



Integrating Endeavor to Ansible

Jan Prihoda, Marketa Muzikova

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Integrating Endeavor to Ansible

- Ansible for deployment management has been a hot topic in the world of Mainframe DevOps.
- Today, we want to show you how you can integrate Endeavor to Ansible via Zowe using our new Ansible Collection.
- In this session, we'll introduce Ansible terms and functionality and walk through a use case of creating, casting, and executing packages via an Ansible Playbook.

Ansible



Ansible

- Ansible enables **Infrastructure As Code**
 - Ansible takes automation to the **next level**
 - Open source with commercial support
- Recent vendor development brings **Ansible** capabilities to **z/OS**
 - **IBM** maintains Ansible collections for z/OS - the **z/OS core** collection
 - **Broadcom** recently published Ansible **collections for specific products**



Why Ansible?

- **No deep mainframe knowledge required**
 - Traditional MF automation tools remain relevant
 - Ansible is more like an orchestrator for next-level automation, not a replacement
- **Concatenate tasks across a heterogeneous environment**
 - Combine collections from various vendors and products to automate complex scenarios
 - Easily create stability and reliability through automation
- **Enables GitOps**
 - System Administrators, SREs and Operational Staff can adopt best practices
 - versioning, code reviews, instant testing, authentication and authorization, backup and backout

Typical Use Cases

- **Orchestrate** existing in-house **automation**
and **integrate** to the overall workflow
- certificates **renewal**, passwords **resets**, creating new users
- **Scheduling** jobs
- **Check** that data sets with sensitive data are encrypted
- **Provisioning** of test environments
- **Installation** and **deployment** of applications across multiple platforms
- **Endevor environment management**

Ansible Collections



IBM z/OS Core Collection

- **z/OS Core**

- Manage and work with z/OS data sets
- Download and upload data to and from z/OS
- Work with z/OS jobs
- Run a z/OS program
- Execute TSO command

- **As a prerequisite the following is needed**

- z/OS V2R3 or later
- z/OS OpenSSH
- IBM Open Enterprise SDK for Python 3.8.2 or later
- IBM Z Open Automation Utilities
- The z/OS shell



IBM z/OS Product Collections



- **ibm_zos_cics**
 - CICS collection includes content to automate tasks for CICS.
- **ibm_zos_ims**
 - IMS collection includes modules and sample playbooks to automate tasks for IBM IMS.
- **ibm_zosmf**
 - Collection consisting of modules and roles to work with z/OS Management Facility(z/OSMF).
- **ibm_zos_sysauto**
 - Collection includes roles and sample playbooks to access the IBM Z System Automation Operations REST server.
- **zos_package_manager**
 - Collection automates the installation & management of the z/OS Package Manager on a z/OS.
- **ibm_zhmc**
 - Can manage platform resources on IBM Z and LinuxONE machines using HMC

Broadcom Ansible Collections

- **Broadcom product collections:**

- CA7
- Endevor
- Endevor – Bridge for Git
- File Master Plus
- OPS
- Spool
- View
- *SYSVIEW**
- *DBM**
- *IDMS**

