

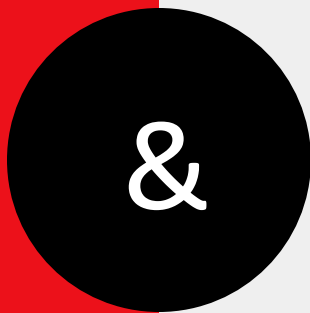


**Connect**

# Optimization and automation

Intelligent Responses with Red Hat® Event-Driven Ansible  
and the Dynatrace Platform

Melvin Visch  
Senior Solution Engineer  
Dynatrace



## Pre-integrated full stack solutions



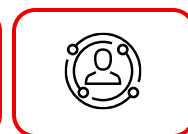
Infrastructure  
Monitoring



Application  
Observability



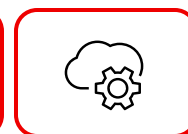
Application  
Security



Digital  
Experience



Business  
Analytics



Automations



Dynatrace  
Hub



OneAgent



PurePath



Smartscape

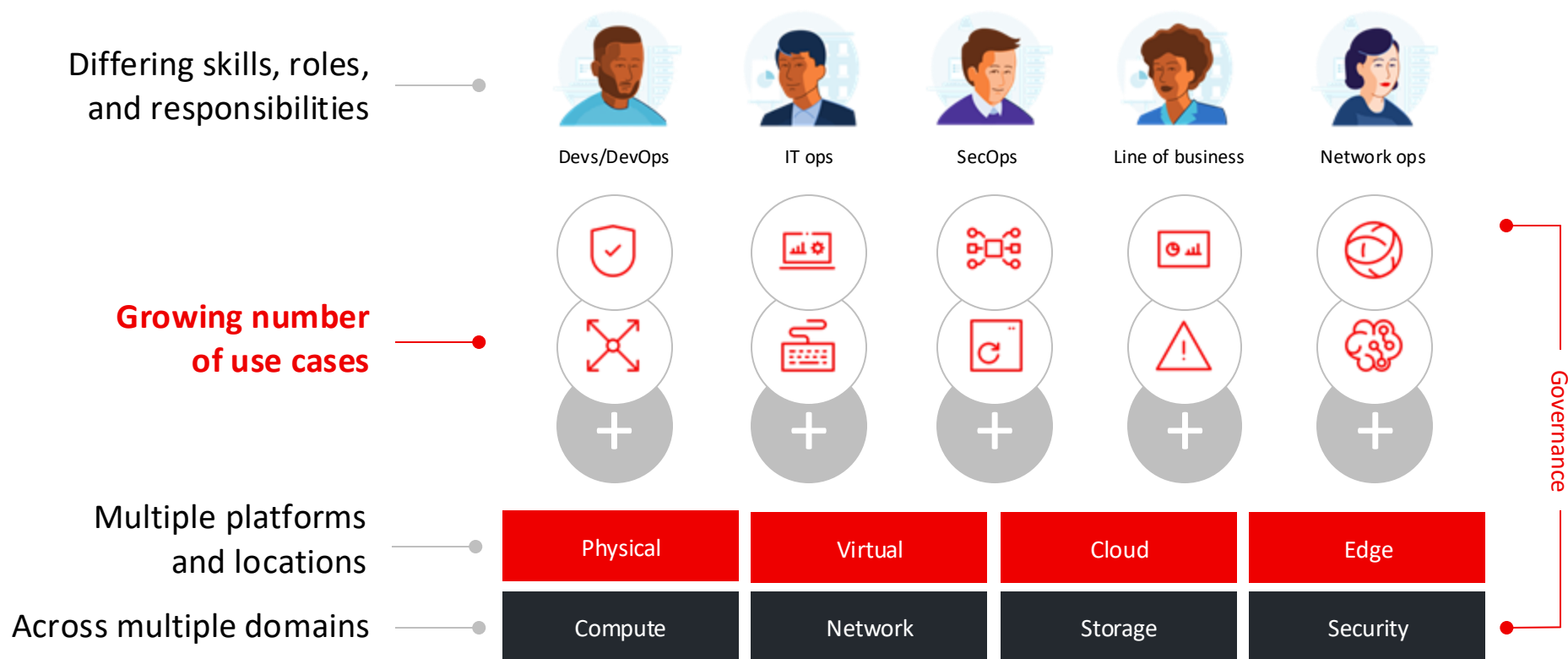


Grail

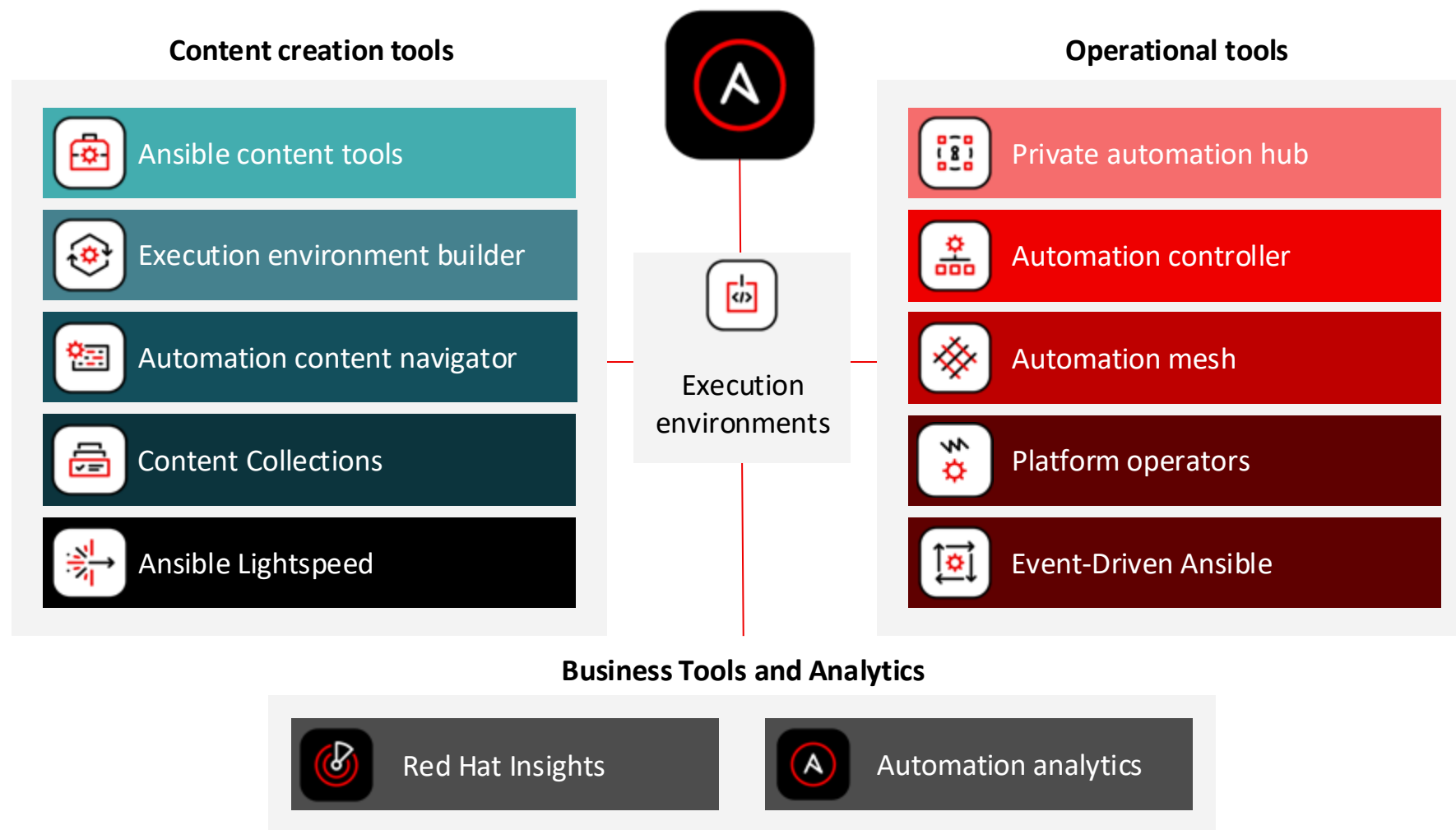


Davis AI incl. AIOps

## Many organizations share the same challenge.



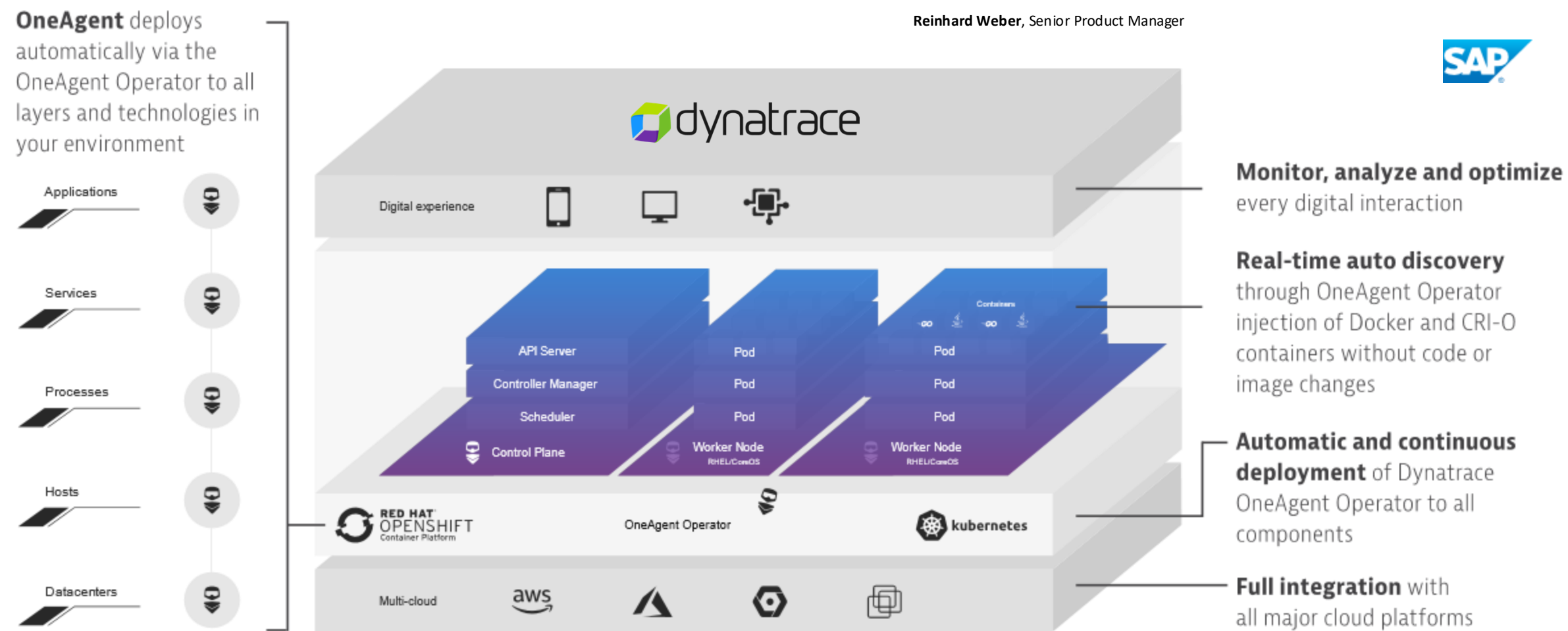
## An integrated solution **for the enterprise.**



# Advanced Observability with Red Hat & Dynatrace

“We went from zero to 12,000 hosts in less than two months. Our roll out happened while I was having a BBQ over the weekend! Automation, trust and tools were key to this success.”

