Linux : features

① C-Group → Control group

② Namespaces → Isolation

Network Name spaces , pid , Isolation

Tools :

docker → Run program inside Isolated C-group

(Container)

VM ~ heavyweight

Light weight

↓

high level Abstraction

Docker : Tool in Isolation mode

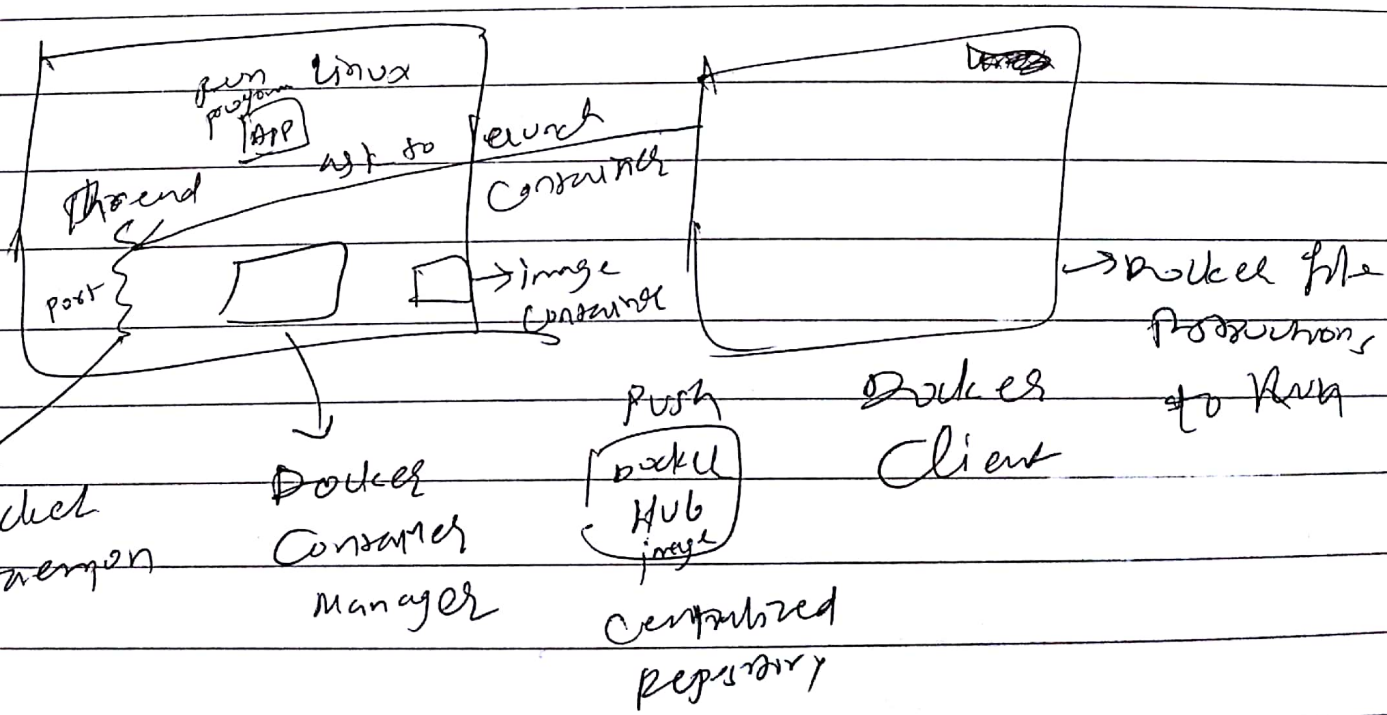

image → class

Container → instance

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Kubernates → orchestrator Tool, manages Docker containers (engines).

Apache mesos :- manages clusters.

Container → C-group & Name space
image instance

Warden :- Tool is also like Docker.
it instruct warden container.
Droplets as a image.
Buildpack (java, php, nodejs)
sets of scripts.

