

Architecting a Platform as a Service (PaaS)

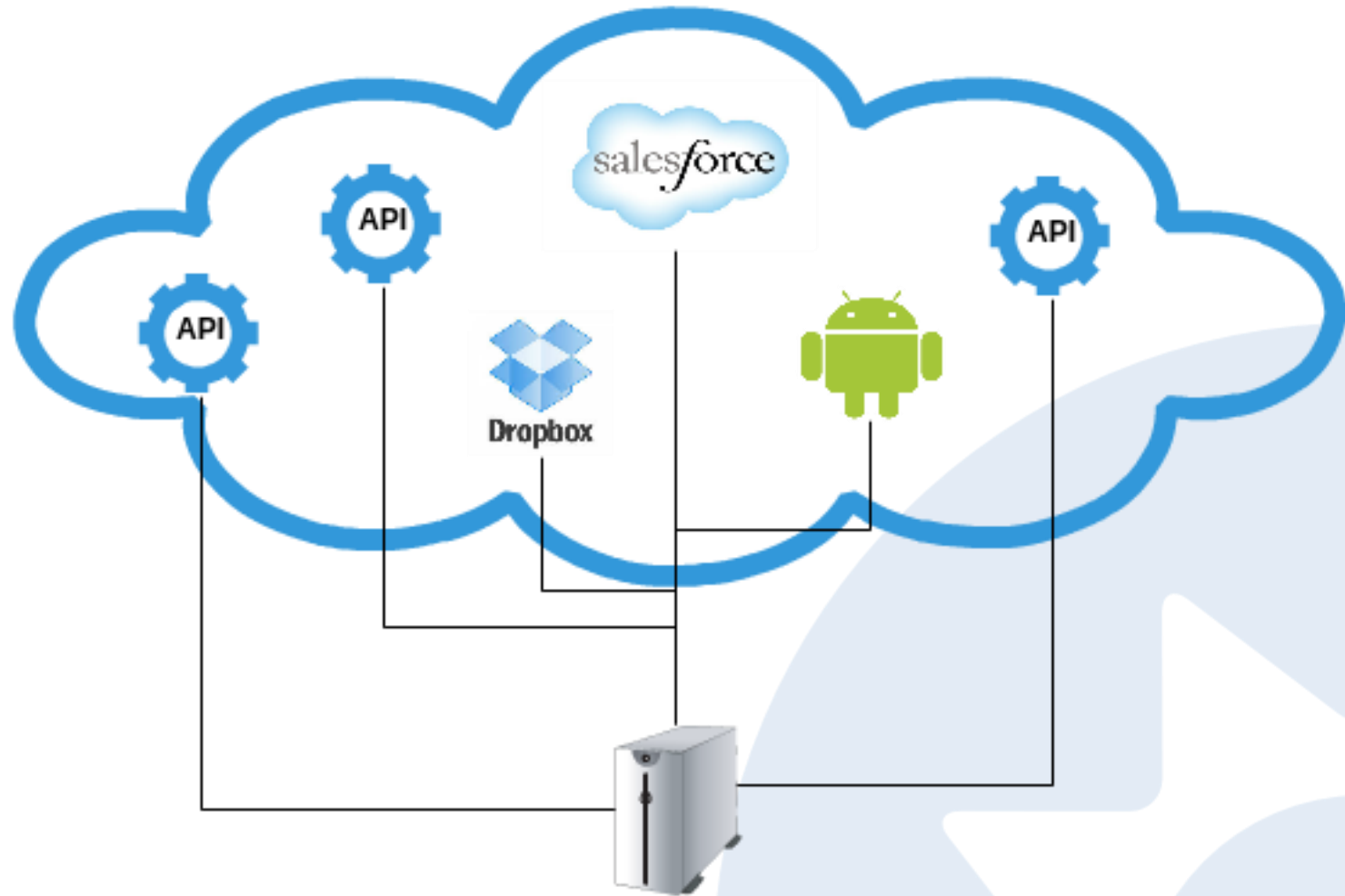
How to move Software into the Cloud

Why do I need to install your Software?



