GetNinjas DevOps – Test

The problem:

GetNinjas environment is composed of several application components (aka microservices) that interacts heavily with each other through HTTP REST calls. They're deployed in a hybrid infrastructure, comprising both AWS and on-premises resources. To be able to operate all these components at scale, having a central place to watch infrastructure events and logs is critical.

Your assignment is to propose a solution that comprises:

- A log centralization tool

- A visualization tool

- An event storage tool

My propose:

Using the stack ELK (ElasticSearch, Logstash and Kibana) together with python beaver we can provide this solution.
In the GetNinjas Applications we just need that the logs are created like a JSON format.

The python-beaver (https://github.com/python-beaver/python-beaver) must need to be installed in our app instances, for this we could use the chef recipe https://github.com/alappe/cookbook-beaver , and change some parameters to monitor the app logs files and send these logs to redis database.

The next step is to install the Logstash (https://www.elastic.co/products/logstash) in an Autoscaling Group, this guy is responsible to get the logs from our redis database and by bulk operations to fill our ElasticSearch index base.

The final step is about the visualization tool, we can use the kibana dashboard (https://www.elastic.co/products/kibana)

The AWS provided to us one already installation solution like a SAS, the product is called AWS ElasticSearch.

If we just need a centralized log solution this is a good fit, because this product have some limitations, like the Elastic version, limit of nodes number and others.

My Vagrant Box:

Basically you just need to follow the instructions localized in the https://github.com/nullck/getninjas_nullck repository.

Important: After you finish the test review, please turn off your vagrant box, by use **vagrant destroy**
I'm running my ElasticSearch in a free tier AWS account, and I have limit of data transfer. =]

If you have any question about something please let me know.
Thanks for this opportunity,

Thiago Dias