

Event-Driven Ansible

SwingSight demo

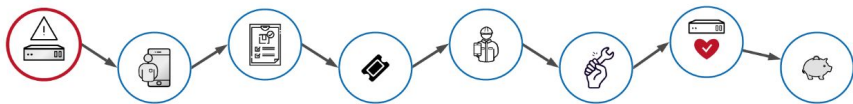


What we'll cover today...

- ▶ **Why Event-Driven Ansible?**
- ▶ **What is Event-Driven Ansible?**
- ▶ **Demo time!**
- ▶ **How can I get started?**

A brief history of IT Operations

The Old Way: Toil and Churn



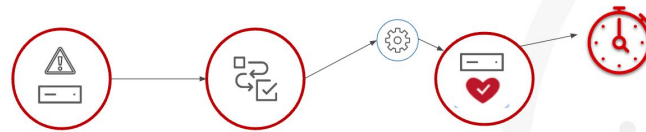
Outage resolution:

Follow a people-intensive multi-step manual process including opening tickets and multiple handoffs.

Security risk resolution:

Monitor to identify risk, notify and open a ticket, manually apply a patch or manually initiate automation job.

The new way: Event-Driven Automated Ops



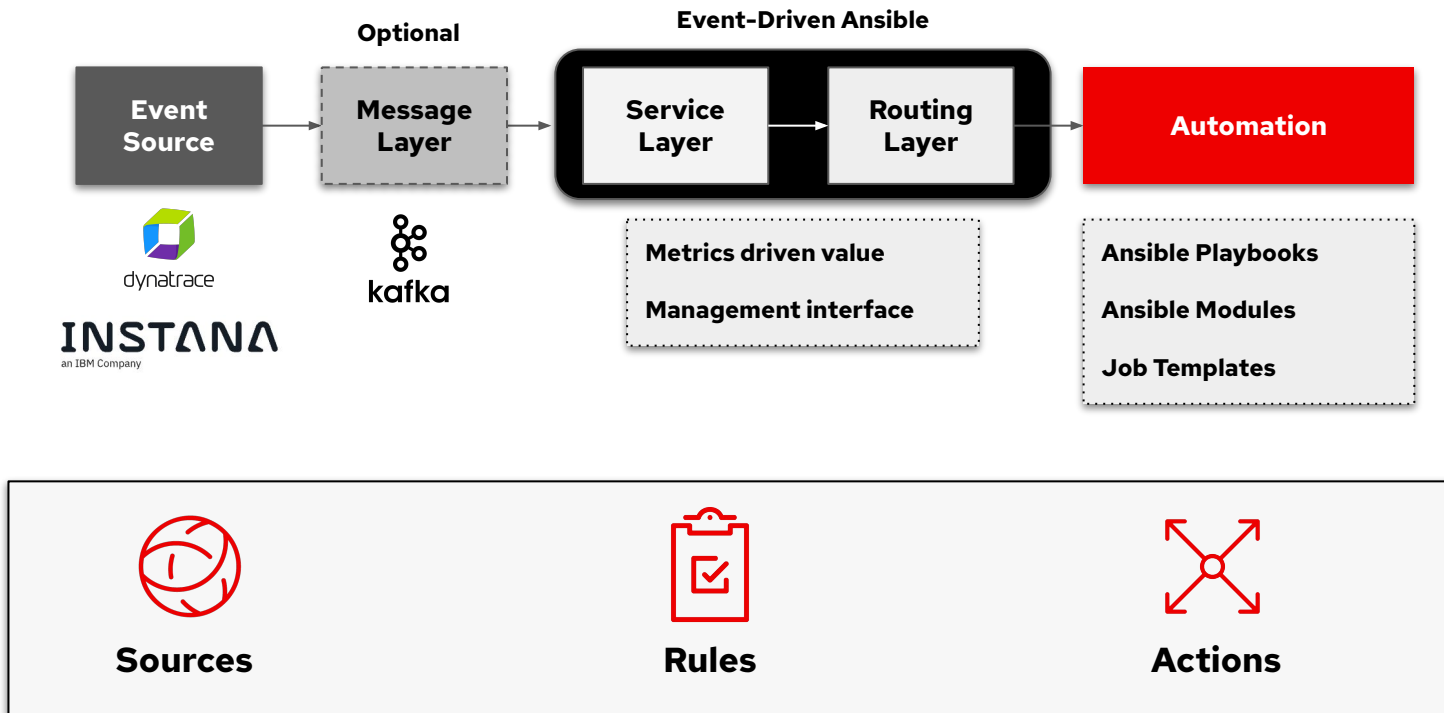
Event-Driven outage resolution:

Receive event, matching to rule, respond and act automatically

Event-Driven security risk resolution:

Receive risk event, match to rule, automatically apply patch to impacted inventory.

