Ansible and IMS: Automate IMS with Red Hat Ansible Certified Content for IBM Z

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Agenda

I. Red Hat Ansible Certified Content for IBM Z
   - Automation with IBM Z
   - Use cases
II. IMS Collection
   - Use case
   - Demo
III. Getting started

Modern Automation on IBM Z - Why is it important?

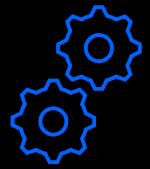
Consistency

Integrate z/OS into an enterprise automation strategy in a consistent way

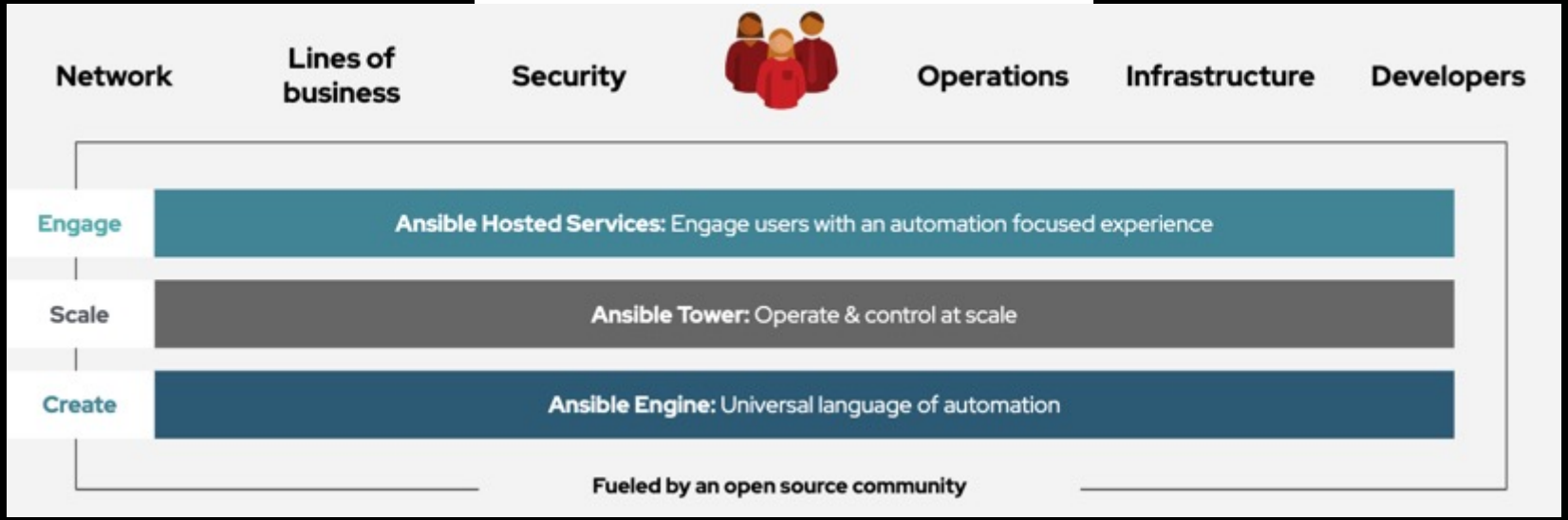
Skills

Ease onboarding new system programmer, DBAs and developers

Infrastructure as Code



Infrastructure and provisioning changes all managed as code



Ansible® Engine runs Ansible Playbooks, the automation language that can perfectly describe an IT application infrastructure.

Ansible® Tower allows you scale IT automation, manage complex deployments and speed productivity.

Red Hat Ansible Certified Content for IBM Z

Certified content collections accelerate the use of Ansible with IBM Z and enable:

- **Improved efficiency** via the simplification and standardization of complex IT deployments and enterprise automation strategies
- **Visibility** of your z/OS automation – know what is being automated, when, and by whom
- **Simplicity** increases productivity with certified collections that codify system-specific knowledge and complexity

33,500 +
Downloads

IBM Ansible for Z Collections

and Samples

30,000+
Page Views

Ansible for Z webpage

25 Blogs and technical tutorials

2800+
Attendees

Presentations & Webinars

170+
IBM zTrial usages

Events Participations

AnsibleFest

think

SHARE
EDUCATE • NETWORK • INFLUENCE

OPEN MAINFRAME SUMMIT

TechU

ZDC

DevOps GMAC

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Ansible managing to z/OS

Key Client Use Cases

Provisioning and Maintenance

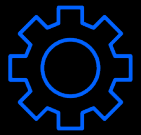
Build and provision middleware

Roll out fix packs to thousand of servers

Self-service provisioning portals

CI/CD and Application Deployment

Integrate infrastructure provisioning and Z application deployment into CI/CD pipeline



