IT1962 - Using Splunk and its premium solution to accelerate DevOps lifecycle

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Agenda

Introduction

DevOps solution using Splunk – ARTS

Problem & Solution

Demo

BETA labs

DevOps solution using Splunk ITSI – InfraWatch Project

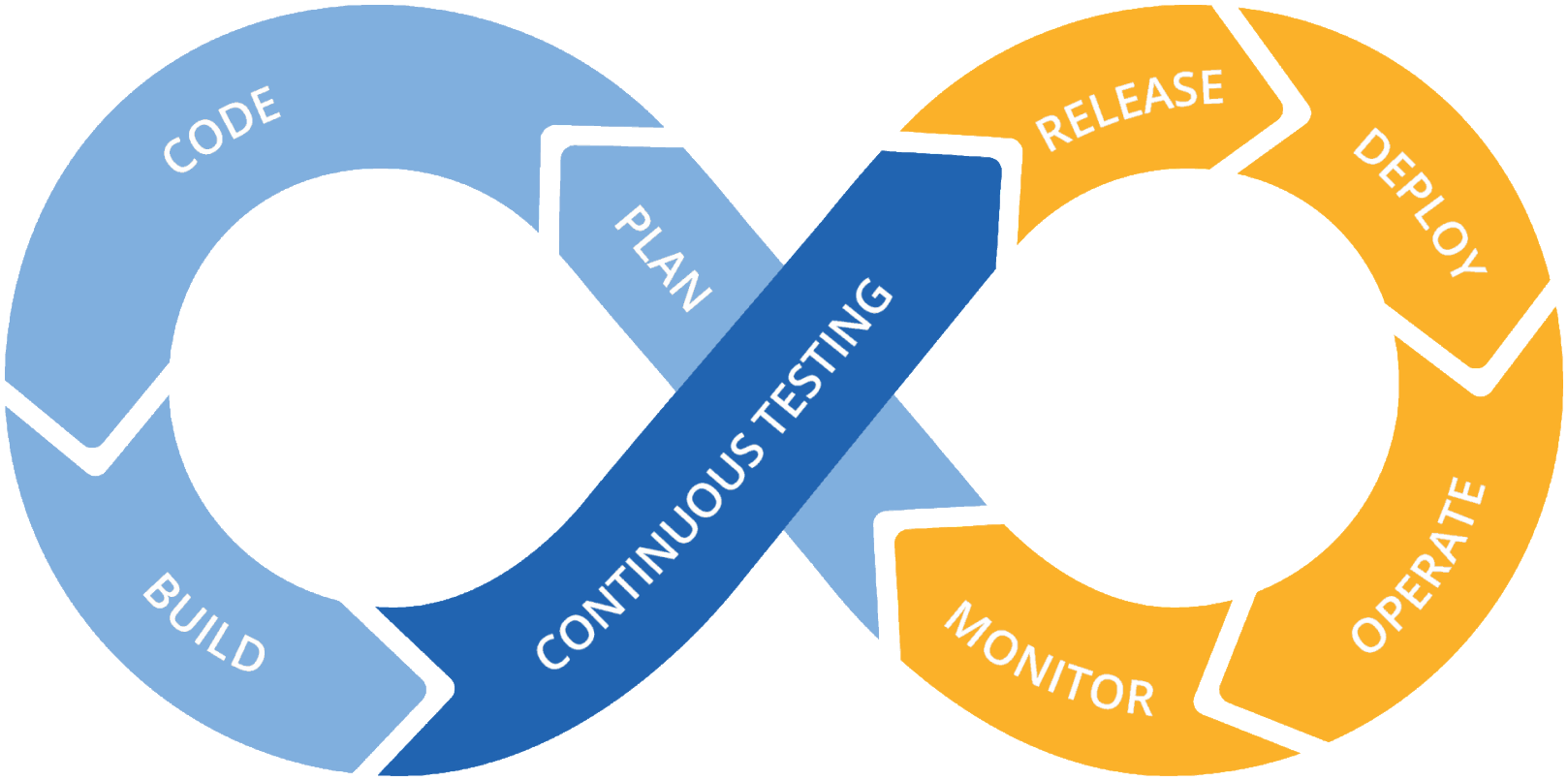
Introduction

Best practices

Q & A

Introduction

DevOps Lifecycle at Splunk



Introduction

Our Solutions for Acceleration

Splunk ARTS

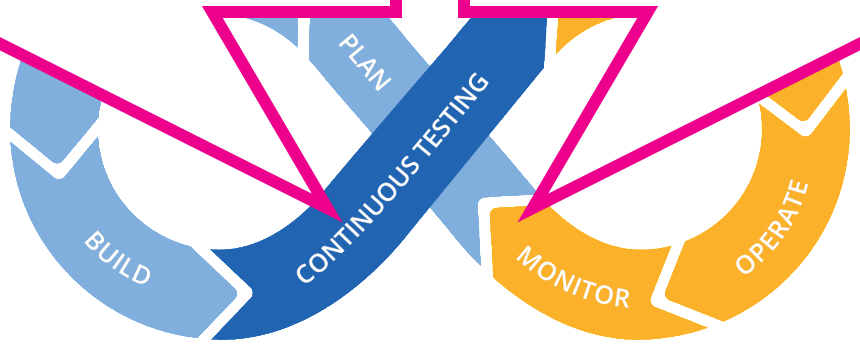
Automation Result Triage System

Automation Result Triage system

InfraWatch Project

Monitoring System for CI/CD Infrastructure

Splunk IT Service Intelligence™ + VictorOps



ARTS

Automation Result Triage System

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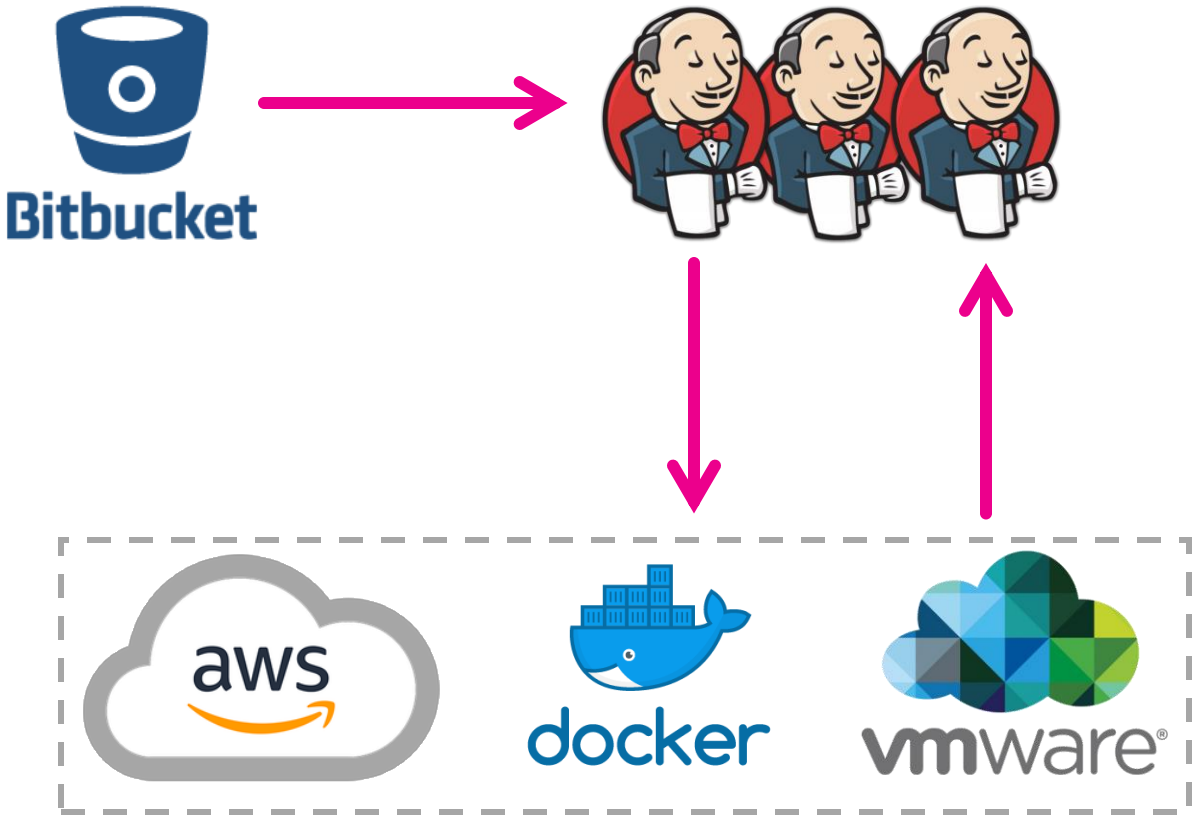
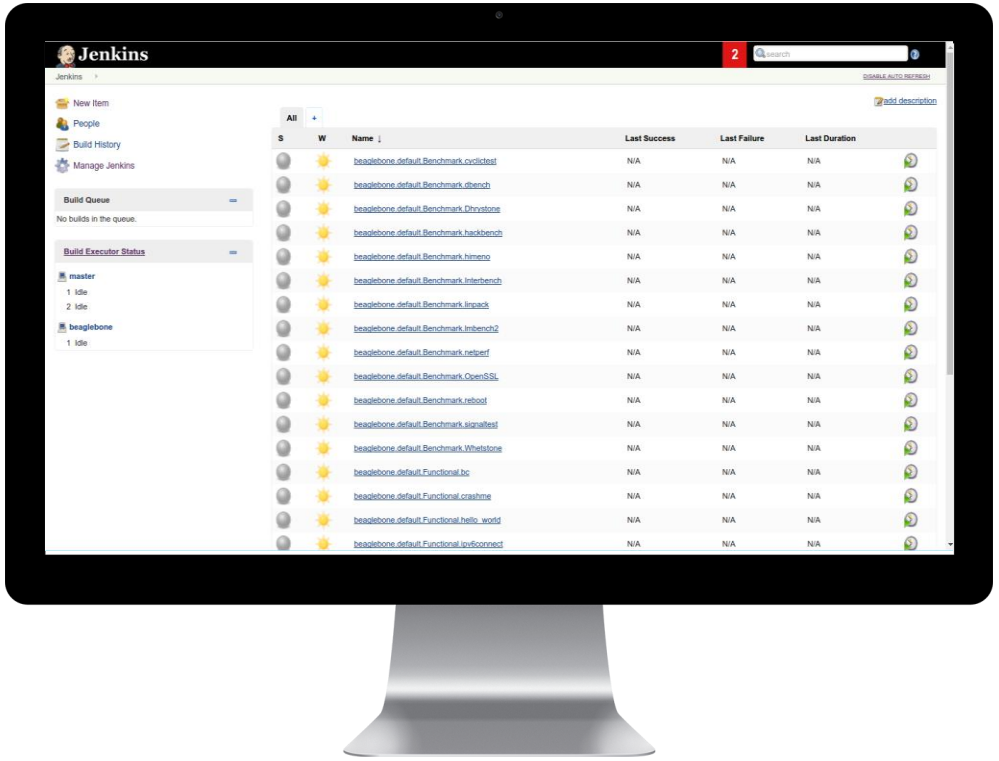
Problem