Execution layers of event driven automation



Ansible Rulebooks

```
---
- name: Capture alertmanager alerts
  hosts: all
  sources:
    - ansible.eda.alertmanager:
        host: 0.0.0.0
        port: 5050
        data_alerts_path: alerts
        data_host_path: labels.instance
        data_path_separator: .
        skip_original_data: true

  rules:
    - name: SELinux was disabled
      condition: event.alert.labels.alertname == "selinux disabled" and
                event.alert.status == "firing"
      action:
        run_job_template:
          name: Apply baseline
          organization: Default
          job_args:
            limit: "{{ event.meta.hosts }}"
```

Event-Driven Ansible rulesets. **Event sources and rules.**

What are they?

- ▶ Top level specification that defines event sources and rules.
- ▶ Defines properties such as Ansible inventory target hosts, gathering facts, and more.

Building blocks for Rulebooks

- ▶ Multiple rulesets can exist within an Ansible Rulebook.

```
---  
- name: Capture alertmanager alerts  
  hosts: all
```

Event-Driven Ansible sources. How are events gathered?

What are they?

- ▶ Event data is gathered from multiple sources using source plugins.
- ▶ One or multiple event source plugins can be configured in a ruleset.

Source plugins

- ▶ Puts events in the queue to be passed to rules engine.

Event filters

- ▶ Enables data transformation and clean-up before being passed to rules engine.

```
---  
- name: Capture alertmanager alerts  
  hosts: all  
  sources:  
    - ansible.eda.alertmanager:  
      host: 0.0.0.0  
      port: 5050  
      data_alerts_path: alerts  
      filters:  
        - ansible.eda.json_filter:  
          include_keys: ['alert']
```

Event-Driven Ansible rules. Evaluate and automate.

What are they?

- ▶ Rules determine actions taken on events based on conditions using simple YAML structure.

Conditions

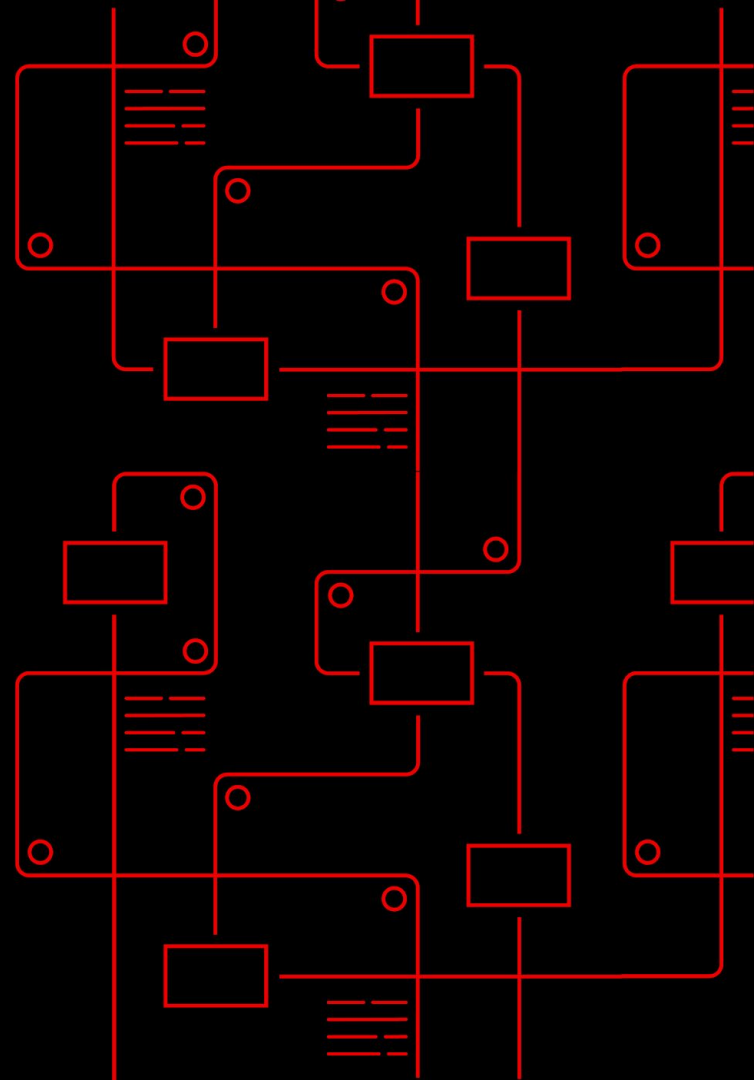
- ▶ Evaluates event data using “If-Then-Else” structure.
- ▶ Single condition or multiple conditions supported.