Configuration management

Middleware configuration

Network and security configuration

Orchestration

Orchestrate and replace existing siloed in-house automation

Integrate existing automation into overall workflow

Security Automation

SSL certification renewal process

Password resets, create new users

Probe the mainframe

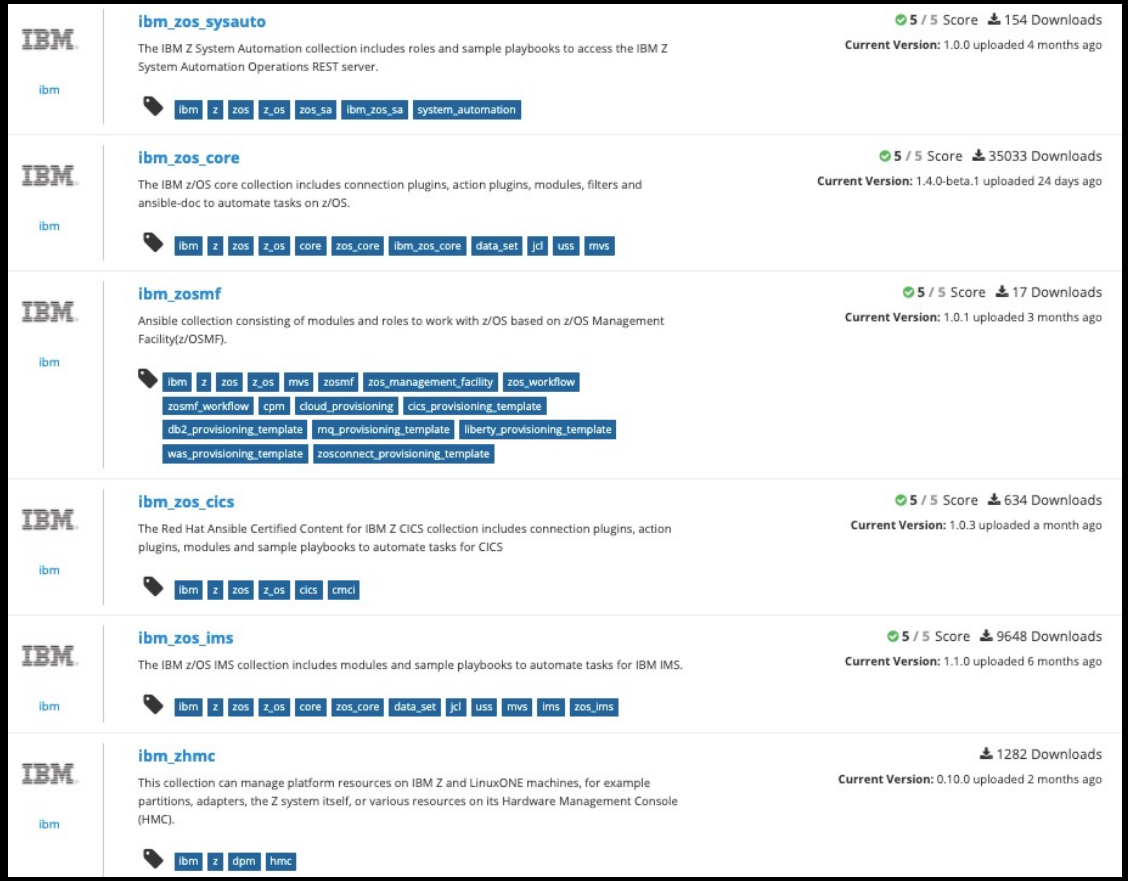
Collect audit and security configuration details, system status and health checks

Red Hat Ansible Certified Content for IBM Z: collections

Available on Automation Hub

Available on Ansible Galaxy here

- IBM Z System Automation Collection
- IBM z/OS Core Collection
- IBM z/OSMF Collection
- IBM z/OS CICS Collection
- IBM z/OS IMS Collection
- IBM Z Hardware Management Console Collection



ibm_zos_sysauto

The IBM Z System Automation collection includes roles and sample playbooks to access the IBM Z System Automation Operations REST server.