Reinhard Weber, Senior Product Manager

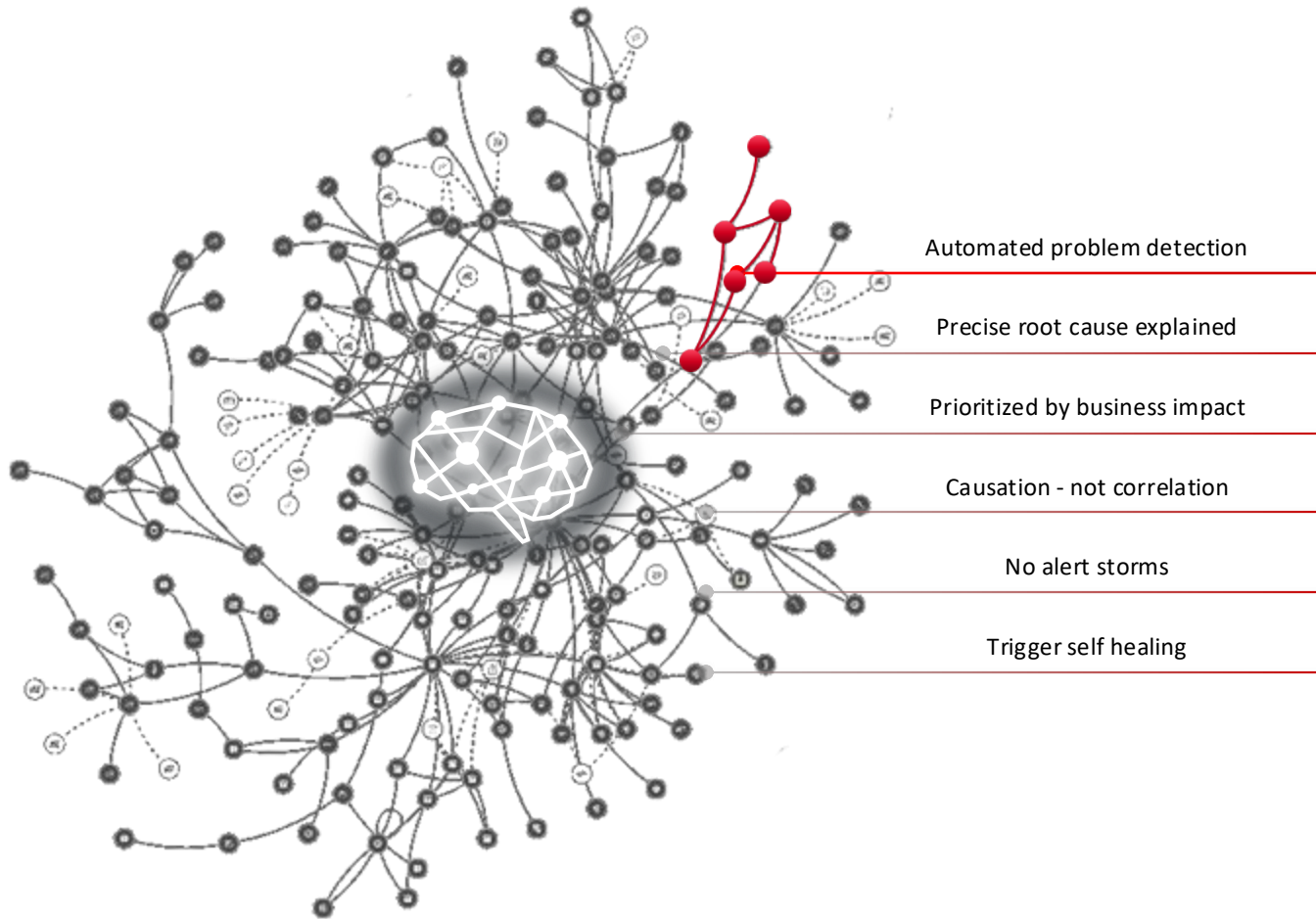


2019 Bank	29,341 processes instrumented. 2,116 servers. 3,178 services.	1.5 weeks
2020 Insurer	454,190 processes instrumented. 18,509 servers. 131,073 services.	3.5 hours

## Mean Time to Observability Speeds



## Advanced Observability with Red Hat & Dynatrace



Automated problem detection

Precise root cause explained

Prioritized by business impact

Causation - not correlation

No alert storms

Trigger self healing

Search Dynatrace demo...

Problems Problem 694

www.easytravel.com: User action duration degradation  
Problem 694 detected at 02:03 - 02:29 (was open for 26 minutes). This problem affects real users.

Affected applications 1 Affected services 10 Affected infrastructure 2

DAVIS™  
analyzed 2,942,317,092 dependencies

**Business impact analysis**  
An analysis of all affected service calls and impacted real users during the first 36 minutes of the problem shows the following potential impact.

276 Impacted users (show first 100) 4.33mil Affected service calls  
[Show more](#)

**1 impacted application**  
73.6 User actions per minute impacted

www.easytravel.com  
Web application

User action duration degradation  
The current response time (4.49 s) exceeds the auto-detected baseline (1.18 s) by 279 %

Affected user actions 73.6 /min	User action 2 User actions	
Browser All	Geolocation All	OS All

**Root cause**  
Based on time correlation and analysis of all transactions that use these components, this issue has the following root cause

CheckDestination  
Custom service

Deployment  
Deployment change Today, 01:57 - 02:03

2 Response time degradations  
Service CheckDestination slow down Today, 01:58 - 02:18

Events on:  
Service CheckDestination

Analyze code level, database calls, and outgoing requests. [Analyze response time degradation](#)

Metric anomalies detected  
Review the metrics which show abnormal or outlying behavior.

**Comments**

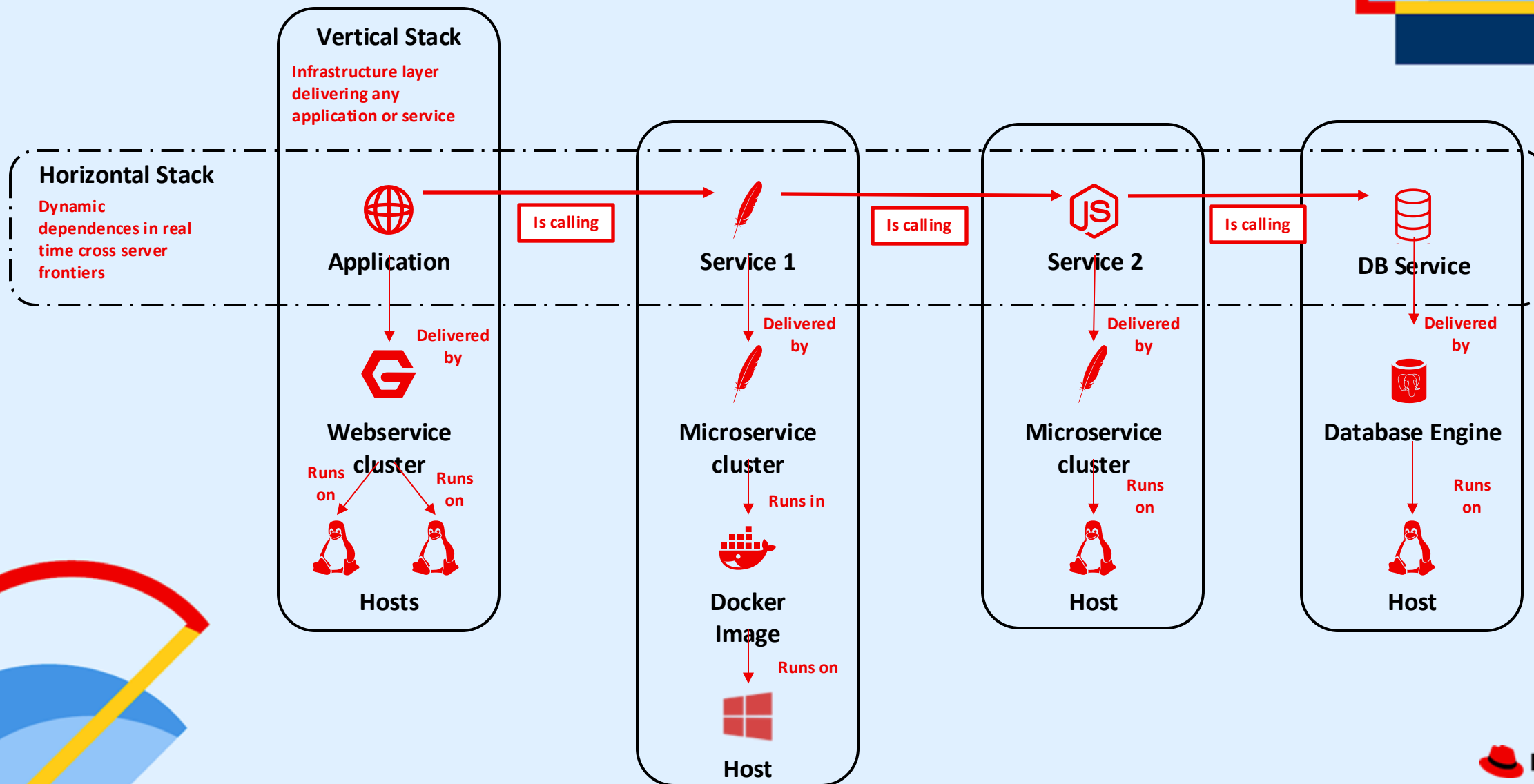
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No comments posted