Actions

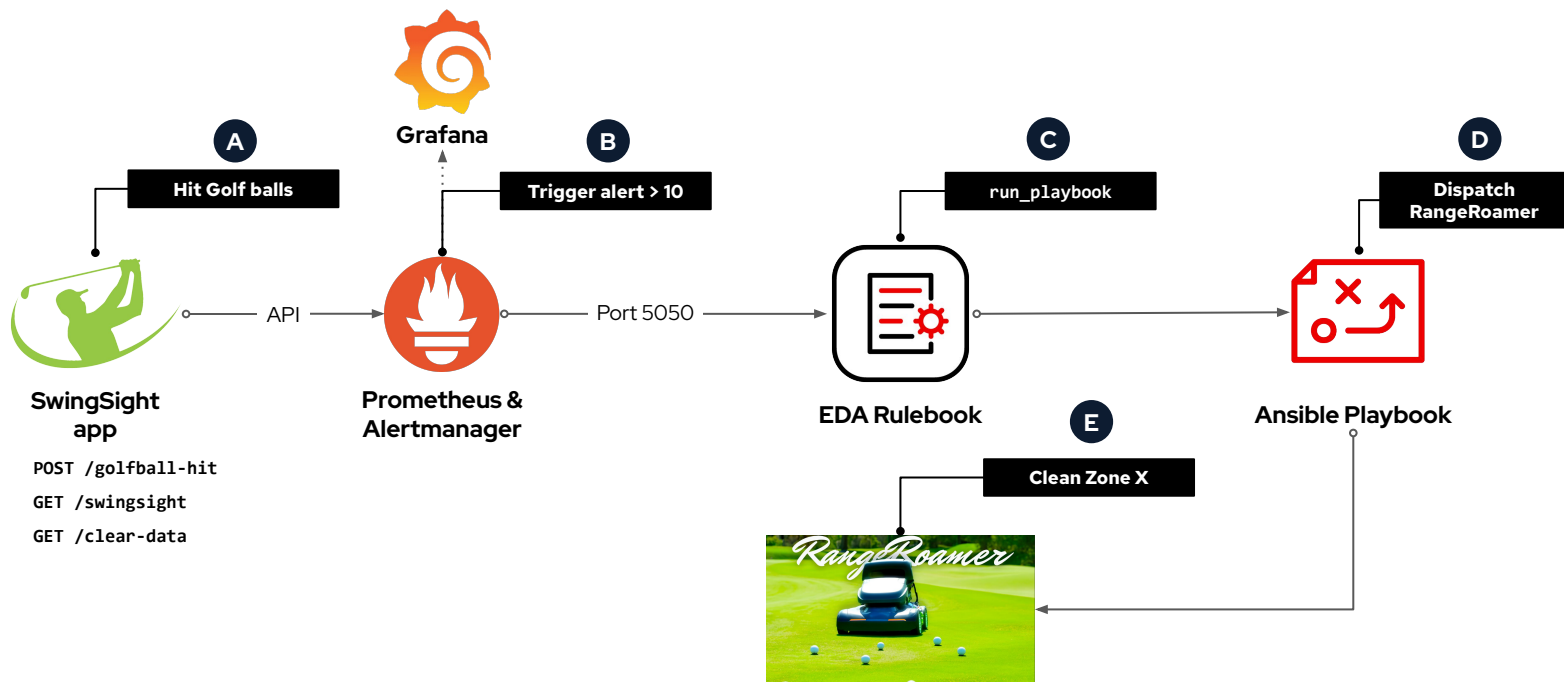
- ▶ Triggered once rule conditions are met
- ▶ Processed sequentially once conditions are met.

```
rules:
  - name: SELinux was disabled
    condition: event.alert.labels.alertname ==
               "selinux disabled"
    action:
      run_job_template:
        name: Apply baseline
        organization: Default
        job_args:
          limit: "{{ event.meta.hosts }}"
```


