Using Configuration as Code on AAP

Understanding configuration as code for the Ansible Automation Platform

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<table>
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<tr>
<th>Options</th>
<th>Automate</th>
<th>Manual</th>
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<tbody>
<tr>
<td></td>
<td>Configuration as Code</td>
<td>Manual changes in can lead to mistakes</td>
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<td>Keep track of changes in Git</td>
<td>Easy to maintain a few templates and workflows, but does not scale</td>
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<td>Code review</td>
<td>No coding required</td>
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<td>Consistent configuration across different objects and environments</td>
<td>Very tedious if you have to repeat the config in multiple environments and/or have a large number of workflows/templates.</td>
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<td>Use of CI/CD to automate changes</td>
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<td>Can manage multiple instances Dev/Prod from the same codebase.</td>
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Benefits

- Using Git allows for keeping track of changes and avoids manual mistakes, and have a review process.
- Standardization of Data model for all objects in Controller/AWX
- Only include the options you need to change for each object
- Roles are imported, Focusing on creating Playbooks and workflows and spend less time on how to interact with Controller.
- Able to use the collection in CI/CD process or webhooks to manage objects in Controller as merges are made to projects in Git to achieve Infrastructure as Code.
Sample File

```yaml
- name: Playbook to configure ansible controller organizations
  hosts: localhost
  collections:
    - redhat_cop.controller_configuration
    - awx.awx
  vars:
    controller_hostname: https://controller.example.com
    controller_username: admin
    controller_password: password
    controller_organizations:
      - name: Satellite
      - name: Default
    controller_projects:
      - name: Demo project
        organization: Default
        scm_branch: master
        scm_type: git
        scm_update_on_launch: true
        scm_url: https://github.com/ansible/tower-example.git
  roles:
    - organization
    - projects
```

- Simple data structure
- Store configuration in Git to bring version control and other benefits
Putting it all together

Eureka!

Set Objects in Git
CI/CD
Sit back and relax
Thank you

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Important links

Links:
Lab Login page
https://ansiblefest.demo.redhat.com/

Ansible Galaxy infra collections
https://galaxy.ansible.com/infra/