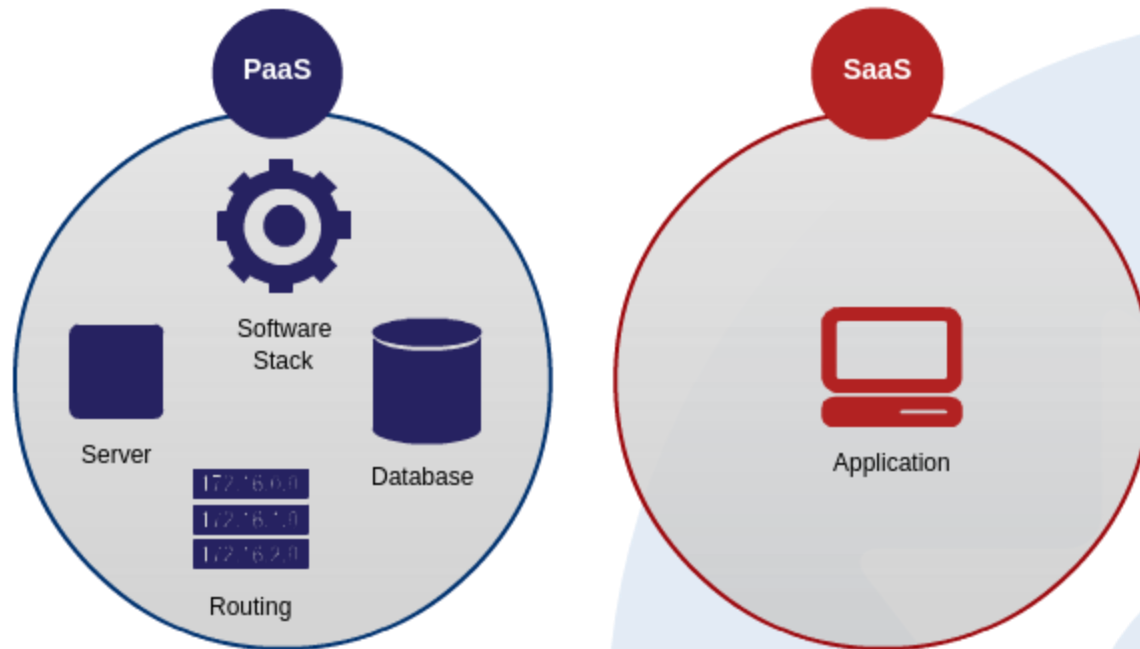
I just want to use it!

Why moving Software into the Cloud?



What is a PaaS?

Platform as a Service automates the configuration, deployment and ongoing management of applications in the cloud. (Gartner)

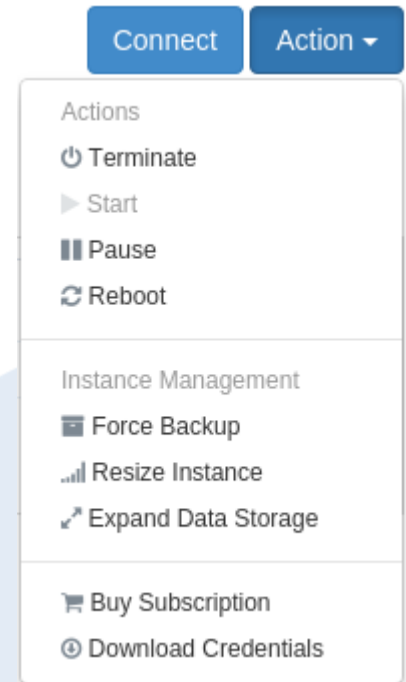


Requirements

Empower the Customer

Flexibility

- Start / Restart an instance
- Switch to a bigger / smaller instance
- Pause an instance (pay less)
- Integrate monitoring
- Security options (open ports, close them)