**Visual resolution path**  
Click to see how we figured this out.

dynatrace

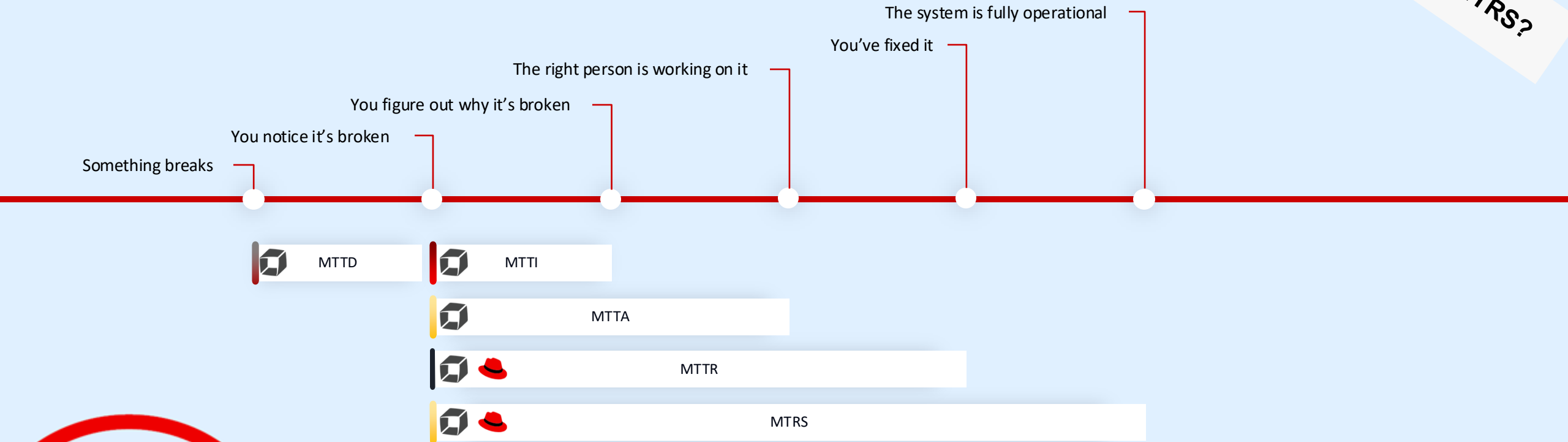
# The Diagnostics of the Unknowns



# The timeline of an incident



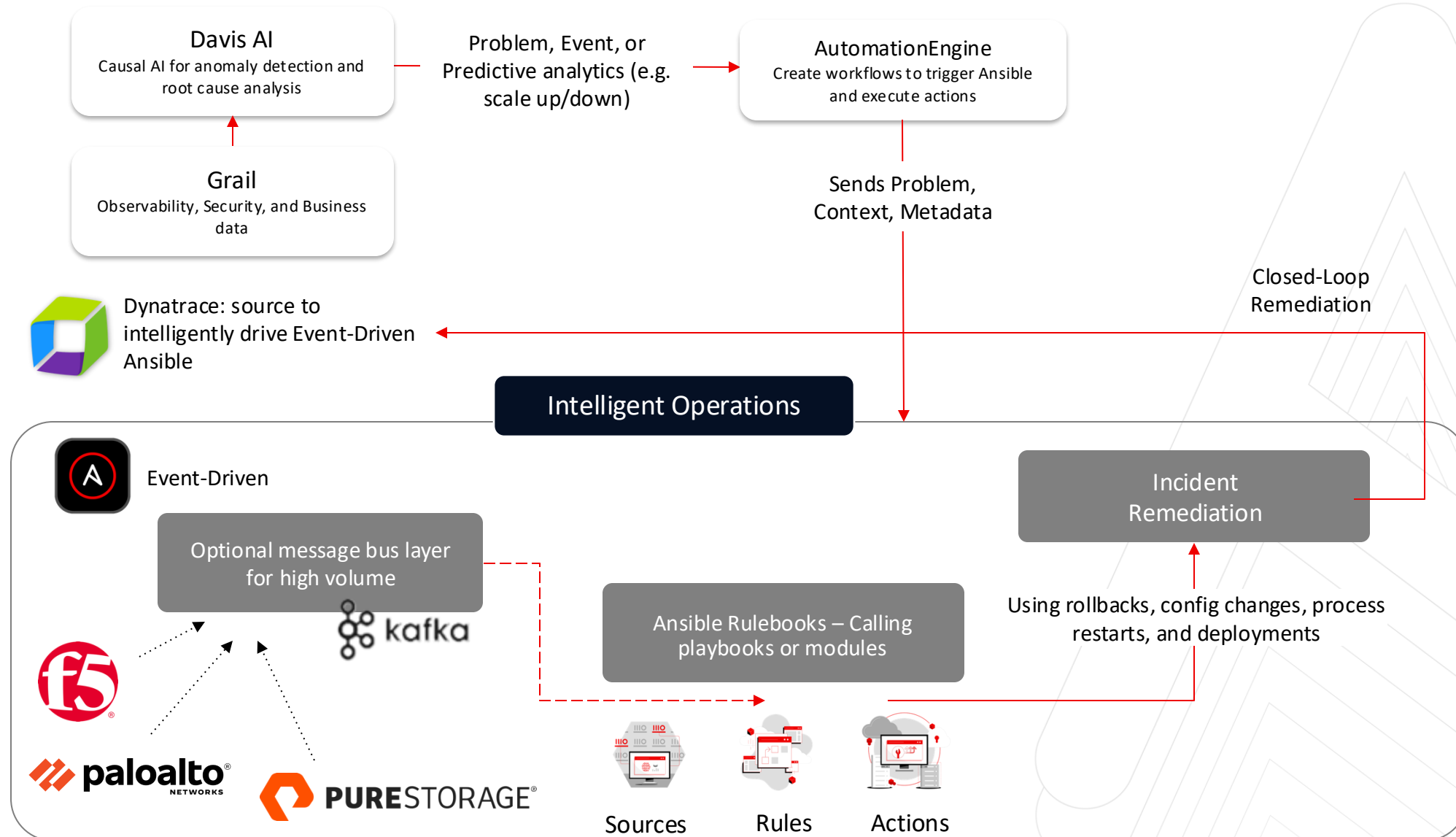
How long is your MTRS?



**MTTD**: Mean Time to Detect **MTTI**: Mean Time to Investigate **MTTA**: Mean Time to Action **MTTR**: Mean Time to Repair **MTRS**: Mean Time to Restore Service

