



The OpenNebula alternative to Kubernetes for Containers-as-a-Service



About Me



Marco Mancini

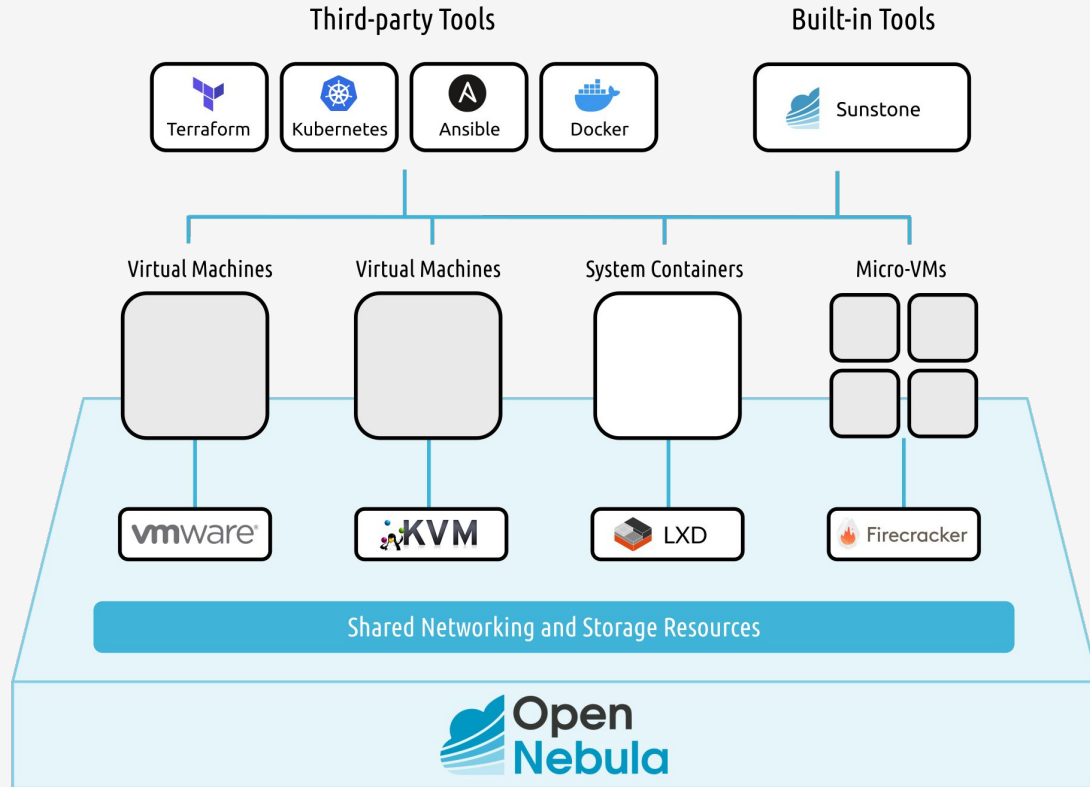
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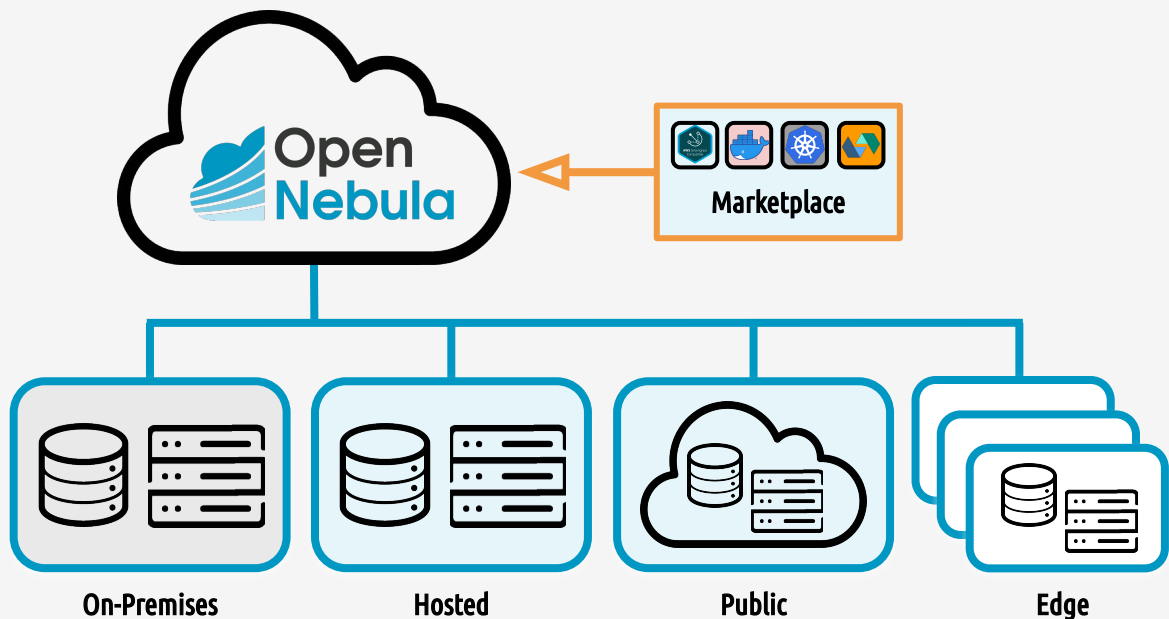
What is OpenNebula?