1

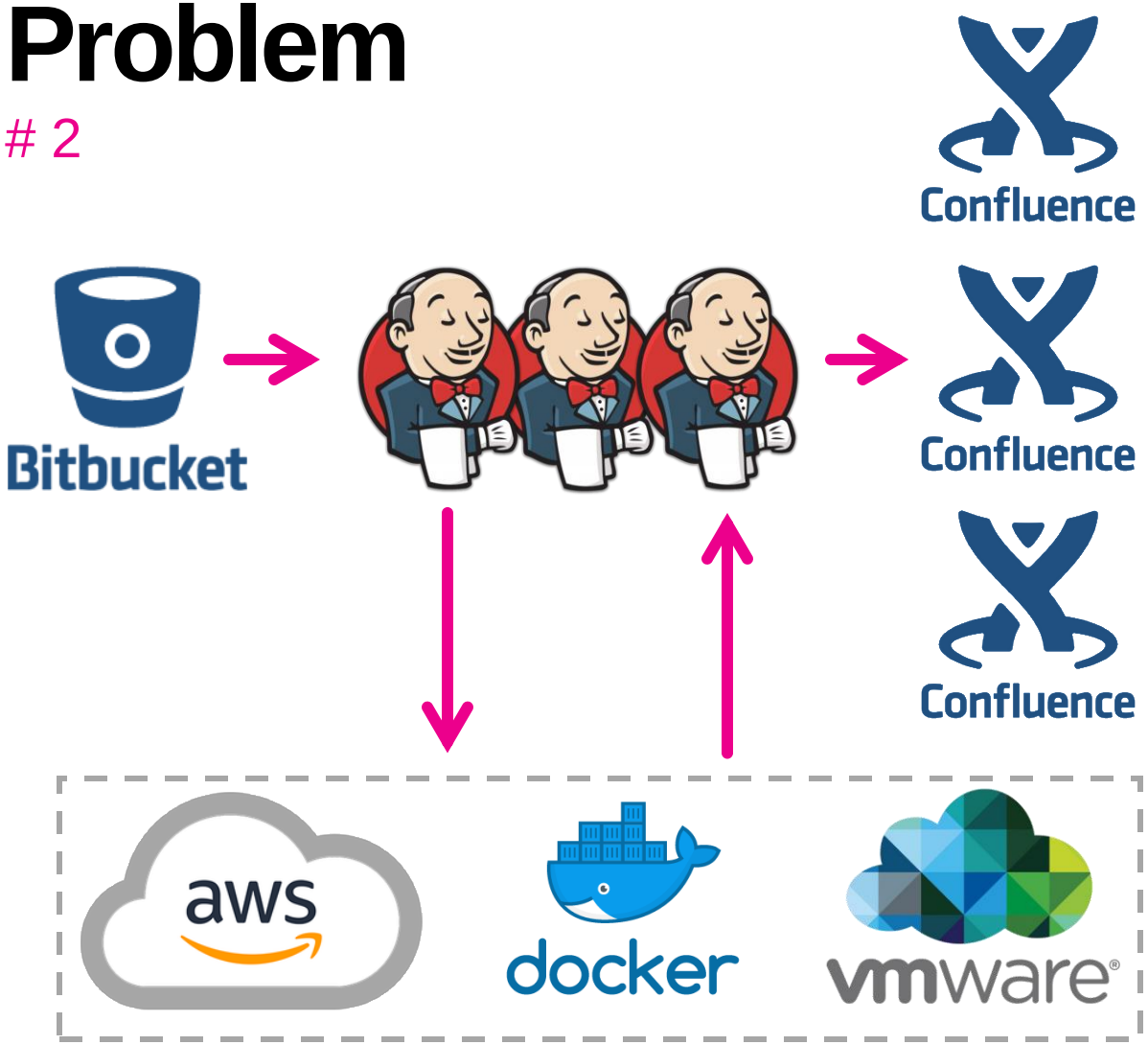


Too much Jenkins data

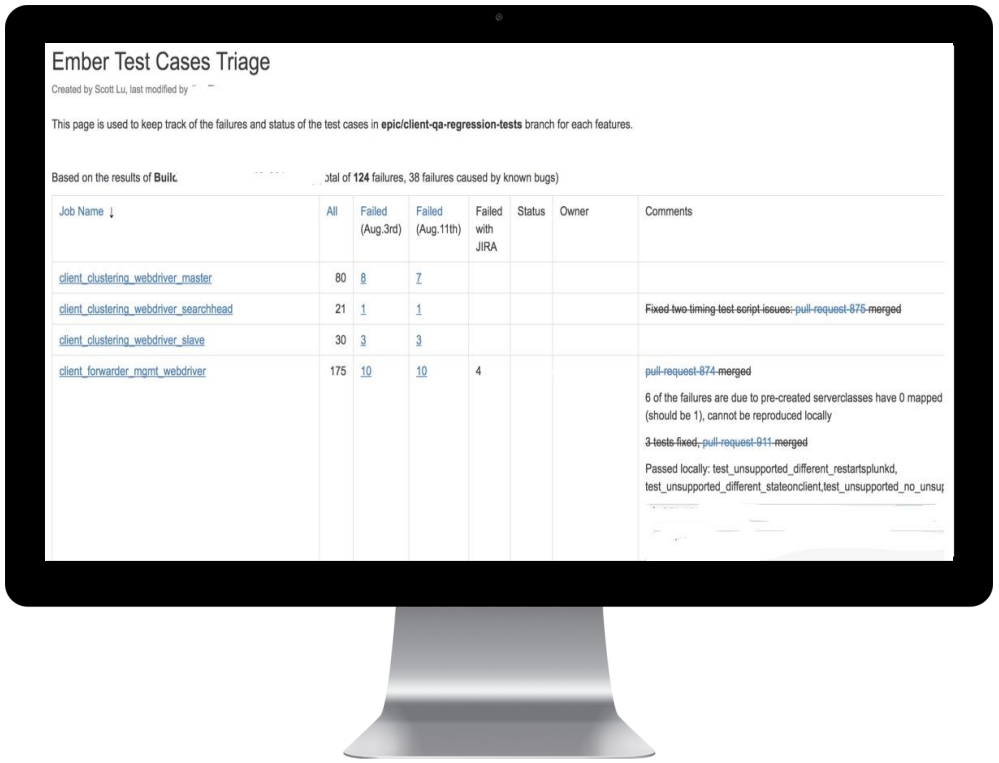


Problem

2

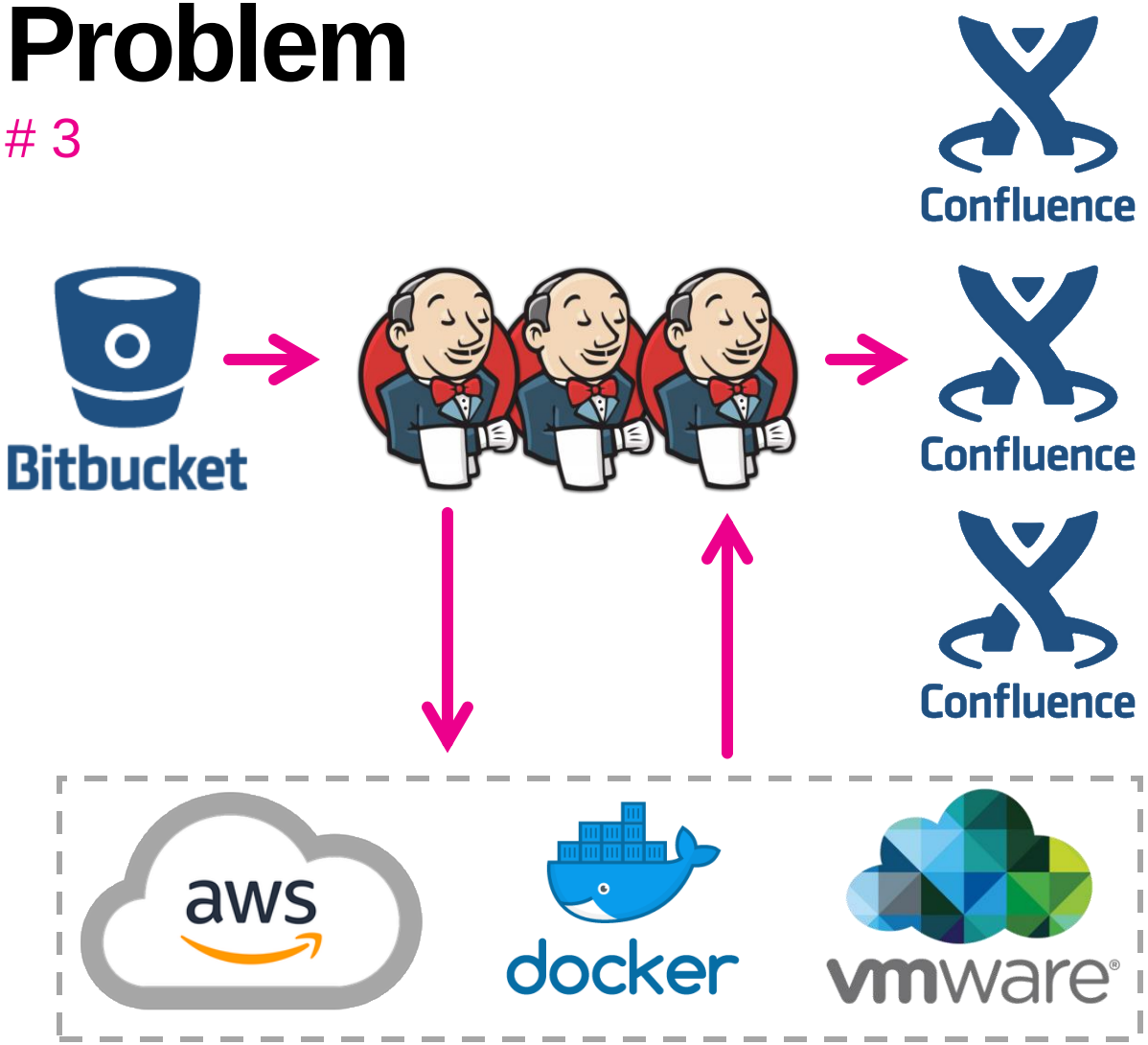


Too much Triage data



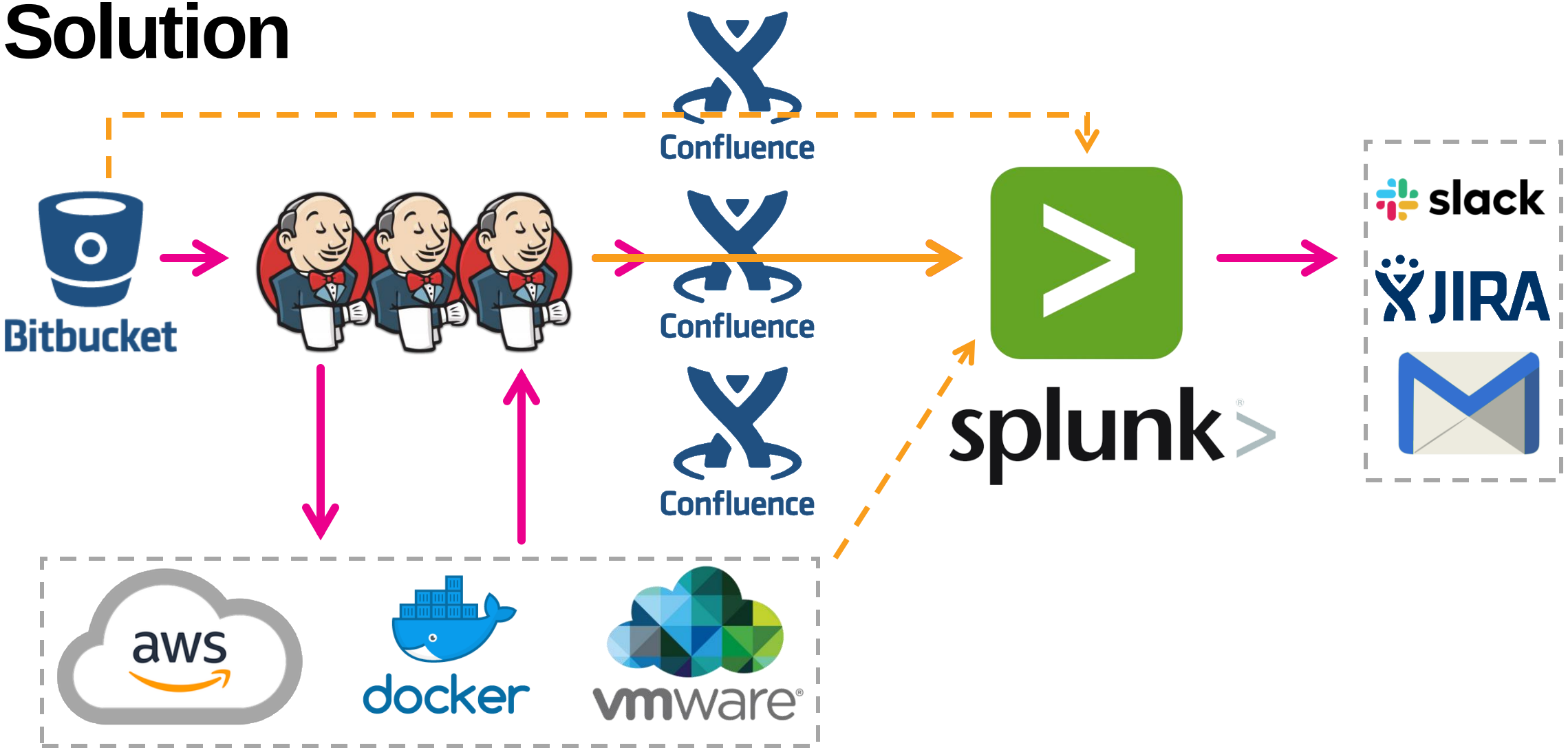
Problem

3

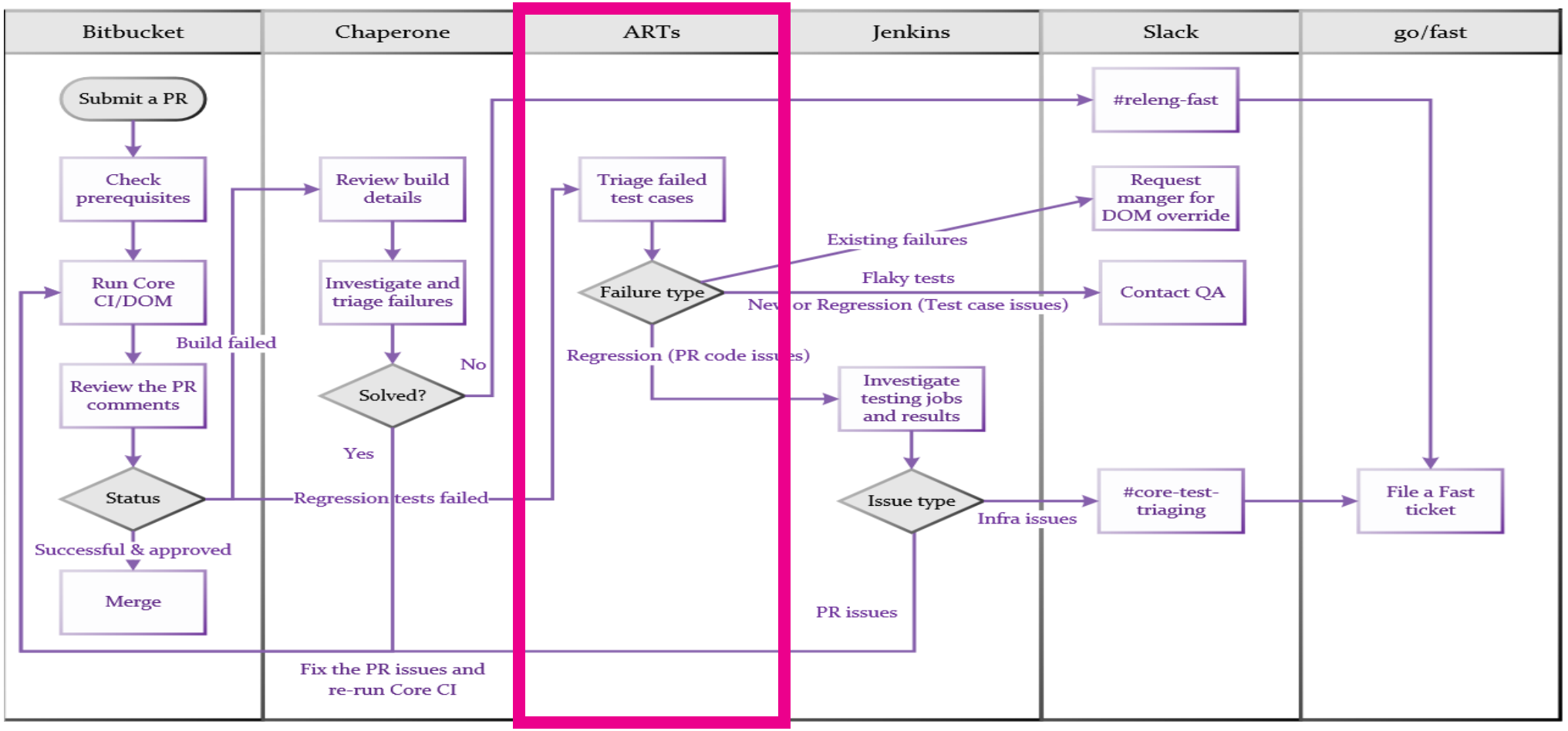


???