ibm | z | zos | z_os | zos_sa | ibm_zos_sa | system_automation

5 / 5 Score 154 Downloads

Current Version: 1.0.0 uploaded 4 months ago

ibm_zos_core

The IBM z/OS core collection includes connection plugins, action plugins, modules, filters and ansible-doc to automate tasks on z/OS.

ibm | z | zos | z_os | core | zos_core | ibm_zos_core | data_set | jcl | uss | mvs

5 / 5 Score 35033 Downloads

Current Version: 1.4.0-beta.1 uploaded 24 days ago

ibm_zosmf

Ansible collection consisting of modules and roles to work with z/OS based on z/OS Management Facility(z/OSMF).

ibm | z | zos | z_os | mvs | zosmf | zos_management_facility | zos_workflow | zosmf_workflow | cpm | cloud_provisioning | cics_provisioning_template | db2_provisioning_template | mq_provisioning_template | liberty_provisioning_template | was_provisioning_template | zosconnect_provisioning_template

5 / 5 Score 17 Downloads

Current Version: 1.0.1 uploaded 3 months ago

ibm_zos_cics

The Red Hat Ansible Certified Content for IBM Z CICS collection includes connection plugins, action plugins, modules and sample playbooks to automate tasks for CICS

ibm | z | zos | z_os | cics | cmci

5 / 5 Score 634 Downloads

Current Version: 1.0.3 uploaded a month ago

ibm_zos_ims

The IBM z/OS IMS collection includes modules and sample playbooks to automate tasks for IBM IMS.

ibm | z | zos | z_os | core | zos_core | data_set | jcl | uss | mvs | ims | zos_ims

5 / 5 Score 9648 Downloads

Current Version: 1.1.0 uploaded 6 months ago

ibm_zhmc

This collection can manage platform resources on IBM Z and LinuxONE machines, for example partitions, adapters, the Z system itself, or various resources on its Hardware Management Console (HMC).

ibm | z | dpm | hmc

1282 Downloads

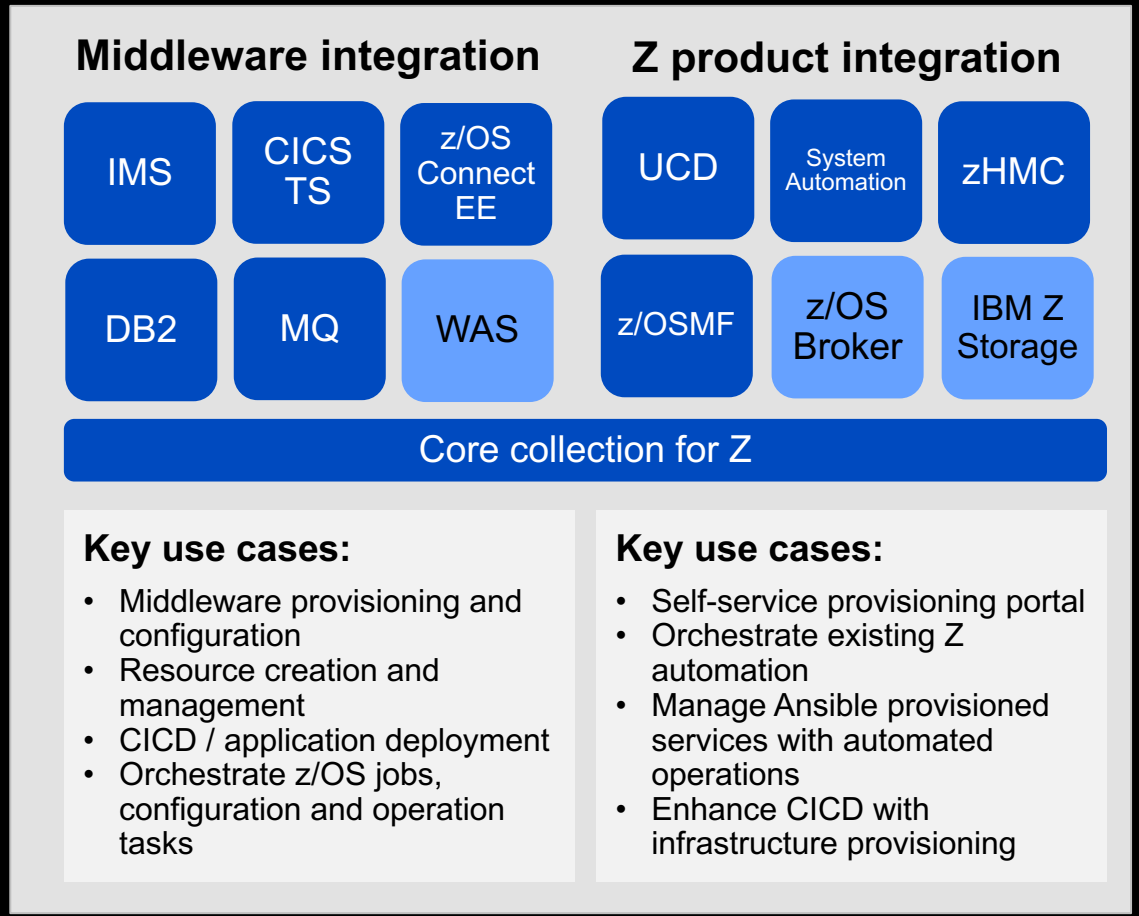
Current Version: 0.10.0 uploaded 2 months ago