SwingSight demo overview



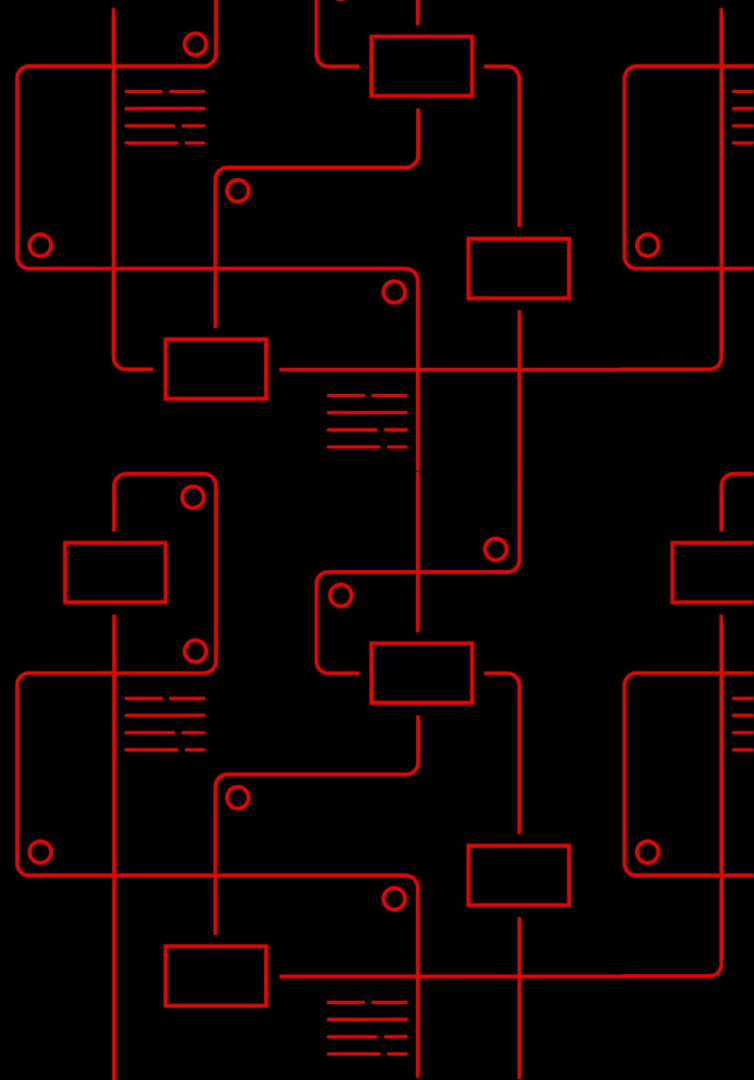
SwingSight demo overview



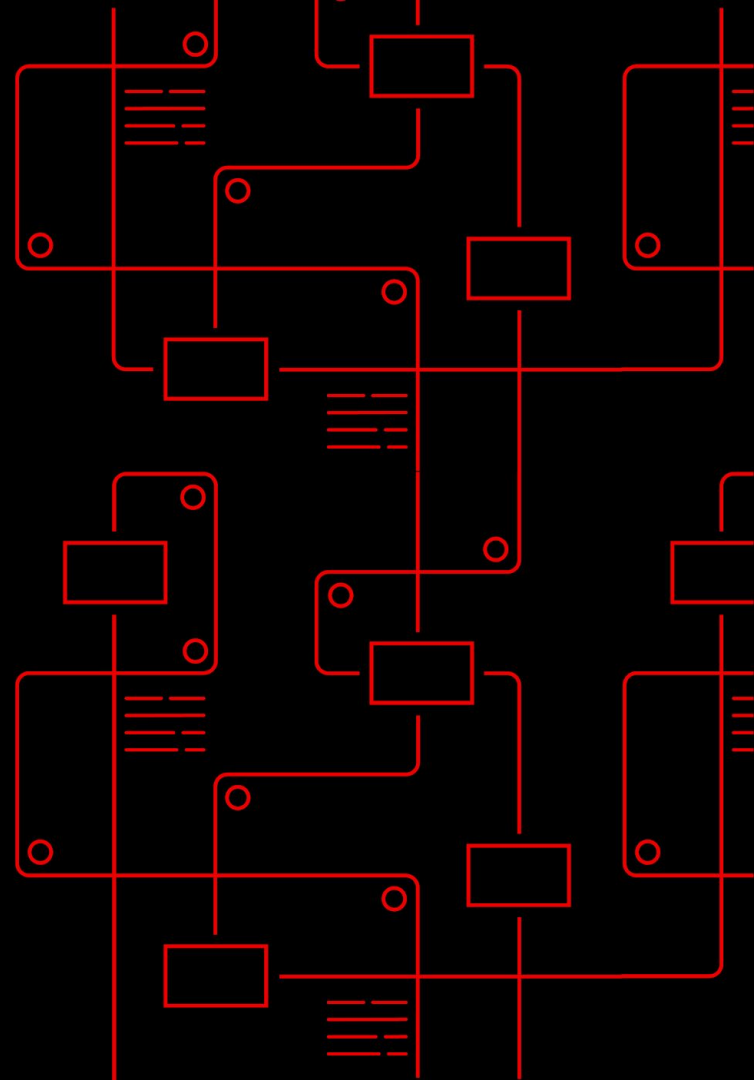
SwingSight EDA workflow

- Golfer hits golf balls to different zones.
- > 10 golf balls fires an alert in Alertmanager.
