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WHITEPAPER

5 Reasons to Use Ansible in Government

As many Government programs adopt DevOps and agile development methodologies, the need for application deployment and lifecycle management tools increases. These tools make deploying entire application environments easy, predictable, and repeatable.

So why choose Ansible?

AGENTLESS

Instead of relying on a software agent on each remote managed host, Ansible relies on the trusted management ports already in use by IT teams to manage servers and infrastructure: secure shell (SSH) on Linux, and Windows Remote Management (WinRM) on Microsoft-based systems. Agentless management eliminates the requirement to change existing firewall port filtering rules, which removes a large barrier to entry that other agent-based systems require.

Additionally, agentless management reduces the likelihood of software library conflict, and does not increase the system's security footprint or attack profile. Ansible relies on the operating system's encryption tooling, and ensures that there are no separate agents that require vulnerability patching.

MORE THAN JUST CM

Configuration Management in the Government space is nothing new. Government programs are familiar with tools such as HP Server Automation (formerly Opsware), BMC BladeLogic, and more recently, Puppet and Chef. However, applications are much more than a collection of files. Effective application deployment requires a tool that can provision resources, make configuration changes, run commands in a variety of environments, change states of network infrastructure, and so on. Configuration management alone doesn't do these things, but configuration management plus orchestration does.

HUMAN-READABLE PLAYBOOKS

Human-readable Ansible Playbooks and Roles are written in plain-text YAML, and are themselves easily tracked using a versioning control system. Playbooks and Roles can be shared with various stakeholders who, despite knowing little to nothing of Ansible, will be able to interpret what the Playbook or Role is describing. For instance, a team that requires Information Assurance approval for environment and application deployment changes can

submit a Playbook or Role for review and approval. Because Ansible Playbooks and Roles can perfectly describe an entire application environment, this process greatly reduces the likelihood of miscommunication, and reduces delays by streamlining the change management process.

ROLE-BASED ACCESS CONTROL AND AUDIT TRAILS

Role-Based Access Controls (RBAC) are built into Ansible Tower from the beginning. RBAC allows Tower admins to delegate access to server inventories, Playbooks, Roles, and Job Templates. Admins can also centralize credential management, allowing end users to leverage a needed token without ever exposing that token to the end user. Tower also keeps a detailed audit record of every action a user takes within the system, whether initiated via Tower's UI, API or CLI.

UNIFY PROVIDERS

Government environments frequently have multiple providers that are each responsible for one specific contract area. The company that develops the application is different from the one that is tasked with deploying and maintaining it, and yet another contract covers the infrastructure that the application runs on. In this model, miscommunication abounds, and the application's users are negatively affected.

Using Ansible to create and maintain a precise definition for each application and environment greatly reduces the likelihood of just such a miscommunication. When the initial application is delivered to the deployment and management team, an Ansible Playbook that perfectly describes how to deploy that application greatly reduces the likelihood of miscommunication and the ensuing finger-pointing that often occurs in these environments when something goes wrong.

SUMMARY

Ultimately, application development, deployment, and ongoing management doesn't have to be difficult. Ansible Core provides you with the end-to-end capabilities organizations need to quickly and easily start managing existing applications, even helping redeploy them to the cloud. Ansible Tower further extends the power of Ansible Core by enabling push-button access to the various Playbooks and Roles that define IT environments and applications.

Download ANSIBLE TOWER now:
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