Ansible ecosystem across IBM Z portfolio

Build up an Ansible ecosystem for IBM Z products

Deliver client needs through unified and powerful automation across products and platforms with Ansible

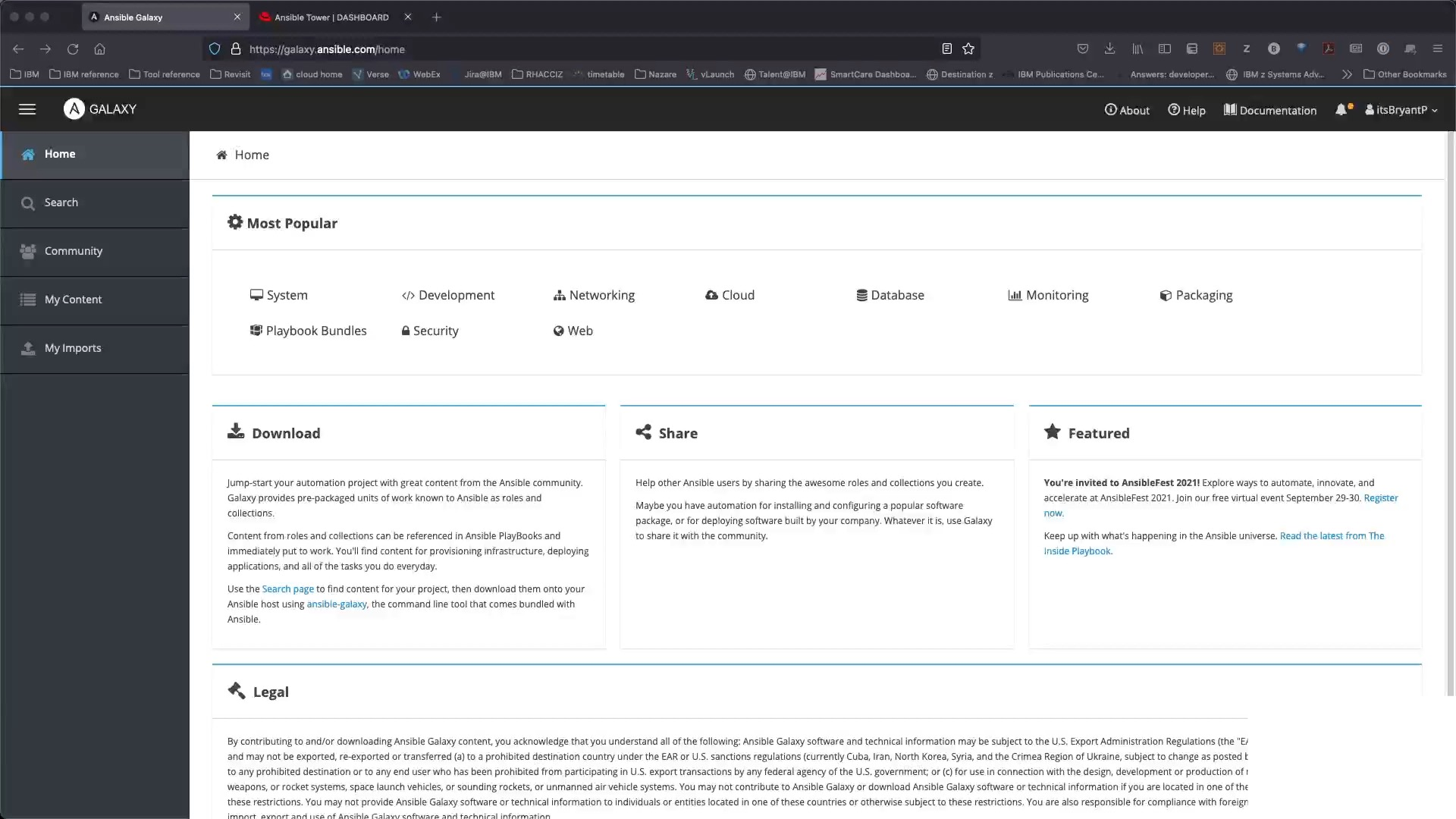
NOTE: Use-cases that can be achieved with Ansible and IBM Z are not limited to the provided integrations, automate today with APIs, commands, jobs, and more.



