



<https://github.com/ArctiqTeam/network-self-healing>

Self-Healing Networks with Ansible and F5

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What are we looking to Solve?

Consistency

Error Mitigation

Agility and Efficiency

Active Documentation

Automate Issue Resolution

A New Perspective on Network Management

The background of the slide features a dark blue surface. In the upper left, two black pencils are positioned diagonally. A silver laptop is partially visible in the upper right. A light-colored tag with a string is attached to the bottom right of the laptop.

The Basics

Configuration Management tool

Open Source

Agentless

Low barrier to entry

Wide array of use-cases and modules

Enterprise Offering (Ansible Tower)

What's New from Ansible

Resource modules

Aggregate resources

Declarative intent

Additional platform support and modules

New network connection types

F5 for Network Automation

iControl REST API

Native Ansible Modules (65+)

Super-NetOps

Automation for the Entire Application

Ecosystem

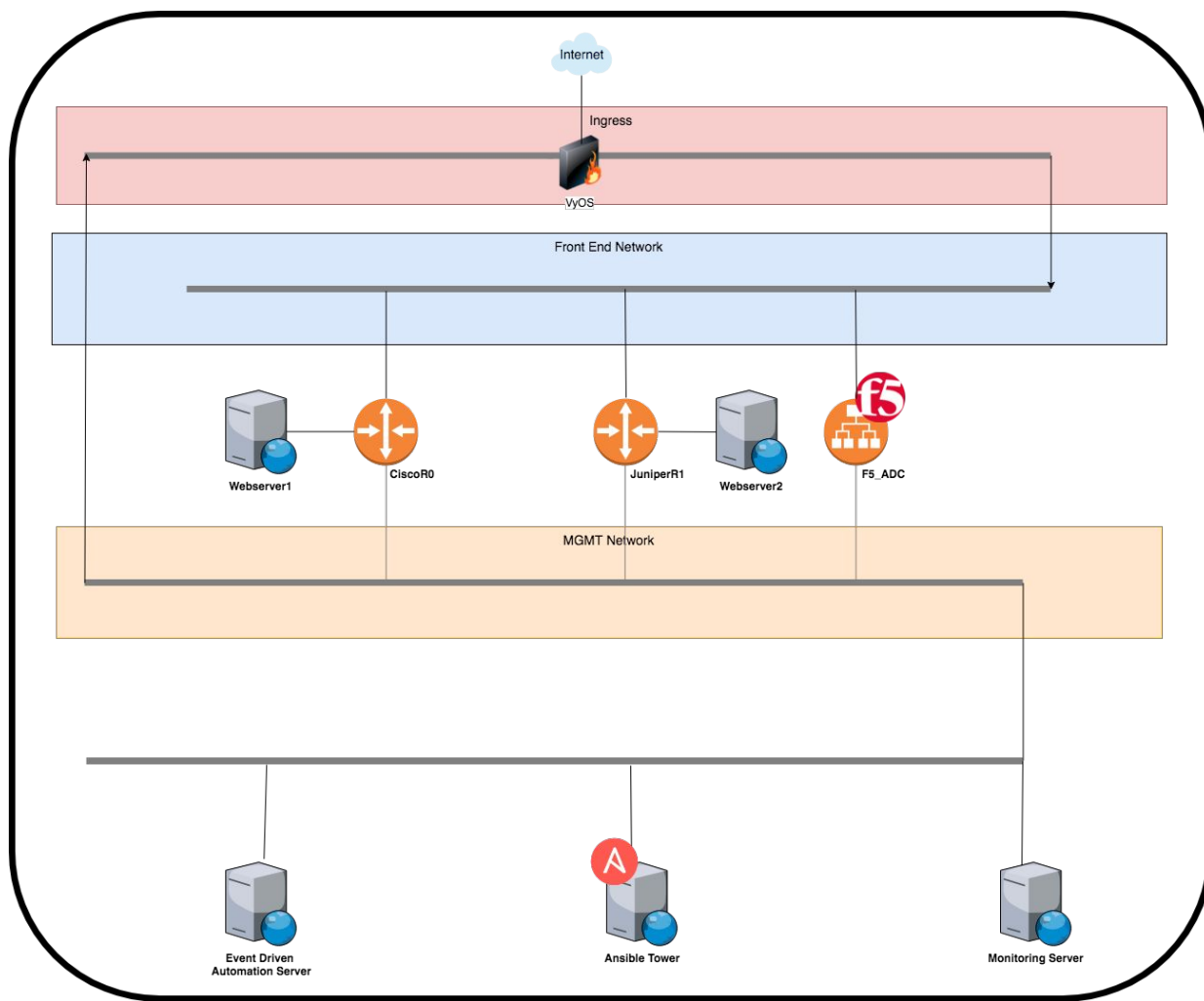
Integrate into Existing Pipelines



<https://f5.com/SuperNetOps>



Lab - Description and Applicabilities



CI/CD for Networks



StackStorm



slack

GitHub



packet



Self-Healing Networks - See it in action ...