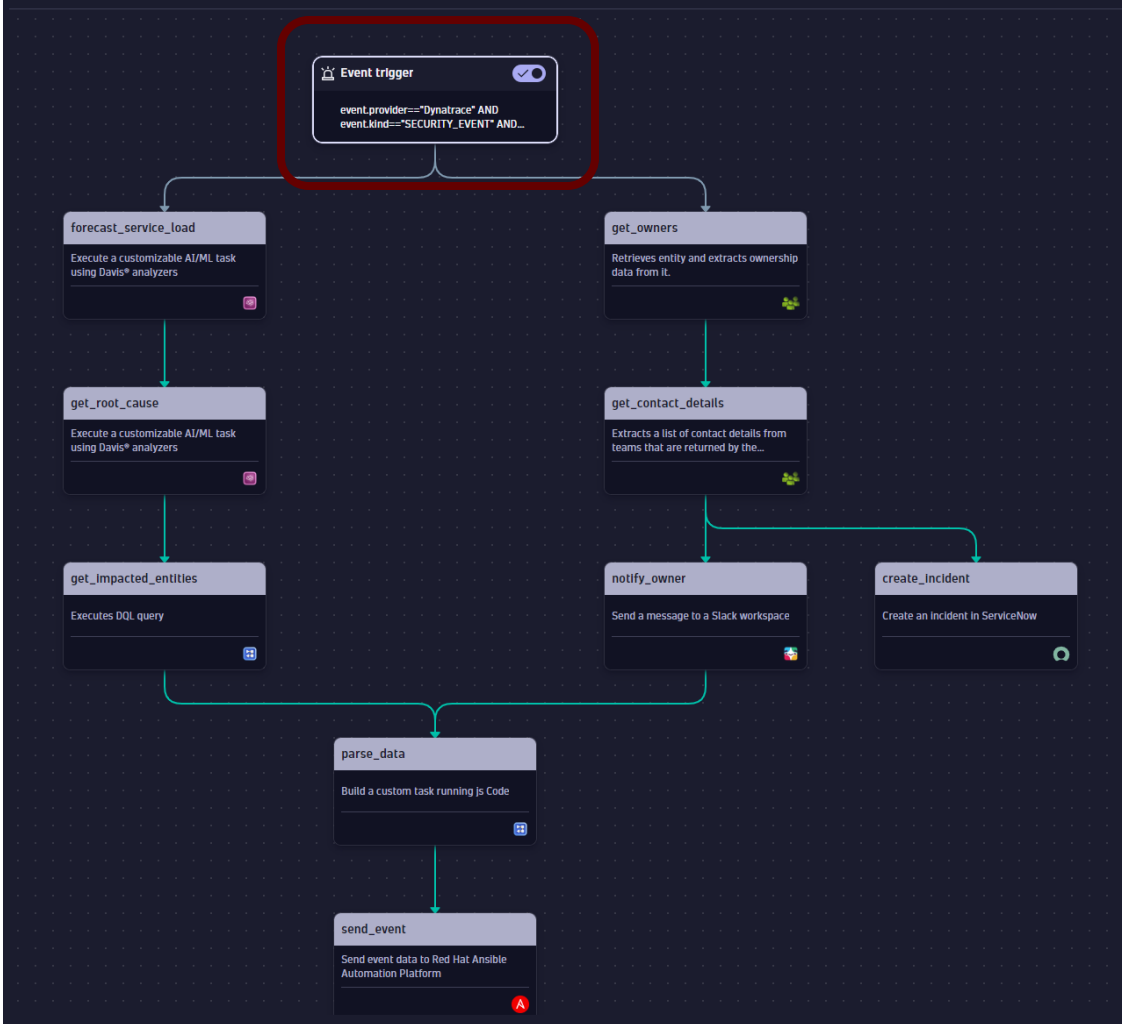


# Red Hat Event-Driven Ansible & Dynatrace: Intelligent operations architecture



# Dynatrace Workflows

## Trigger Red Hat Ansible Automation Platform (EDA)

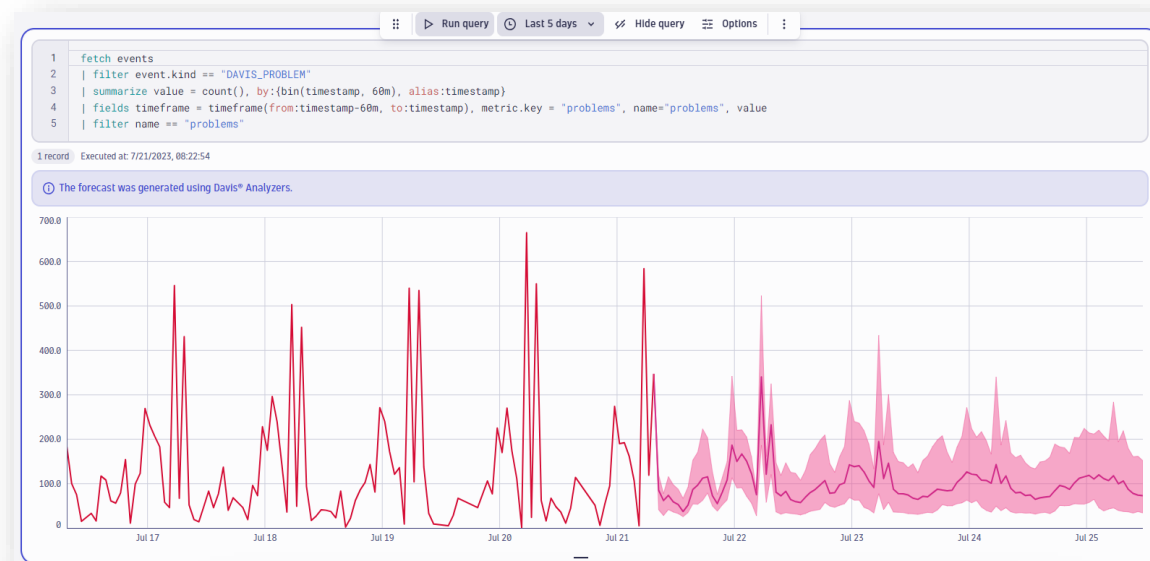
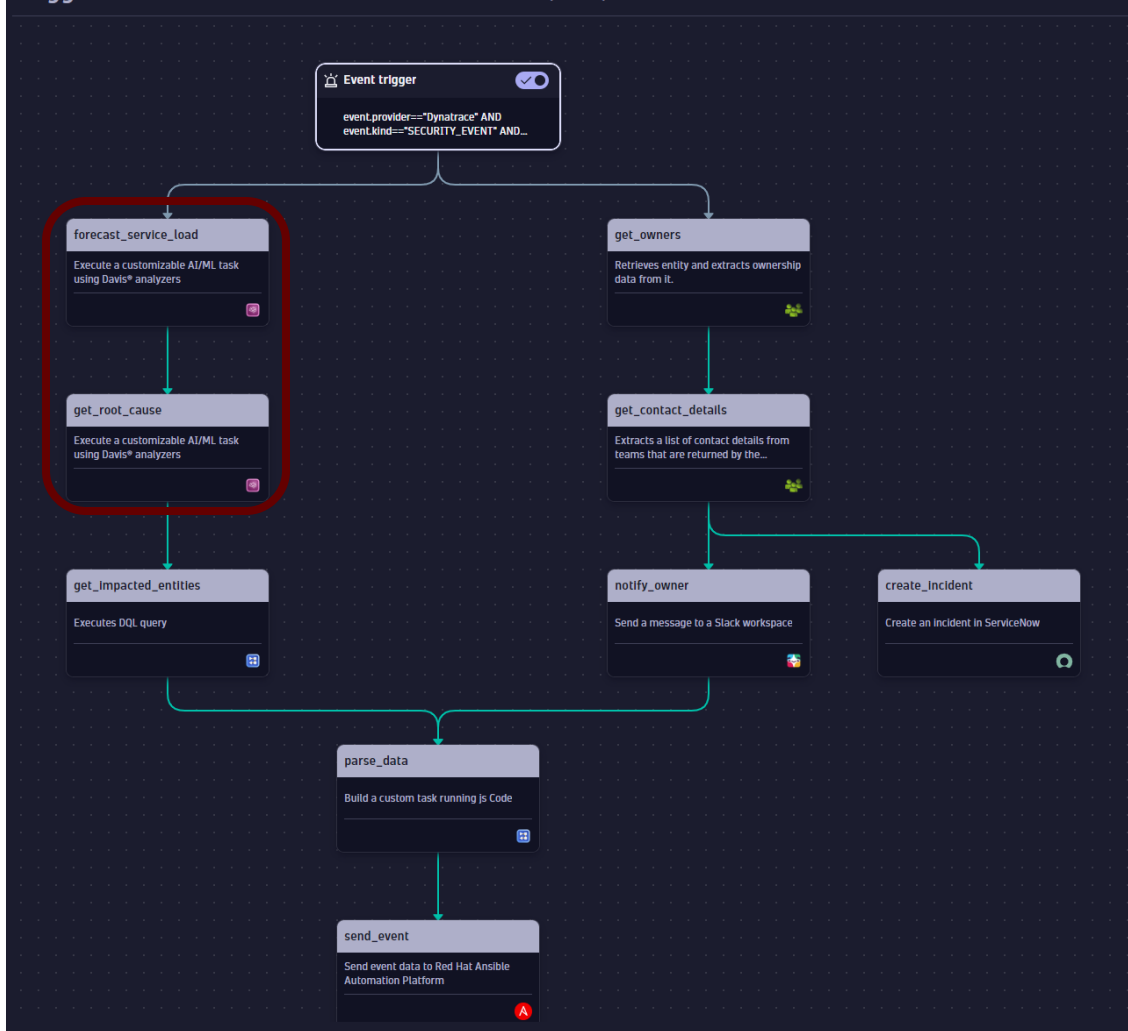


```
1 fetch events
2 | filter event.provider=="Dynatrace"
3 | filter event.kind=="SECURITY_EVENT"
4 | filter event.type=="VULNERABILITY_STATE_REPORT_EVENT"
5 | filter event.level=="ENTITY"
6 | filter status=="OPEN"
```

```
1 {
2   "timestamp": "2023-10-04T11:31:33.330000000Z",
3   "affected_entity.affected_processes.ids": [
4     "PROCESS_GROUP_INSTANCE-50C2F14754649A82"
5   ],
6   "affected_entity.affected_processes.names": [
7     "IIS app pool dotNetBackend_easyTravel_x64"
8   ],
9   "affected_entity.id": "PROCESS_GROUP-0A9A52EA262BC039",
10  "affected_entity.management_zones.ids": [
11    "-863327984963308103",
12    "-8367998469205081223",
13    "5130731705740636866",
14    "2843874372046580667",
15    "8696294048462936180",
16    "9130632296508575249",
17    "-2465388576560717142"
18  ],
19  "affected_entity.management_zones.names": [
20    "willian",
21    "pgTestMz",
22    "Windows",
23    "Dev2Dev Demo 2",
24    "exceptions test",
25    "Easytravel",
26    "Winda"
27  ],
28  "affected_entity.name": "IIS app pool dotNetBackend_easyTravel_x64",
29  "affected_entity.type": "PROCESS_GROUP",
30  "affected_entity.vulnerable_component.id": "SOFTWARE_COMPONENT-70218F62E5644660",
31  "affected_entity.vulnerable_component.name": "System.DirectoryServices.Protocols:4.8.41",
32  "affected_entity.vulnerable_component.short_name": "System.DirectoryServices.Protocols",
33  "dt.entity.process_group": "PROCESS_GROUP-0A9A52EA262BC039",
34  "event.category": "VULNERABILITY_MANAGEMENT",
35  "event.description": "S-4868 Credential Exposure state event reported",
36  "event.group_label": "STATE_REPORT",
37  "event.kind": "SECURITY_EVENT",
38  "event.level": "ENTITY",
39  "event.name": "Vulnerability historical state report event",
40  "event.provider": "Dynatrace",
```