Staging → first time.

droplets execution agent
~~DIB~~

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Garden → Cloudfoundary

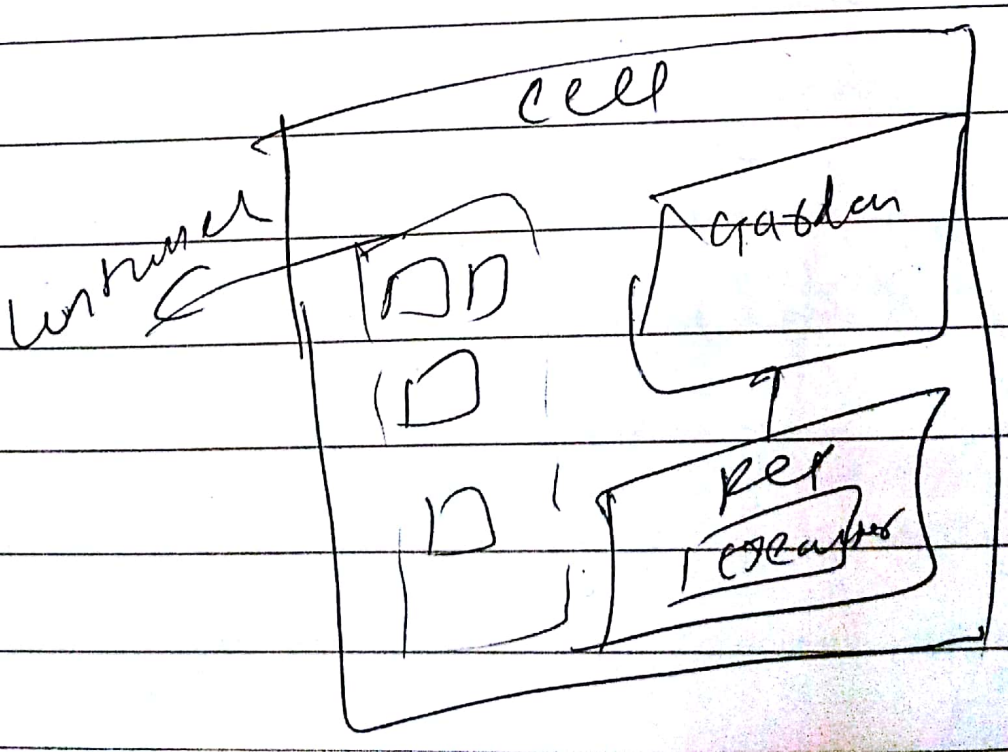
Garden :-

↙ platform - agnostic Go API

not implementation
provides specification

Linux → Guardians
windows → Greenhouse

Google Go language



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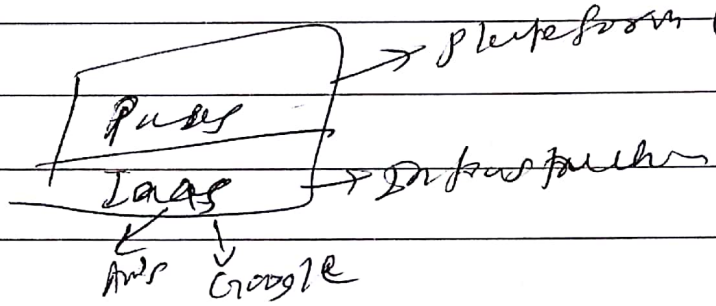
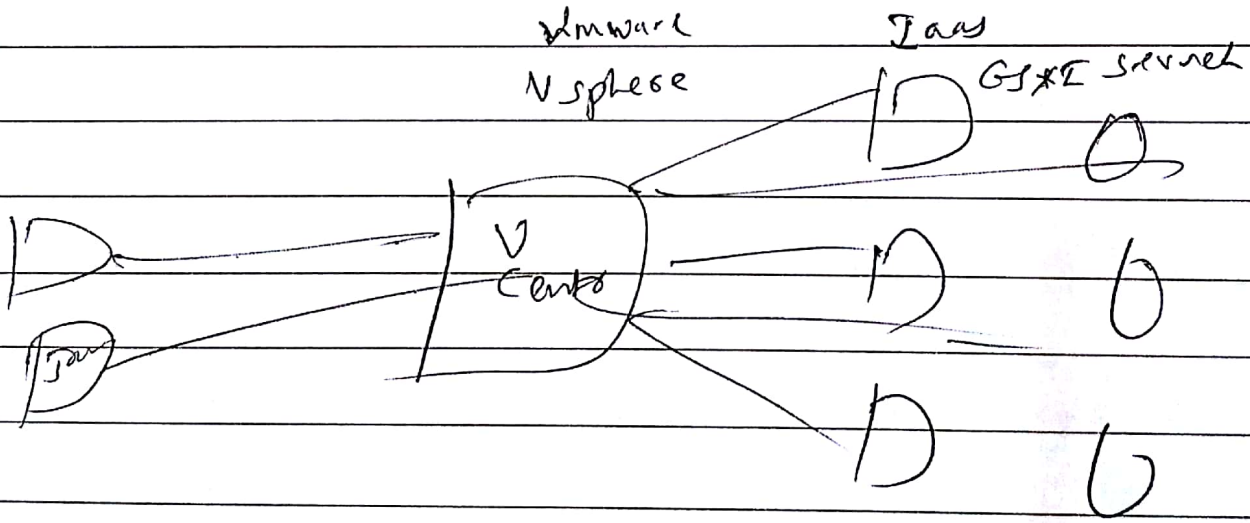
Cloud foundary - Diego

