

CISCO Live !

An Introduction to Ansible Automation Platform for Network Engineers

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Agenda

- The Reality of Network Operations
- Why Ansible Became Popular in Networking
- From Ansible to Ansible Automation Platform
- Core AAP Concepts for Network Engineers
- Network Use Cases That Actually Matter
- The Future: Event-Driven + AI-Assisted Operations

The Reality of Network Operations

Networks are still operated heavily through:

- CLI
- tribal knowledge
- maintenance windows

Modern networks are now:

- multi-vendor
- hybrid
- too large for manual consistency

The problem is no longer configuring one device. The problem is operating thousands consistently and safely.



Why Ansible Became Popular in Networking

Ansible didn't ask network engineers to become software developers first.

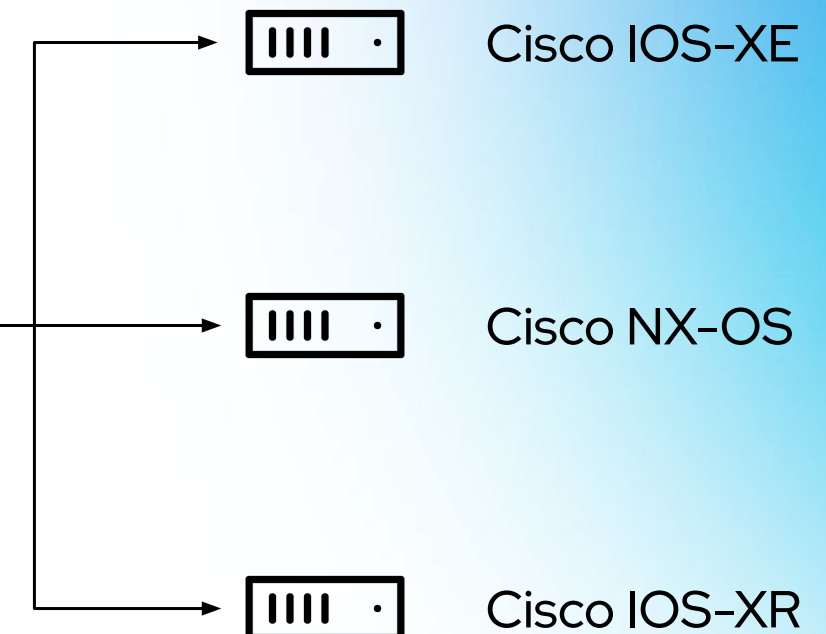
Ansible is:

- Agentless
- Connection Agnostic
- Multi-platform

Learning & Adoption:

- YAML is approachable
- Allows Incremental adoption
- Existing network knowledge transferred directly

```
---
- name: configure VLANs
  hosts: cisco
  gather_facts: false
  tasks:
    - name: VLANs task
      cisco.nxos.vlans:
        config:
          - vlan_id: 5
            name: WEB
          - vlan_id: 10
```