Requirements

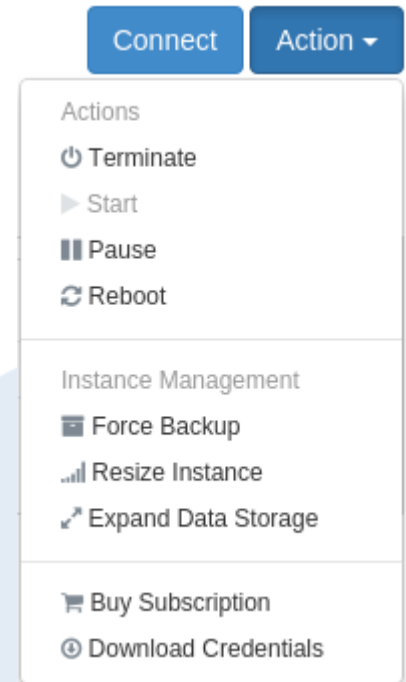
Empower the Customer

Billing

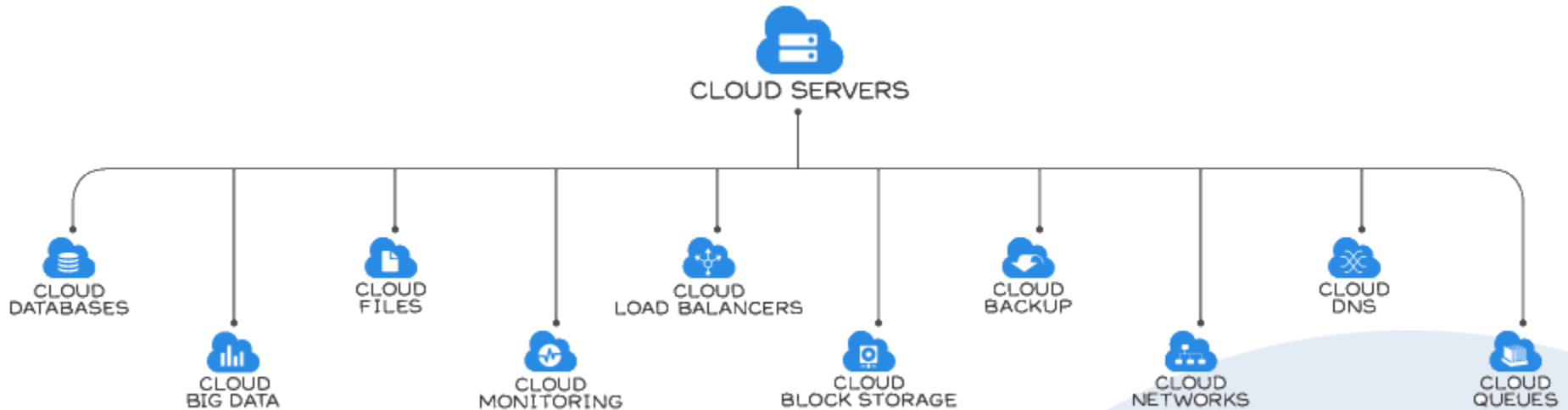
- Pay as you go (pay per hour)
- Pay annually upfront