- EDA listens for webhook on TCP 5050. If conditions are met, runs Ansible Playbook.
- Ansible Playbook dispatches RangeRoamer to the appropriate zone.
- RangeRoamer picks up golf balls

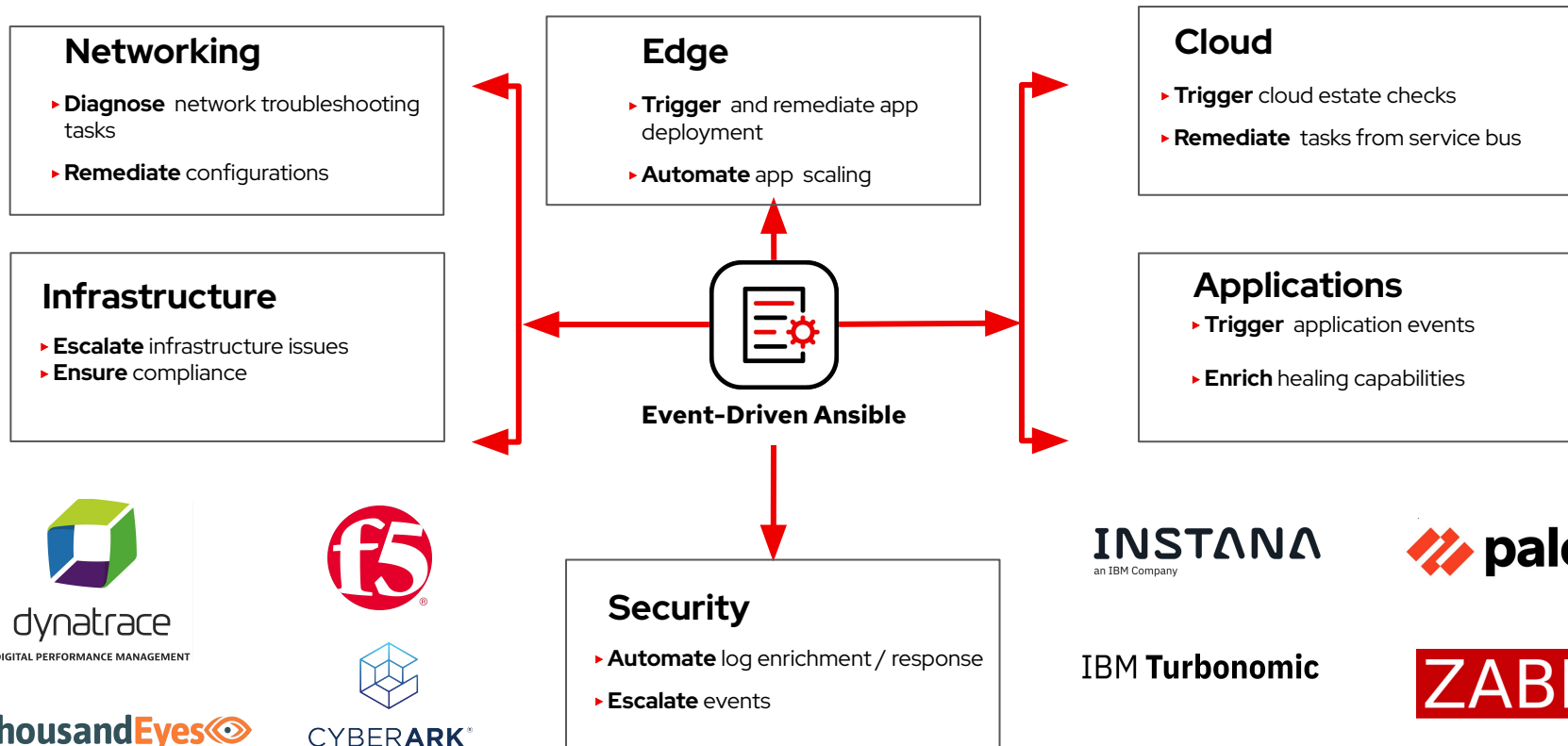
Demo time!