The open source Cloud Management Platform developed for the Enterprise 🚀



How is OpenNebula Being Used?

Say *hello* to our new True Hybrid Cloud Architecture



<https://openebula.io/true-hybrid>



ANY APPLICATION

Combine application containers from Docker Hub with traditional Virtual Machine workloads.



ANY INFRASTRUCTURE

Expand your Enterprise Cloud by unlocking the power of a true hybrid, edge and multi-cloud computing architecture.



ANY TIME

Add new clusters dynamically to meet peaks in demand, or fault tolerance and latency requirements.

Mastering Containers

Container Orchestration with OpenNebula

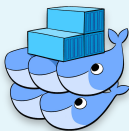


Rancher

Docker Hub + Firecracker



Docker Machine



Kubernetes



K3s



Virtual Infrastructure Management, Cloud Management Provisioning & Cloud Federation



ON-PREMISES

PUBLIC

EDGE

<https://opennebula.io/mastering-containers>



Secure and Fast MicroVMs for Container Orchestration



Open Nebula

Dashboard

Instances

Templates

Storage

Datastores

Images

Files

MarketPlaces

Apps

Network

Infrastructure

System

Settings

Officially supported

Not connected

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Apps

oneadmin OpenNebula

Search

	ID	Name	Owner	Group	Size	State	Registration Time	Marketplace	Zone
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<input type="checkbox"/>	206	scratch	oneadmin	oneadmin	2GB	READY	25/06/2013 00:00:00	DockerHub	0
<input type="checkbox"/>	205	alt	oneadmin	oneadmin	2GB	READY	18/04/2020 00:00:00	DockerHub	0
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<input type="checkbox"/>	199	caddy	oneadmin	oneadmin	2GB	READY	06/05/2020 00:00:00	DockerHub	0