From Ansible to Ansible Automation Platform

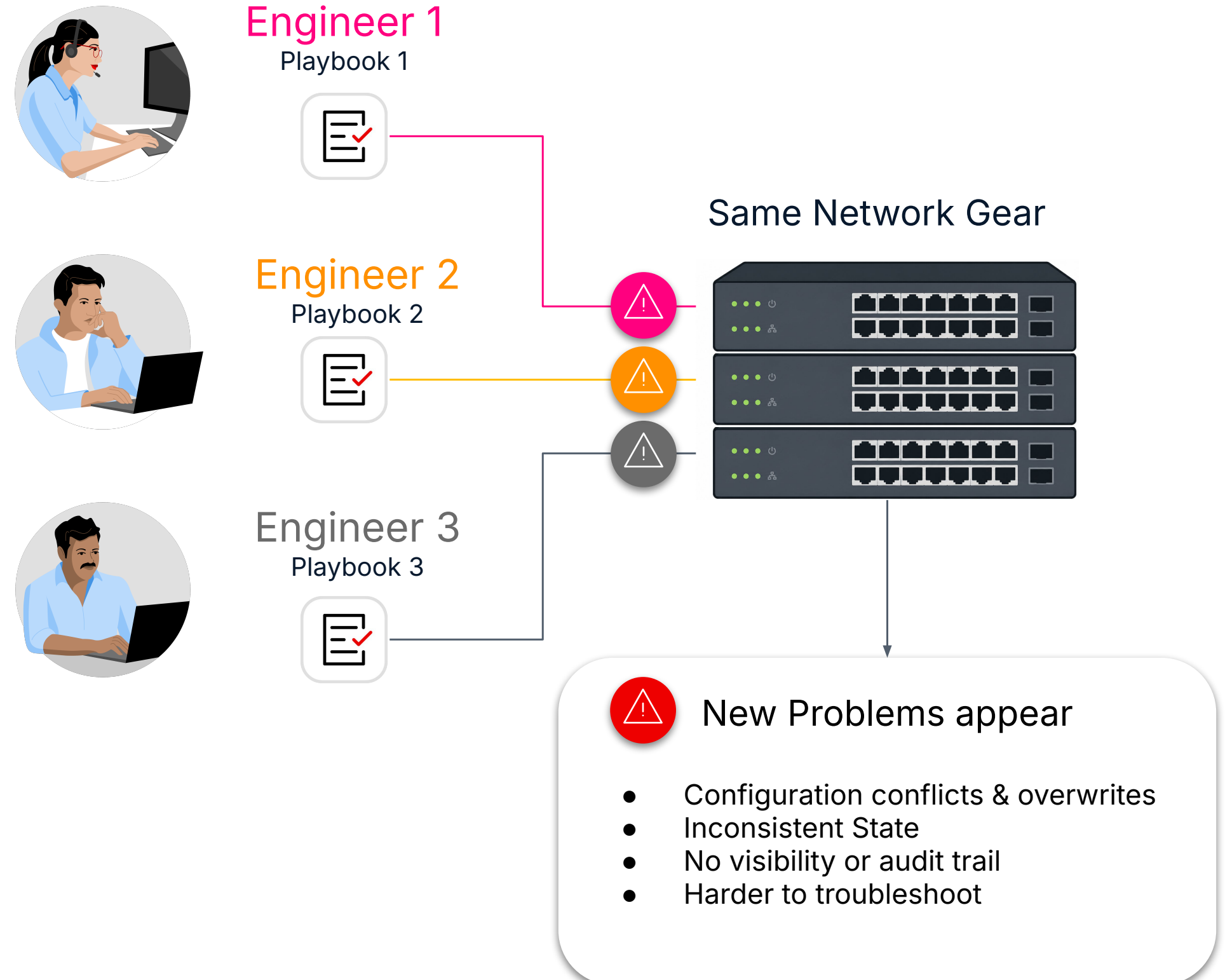
AAP operationalizes automation

Many teams start with:

- local playbooks
- cron jobs
- one automation champion

Then problems appear:

- Who ran this?
- How do we RBAC this?
- How do we make this reliable at scale?



From Ansible to Ansible Automation Platform

AAP operationalizes automation

AAP provides:

- centralized automation & RBAC
- common inventories & credentials
- repeatable job templates & workflows
- governance & audit trail