Solution

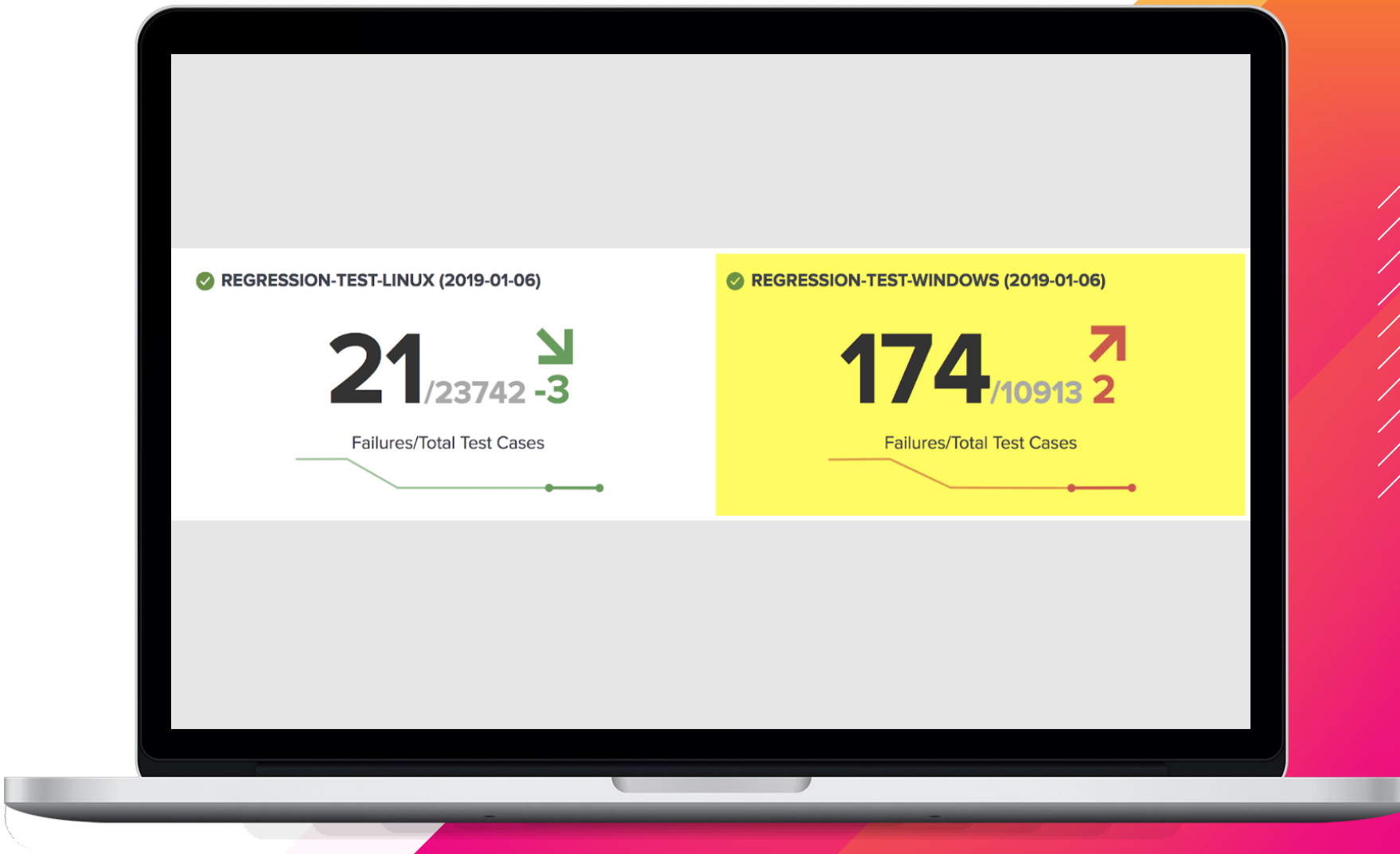


Our CI Workflow



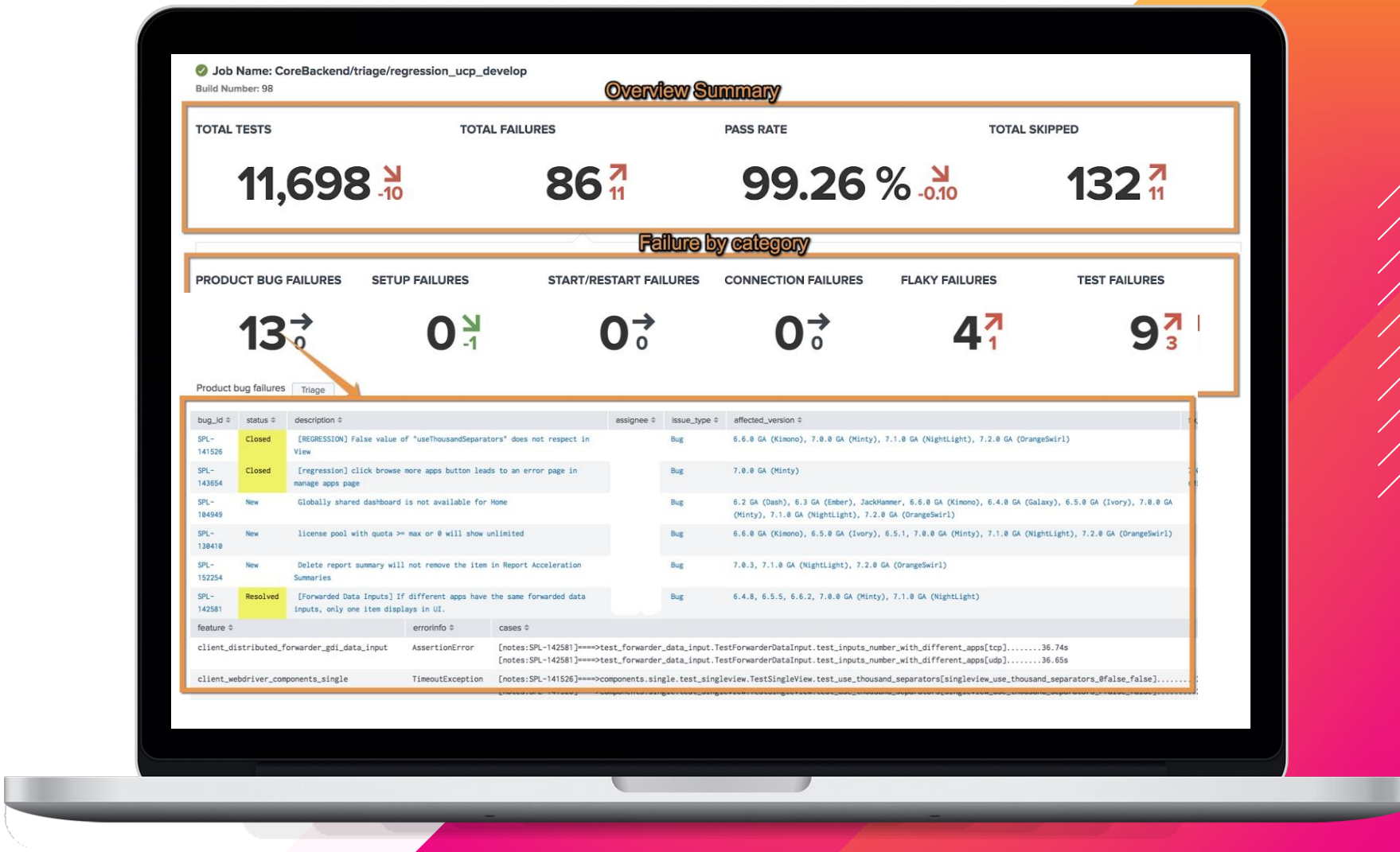
ARTS basic

Overview page



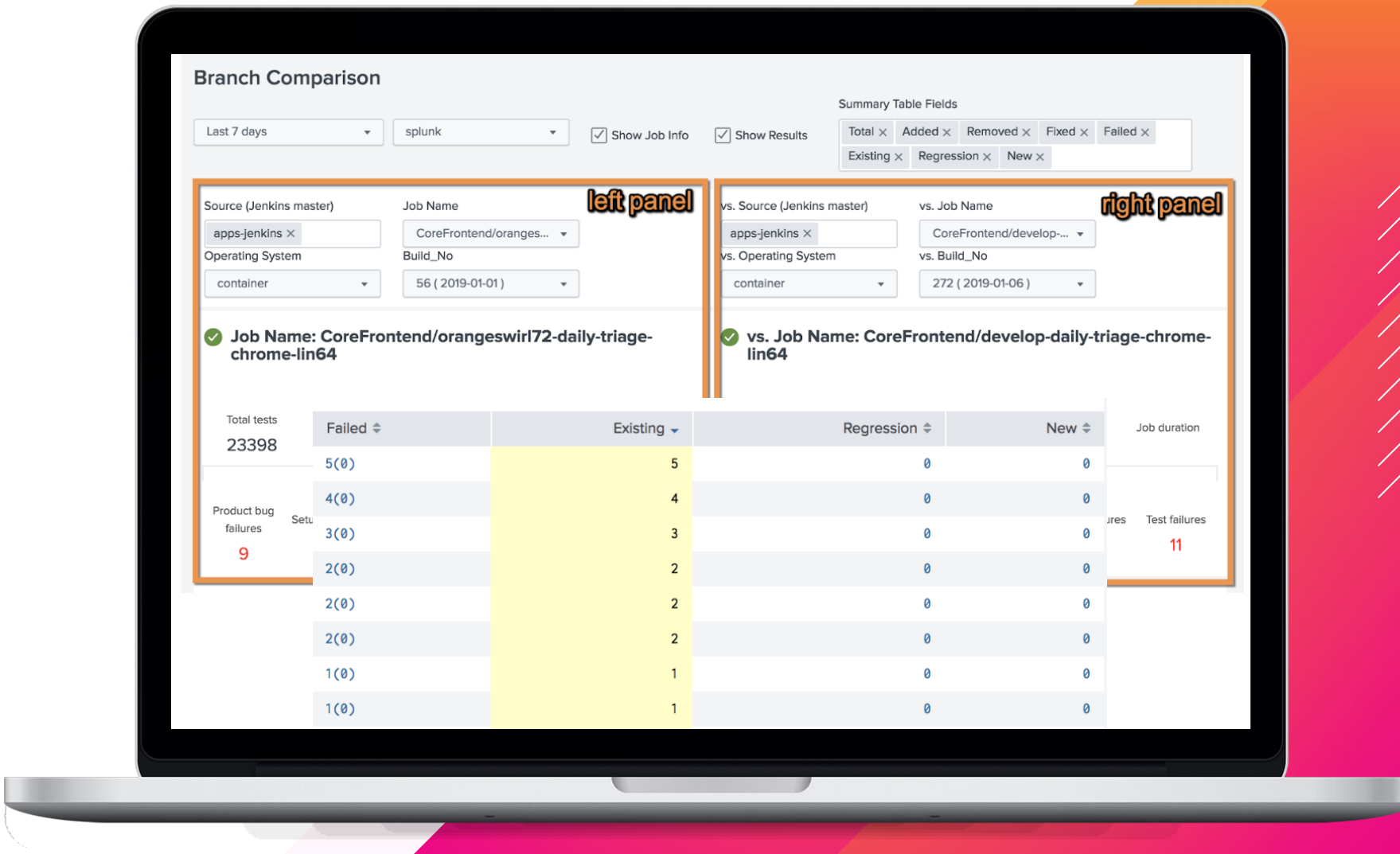
ARTS basic

Trend page



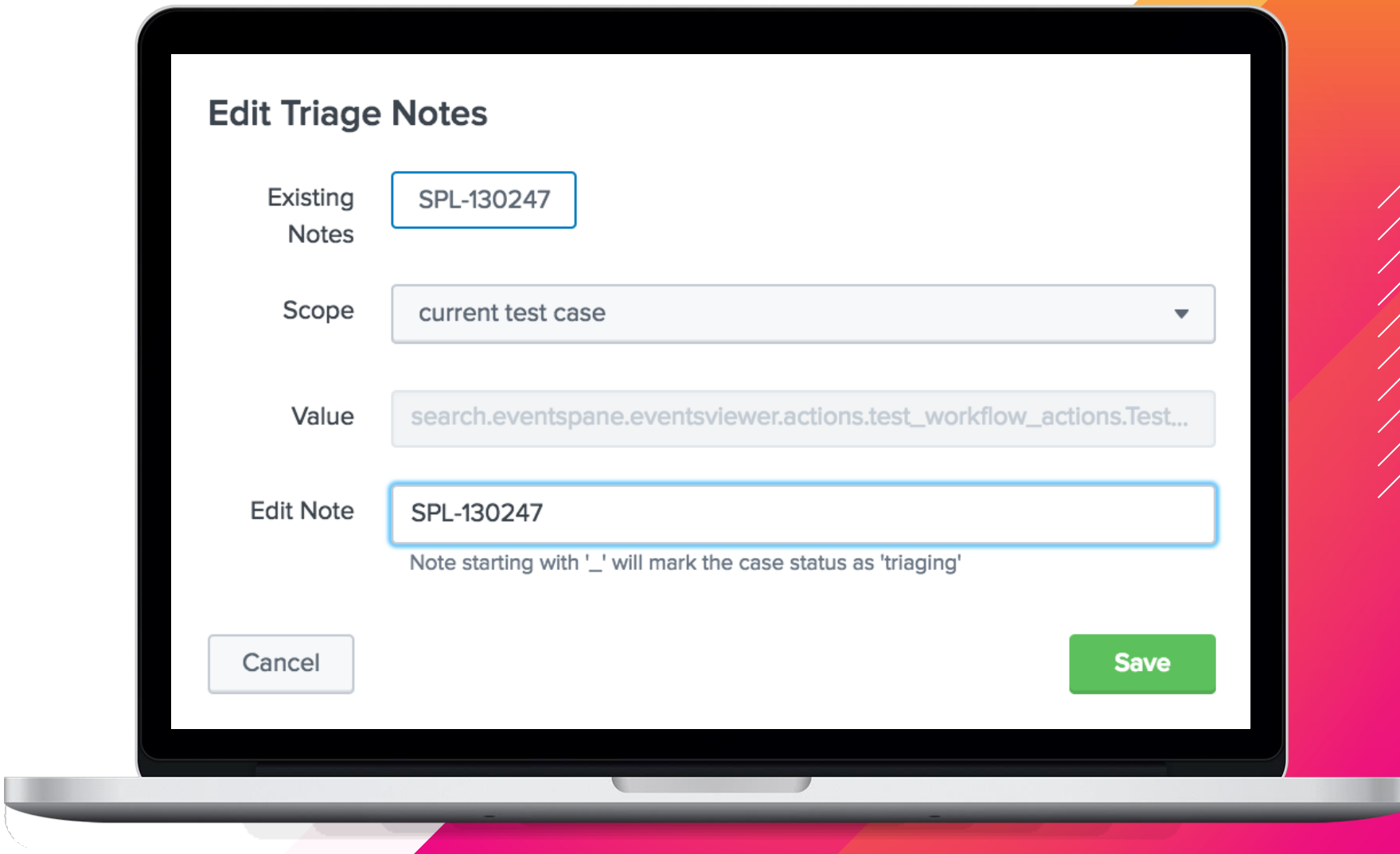
ARTS basic

Branch compare page