10

Showing 1 to 10 of 233 entries

Previous

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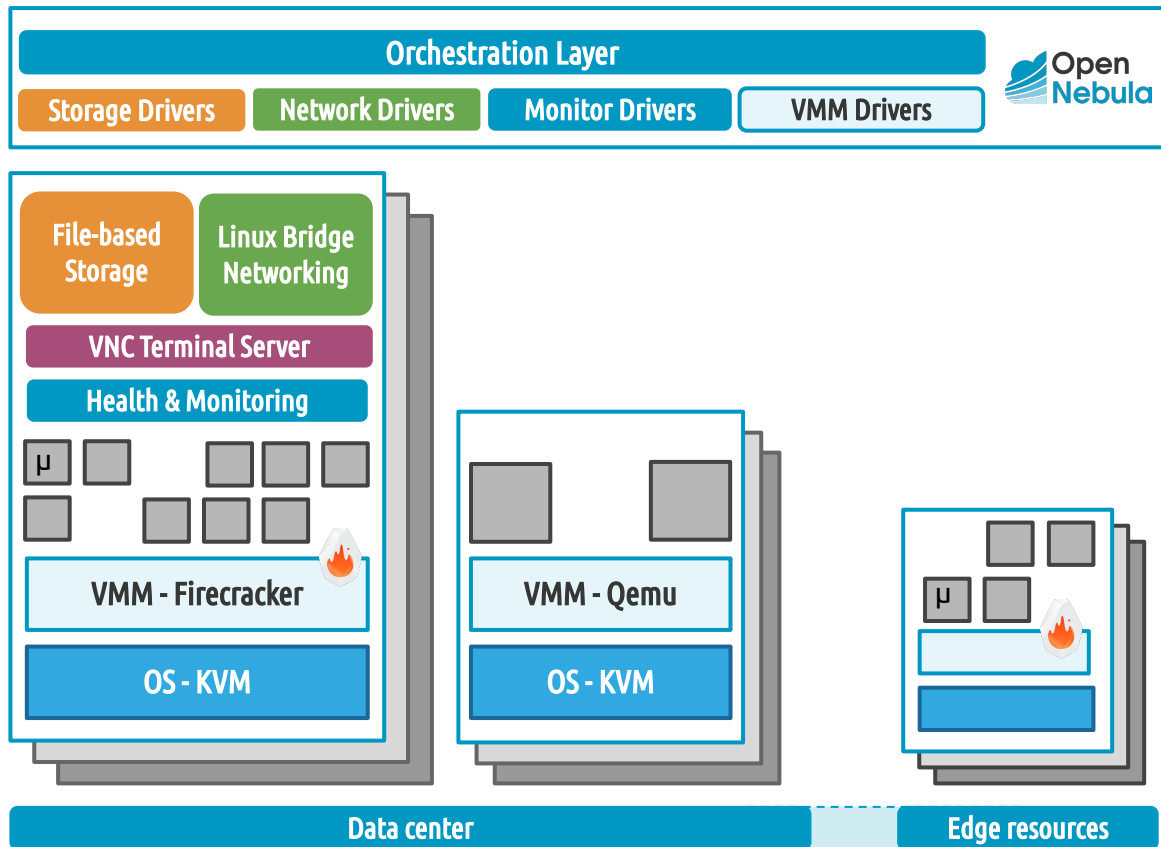
Next