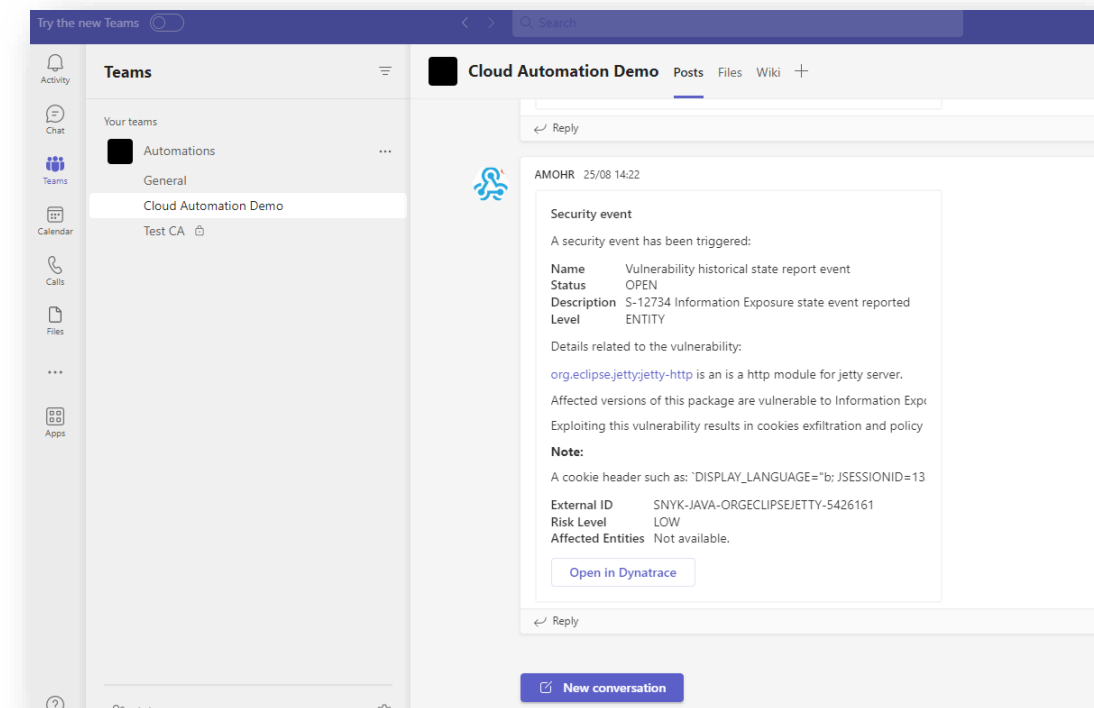
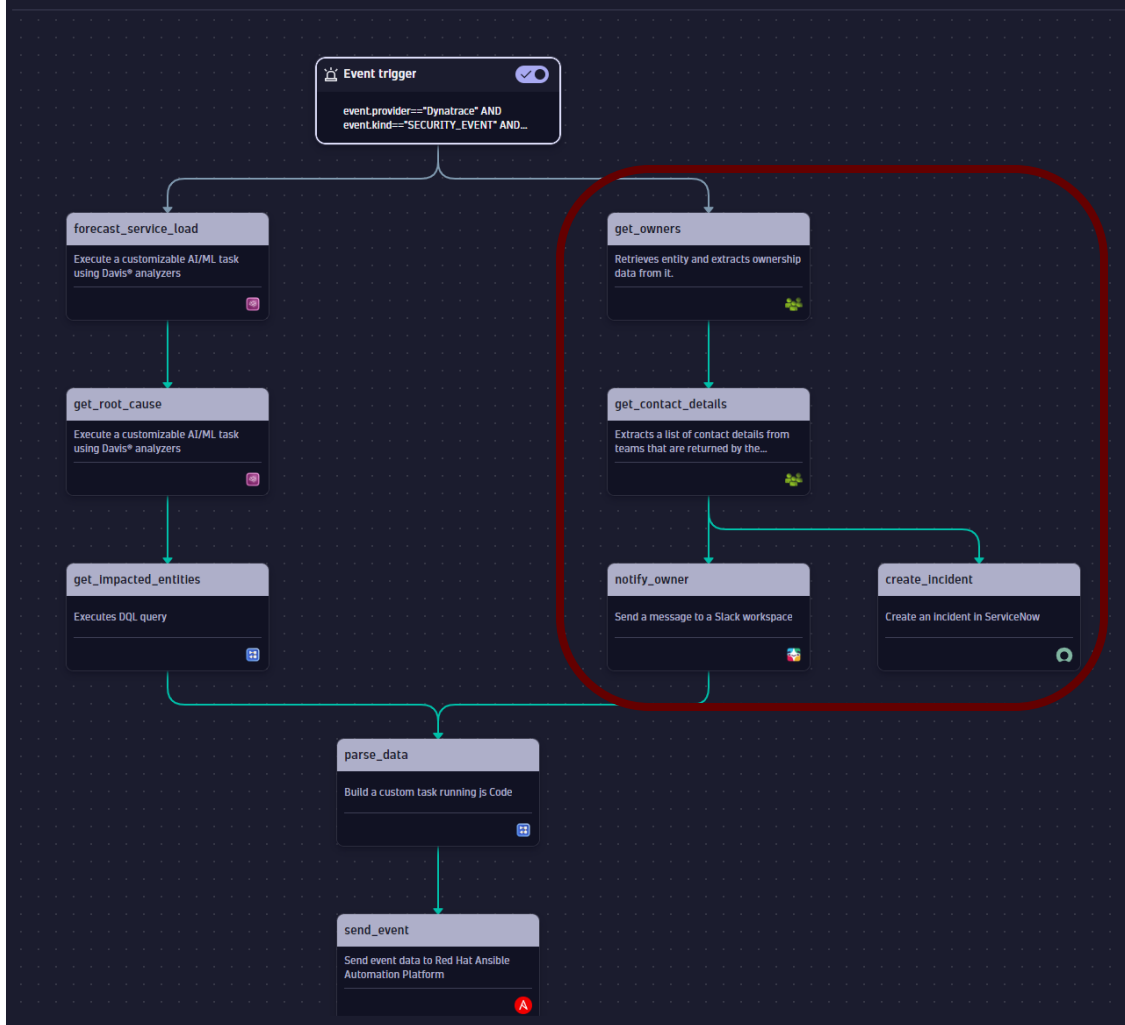
# Dynatrace Workflows