How do I get started?



Event-Driven Ansible is use case-friendly.



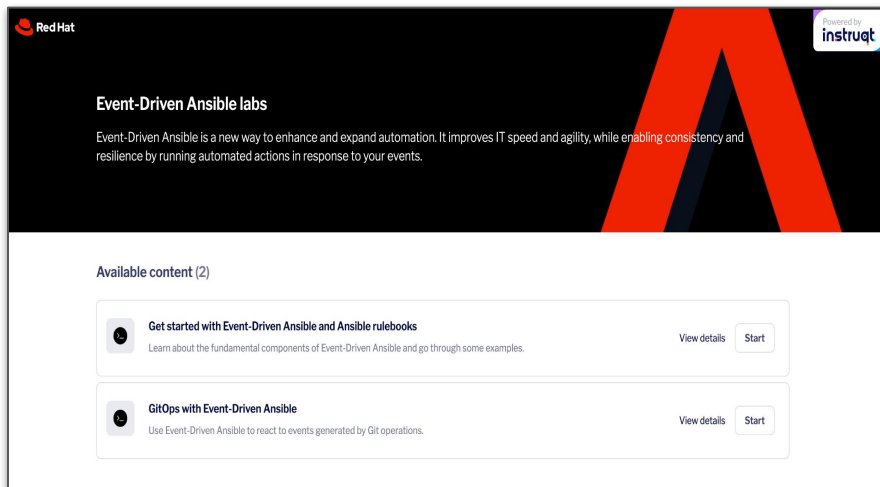
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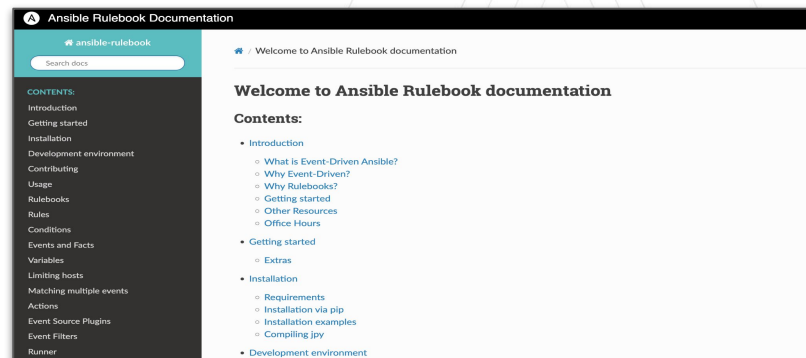
Three key technical learning resources



Interactive labs



Technical blogs



Rulebook docs

SwingSight demo resources.

SwingSight demo

- https://github.com/clain/swingsight_metrics



Event-Driven Ansible Resources

Get started on your event-driven automation journey

MANAGERS

[Event-Driven Ansible web page](#)

[451 Research: The Impact of Event-Driven Automation on IT Operations](#)

[IDC QuickTake AnsibleFest 2022, including Event-Driven Ansible](#)

[Blog: Highly Efficient, Resilient IT operations](#)

[Blog: Event-Driven Ansible is Here!](#)

TECHNICAL ROLES

[Event-Driven Ansible web page](#)

[Free Self-paced lab](#)

[Ansible Rulebook documentation](#)

[Blog: Getting started with Event-Driven Ansible](#)

[Blog: Event-Driven Ansible is Here!](#)

[Blog: Creating custom plugins](#)

PARTNERS

[Event-Driven Ansible web page](#)

[Free Self-paced lab](#)

[Blog: Creating custom plugins blog](#)

Contact the partner team:
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ansible.com/event-driven

Thank you

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