Ansible content available

Collection / Samples coming soon

IMS Collection


Ansible Galaxy
Ansible Tower | DASHBOARD
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GALAXY
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Security
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Download
Jump-start your automation project with great content from the Ansible community. Galaxy provides pre-packaged units of work known to Ansible as roles and collections.
Content from roles and collections can be referenced in Ansible PlayBooks and immediately put to work. You'll find content for provisioning infrastructure, deploying applications, and all of the tasks you do everyday.
Use the Search page to find content for your project, then download them onto your Ansible host using ansible-galaxy, the command line tool that comes bundled with Ansible.
Share
Help other Ansible users by sharing the awesome roles and collections you create.
Maybe you have automation for installing and configuring a popular software package, or for deploying software built by your company. Whatever it is, use Galaxy to share it with the community.
Featured
You're invited to AnsibleFest 2021! Explore ways to automate, innovate, and accelerate at AnsibleFest 2021. Join our free virtual event September 29-30. Register now.
Keep up with what's happening in the Ansible universe. Read the latest from The Inside Playbook.
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Ansible and IMS use cases

- A developer can use Ansible to compile and issue IMS commands to refresh an IMS transaction for testing from their preferred development tool such as VS Code after they change their COBOL application code.
- A DevOps engineer can build a playbook to generate a new PSB to update the program view for an application change and drive the IMS online change in a CI/CD pipeline.
- A system administrator can create a reporting tool to query the status of IMS transactions or programs and send out notifications to report issues.
- A database administrator can issue IMS commands to take an IMS database offline for processing and put it back online when complete.
- A database administrator can populate a new catalog.
- A database administrator can orchestrate new automation to update IMS catalog and integrate existing ACBLIB and Managed ACB directory automation to ensure they are in sync.
- A database administrator can use DBRC commands to examine information capture in the RECON datasets, such as the image copies that have been captured over the month to determine which image copy to recover from.
- A database administrator may also need to issue a command to register a new database with RECON or run cleanup or maintenance tasks with the RECON datasets from time to time.

IBM / z_ansible_collections_samples

Public

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Code | Issues 2 | Pull requests 5 | Actions | Projects | Wiki | Security | Insights | Settings

cobol-app-depl... | 12 branches | 0 tags | Go to file | Add file | Code

This branch is 26 commits ahead, 94 commits behind master. #101

itsBryantP fix typo in dbrc commands. 47126db yesterday 390 commits

.github/ISSUE_TEMPLATE	Update issue templates	2 months ago
.vscode	upload cobol app deploy	2 months ago
collections	Update requirements to lastest ansible zos core collection	6 months ago
docs/share	Added additional playbook best practices	2 months ago
meta/samples_repository	updated readme to reflect comments	12 months ago
z_infra_provisioning/cloud_infra_ce...	[cloud_infra_center] Fix a syntax typo in configure-control-plane.yaml	2 months ago
z_system_automation/dynamic_res...	fixed markdown and typo	5 months ago
z_systems_administration/zhmc	zhmc: Adjusted links to recent move of zhmc directory	3 months ago
zos_administration/host_setup	Update filters with added python source code encoding for xc2 error	6 months ago
zos_basics/constructs	Update docs with reviewers comments	4 months ago
zos_concepts	README update to IBM Doc	4 months ago
zos_management	Update README.md	5 months ago
zos_subsystems	fix typo in dbrc commands.	yesterday
.gitattributes	add support to LFS for .m4v formats	10 months ago
.gitignore	Init commit of cloud_infra_center/ocp_upi	4 months ago
LICENSE	Initial commit	16 months ago

About

Sample playbooks utilizing Red Hat Ansible Certified Content for IBM Z

Readme

Apache-2.0 License

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

Contributors 26

+ 15 contributors

Environments 1

github-pages Active

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cobol-app-depl... / z_ansible_collections_samples / zos_subsystems / ims / ims_cobol_deploy / | Go to file | Add file