ARTS basic

Triage notes



Demo

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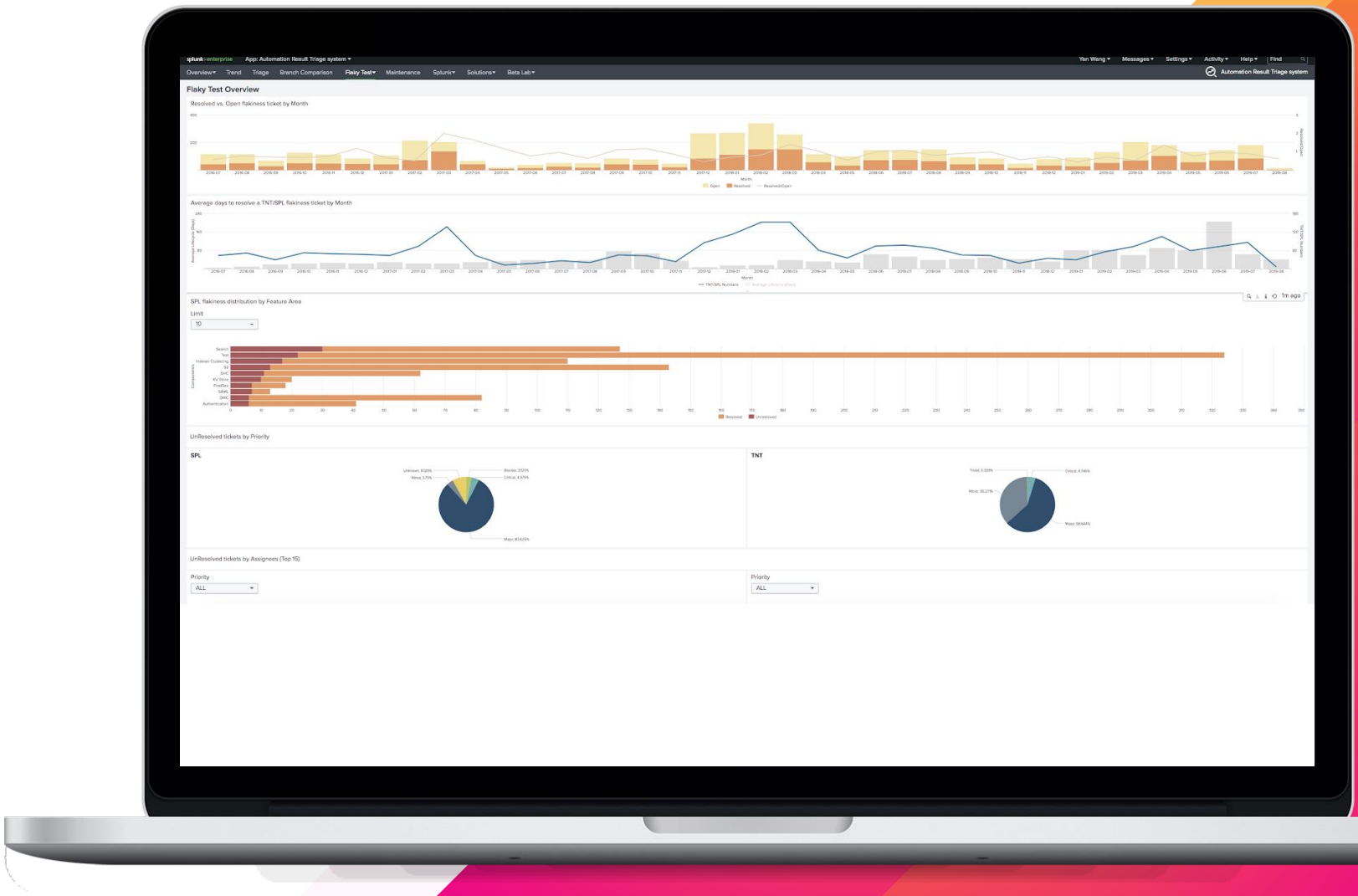
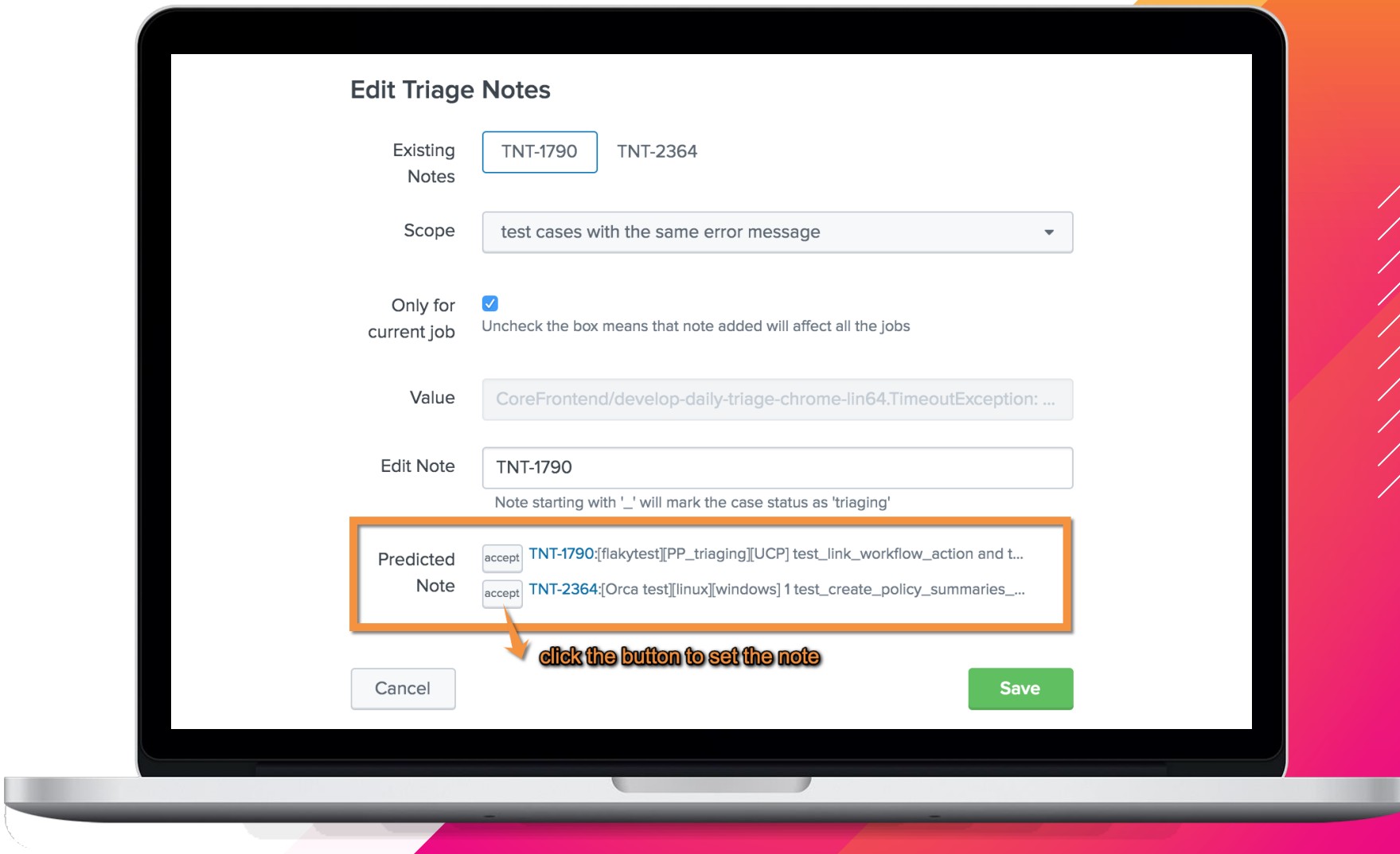
BETA

Flakiness detection



BETA

Predictive Triage



Benefit

Fully automated

Faster response time