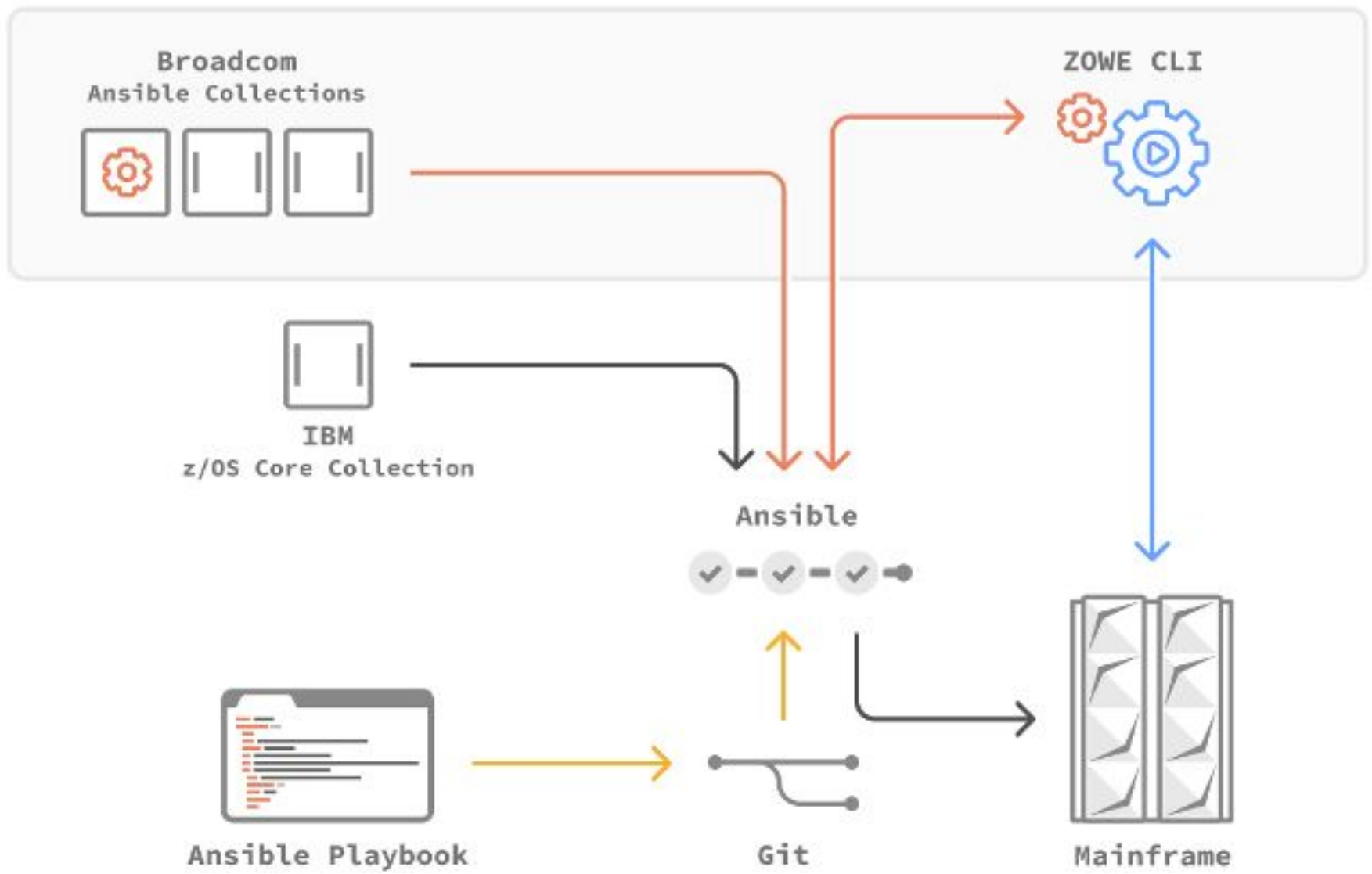
**Queued for upcoming releases*

- **As a prerequisite the following is needed**

- REST APIs for each particular product



How It Works



Resources

- Ansible documentation
 - <https://docs.ansible.com/ansible/latest/index.html>
- IBM z/OS Core collection
 - https://galaxy.ansible.com/ibm/ibm_zos_core
 - https://ibm.github.io/z_ansible_collections_doc/ibm_zos_core/docs/ansible_content.html
- Broadcom Ansible collections
 - <https://galaxy.ansible.com/broadcom>
 - <https://broadcommfd.github.io/broadcom-ansible-collections/>
 - <https://medium.com/modern-mainframe/ansible-collections-from-broadcom-enable-modern-off-platfrom-mainframe-automation-4fb837c746ff>



Demo





Thank You