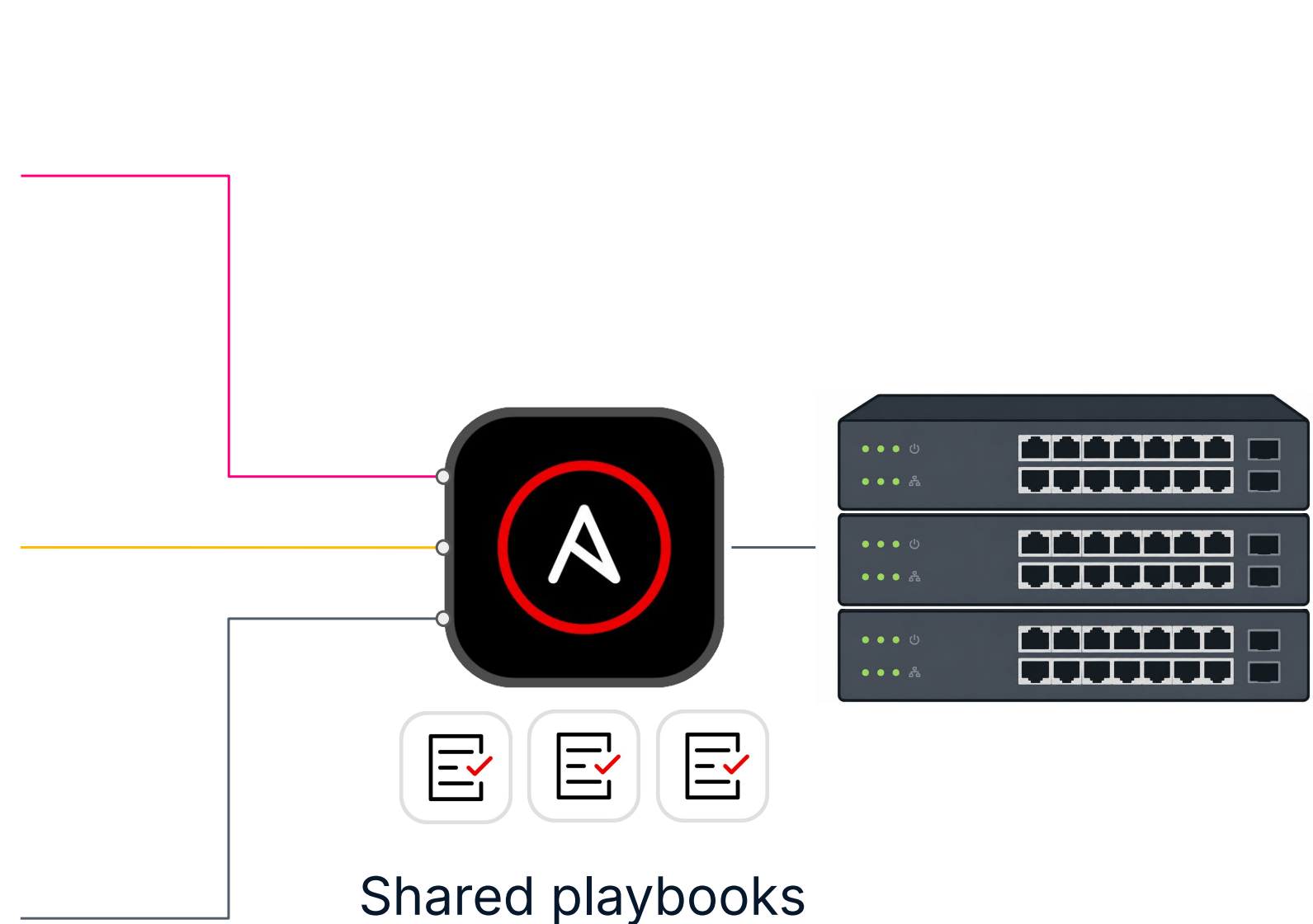
Engineer 1



Engineer 2

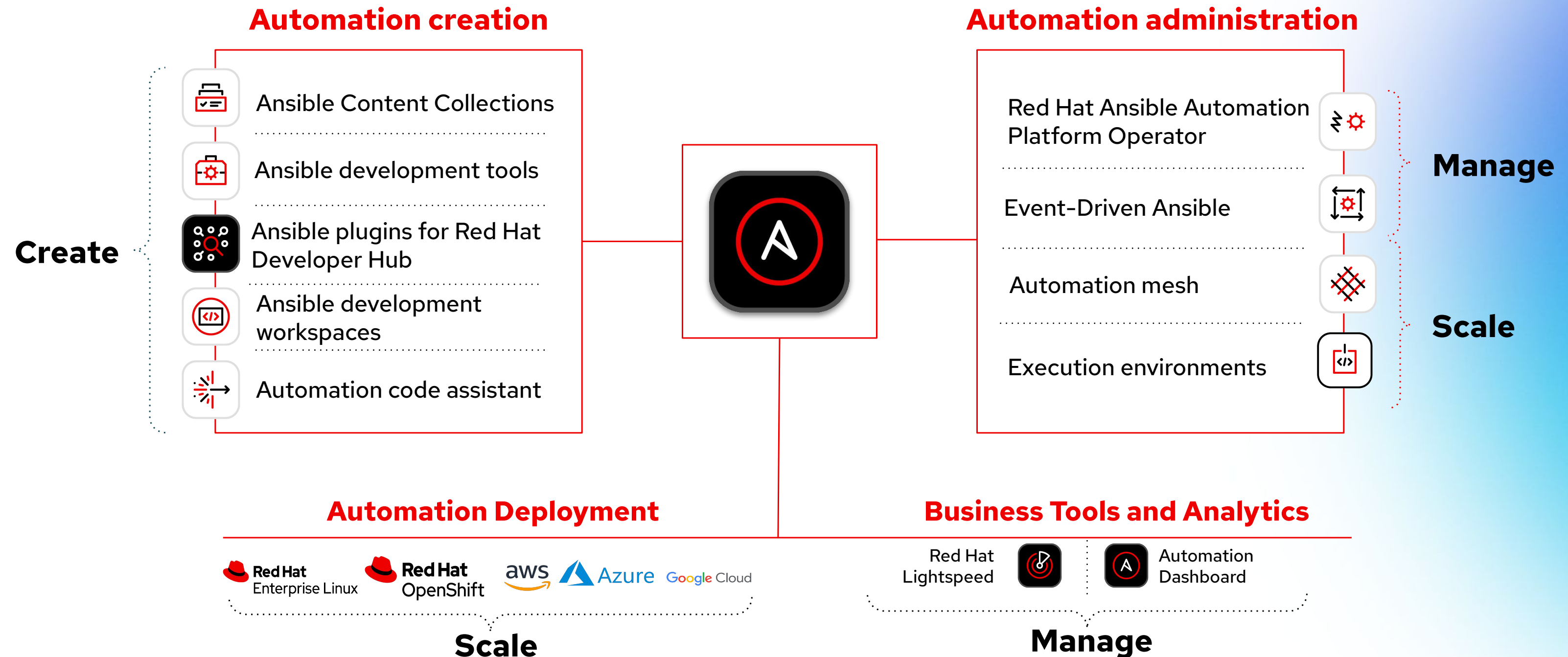


Engineer 3



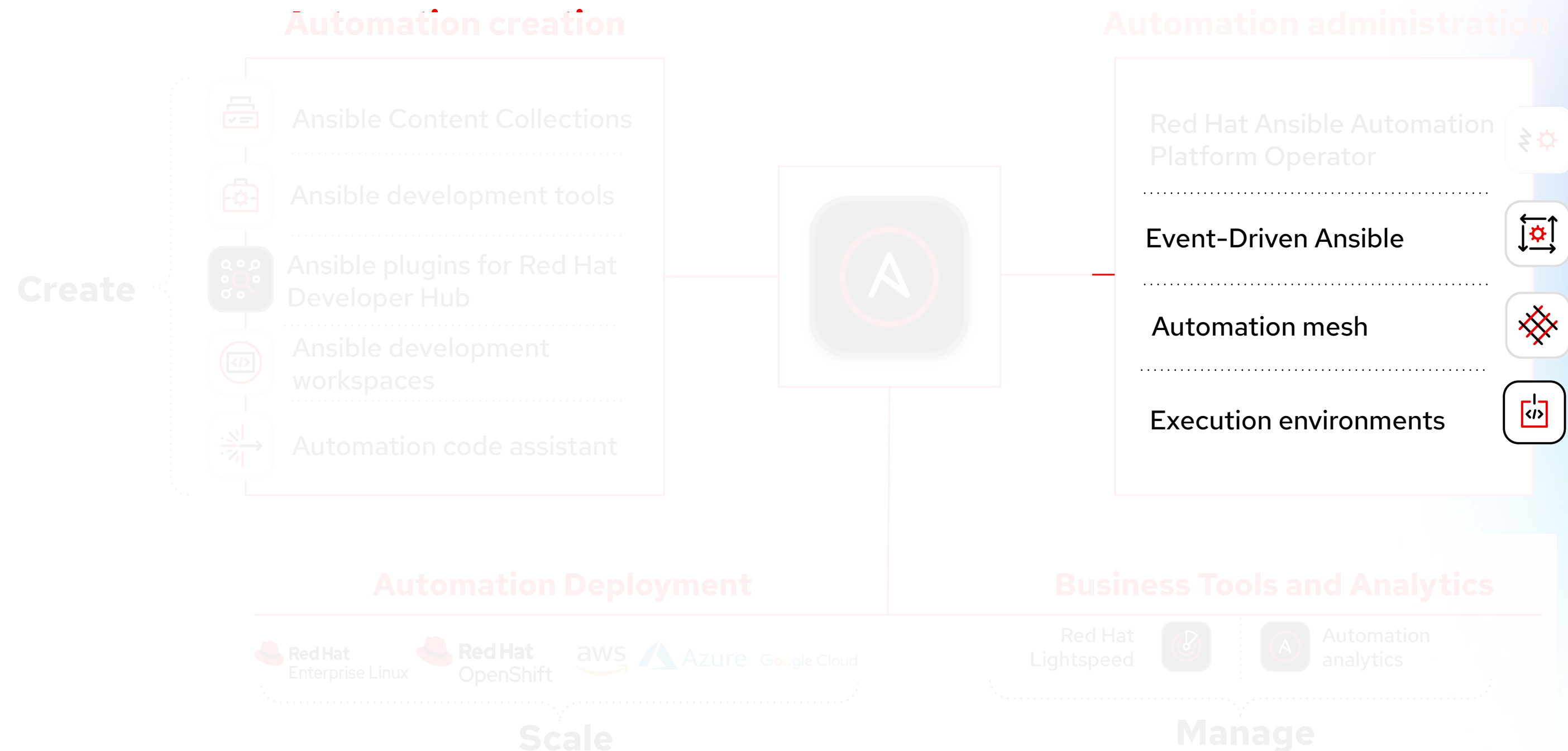
Core AAP Concepts for Network Engineers