Connected experience

InfraWatch Project

Monitoring the CI/CD Infrastructure Based on Splunk ITSI & VictorOps

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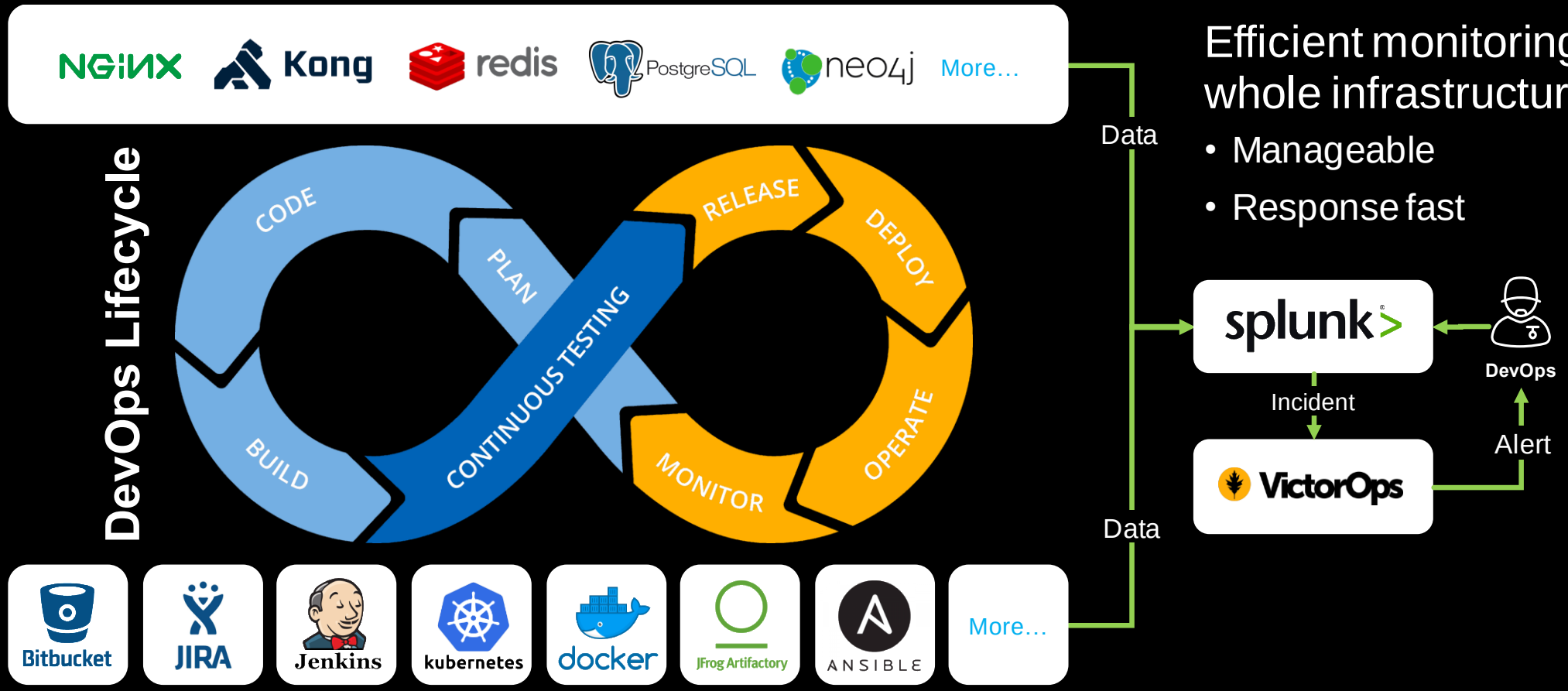
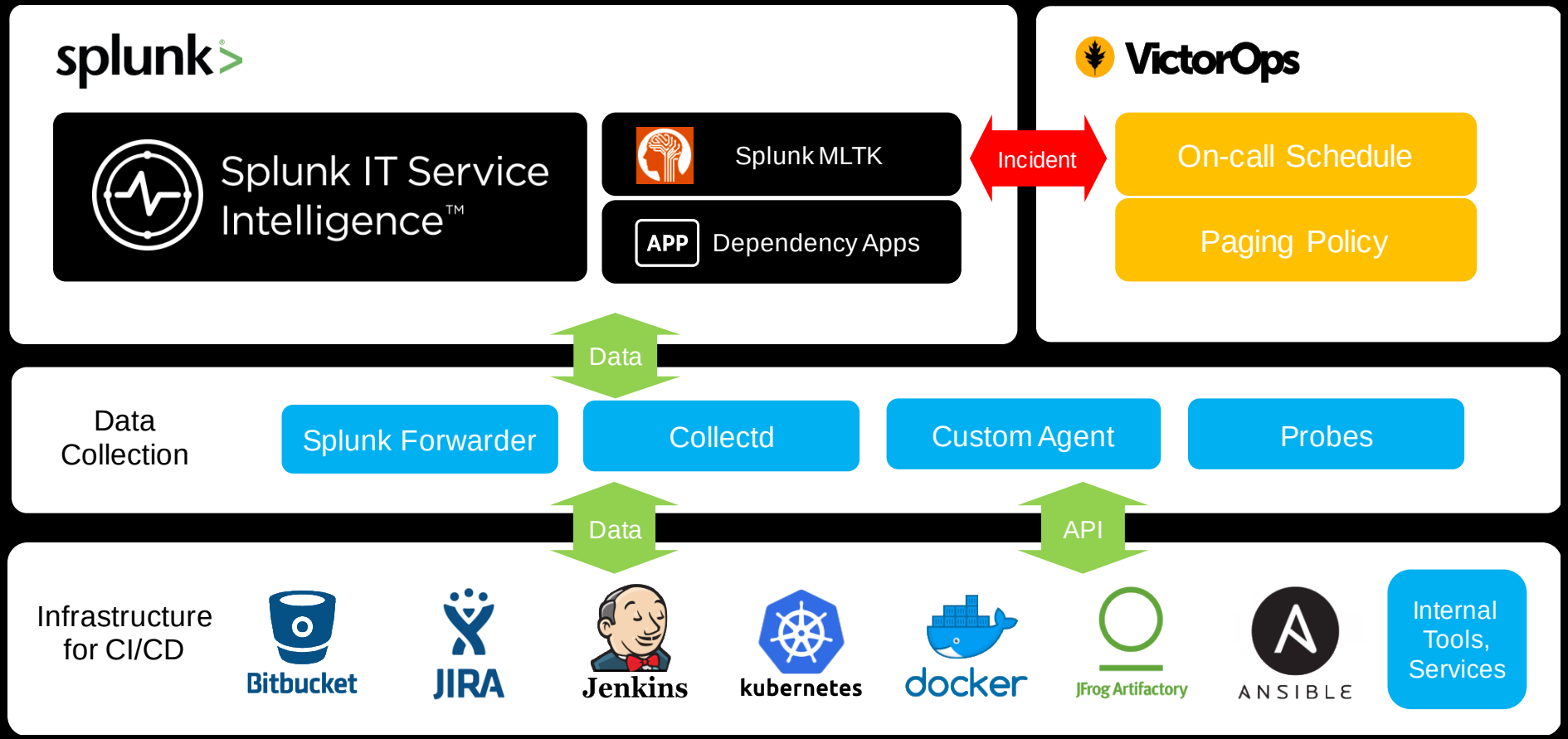
Why InfraWatch Project?