Backups

- Instance Snapshot
- Data Snapshots



Pick a cloud provider



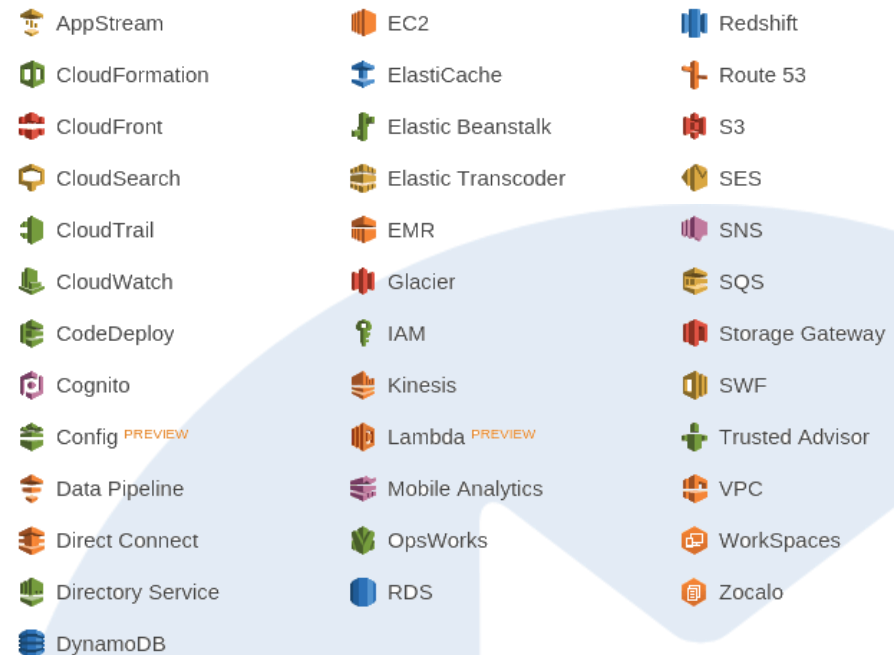
Pic © Rackspace



AWS resources and services

- EC2 - Server Instances
- EBS - Block Storage (OS, Data)
- S3 - Backups, Snapshots, Software
- Route53 - Dynamic subdomains
- SNS - Messaging to Admin Interface

- Cloud Formation - Configuration and Management of AWS resources.



Base image

Choose an OS or an existing base image from your cloud provider

ubuntu 

 CentOS


debian

 redhat.

fedora 


gentoo linux™

 Windows

 FreeBSD®

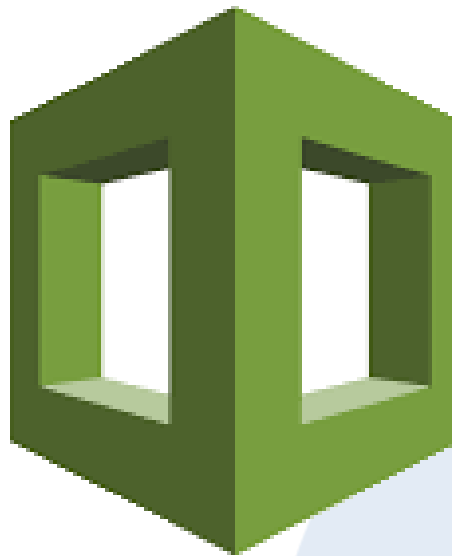
Immutable Infrastructure



*Always know the exact state of a state of a server
Never touch a server manually, everything is scripted
Never SSH into it*