The Building Blocks of Scalable Network Automation



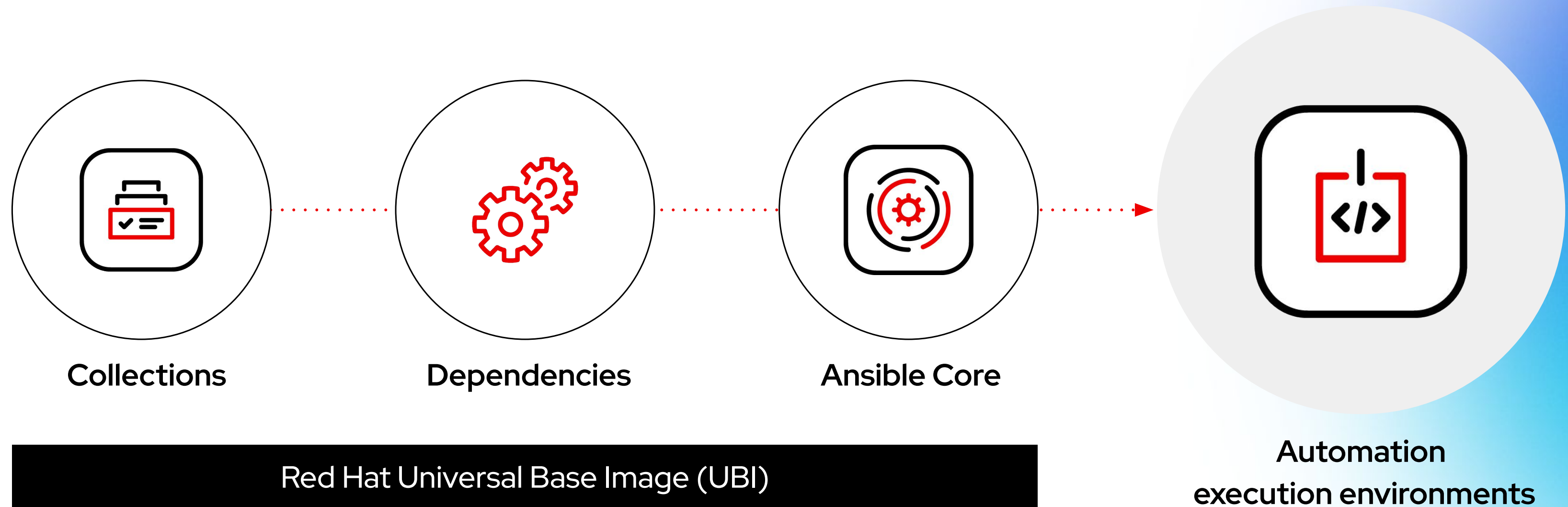
Core AAP Concepts for Network Engineers

The Building Blocks of Scalable Network Automation



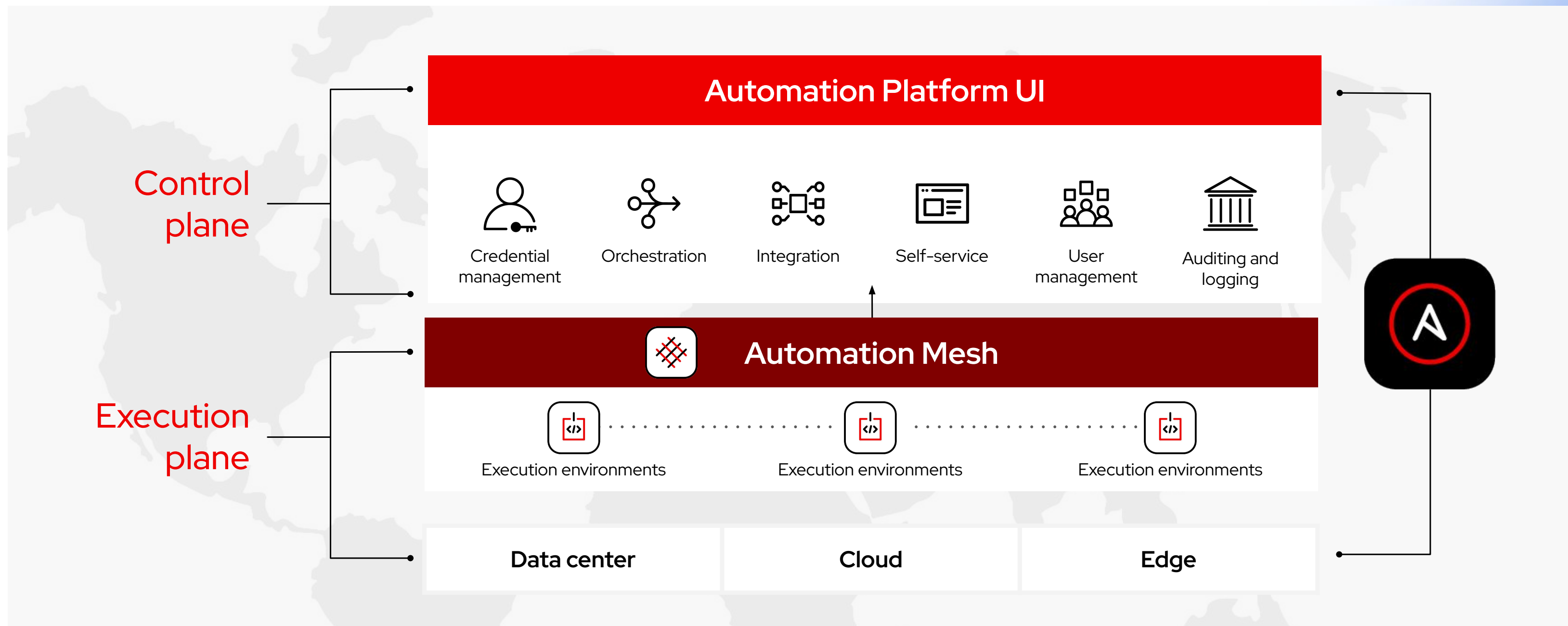
Core AAP Concepts for Network Engineers