Paas → platform as a service

It is provide platform as a service to deploy our application





EC2 → elastic cloud computing

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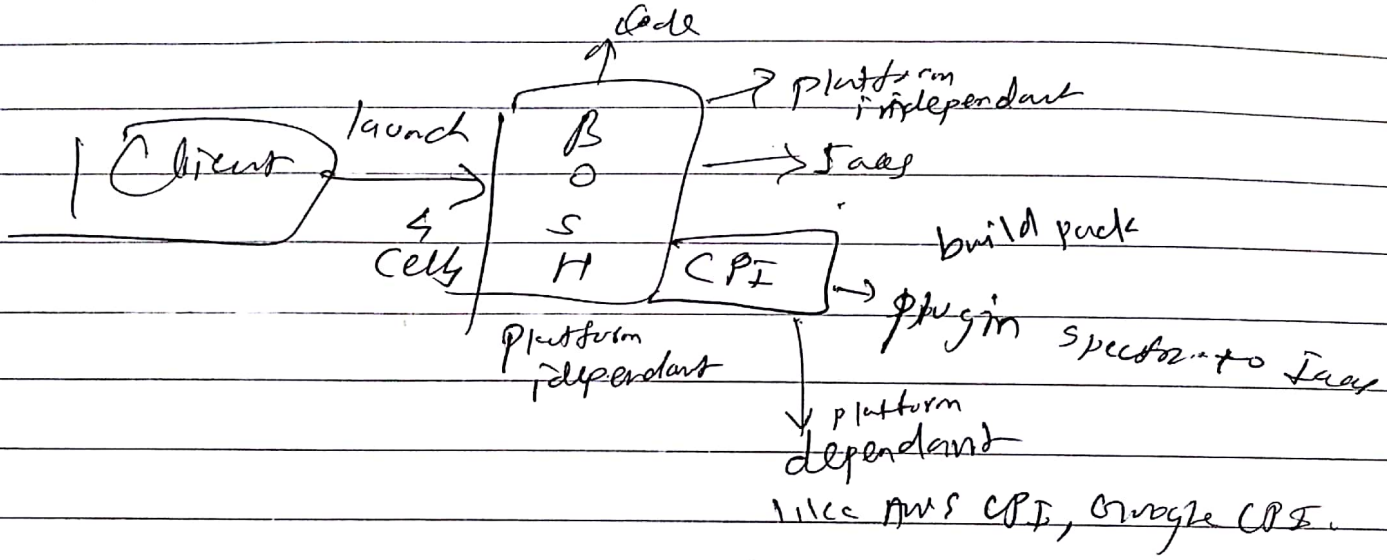
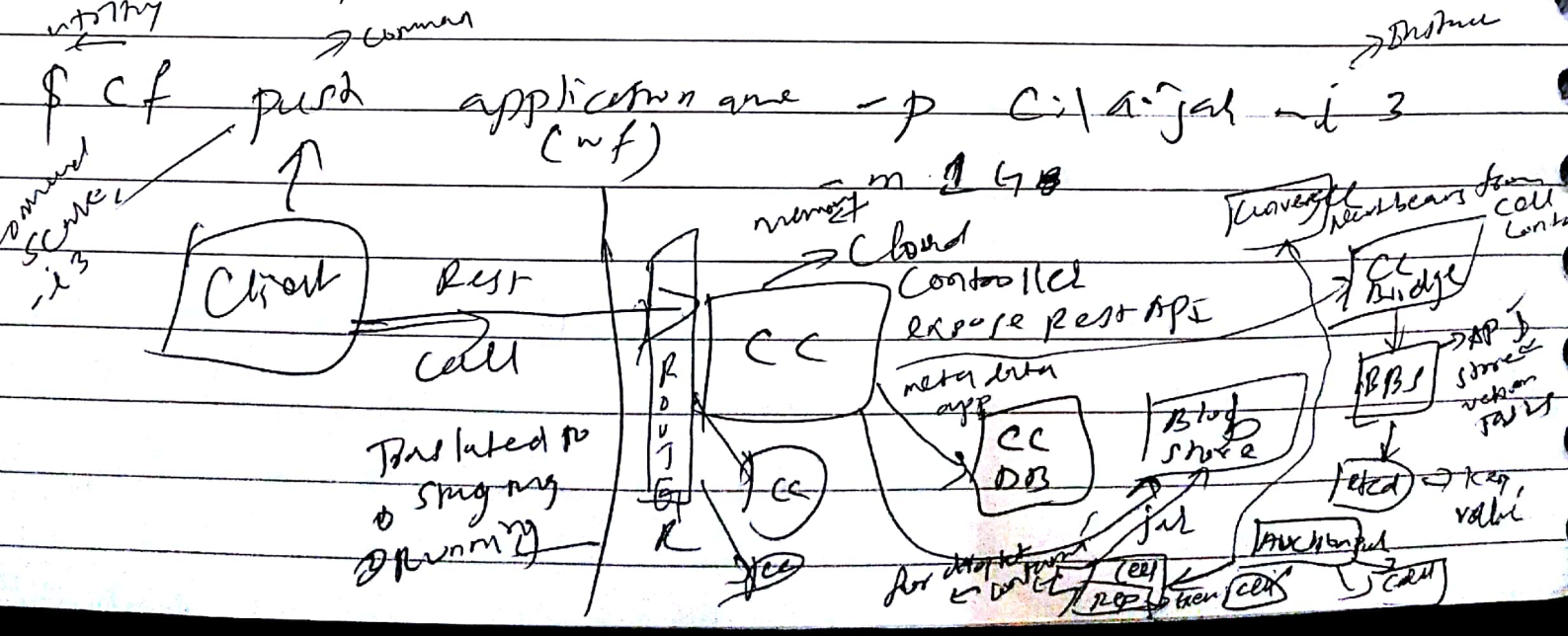
CF is IaaS neutral :

