

Create HPCC Systems VM on Hyper-V

This project was completed as an intern opportunity with HPCC Systems in 2019. Curious about projects we are offering for future internships? Take a look at our [Ideas List](#).

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Project Description

Create a Hyper-V virtual machine image to include HPCC Platform, Plugins, Ganglia-monitoring and Nagios-monitoring. The virtual machine will be Ubuntu 18.04 amd64. Prefer using Hyper-V Builder tool of HashiCorp Packer to create the image.

Completion of this project involves:

1. A Hyper-V virtual machine image which include HPCC Platform, Plugins, Ganglia-monitoring and Nagios-monitoring.
2. Make sure virtual machine image can be successfully imported and HPCC processes can be started.
3. Successfully test following on Windows 10: 1) ECL sample through ECL Playground. 2) Ganglia-monitoring graph in ECLWatch. 3) Nagios web page with HPCC processes listed.
4. Document the usage.

By the mid term review we would expect you to have:

1. Get familiar with HPCC Packages such as HPCC Platform, HPCC Plugins, HPCC Ganglia-monitoring and HPCC Nagios-monitoring
2. Get familiar with HashiCorp Packer tool, particular how to use HyperV Builder to create virtual machine image.
3. Write initial build script for creating HPCC Platform and Plugin.
4. Test deployment of above on Windows 10.

Mentor	<p>Xiaoming Wang Contact Details</p> <p>Backup Mentor: Godson Fortil Contact Details</p>
Skills needed	<ul style="list-style-type: none">• Ability to code in Python.• Knowledge of Juju charm and git would be helpful. Student can learn Juju Charm from Juju charm docs• Python 3.0 and Linux bash scripts knowledge.• It would be an advantage to be familiar with one the Cloud Environment, such as AWS, Azure, Google, etc. Basic HPCC Systems knowledge is needed but student can learn this during the process.
Deliverables	<p>Midterm</p> <ul style="list-style-type: none">• A Hyper-V virtual machine image to include HPCC Platform and Plugins <p>End of project</p> <ul style="list-style-type: none">• A Hyper-V virtual machine image to include HPCC Platform, Plugins, Ganglia-monitoring and Nagios-monitoring• A github project for build scripts and instruction• A documentation for usage
Other resources	<ul style="list-style-type: none">• HPCCSystems Information: https://hpccsystems.com/• Current Virtualbox VM build project: https://github.com/xwang2713/VMBuild