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itsBryantP fix typo in dbrc commands. 47126db yesterday History

..		
collections	upload cobol app deploy	2 months ago
host_vars	upload cobol app deploy	2 months ago
inventories	upload cobol app deploy	2 months ago
roles	fix typo in dbrc commands.	yesterday
vars	upload cobol app deploy	2 months ago
README.md	Add files via upload	2 months ago
ansible.cfg	Add files via upload	2 months ago
app-deploy.yml	Add files via upload	2 months ago
app-deprov.yml	Add files via upload	2 months ago
app-redeploy.yml	Add files via upload	2 months ago

README.md

IMS COBOL Application Deployment

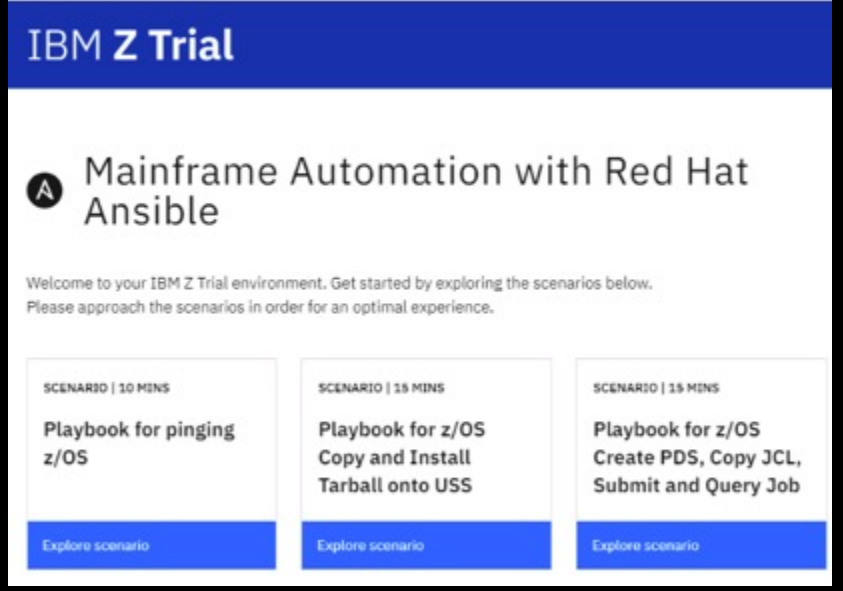
This project provides the required sample playbooks and roles to deploy an IMS COBOL application.

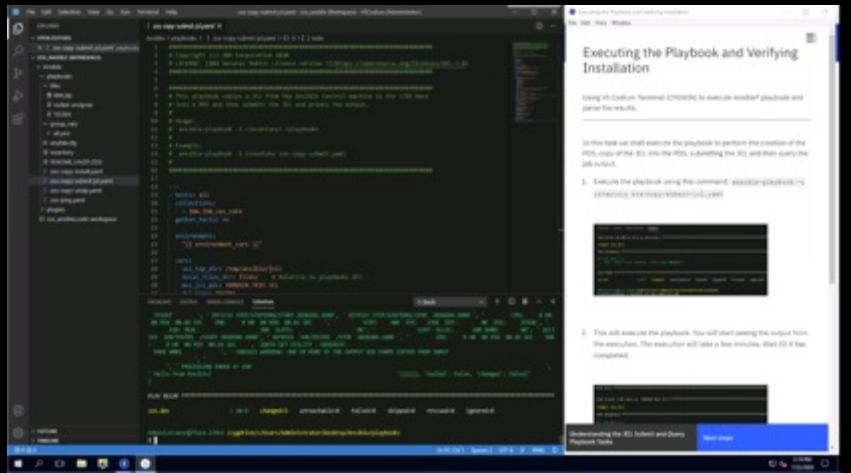
Getting Started

Step 1:
Try the Ansible®
IBM Z Trial

Free guided virtual demo environment, providing users with the ability to run and review Ansible playbooks automating tasks on z/OS

[Register here]