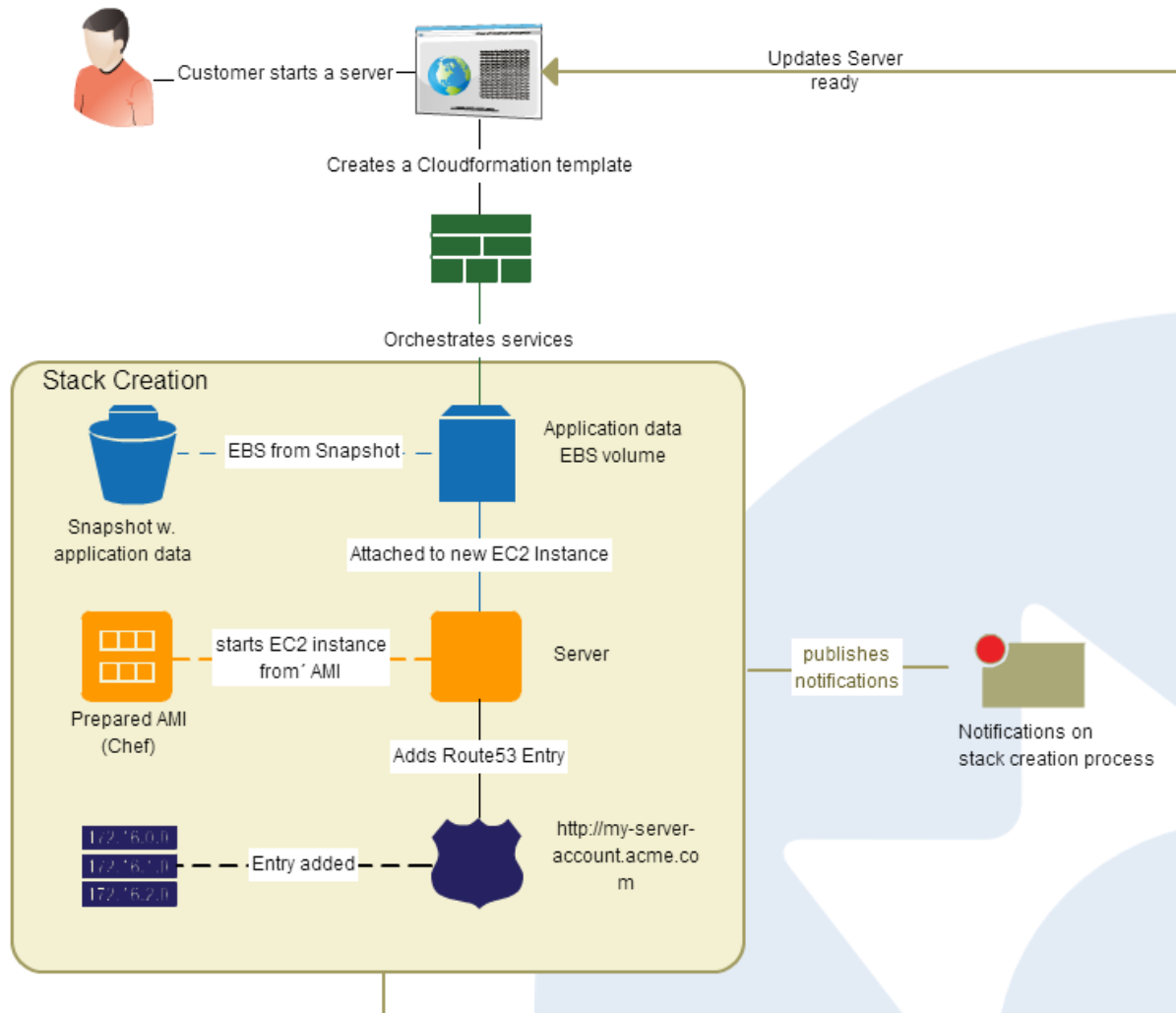
Cloudformation

Orchestration of AWS resources into the complete infrastructure for running your software



CloudFormation

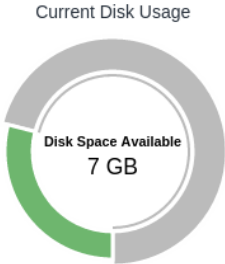
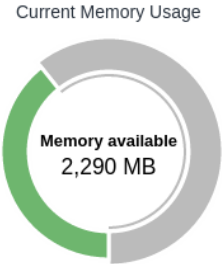
Cloudformation - Stack creation



Monitoring

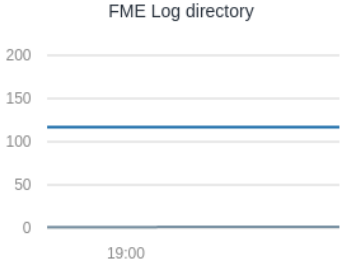
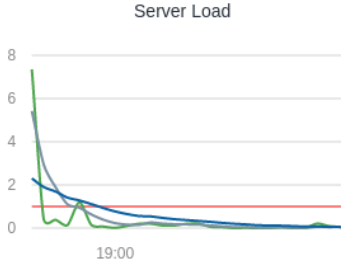
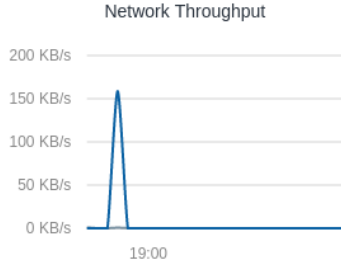
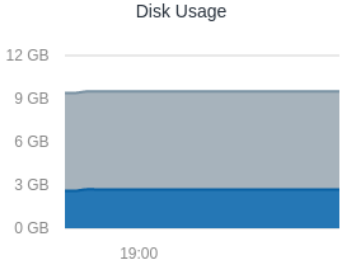
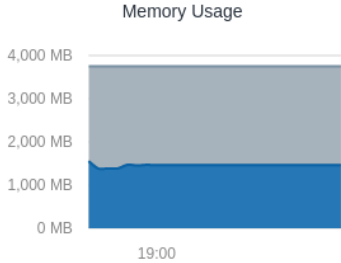
Details Monitoring Backups Security Activities