Cloud provide Interface (CPI).

BOSH → monitor VMs health.



CF utility at client



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① Task → create a droplets → staging

② LRP → Long Running Process → launch container

launching (Running)

buildpack

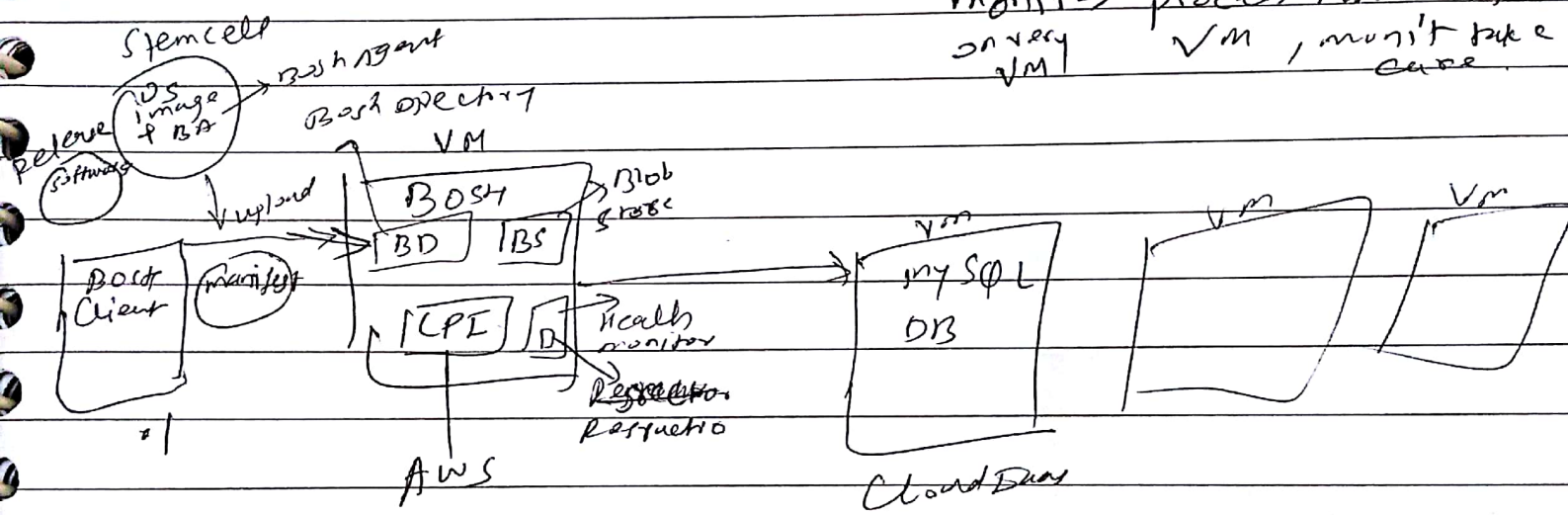
Script → Droplets script → image

BOSH: -

monit → process inside in the VM, monit take care

on very VM

Health monitor



$ bosh deploy

PCF → ① system domain → run.pivotal.io