Use Case 1: Lab Reset and Standup with Ansible Tower

A rectangular road sign with a black border and a yellow background. The sign is divided horizontally by a diagonal red line. The top half is solid yellow and contains the word "NOW" in large, bold, dark blue capital letters. The bottom half has a crumpled yellow texture and contains the word "Later" in large, bold, dark blue capital letters. Overlaid on the sign is the text "Use Case 1 - Demo" in white.

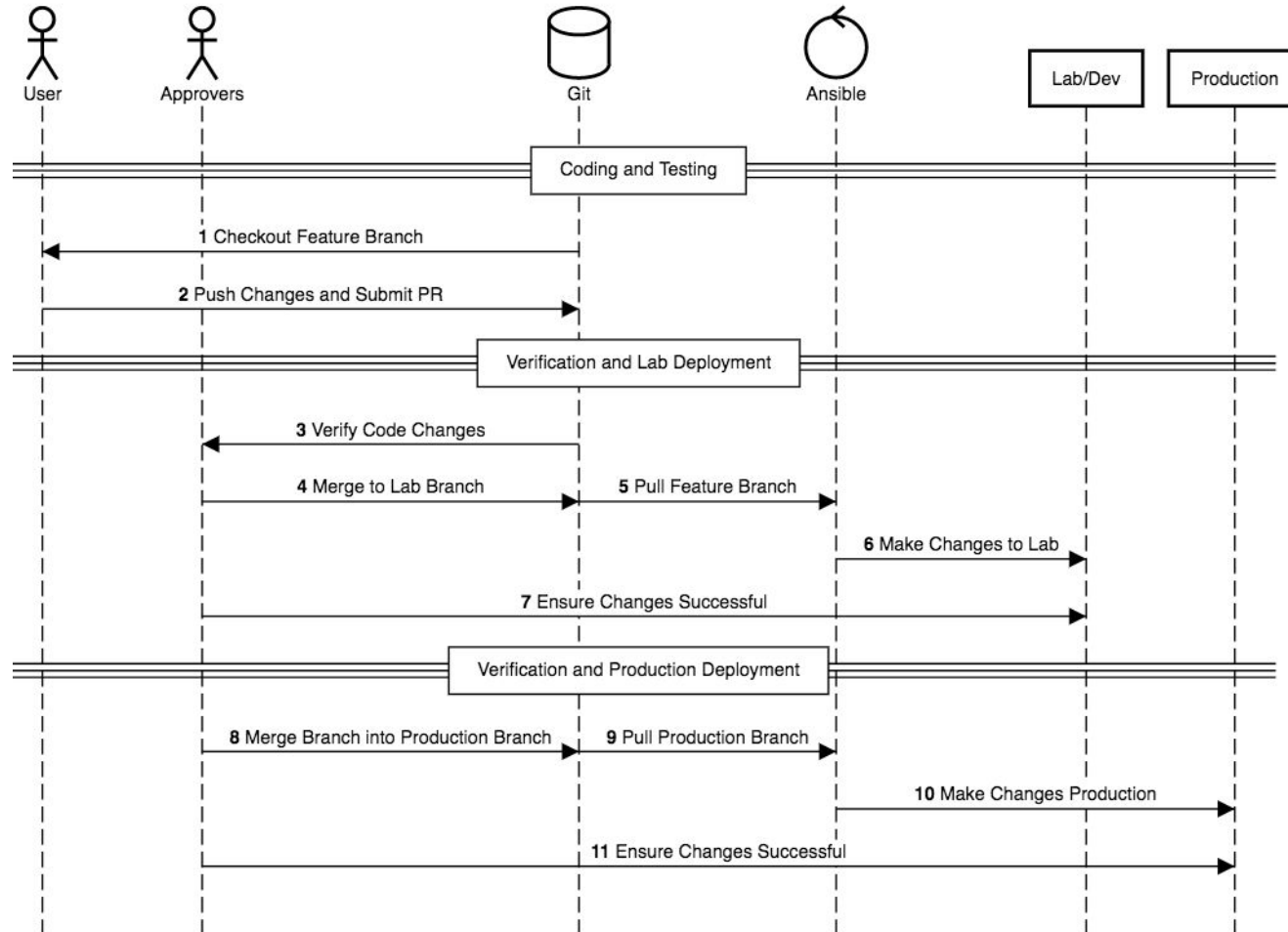
Use Case 1 - Demo

NOW

Later

Use Case 2: Webhook Integration - Git laC

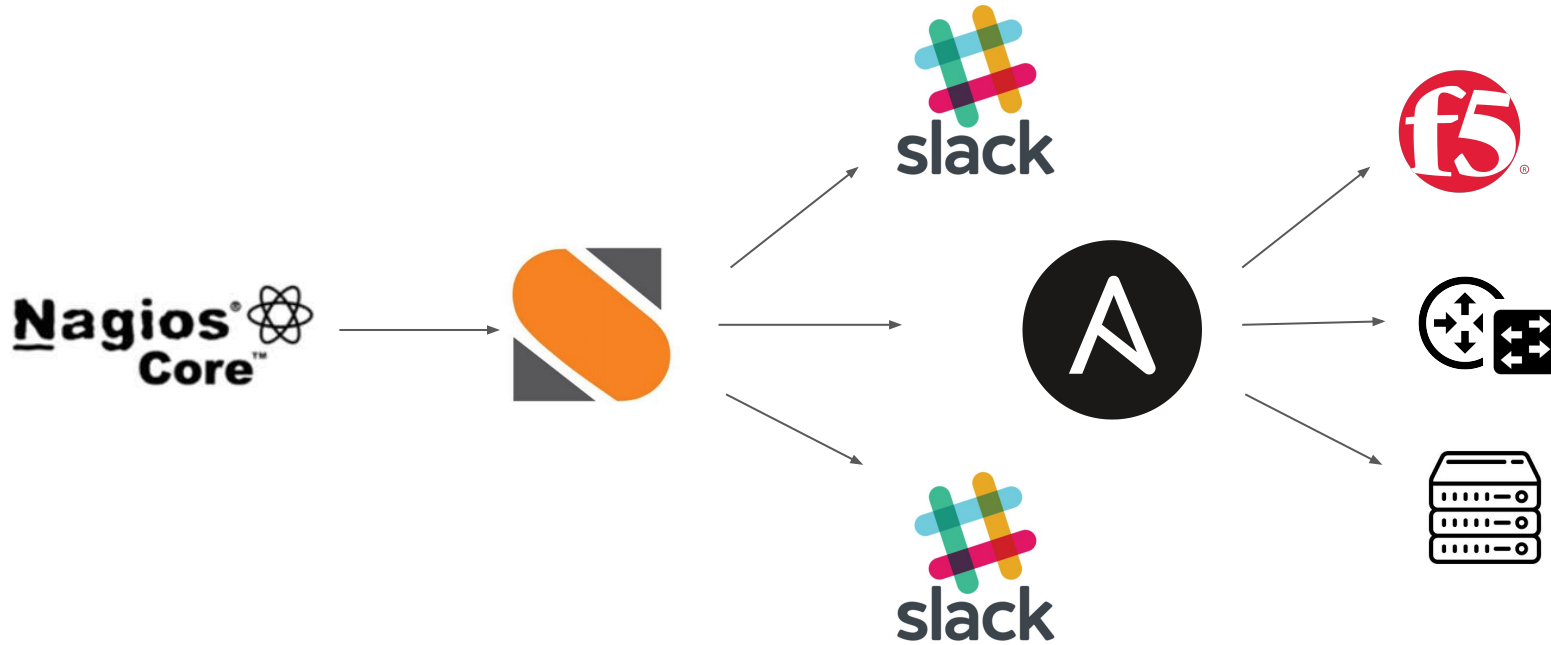
Git/Ansible Network Workflow





Use Case 2 - Demo

Self Healing Workflow