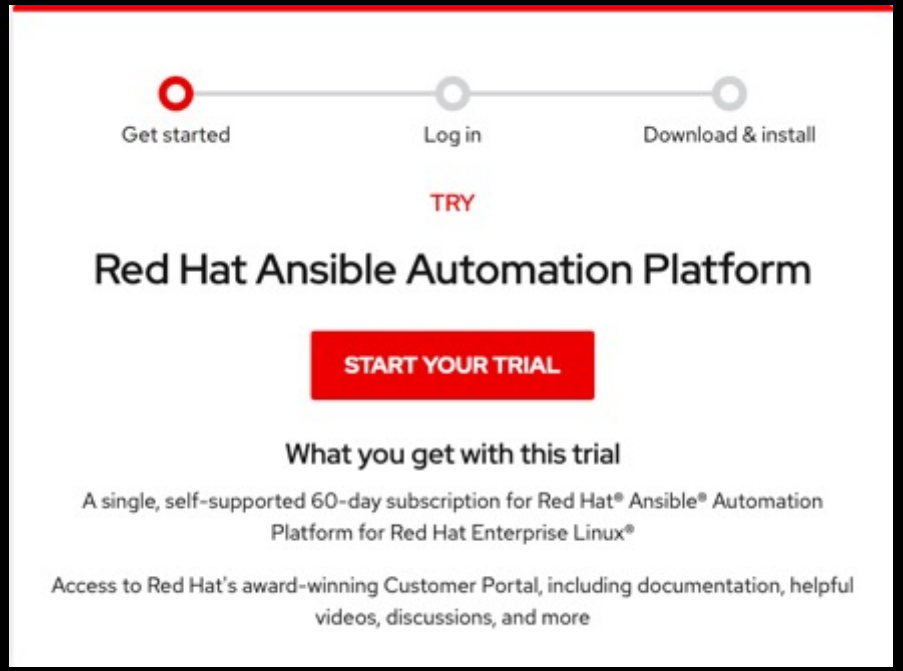


Step 2: Request the Ansible® Automation Platform free trial

Start your Ansible journey with the enterprise supported Ansible Automation Platform.

Includes:

- A single, self-supported 60-day subscription for Red Hat® Ansible® Automation Platform for Red Hat Enterprise Linux
- Access to Red Hat's award-winning Customer Portal, including documentation, helpful videos, discussions, and more
- Can support up to 100 Ansible managed nodes



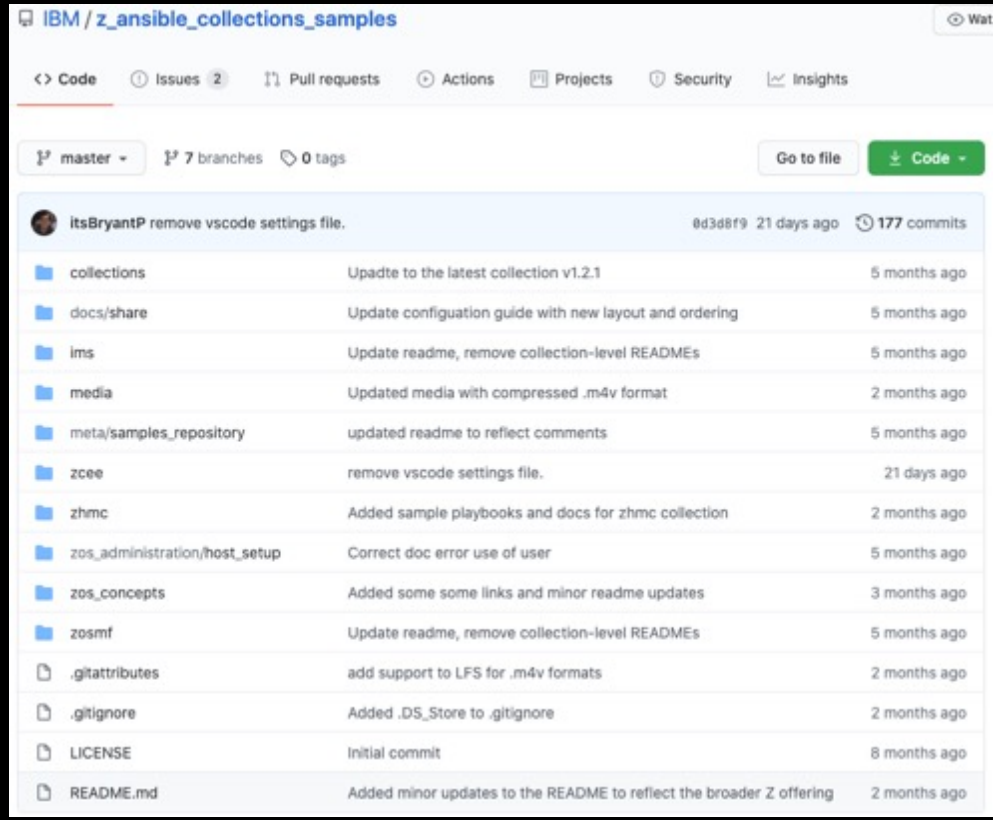
Register here

Step 3:
Begin with the Ansible® for IBM Z sample playbook repository

Prewritten playbooks
spanning multiple use-cases
and technologies

Contribute your playbooks!