② apps domain → cfapps.io

↳ api.systemdom

$ cf push wf → application name → unique → wf.cfapps.io

-n x → x.cfapps.io

route name.

$ cf map-route wf y → route

& Cloudfoundry → open source
& pivotal Cloudfoundry → Licensed

Public instance is pivotal webservices instance

& PCF provides Apps Manager to manage apps

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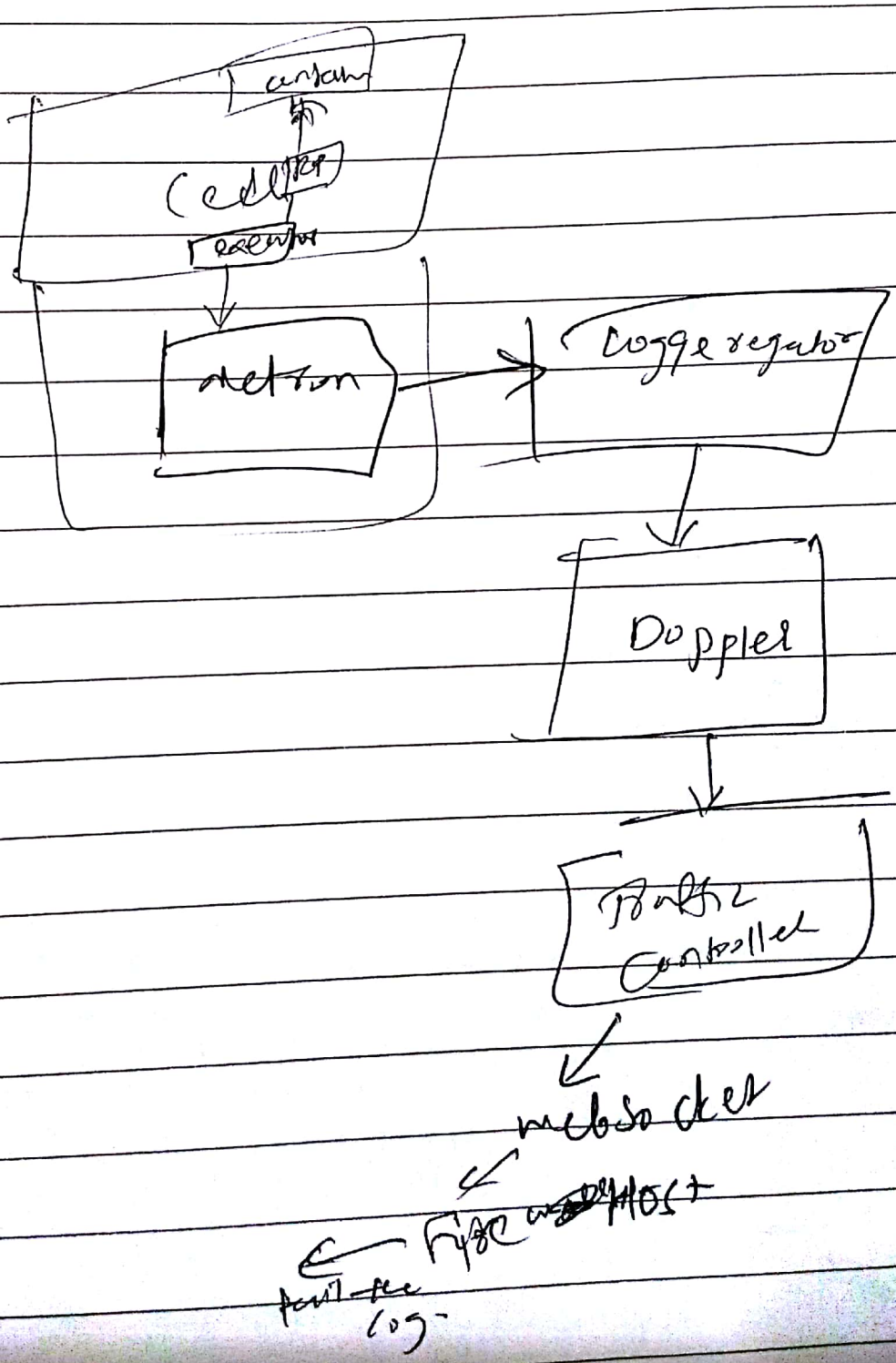
Logging / Scaling & High Availability (HA) =

