# Requirements for CapitaLand Cloud Infrastructure Management

## Background:

The project two key guiding principles:

* Ensure IT Administrators/Users have a unified view of the IT Infrastructure
* Enable Other Departments to procure IT resources as per their requirements.

CapitaLand Infrastructure components have the following Primary and Secondary Goals:

* **Identity management.**Integrating the Cloud brokerage services with Active Directory Services/LANDesk client management system.
* **Service Catalogue (Needs review)**While this module is modelled after ServiceNow. Its purpose is to Propose, Approve, Setup and Configure respective services across organization/group/machine level granularity. This module suits well in the Integration pack Orchestrator and ServiceNow incident management workflow.
* **Business Intelligence.**
* **Automation of Infrastructure Resources Lifecycle and Integration of the Incident/Problem Workflows.**
* **Single point of Interface for cross cloud resource acquisitions.**
* **Unifying Cost incursions on IT Infrastructure by different stakeholders.**
* **Maintenance and Implementation of runbooks: using Vendor specific Integration Packs for SCO (System Centre Orchestration)**
* **Integrating ITSM (IT service management) with ServiceNow**:
* Development of the Cloud Brokerage Portal.
* Maintenance of the automated runbooks provisioning Infrastructure resources via Incident/Change Management

**Note:** In the new rfp SCO has been taken out of the scope and we can concentrate on CBP and ServiceNow Integration (aka Incident/Problem Management and Active Directory RMS/LANDesk ).

## Suggestions/Queries:

Cloud Brokerage Portal is not really a brokerage portal. A closer look in the RFP suggests that the bulk of the work is done at the SCO level through Integration Packs in Premise or on Cloud. In this aspect the Service Catalogue module seems to be a misfit. The portal at best serves as a Dashboard for some of the common monitoring of the infrastructure components across projects/departments:

* Costs Incurred
* Warning/Failures/Errors in Infrastructure Components using Analytics (Business Analytics)
* Dependency or depiction of Infrastructure Elements in the Organization
* Driving Policy and/or Role governance across organization.

# Requirements for the project Frameworks:

The project has limited clarity on requirements hence it makes sense to start with the information we have and build as we go.

This presents us with the requirement to go with Agile methodology, and Continual Integration/Deployment tools. Building the stuffs as micro services that can be scaled out. We will need to identify services that can be independently created to present dashboard with functionalities.

The Architecture has to be Micro-Services based.

Tool Pre-requisites:

**CI/CD**: Containerization of services, Dockers, Vagrant, Jenkins

**Front-End**: AngularJS, sccs, grunt/gulp, bootstrap,

**Back-End:** NodeJS, Java, .Net

**Database Server:** Mysql, mongodb,

**Code Management:** github, svn

**Cloud Deployment:** AWS, Heroku

# Challenges:

Since the CBP interfaces with a multitude of cloud providers their API would be different and their data format will differ. We will need to come up an intermediate data converter that will convert the data from different sources in consumable form.