

Analysis and Insights on SANDE Integration into ORE

Notes on the [SANDE repository in ORE Gitlab](#):

- Organized as stand-alone Ansible playbooks and tasks files.
 - Limits re-usability and is atypical organization and will make it difficult for others to understand and use.
 - No use of roles make it more difficult to group together tasks and variables. Not having roles also makes it harder to share with others and enable reuse.
 - Tags should be leveraged to have fewer individual playbooks while enabling greater flexibility to be able to run what is desired.
- Lacks idempotency
 - Tasks files use the shell and uri modules which do not adhere to idempotency characteristics. See [Ansible idempotency](#).
 - This causes successive runs of the task to show up as a change in state or configuration even though the end result is the same.
 - Ansible is a declarative DSL and the value of using Ansible is to describe what the desired result should be and to allow Ansible to handle how to get it to the desired end state.
- All playbooks and tasks are written to be applied on specific product, e.g. Nautobot, Velocloud, ServiceNow, etc. and do not appear to be used in conjunction with each other
 - This indicates that their purpose is to serve as unit tests or to be run to apply one off configurations
 - There does not appear to be any information about sequencing; the ordering of when and where the playbooks should be run is not documented in the repository so it is unclear that the playbooks are meant to work in some iterative fashion
 - Generally speaking, ansible is intended to be used to orchestrate an application or set of applications (install, configuration) to some desired production state but it is unclear that is the purpose of the ansible in this repository
- All history and attributions have been scrubbed in the synchronized repository. This makes it so that no change over time can be viewed and we cannot see who made contributions to this code base.
- The requirements.txt file includes the pycrypto package that is unmaintained and has a critical vulnerability for a buffer overflow. See [pycrypto package information](#).

Summary of code files by Product:

Product name	Number of ansible files
Arista Cloudvision	40
EVE-NG	9
Infoblox	1
Nautobot	18
ServiceNow	1
VMware VeloCloud	57

Majority of Ansible development was focused on the VMware VeloCloud and Arista Cloudvision. We should be able to expect the production readiness for VeloCloud and Cloudvision to be further

ahead relative to Nautobot, EVE-NG, ServiceNow, and Infoblox. We should also expect that they have higher importance to the successful outcome of the SANDE project.

Current summary of repository history:

Commits	3						
Non-Merge Commits	3						
Files Δ	457						
Unique Authors	2						
First Commit	9 days ago (2023-03-15)						
Latest Commit	7 days ago (2023-03-18)						
Author	Commits	Commit %	Files Δ	Additions	Deletions	First Commit	Latest Commit
ORE Git Sync Account	2	66.67%	457	42,549	1	7 days ago (2023-03-17)	7 days ago (2023-03-18)
Mehran Azari	1	33.33%	1	2	0	9 days ago (2023-03-15)	9 days ago (2023-03-15)