Automation execution environments



Manage

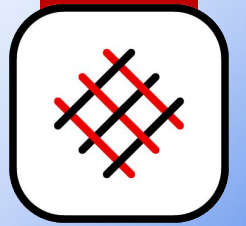
Core AAP Concepts for Network Engineers



Manage

Core AAP Concepts for Network Engineers

Automation mesh. **The execution plane.**



What is it?

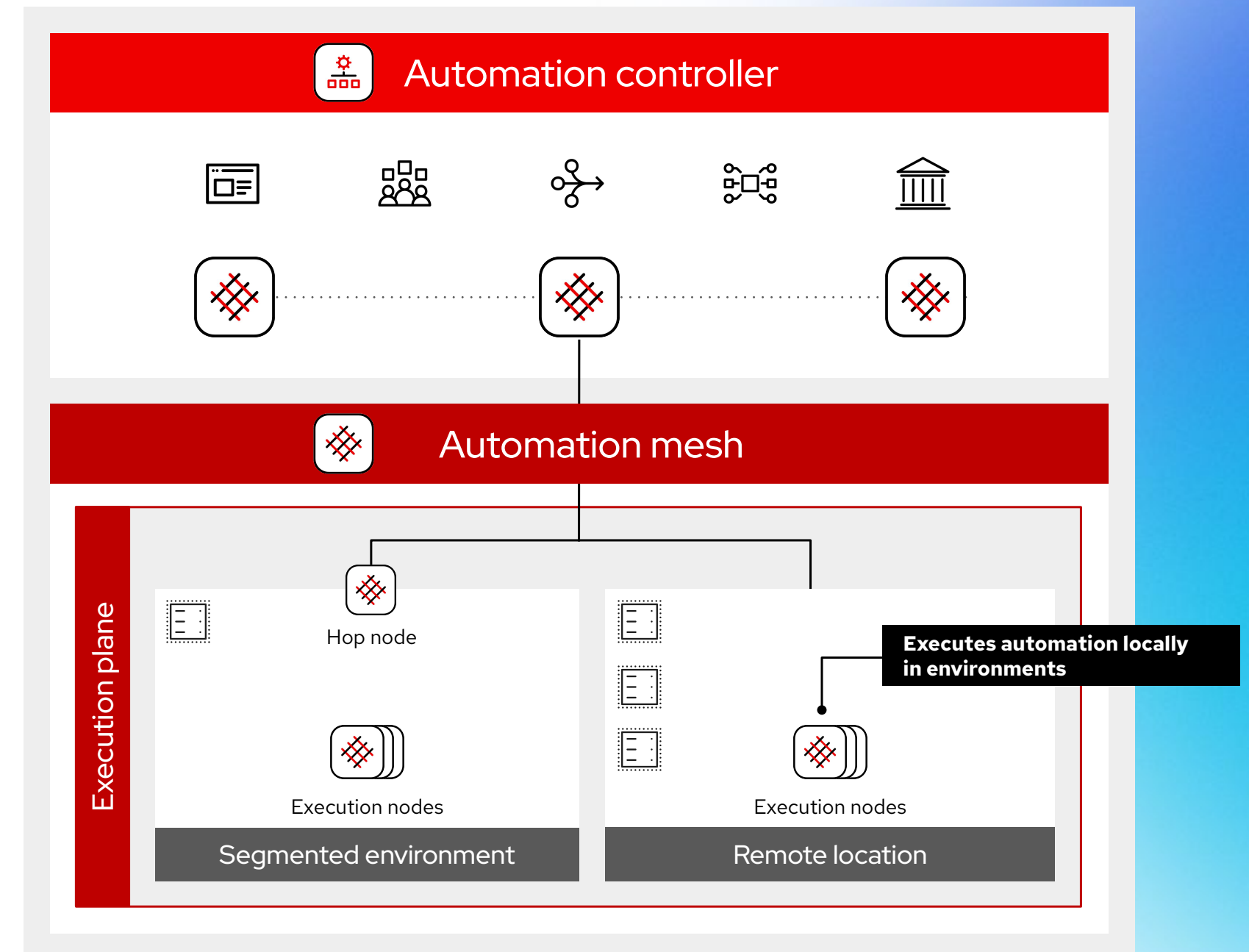
- ▶ Dedicated capacity to running playbooks
- ▶ Flexible designs possible across geographies and networks
- ▶ Resilient to high latency and connection disruptions

