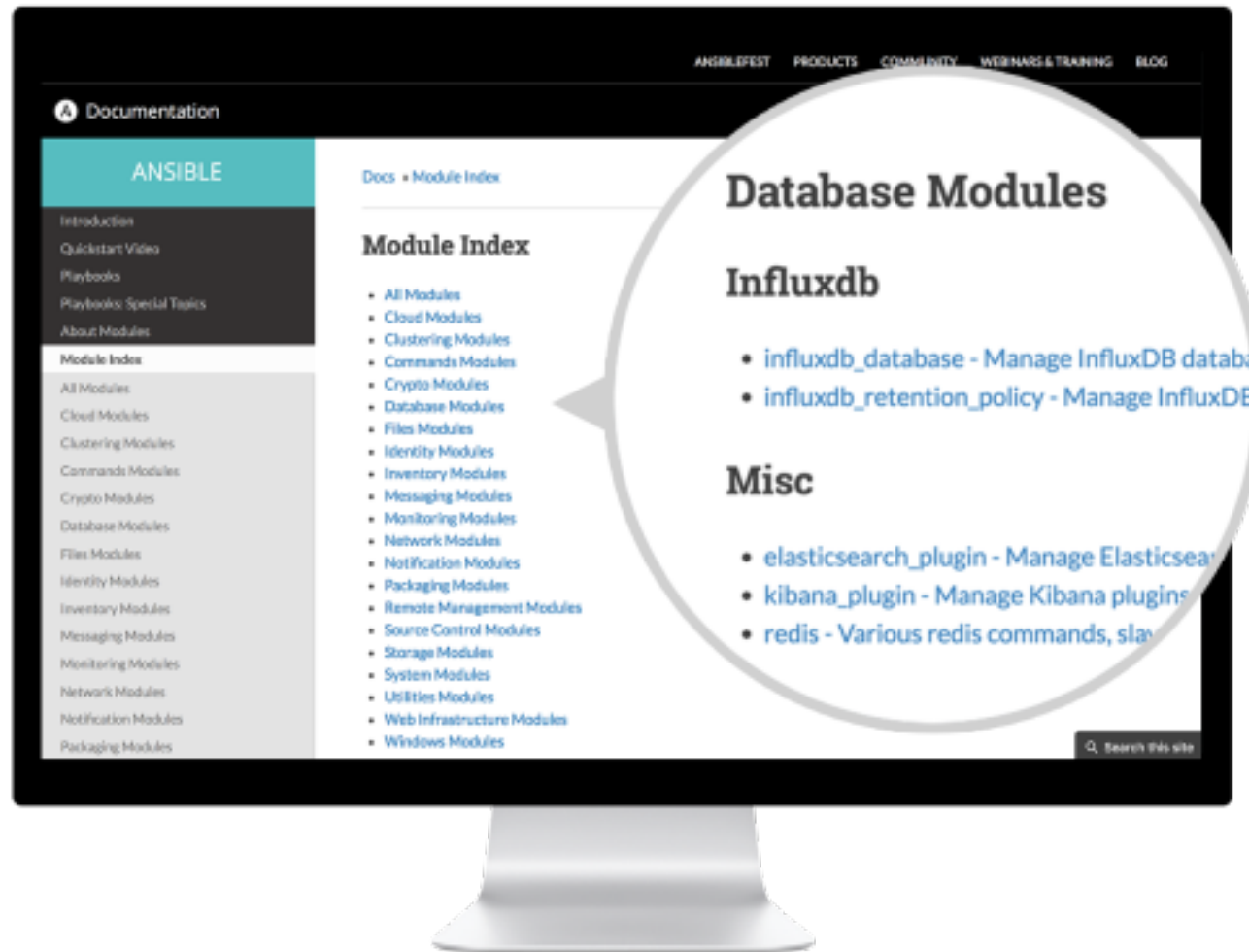
Ansible is the only **automation engine** that can automate the entire application lifecycle and continuous delivery pipeline.