Access here



Install Ansible for IBM Z on your environment

5 Simple Steps:

1. Enable OpenSSH
2. Install Python
3. Install IBM Z Open Automation Utilities (ZOA Utilities)
4. Install or update to Ansible 2.9+
5. Install the desired Ansible for z/OS collection from
   - Ansible Galaxy
   - Ansible Automation Hub (subscription required)

Pre-requisites (Free with Optional S&S)

z/OS as a managed node

- Unix System Services (USS) enabled on z/OS
- Secure Shell (SSH) enabled on z/OS https://www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.foto100/sshset.htm
- Python 3.9.2 – IBM Open Enterprise SDK for Python
  - Download PAX archive https://www.ibm.com/products/open-enterprise-python-zos/pricing (HAMB390)
  - SMP/E (CBPDO, ServerPac) (5655-PYT)
- IBM Z Open Automation Utilities (ZOAU) https://www.ibm.com/support/knowledgecenter/en/SSKFYE_1.0.0/welcome_zoautil.html
  - FMID HAL5100

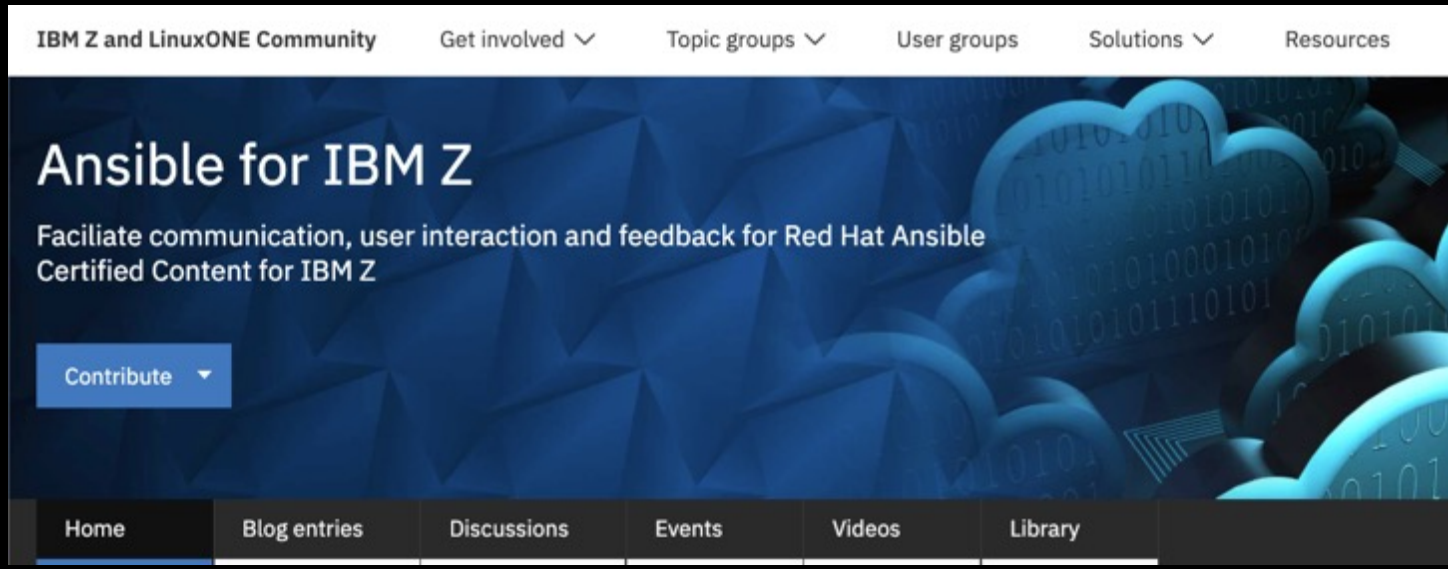
Ansible control node

- Ansible engine 2.9 or higher
- Ansible Tower 3.6+

Join the community

- Facilitate communication amongst Guild members
- Host past recordings and presentations of Guild meetings
- Post blogs & videos for the IBM Z community

[Ansible for IBM Z: IBM Z & LinuxONE Community]



Thank you

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