12factor.net ⇒ websites

Cloud Runtime :



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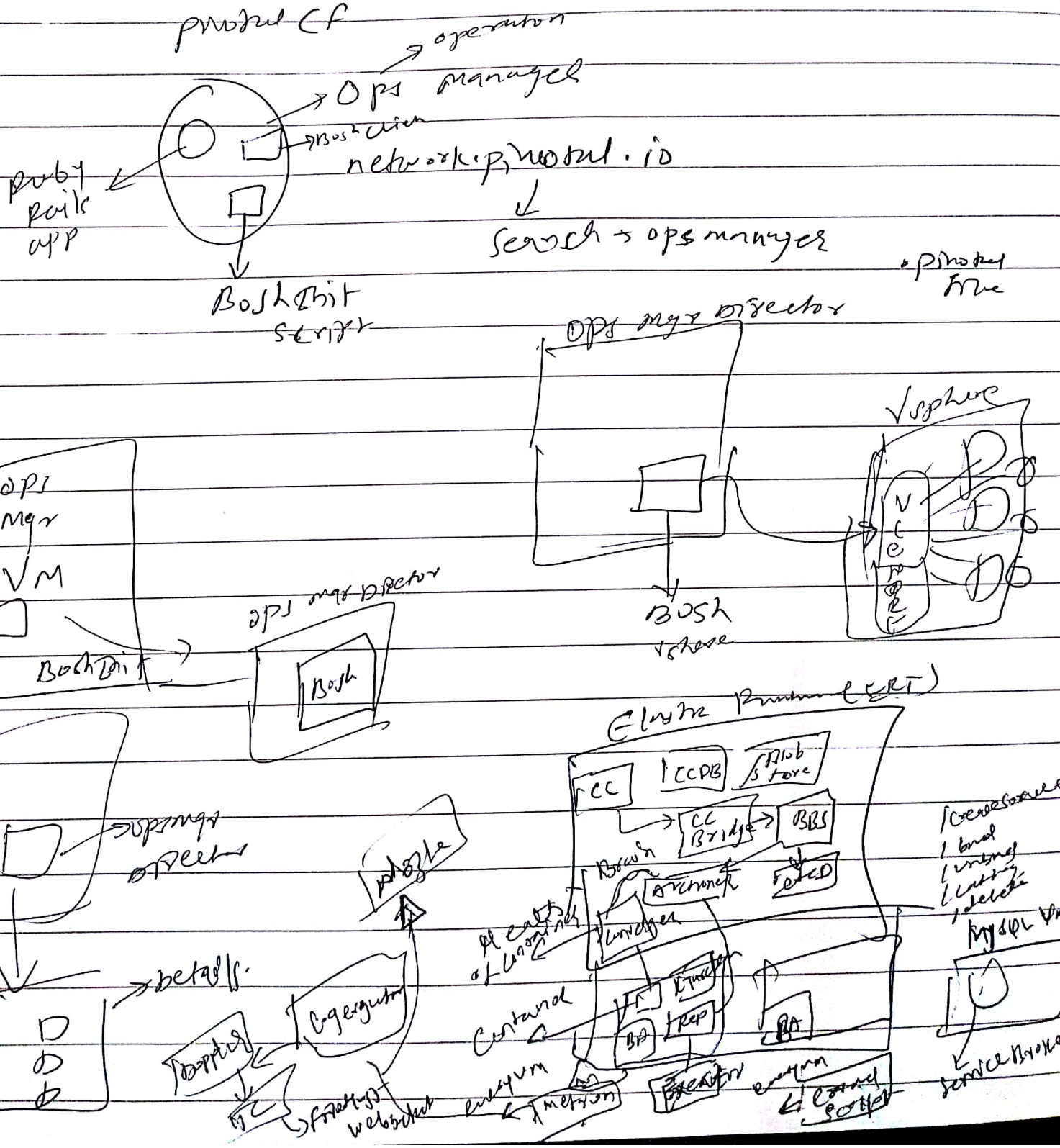
Services:

