Quick Poll questions

- How familiar are you with Ansible? Yes/No
- Are you using IBM Power Systems? Yes/No
- Which OS are you running on Power? AIX, IBM i or Linux (Multi-select)
- Have you used any Ansible modules to automate AIX and IBM i? Yes/No
- What tasks are you planning to automate with Ansible content for AIX and IBM i? Cloud Provisioning, Configuration Management, Application Deployment, Continuous Delivery, Orchestration, Security Automation (Multi-select)
Automating AIX and IBM i admin tasks with Ansible

Content

Paul Finley
IBM Senior Software Engineer

Joe Cropper
IBM Senior Technical Staff Member
Contents

- What is IBM Power Systems?
- Common admin challenges
- How Ansible helps?
- Ansible deployment on Power
- Key AIX and IBM i use cases
What is IBM Power Systems?

- **Compute for data-intensive and mission critical apps**
- **Deployed by banking firms, retailers, insurance, telcos, etc.**
- **Industry leading reliability, performance and security**
- **Business and data management workloads**
- **Unix and Linux operating environments**
- **Powers 3 of top 10 world’s fastest supercomputers**

- **Database**
- **SAP**
- **ERP, CRM, SCM**
- **IBMi**
- **AIX**
- **Linux**
Are you spending significant admin hours on these tasks?

- Rolling out system software updates
- Making sure all existing servers stay configured properly and meet compliance requirements
- Validate correct security baseline is set
- Provisioning software stacks within SLA’s

AIX, IBM i and IBM Power Systems admin skills are a premium.
Automate and get the gift of time!
Red Hat Ansible Platform for IBM Power Systems

- Consistent automation for AIX, IBM i and Linux on IBM Power Systems
- Addresses AIX, IBM i skills gap with extreme automation
- No changes to Red Hat Ansible Engine or Red Hat Ansible Tower; Power Systems specifics contained within modules
- Scope of automation expands to cloud orchestration and deployment of application stacks as well
Ansible Deployment Model with IBM Power Systems

Red Hat Ansible Tower
- Provides enterprise-wide dashboard showing Ansible estate

Red Hat Ansible Engine
- API layer provides enterprise-wide control – i.e., runs playbooks

Red Hat Ansible Endpoints
- Enterprise-wide automation; Ansible modules executed here

Supported on Linux

IBM Power Systems IBM Z Systems

x86 Systems
Red Hat Ansible Certified Content for IBM Power Systems
Automate common admin tasks without deep OS skills

First set of certified content focused on common AIX and IBM i admin tasks

Perform automation across multiple end points without logging to individual instances

All certified collections maintained and supported by IBM

All community provided modules (i.e. no enterprise support) available in Ansible Galaxy
Develop and post Power Systems collections in the open Ansible Galaxy community

Certified content collections supported by IBM with subscription to Red Hat Ansible Automation Platform

GALAXY

galaxy.ansible.com/ibm

GitHub

github.com/IBM
Galaxy – Power Systems Collection

- Galaxy is the upstream community for sharing Ansible Collections
- Delivered using the collection packaging mechanism
- Includes Beta and Stable releases (may not contain all downloads from project SCM)

AIX Collection Page  https://galaxy.ansible.com/ibm/power_aix

IBM i Collection Page  https://galaxy.ansible.com/ibm/power_ibmi
IBM Power Systems and the Red Hat Ansible Automation Platform

IBM Power Systems is a family of enterprise servers that helps transform your organization by delivering industry leading resilience, scalability and accelerated performance for the most sensitive, mission critical workloads and next-generation AI and edge solutions. The Power platform also leverages open source technologies that enable you to run these workloads in a hybrid cloud environment with consistent tools, processes and skills.

Certified Content Web Page: https://www.ansible.com/integrations/infrastructure/ibm-power-systems

Red Hat Automation Hub:
https://cloud.redhat.com/ansible/automation-hub/ibm/power_aix
https://cloud.redhat.com/ansible/automation-hub/ibm/power_ibmi
Ansible on Power - Demo

Demo Videos

1. Power Trailer: Provides an overview of using Ansible to automate end-to-end IT operations.
   https://ibm.biz/ansible-for-power

2. Tower Demo Video: Includes provisioning and installing AIX applications and performing “Day 2” patch management.
   https://ibm.biz/ansible-aix

Use Red Hat Ansible to easily deploy and operate AIX and IBM i apps on-prem or in your hybrid multicloud environment

1. User logs into Red Hat Ansible Tower running in their data center—spanning both POWER and x86 platforms

2. User runs an Ansible Playbook to create VMs on-prem
   - Provisions an AIX or IBM i virtual machine for the DB tier
   - Optionally installs some software—e.g., a DB on AIX

3. User runs an Ansible Playbook that applies critical AIX or IBM i updates and patches

4. Key points - emphasis:
   - The Ansible experience is identical across POWER and x86
   - The same steps can be repeated in IBM Cloud

5. Visualization: User logs into cloud.redhat.com and views the Automation Analytics dashboard for deep insights across their cloud environment
Enabled AIX and IBM i use cases

Common Administrative Tasks

- Installation and updates (TLs, AIX/IBM i version upgrades)
- Patching (i-fxes, service packs)
- User and group management, Configuration file management
- IBM i work management, security management, configuration and other common IBM i tasks
- Filesystem management
- File level operations (create, update, edit, search, etc.)
- AIX Configuration file management (for performance tunables, etc.)
- Boot management, including initlab details
- Ad-hoc commands for very specific AIX admin tasks
- Open source package installation and update via yum or pip for python

DevOps

- CI/CD – automate build, unit test, deploy process etc.
- Easy reconfiguration/re-deploy of application QA environments

Cloud Operations

- Integrates with CAM and Terraform for VM provisioning and configuration in IBM cloud platforms—both on-prem and in public cloud
- Orchestration to form cloud solutions
What’s next?

Learn more:
Check out this [tutorial](#) on Ansible on Power

Get Started:
Community content: [AIX](#), [IBM i](#)
Red Hat [Certified Content](#)
Thank you!

Paul Finley
Senior Software Engineer, IBM

Joe Cropper
Senior Technical Staff Member, IBM