Execution node

- ▶ Dedicated capacity to run automation and no controller runtime functions executed

Hop node

- ▶ Dedicated to route traffic across execution nodes not directly connected to controller and cannot run automation



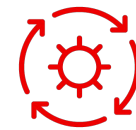
Network Use Cases That Actually Matter

The biggest ROI is consistency and reduced operational risk.



Network visibility

Generate network inventories and reports. Audit your network to obtain compliance and drift reports.



Configuration management

Standardize and enforce configuration best-practices and hygiene in a platform-agnostic way.

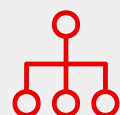


Network operations

Run network health checks. Deploy OS upgrades at scale.



Switch



Load balancer



IPS



Proxy



Firewall



Router



IoT



Wireless



Probes



SDx

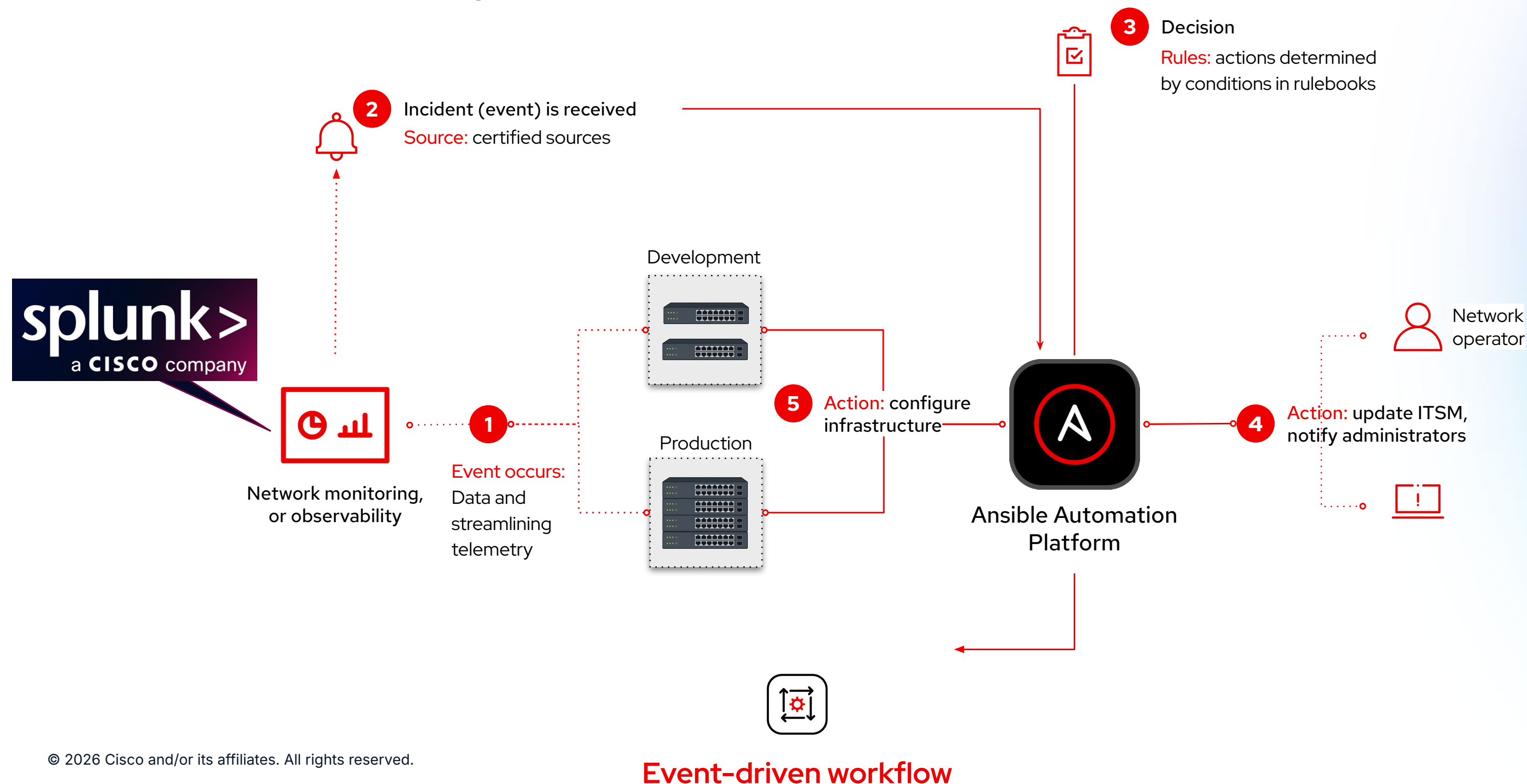


NMS

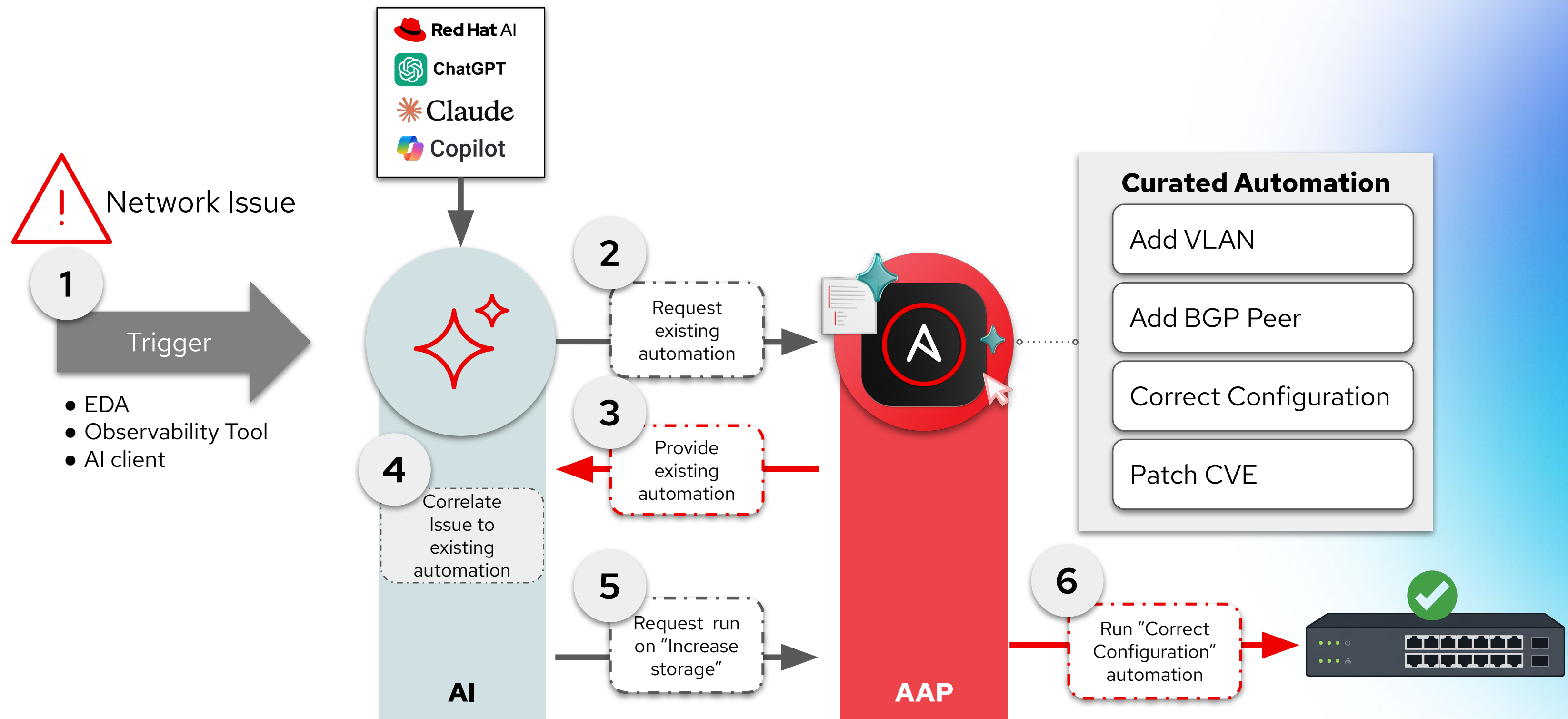


The Future: Event-Driven + AI-Assisted Operations

The future isn't replacing network engineers. It's eliminating repetitive operational work so engineers can focus on architecture and reliability.



The Future: Event-Driven + AI-Assisted Operations



Thank you!

- Solution guides: red.ht/aiops-solution-guides



- Interactive demos: [Ansible Automation Platform + AI](#)





Q & A

