Bolted System: Auto-deployment Cloud Project

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Project Description (Recap)

Automate the deployment of Bolted which consists of:

- Installation and configuration of each component of the Bolted system (HIL, BMI, Keylime and orchestration)
- Integrating all the components together
- Bolted system should be able to be installed on any cloud platform



Use Case

As a cloud provider, I want to deploy Bolted System on my cloud platform easily without having to call upon a personnel to configure the components.

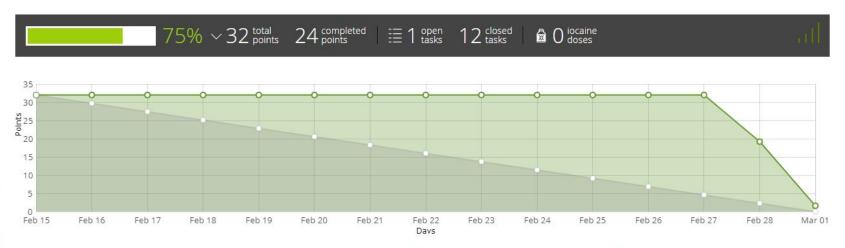
Minimum Viable Product

- To deliver a system that doesn't require separate installation and configuration procedure for each component of the bolted system
- Develop an ansible playbook for each component first and then an overall playbook for all four components to work together.



Burndown Chart

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Last Sprint Report

- Install HIL on Virtual Machine (CentOS/VMware)
 - ✓ Install through terminal command line
 - Automate installation using Ansible
 - Unittest
- Install Keylime on Virtual Machine (CentOS/VMware)
 - ✓ Install through terminal command line
 - ✓ Bash script automated installation
 - Test script in another virtual machine
- Install BMI on Virtual Machine (CentOS/VMware)
 - Install BMI on a CentOS environment contains HIL
 - Automate installation using Ansible
 - Unittest
- Learning Ansible



Project Progress of Keylime

- TPM (Trusted Platform Module) This is the core module of Keylime, because keylime uses this module to collect node information, (operating system, application and etc), using [quote].
- For now, installation is under virtual machine, which doesn't contain a TPM module. Testing is needed for later test.
- A bash script is developed to automated the installation procedure, targeted for [CentOS VM using vmware]
- Testing passed, bash to ansible script is in progress.



Project Progress of HIL

- Installing CentOS on VMware workstation.
- Setting up the server upon which HIL runs. (epel and python - using pip)
- Configure HIL (hil.cfg)
- Setting up the HIL database
- Starting the server
- Testing the setup



```
(.venv)[Vidya@rfc1918 hill$ cd hil/
(.venv)[Vidya@rfc1918 hill$ ls
                   cli.py
                                   dev_support.pyc
                                                                    network_allocator.py
api.py
                                                     __init__.py
                                                     init_.pyc
                                                                    network_allocator.pyc
api.pyc
                   cli.pyc
                                   errors.py
                                                    migrations
auth.py
                   commands
                                                                    rest.pg
                                   errors.pyc
                   config.py
                                                    migrations.py
auth.pyc
                                   ext
                                                                    rest.pyc
class_resolver.py
                   config.pyc
                                   flaskapp.py
                                                    migrations.pyc
                                                                    server.pg
class_resolver.pyc deferred.py
                                   flaskapp.pyc
                                                    model.py
                                                                    server.pyc
client
                   dev_support.py hil.db
                                                    model.pyc
                                                                    test_common.py
(.venv)[Vidya@rfc1918 hill$ which hil
~/hil/.venv/bin/hil
(.venv)[Vidya@rfc1918 hill$ _
```

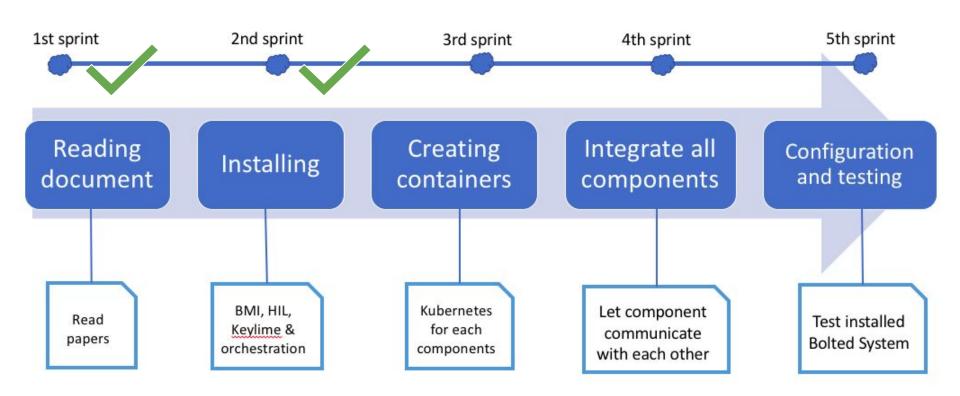


Project Progress of BMI

- Set up CentOS 7.0 on virtual machine
- HIL environment checking
- Installing the Ceph Client
 - Learn Ceph server and client simultaneously
- Configuring iSCSI Server
 - Deal with system version inconsistency
- Configuring DHCP Server
- Installing BMI
 - Did not settle File missing problem yet



Project Plan





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Responsibilities for next sprint

- Write Ansible playbook script for installation of each component in CentOS virtual machine.
- Learn Kubernetes.
- Creating containers for each component using Kubernetes



Thank you.

Question?