## Trigger Red Hat Ansible Automation Platform (EDA)



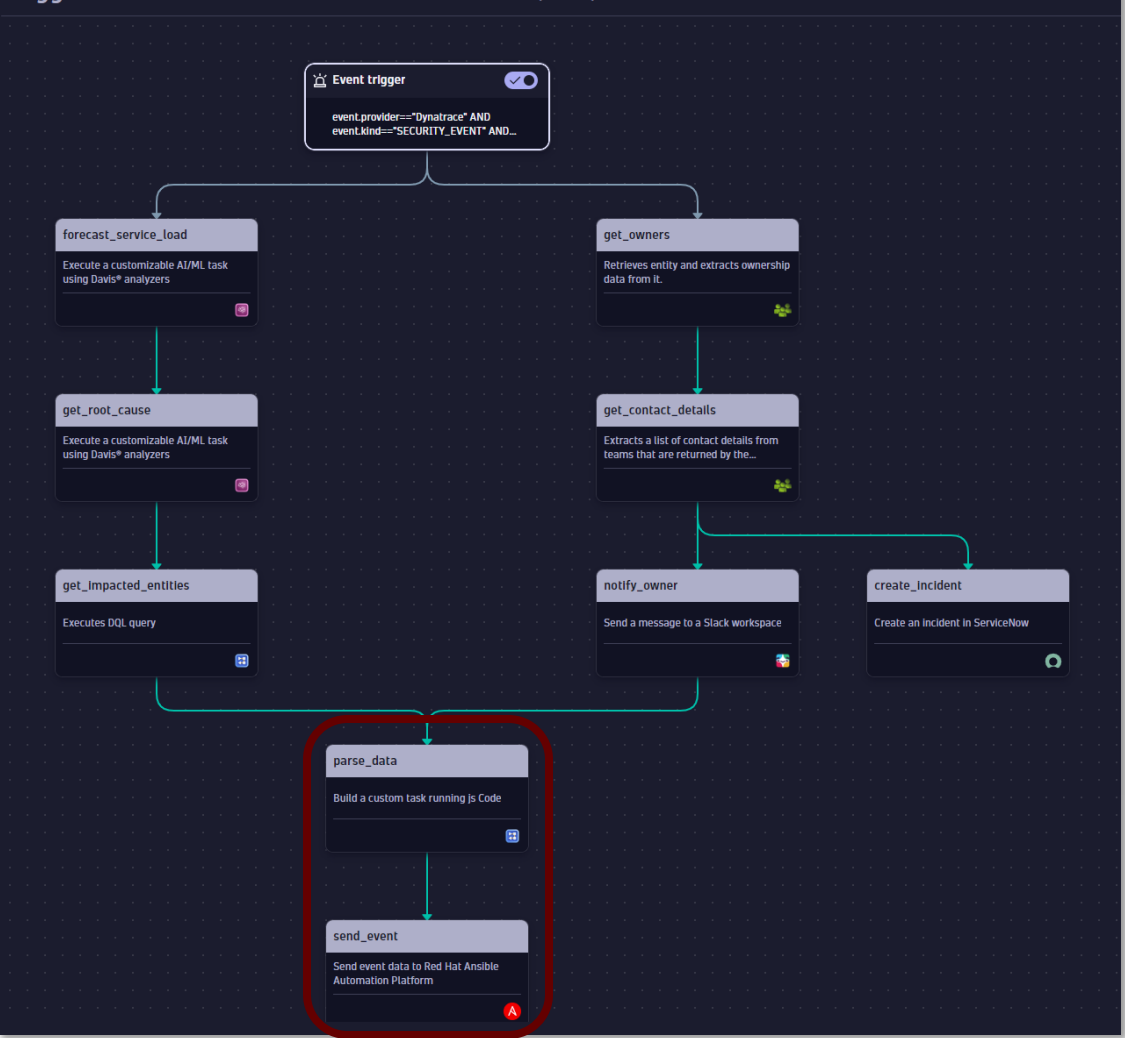
# Dynatrace Workflows

## Trigger Red Hat Ansible Automation Platform (EDA)



# Dynatrace Workflows

## Trigger Red Hat Ansible Automation Platform (EDA)



> Less complexity

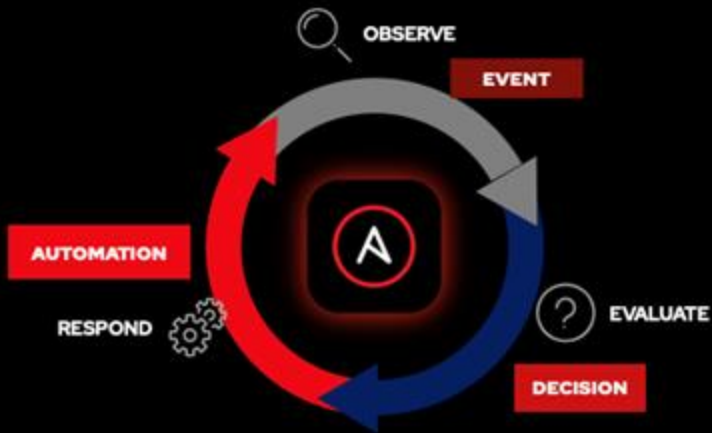
> Cloud flexibility

> **Event-Driven Ansible**

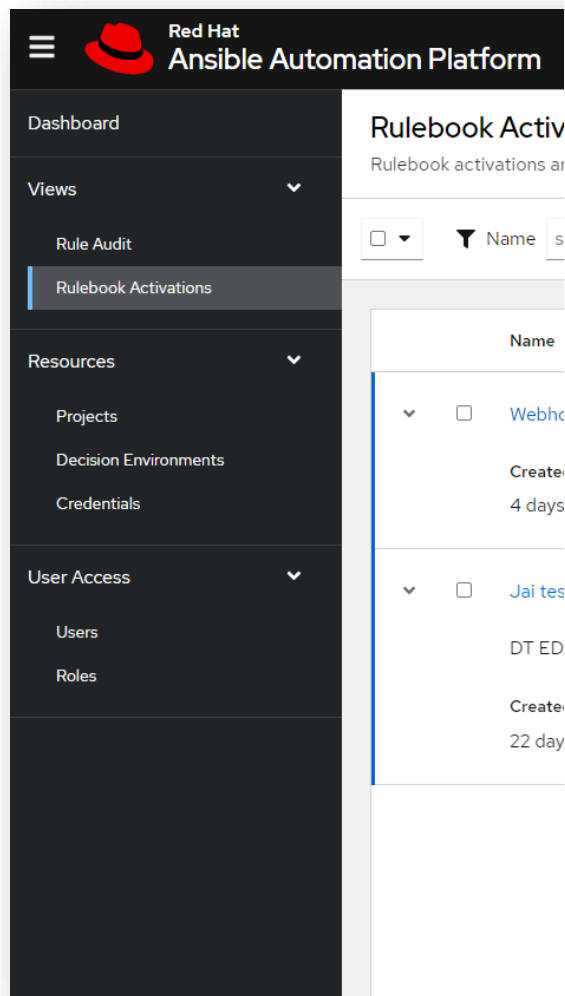
> Generative AI

> Trusted software  
supply chain

> Expansive ecosystem



# Rulebooks connects events with Actions

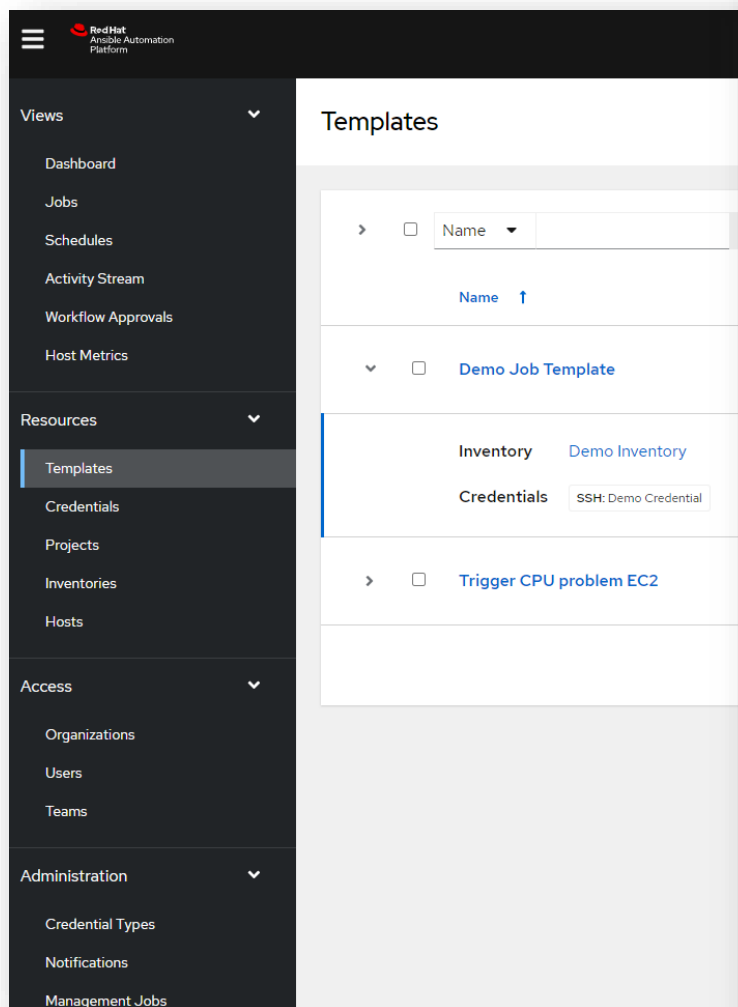


## Dynatrace Events Rulebook - Webhook

```
- name: Listen for events on a webhook
hosts: all
sources:
  - ansible.eda.webhook:
      host: 0.0.0.0
      port: 5000

rules:
  - name: Problem payload Dynatrace for CPU issue
    condition: event.payload.problemTitle contains "CPU saturation"
    action:
      run_job_template:
        name: "Remediate CPU saturation issue"
        organization: "Default"
  - name: Problem payload Dynatrace for App Failure rate increase issue
    condition: event.payload.problemTitle contains "Failure rate increase"
    action:
      run_job_template:
        name: "Remediate Application issue"
        organization: "Default"
```

# Trigger Job Templates



```
1  ---
2  - name: Fix CPU stauration issues
3    hosts: all
4    connection: ssh
5    tasks:
6      - name: Print Dynatrace ProblemId
7        debug:
8          msg: "{{ansible_eda.event.payload.eventId}}"