Architecture

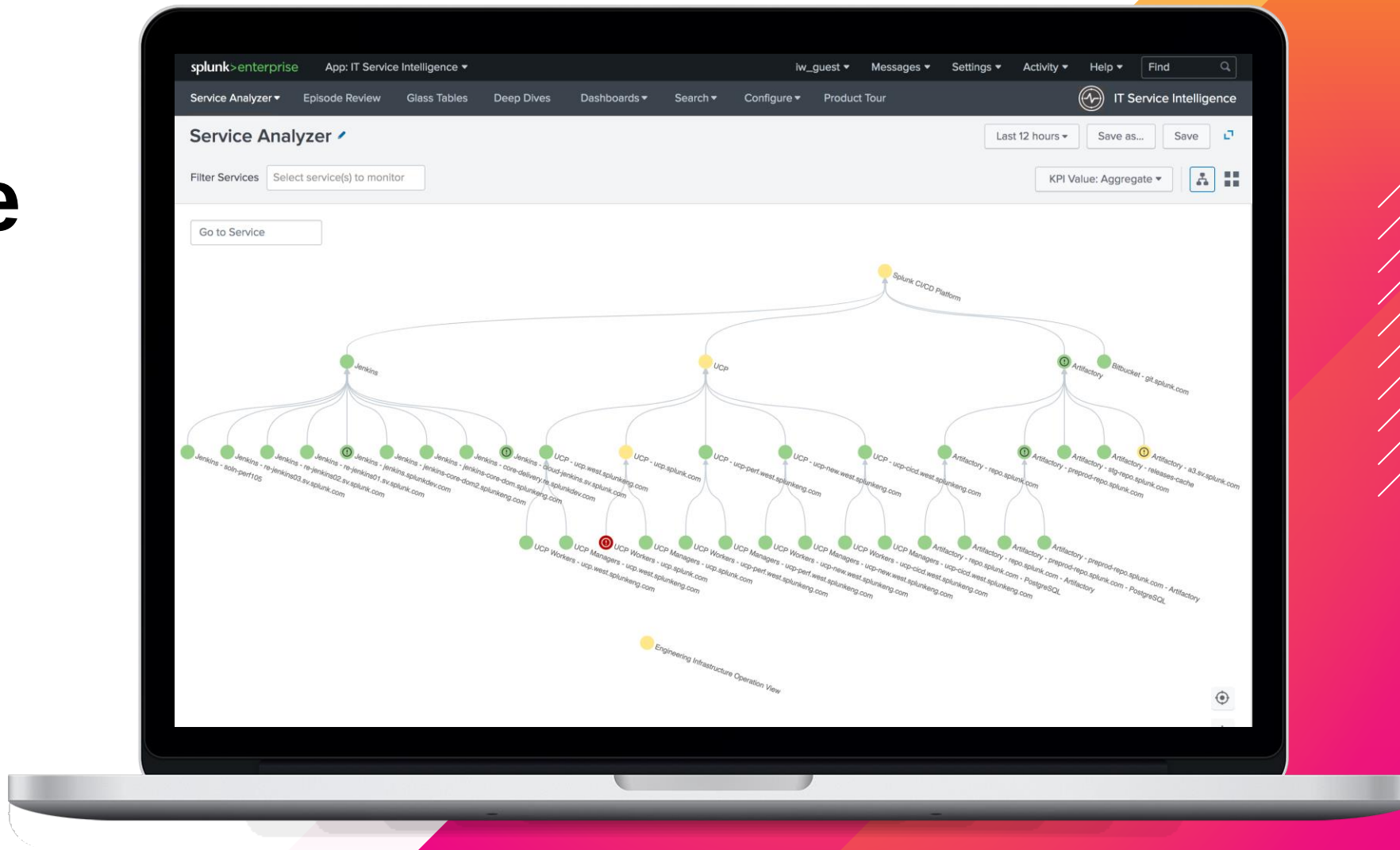


Infrastructure Under Monitoring

In Splunk ITSI

Overview in Splunk ITSI

- Hierarchy of infrastructure
- Health status of services



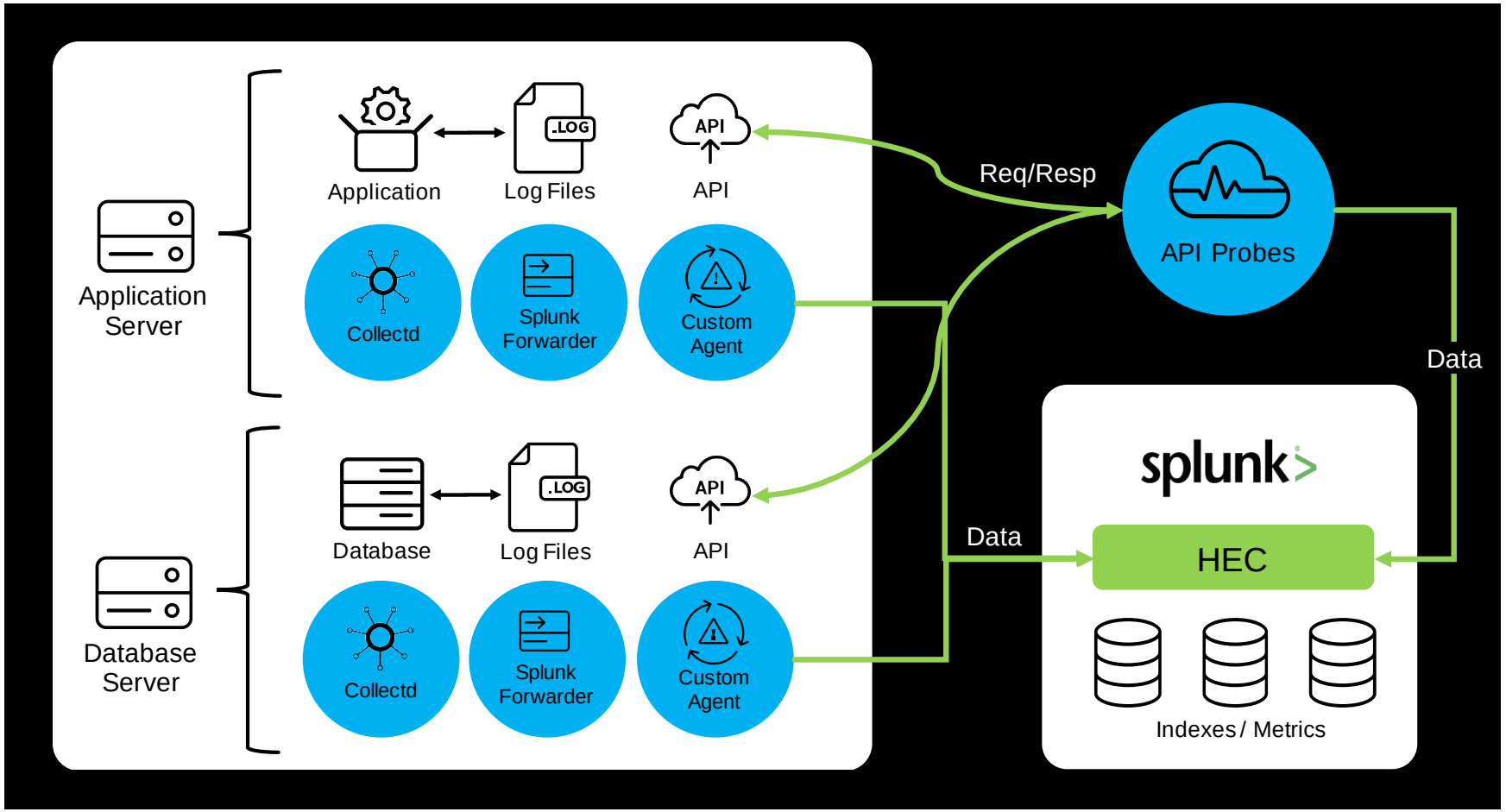
Data Collection

Splunk forwarder
- Log files

Collectd
- Metrics

Custom agent
- Custom data

Custom API probe
- Health check

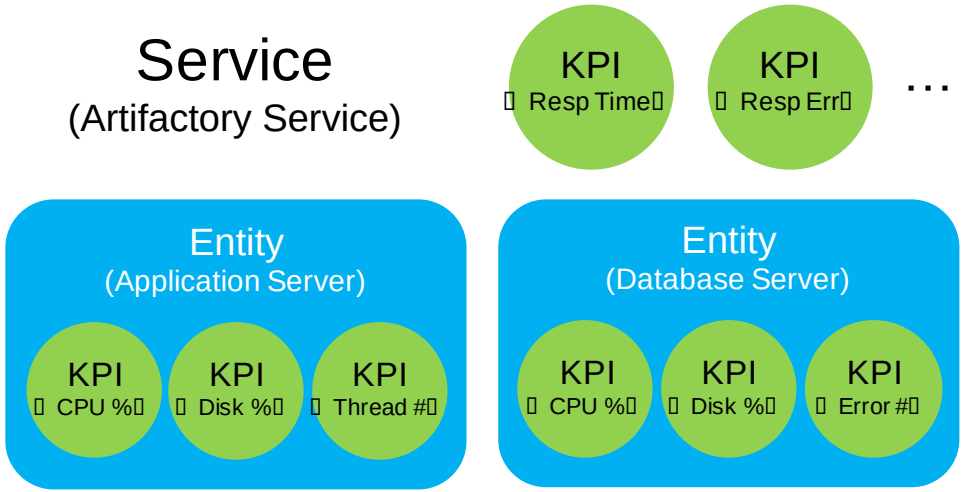


Service Model Setup

In Splunk ITSI

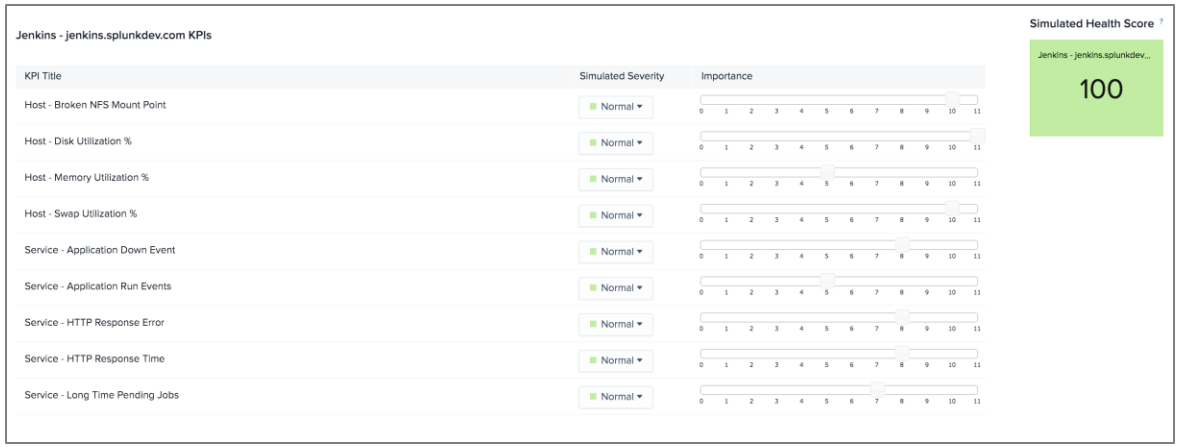
Model used by Splunk ITSI for service status insight