Use Case 3: Catastrophic Network Failure / F5 VIP down

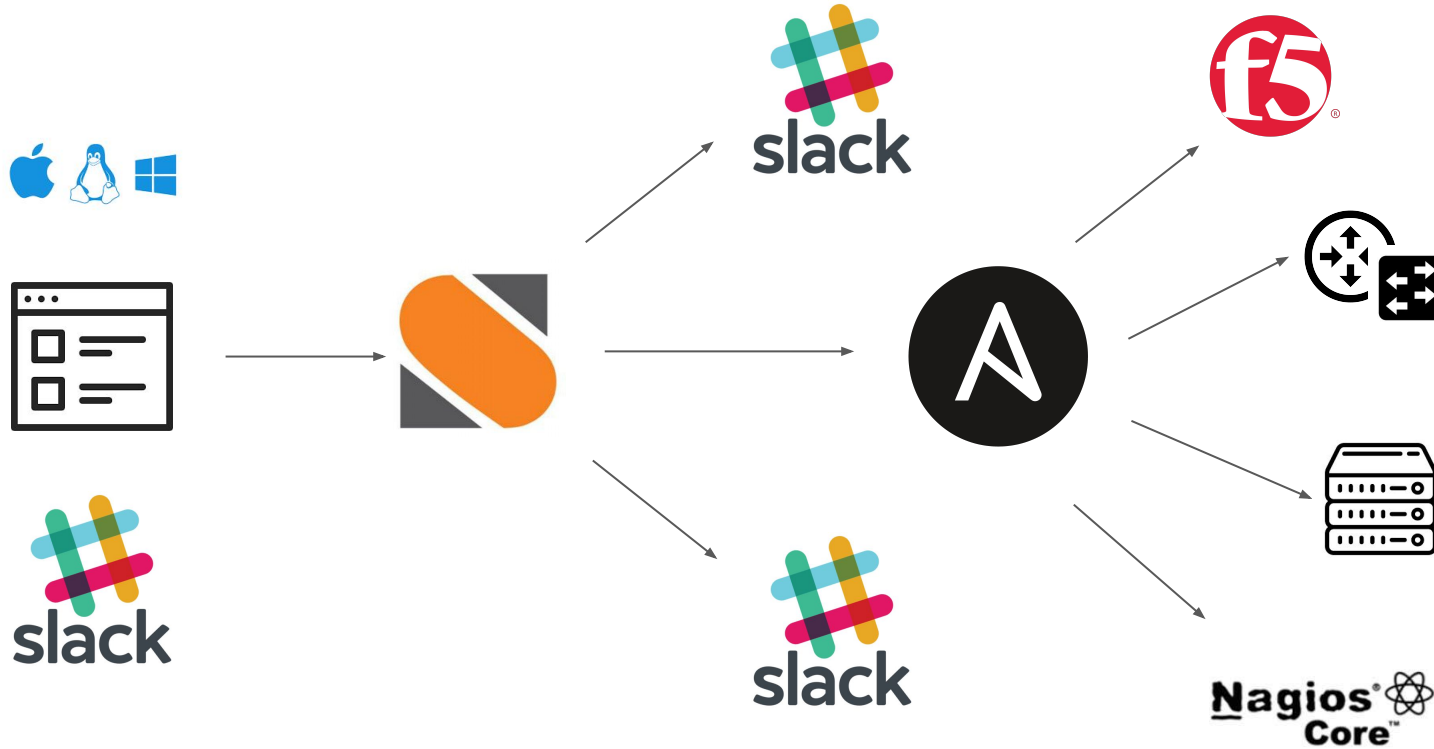
Use Case 3 - Demo

Use Case 4: WebApp Integrity Enforcement



Use Case 4 - Demo

Automated Provisioning Workflow





Where are we headed?



**Soooo many more apps
(microservices)
With much more Open
Source
Demanding deeper
application visibility**

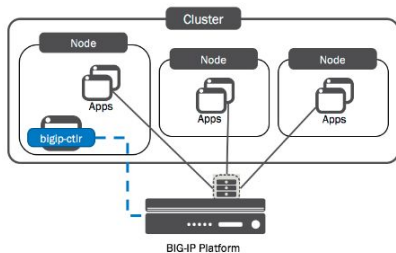
Enterprise Support for Open Source Solutions



redhat®



Integrate F5 ADC into the development workflow



ASPEN MESH



Additional Use Cases:

- Dynamic Network Configuration**
- Pipeline / Release Management**
- Self-serve provisioning portal**
- Full Stack Deployments**

The background of the slide is a close-up photograph of various art supplies. On the left, there are several tubes of paint, some squeezed and open, with colors like white, yellow, and blue visible. In the center and right, there's a palette and some brushes, all covered in splatters and smears of various colors including red, blue, yellow, and white. The overall lighting is somewhat dim, giving it a moody, artistic feel.

Get Creative - It's the ONLY Limitation

Find a Use Case
Convert MOPs into Playbooks
Low Barrier to Entry



THANK YOU

Presentation and all example code available online
<https://github.com/ArctiqTeam/network-self-healing>

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