provision → list of services from marketplace



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Log Drain :-

Never write file to file system.

just stream it

stdout.

↓

Executor

↓

mention

↓

Loggregator

↓

Doppler

↓

Traffic Controller

↓

Firehost

↓

Nozzle

mechanism :-

Splunk, paper trail

paper trailapp.com

sakhan1307@rediffmail.com

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Blue-Green Deployment ~~policy~~ Strategy :

Zero down time when upgrading can be accomplished.

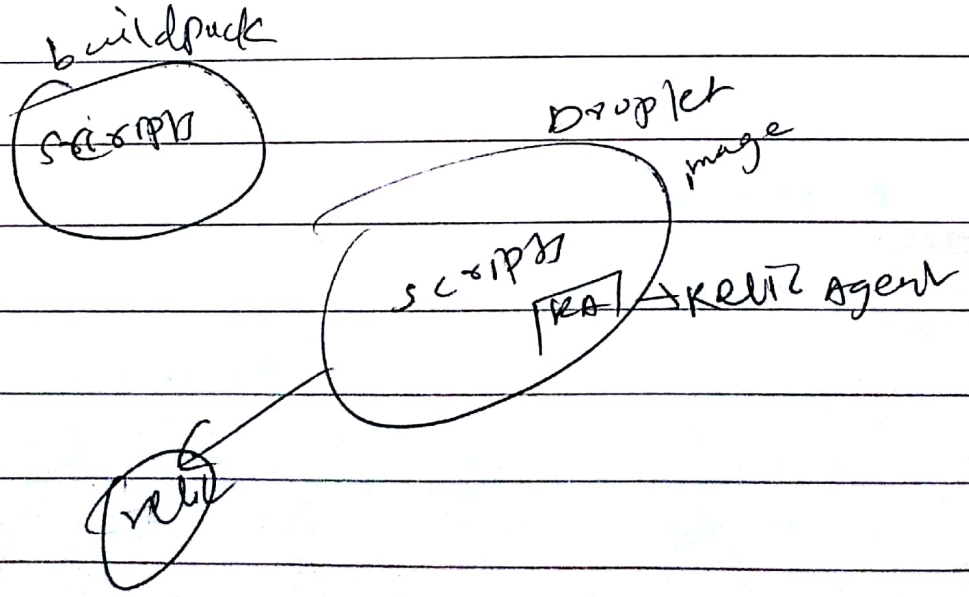
$ cf map-route y x
app name
old route

$ cf unmap-route x x
bird

Kathry style strategy :

Application Auto scaler :-
Autoscaler service

Application performance monitor :
New Relic service



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Build pack :- machine image for app.
build droplets
written in Ruby scripts.
Three 3 parts :-
① Detect
② Compile
③ Release

Paas → open shift
IBM Lumex
Amazon elastic beam stack.
PCF
Heroku

Metrics :- As a service
metrics.run.pivotal.io → login → fetch
monitoring matrix if the containers

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