Current Statistics



Historical Graphs

Refresh 3 hours 6 hours 12 hours 1 day 1 week 1 month 3 months 1 year



Log files

Give the user insights into the application.








Log.io

Security

Port permissions

Details Monitoring Backups **Security** Activities

Permissions

PROTOCOL	PORT	SOURCE	
tcp	25..25	0.0.0/0	
tcp	80..80	0.0.0/0	
tcp	443..443	0.0.0/0	
tcp	7078..7078	0.0.0/0	
tcp	22..22	Port 22 cannot be modified/removed	

New inbound permission

Protocol

Port range

Source

[+ Add Rule](#)

OS System Updates

How to apply system / security updates?

- Attended
- Unattended



Billing

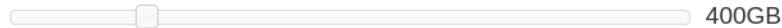
Finding a comprehensible pricing plan



Starter	Standard	Professional	Premium	Enterprise
\$4,300 /yr	\$7,500 /yr	\$14,400 /yr	\$26,000 /yr	\$38,000 /yr
1 Core 3.7GB RAM	2 Cores 7.5GB RAM	4 Cores 15GB RAM	8 Cores 30GB RAM	16 Cores 30GB RAM

Monthly Usage Costs

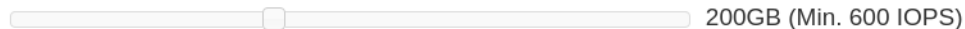
Data Transfer



\$52.00 /month

Outbound only (\$0.13 per GB).*

Data Storage



\$40.00 /month

Storage, I/O requests & backup included (\$0.20 per GB).
[learn more](#)