9        when: ansible_eda.event.payload.problemStatus == "OPEN"
10     - name: Post comment to Dynatrace - triggered playbook
11       shell: "curl -X POST --header 'Authorization: Api-Token {{dynatrace_api_token}}' -H 'Content-Type: application/json' -d '{{\"message\":
12         when: ansible_eda.event.payload.problemStatus == \"OPEN\"
13     - name: Login to OpenShift cluster
14       command: oc login -u {{openshift_user}} -p {{openshift_pwd}} --insecure-skip-tls-verify {{openshift_api_url}}
15       when: ansible_eda.event.payload.problemStatus == \"OPEN\"
16     - name: Set environment variable for easytravel-loadgen deployment config to trigger new rollout
17       command: oc set env dc/easytravel-loadgen ET_PROBLEMS- ET_BACKEND_URL- -n easytravel
18       when: ansible_eda.event.payload.problemStatus == \"OPEN\"
19     - name: Sleep for 60 seconds
20       wait_for:
21         delay: 60
22         timeout: 0
23       when: ansible_eda.event.payload.problemStatus == \"OPEN\"
24     - name: Roll out latest deployment for easytravel-backend
25       command: oc rollout latest dc/easytravel-backend -n easytravel
26       when: ansible_eda.event.payload.problemStatus == \"OPEN\"
27     - name: Sleep for 60 seconds
28       wait_for:
29         delay: 60
30         timeout: 0
31       when: ansible_eda.event.payload.problemStatus == \"OPEN\"
```



**Connect**

# Thank you



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