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```
---
- 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: starte
```

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ANSIBLE 모듈

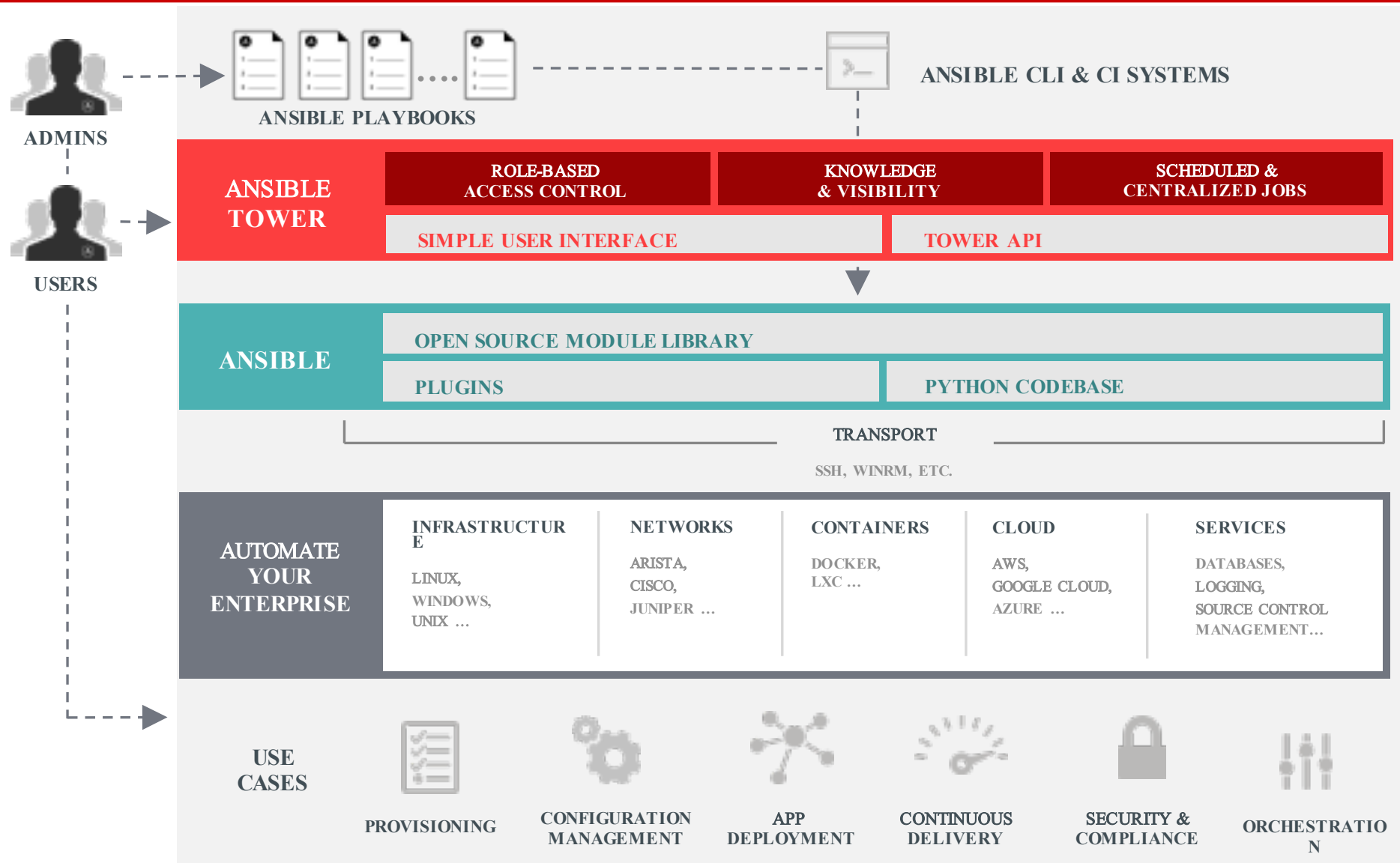


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ANSIBLE 모듈 예시

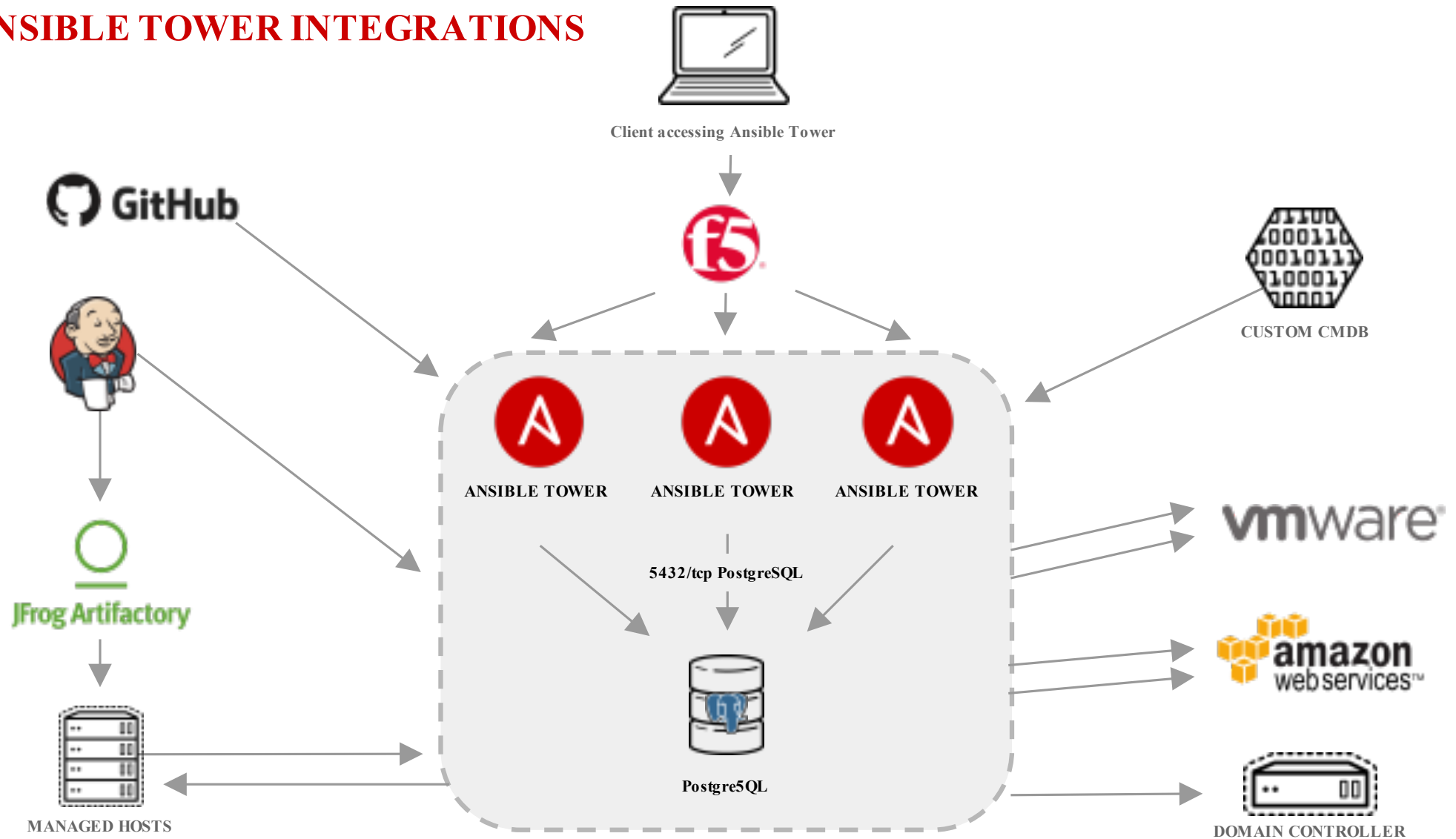
CLOUD	VIRT AND CONTAINER	WINDOWS	NETWORK	NOTIFY
AWS	Docker	ACLs	Arista	HipChat
Azure	VMware	Files	A10	IRC
CenturyLink	RHEV	Commands	Cumulus	Jabber
CloudScale	OpenStack	Packages	Big Switch	Email
Digital Ocean	OpenShift	IIS	Cisco	RocketChat
Docker	Atomic	Regedit	Cumulus	Sendgrid
Google	CloudStack	Shell	Dell	Slack
Linode	And more...	Shares	F5	Twilio
OpenStack		Services	Juniper	And more...
Rackspace		Configs	Palo Alto	
And more...		Users	OpenSwitch	
		Domains	And more...	
		And more...		

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ANSIBLE TOWER INTEGRATIONS



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ANSIBLE TOWER 고객



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“단순화 증대: 복잡한 기존 방식을 유지하면 유지보수가 어렵고, 향후 운영 비용이 엄청나게 발생한 것이다.”

J.CREW

“앤서블타워를 사용해서 기존 6명이 5시간동안 한 방에 모여서 해야할 일을 5분만에 끝내게 되었다. 또한 새 제품 등록도 2주마다 진행하던 일을 2일마다 할 수 있게 되었다. 이로써 새벽 4시에 깨어있을 필요도 없어졌다.”



이 방에 있는 모든 사람들이 기존툴을 앤서블로 변경해야 한다. 2017년 말까지 스타벅스의 모든 네트워크 변경은 앤서블타워를 사용하도록 할 것이다.

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Thank you.

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