Team Management

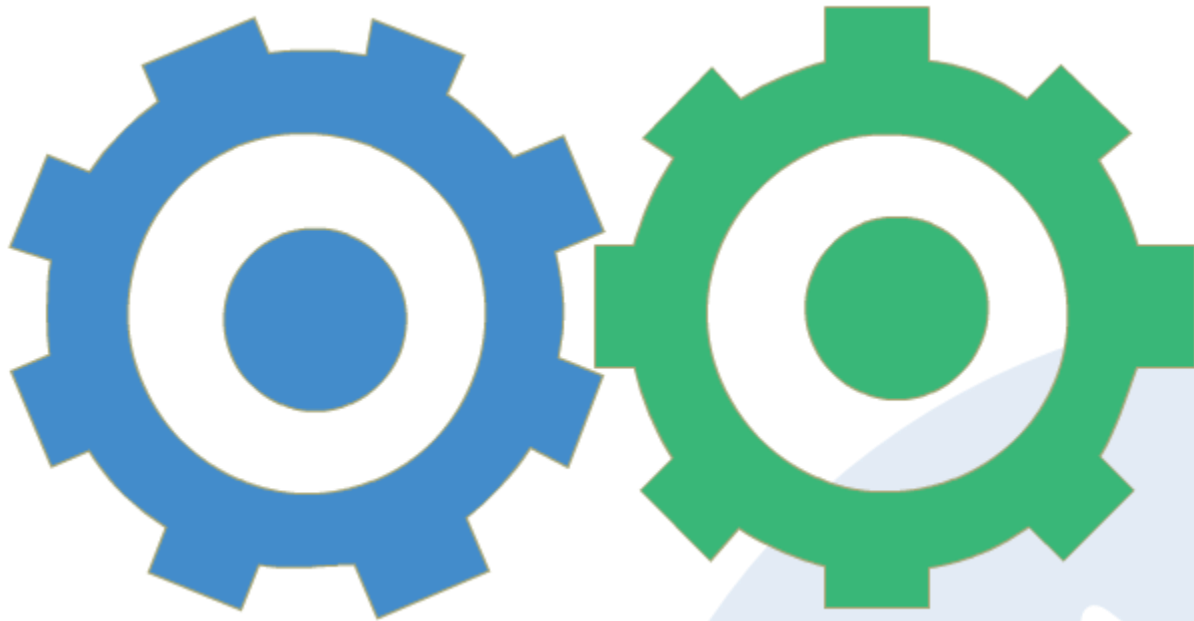
Add member



Permissions per role	Owner	Admin	Member
Dashboard	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Account Settings	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Team Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Current Monthly Usage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Past Invoices	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Credits	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Buy Subscription	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Billing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


 Back

API



*Leverage the power of the cloud
Make everything scriptable*

[+ Launch Instance](#)

	PRICING	NAME	TYPE	STATUS	LAUNCHED AT	TERMINATED AT
<input checked="" type="checkbox"/>		Pecha Kucha	Starter	RUNNING	2015-01-07 20:21:07 CET+01:00	-

Showing 1 to 1 of 1 entries

[First](#)
[Previous](#)
1
[Next](#)
[Last](#)

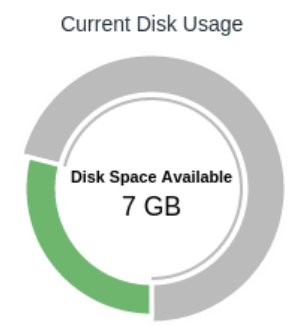
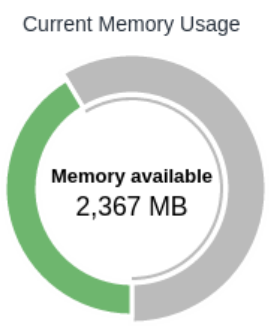
Pecha Kucha

<https://pechakucha-vedanova.fmecloud.com>


[Connect](#) [Action](#)

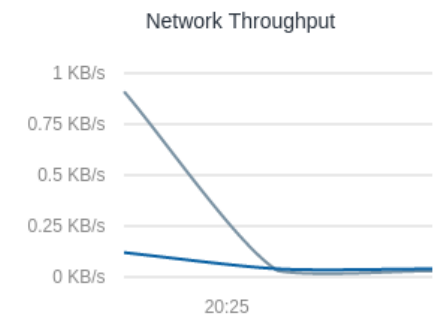
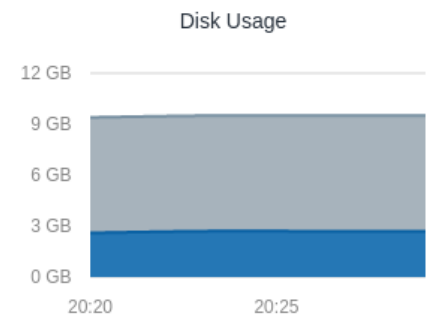
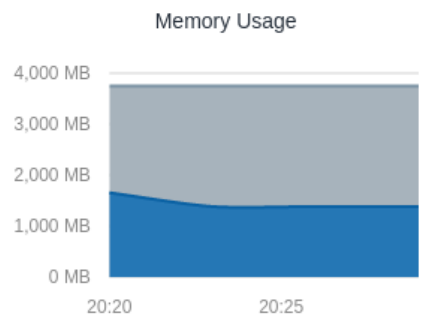
- Details
- Monitoring
- Backups
- Security
- Activities




Current Statistics



Historical Graphs

-  Refresh
- 3 hours
- 6 hours
- 12 hours
- 1 day
- 1 week
- 1 month
- 3 months
- 1 year



-  Dashboard
-  Subscriptions
-  Snapshots