- Service
  - Entity
  - KPI



Health score of service

- 100 in maximum which stands for 100% healthy
- KPI_1 * weight_1 + KPI_2 * weight_2 + …

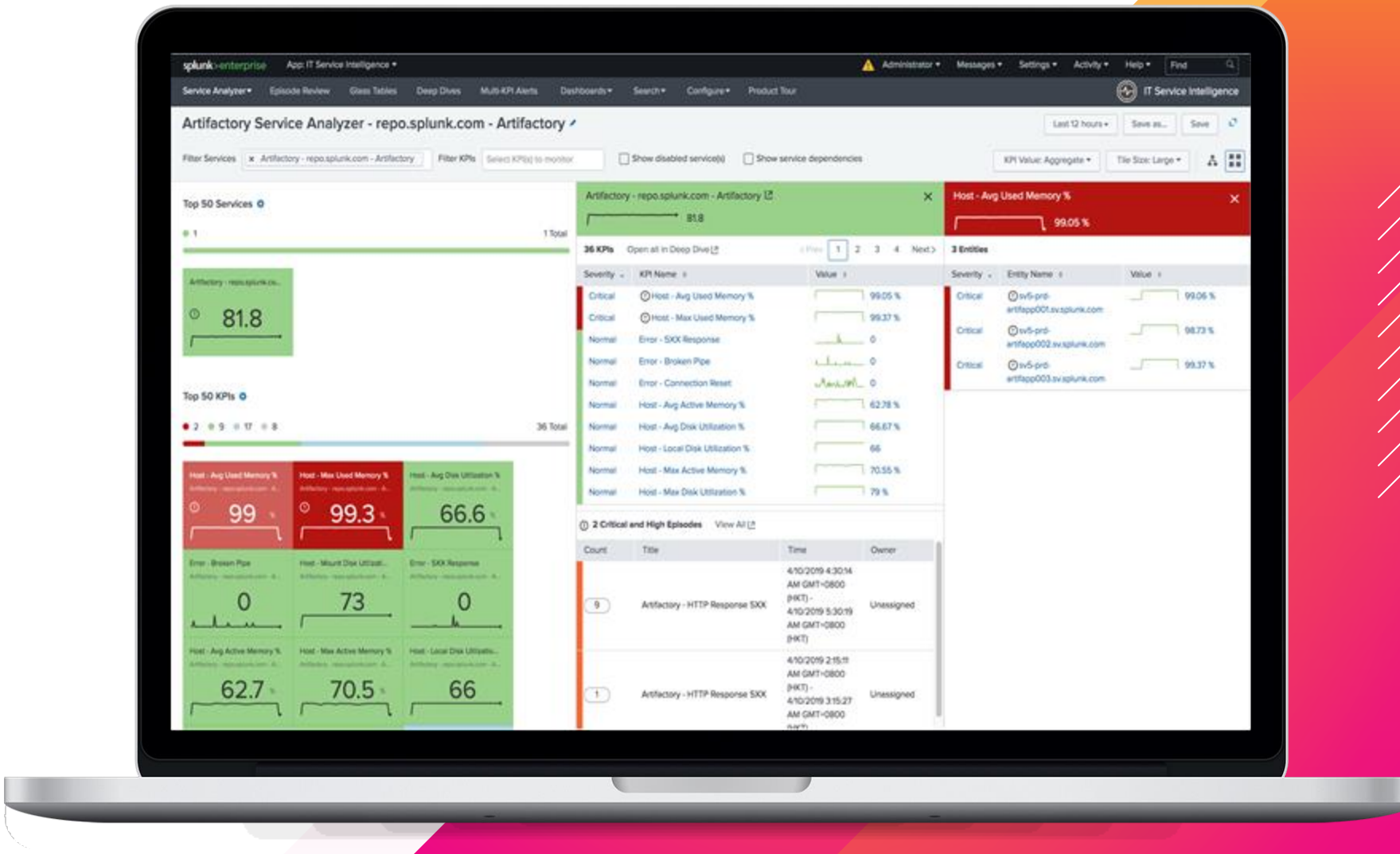


Monitor Model Setup

In Splunk ITSI

Service Analyzer

- Visualize the data model
  - Service, Entity and KPI

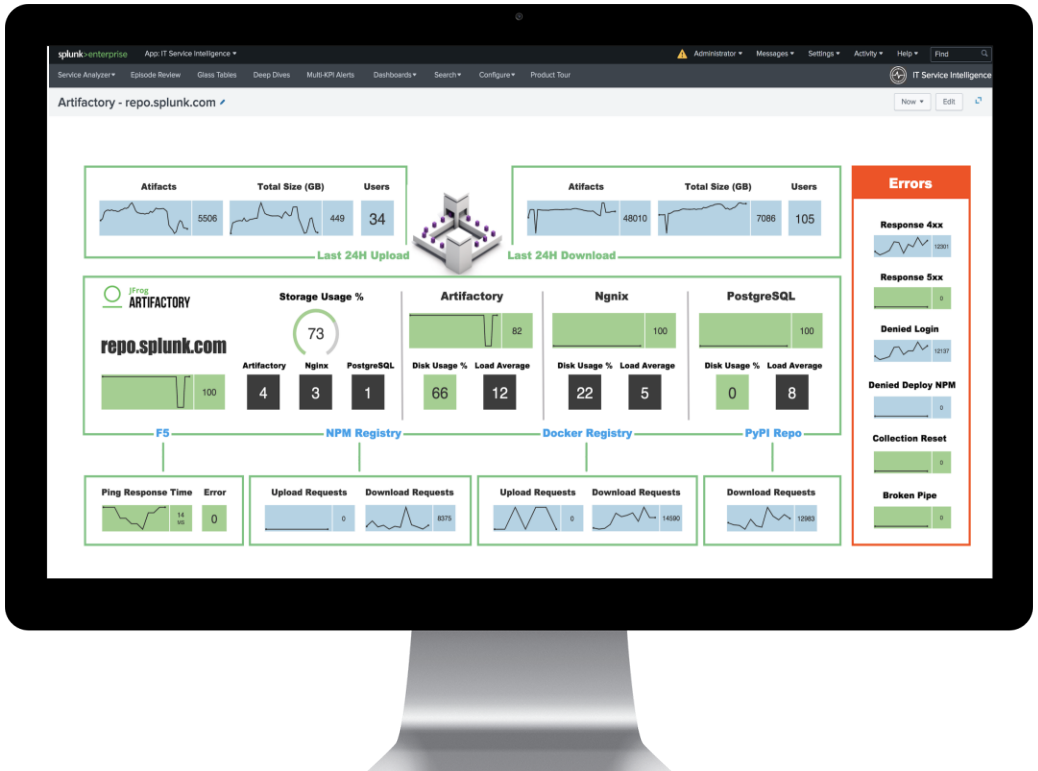


Efficient Visualization

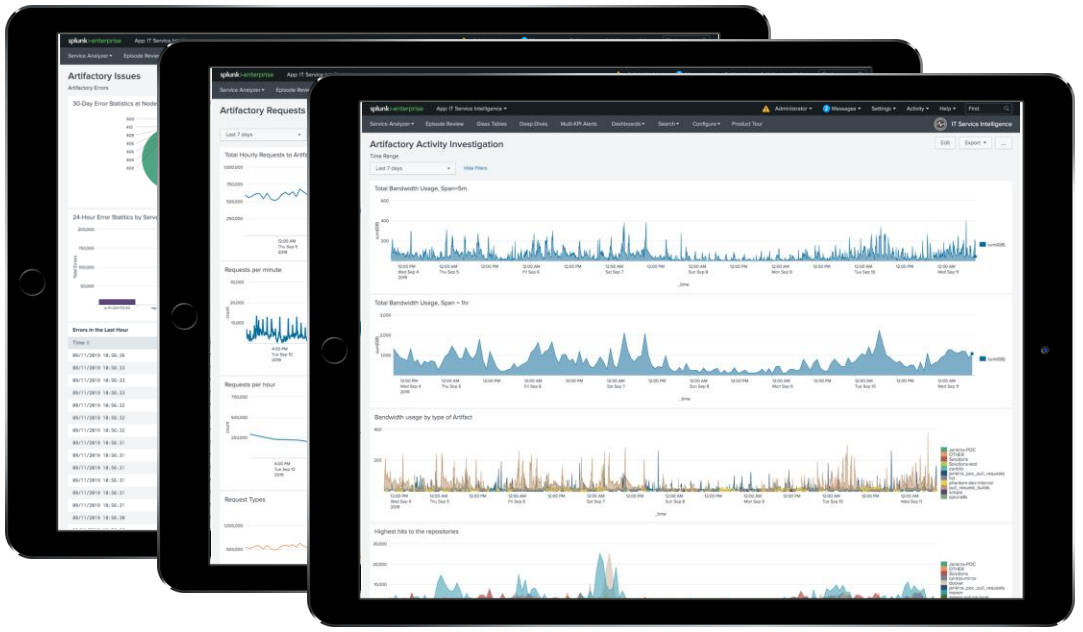
Example for Artifactory in Splunk ITSI

Glass Table

- Custom overview with KPI and non-KPI metrics



Dashboards approachable via drill down from glass table



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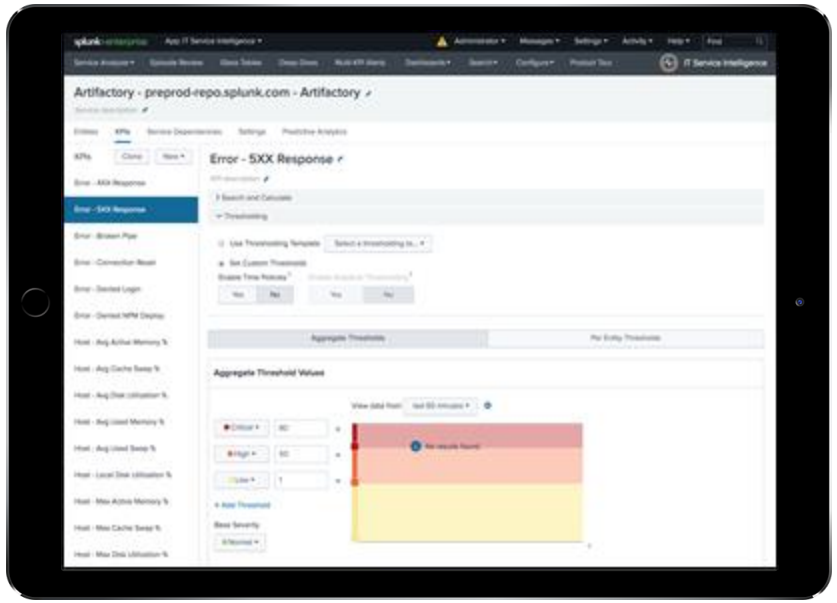
Incident Alert Setup

