Red Hat Summit
Connect
Connect

Stranger things

Beyond the standard use cases
Matt York
Specialist Solution Architect (Automation)
Automation Maturity

Level 1
Aware

Level 2
Standardised

Level 3
Proactive

Level 4
Institutionalised

Level 5
Optimised

Infrastructure Silos
Sketchy Inventories
Heavy Focus on Infra Personas
Sole Emphasis on Compute
Long Provisioning Times
Many Manual Steps
Reactive Monitoring

Automation Coordinated Across Silos
Handles Multiple Personas
Accurate Dynamic Inventories
Minimal Provisioning Times
Applications Provisioning with Infrastructure
Monitoring With Automated Remediation

Source: Gartner
Ansible network automation. Next-gen network operations.

- Configuration accuracy
  - Config backup and restore
  - Scoped configuration management

- Operational state management
  - Dynamic documentation
  - Automated NetOps

- Compliance and traceability
  - Operational state validation
  - Network compliance

Network orchestration

Automated network operations

Physical  Virtual  Cloud  Edge
Why Red Hat Ansible Automation Platform?

Supported and certified content you can trust.

130+
Certified Content Collections

55+
Certified technology partners
Start Small
Quick automation victories for network engineers

**Config Backup and Restore**
*Ubiquitous first touch use case*
- Gain confidence in automation quickly
- First steps towards network as code
- Quickly recover network steady state

**Dynamic Documentation**
*Use Ansible facts to gain information*
- Read-only, no production config change
- Dynamic Documentation and reporting
- Understand your network

**Scoped Config Management**
*Focus on high yield victories*
- Automate VLANs, ACLs and SNMP config
- Introduce source of truth concepts
- Enforce Configuration policy
Think Big
Institutionalizing automation into your organization

Network Compliance
- Respond quickly and consistently
  - Security and config compliance for network
  - Remove human error from security responses
  - Enforce Configuration policies and hardening

Operational State Validation
- Going beyond config management
  - Parsing operational state to structured values
  - Schema validation and verification
  - Enhance operational workflows

Automated NetOps
- Infrastructure as code
  - Data centric automation
  - Deploy configuration pipelines
  - GitOps for Network Automation
ServiceNow & Change Management
Manually Patch the OS on an application server

Sysadmin

Network Admin

Network Operations Centre

F5 BigIP Load Balancer

F5 BigIP Load Balancer

F5 BigIP Load Balancer
ServiceNow Use Case

The new change process

Approve request to start change

ServiceNow

Network Operations Centre

API

Controller

Regress

Backup

Remove node from F5 pool

Test

Patch

Site Admin

Restore traffic
Automated Documentation

- Jira
- Asciidoc
- Markdown
- HTML
- PDF
Managing remote devices
Testing Infrastructure

Bring your own lab (as code)
Event-Driven Ansible. **Observe Evaluate Act**

**Developer Preview**

- **Remediation and Observation from events**
  - **Source** plugins provide Event-Driven Ansible the ability to listen for events which can be processed through rulebooks.
  - **Rules** in the form of Rulebooks allow us to create event conditions which once met will trigger an action.
  - **Actions** give us the ability to trigger playbooks, modules, notifications and further event triggers based on the conditions that have been met by a specific event.
Automated detection and resolution
Ansible security automation. **Response and remediation.**

**Investigation enrichment**
Enabling programmatic access to log configurations such as destination, verbosity, etc

**Threat hunting**
Automating alerts, correlation searches, and signature manipulation

**Incident response**
Creating new security policies to whitelist, blacklist, or quarantine a machine
I still have to write my own playbooks
Project Wisdom

Project Wisdom is a Red Hat initiative, developed in collaboration with IBM Research, to infuse Ansible with artificial intelligence (AI) and gain a set of unique capabilities. These capabilities revolve around the generation, discovery, optimization and explanation of automation content, primarily in the form of Ansible Playbooks.

Links:
- [Product Page](#) | [Demo](#)

More information: [www.ansible.com/wisdom](http://www.ansible.com/wisdom)
Now for something completely out there
Automating edge enterprise **use cases.**

**Why Ansible for Automation at the Edge?**

- **Automate scale and complexity** with a consistent platform from the datacenter to the edge across heterogeneous estates
- **Facilitates IT/OT convergence**
- **Provides predictability and repeatability** to automate anything with programmatic API or Linux OS
Now for something completely out there
Connect

Thank you

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