In Splunk ITSI

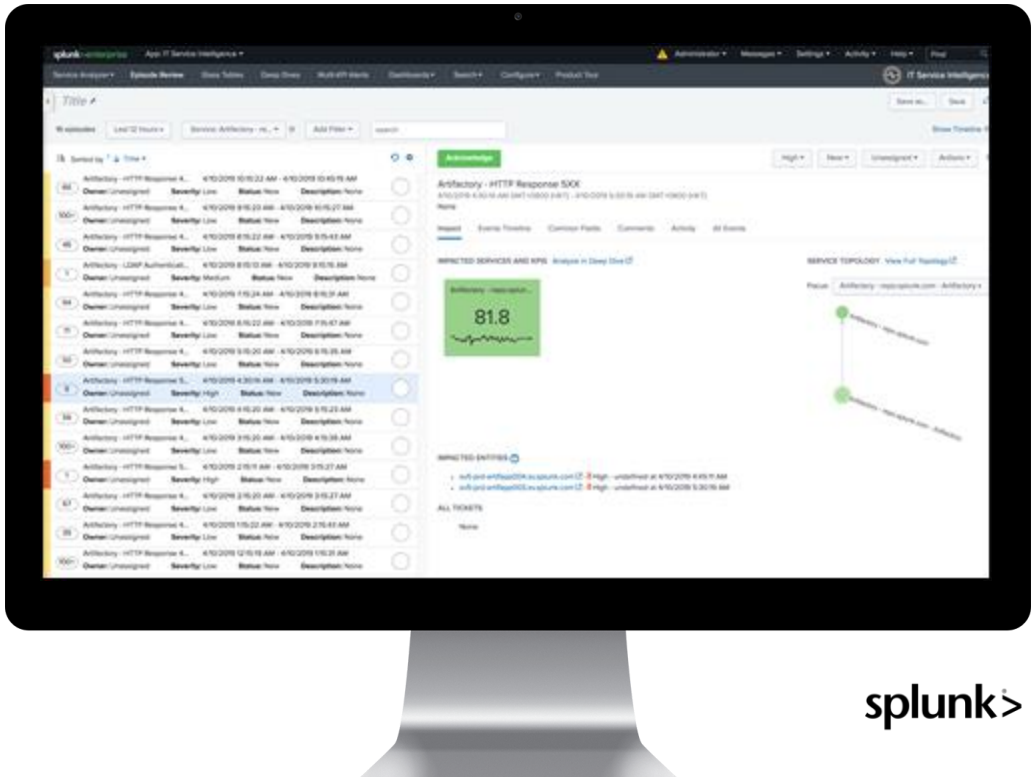
Source of incident

- Ad-hoc SPL query
- KPI



Aggregation Policy

- Aggregate by time, title, etc.
- Trigger necessary alerts in severity levels
- Send alerts to VictorOps



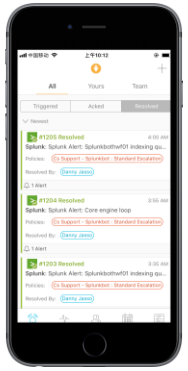
Incident Alert Management

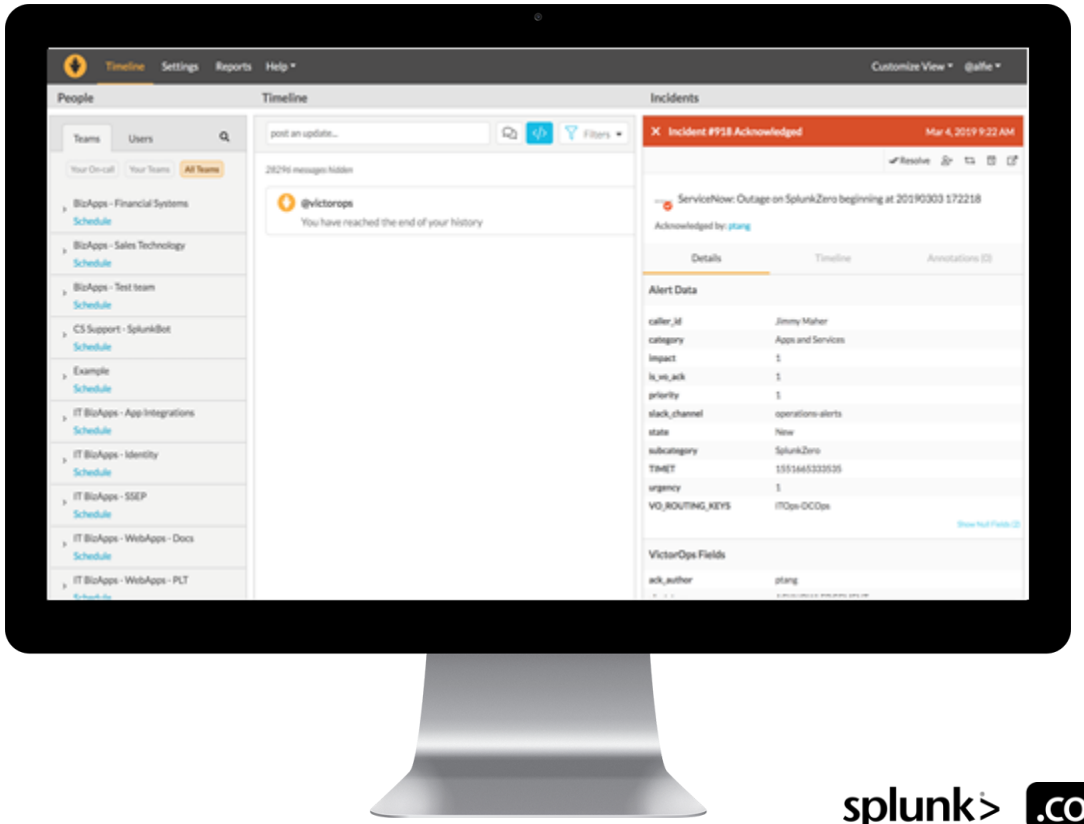
Engineers response alerts in VictorOps

- For incident management via browser or mobile app

Splunk IT Service Intelligence™

INCIDENT





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VictorOps Highlights

Incident handling

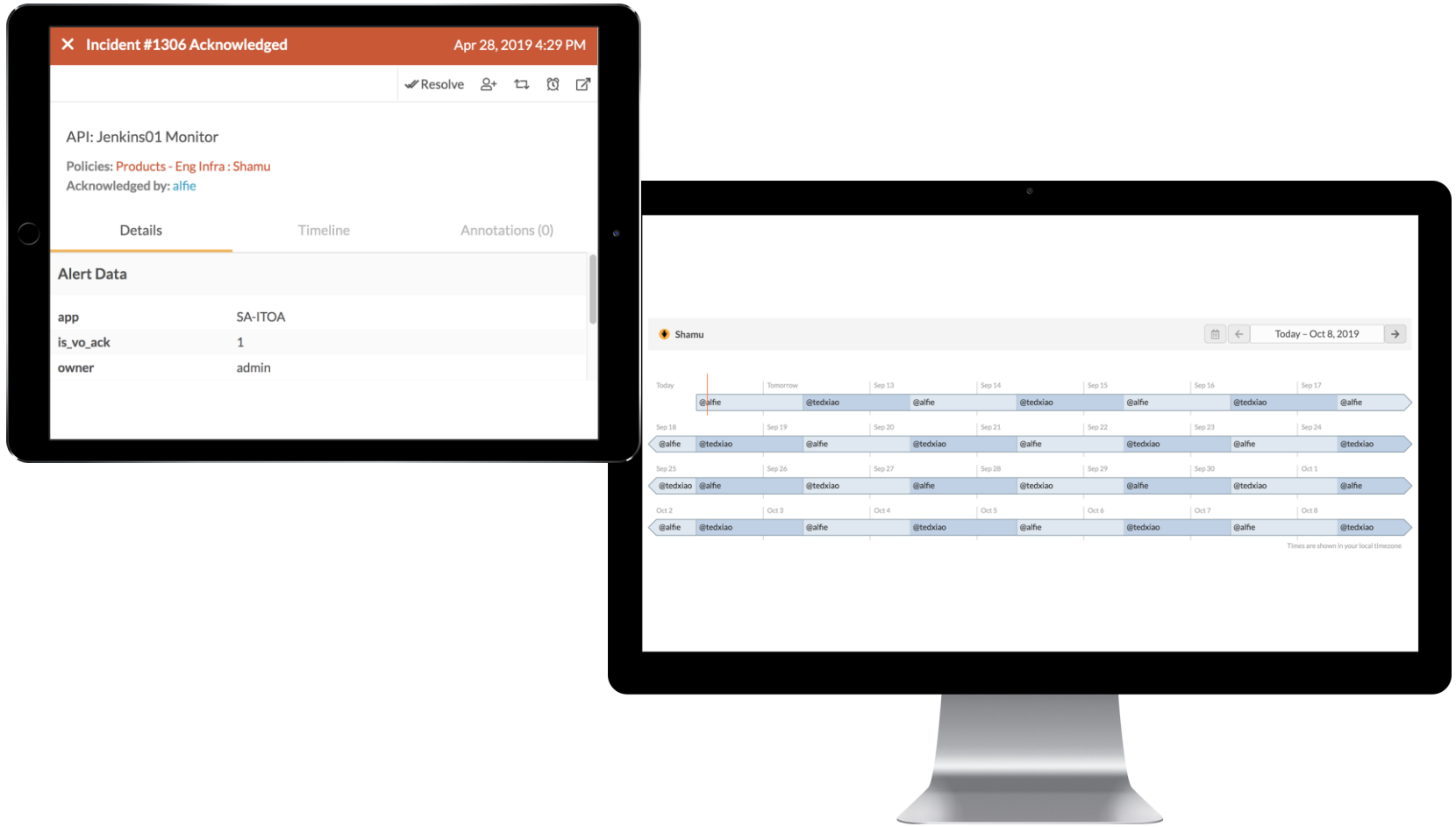
- Acknowledge / snooze / resolve an incident
- Route to other engineers

On-call schedule

- For example, follow-the-sun model

Escalation policy

- For example, notifying tier 2 engineer if an alert is not acknowledged by tie 1 in 10 minutes



Benefits

Centralize monitoring/alerting for the whole infrastructure

Setup monitoring for broader applications/services/tools in two steps

- Step #1, Collect data into Splunk
- Step #2, Define Service/Entity/KPI model in Splunk ITSI

Shorten MTTR efficiently

- Get insight on the whole infrastructure in time
- Collaborate efficiently on solving incidents

Q&A

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