233 TOTAL



AWS Firecracker

Secure and Fast MicroVMs for Container Orchestration



Orchestrating VMs **on-premise and on hybrid/edge locations.**



Seamlessly integrate **multiple workloads.**



Seamlessly integrate your **network stack/storage.**



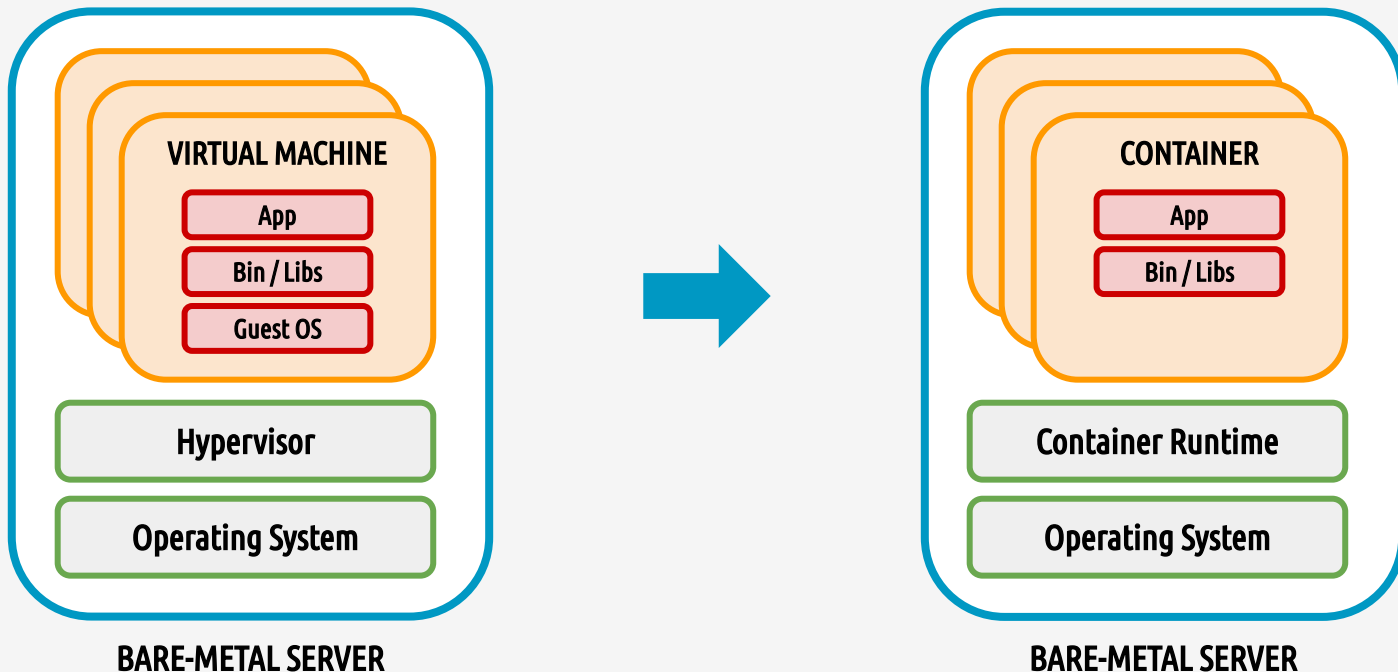
Create a **multi-tenancy environment** based on Firecracker.



Architect **multi-VM applications** with the OneFlow tool.

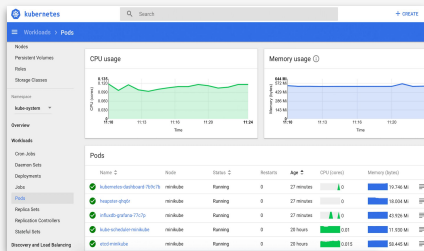
Deploying Container-based Apps

The Container Revolution



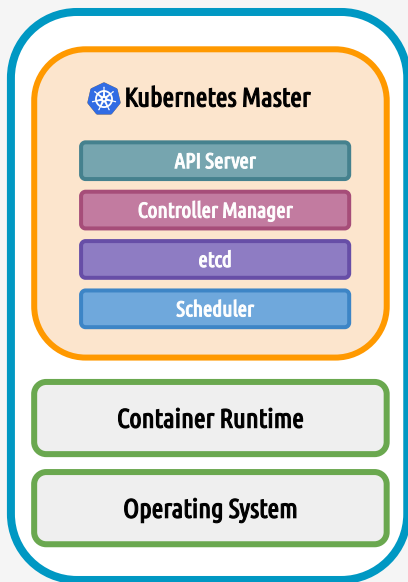
Deploying Container-based Apps

Microservice Architecture: Multi-Container Applications (Kubernetes)

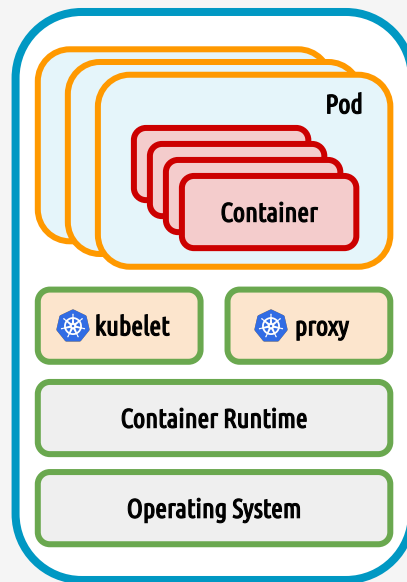


Kubernetes Dashboard UI

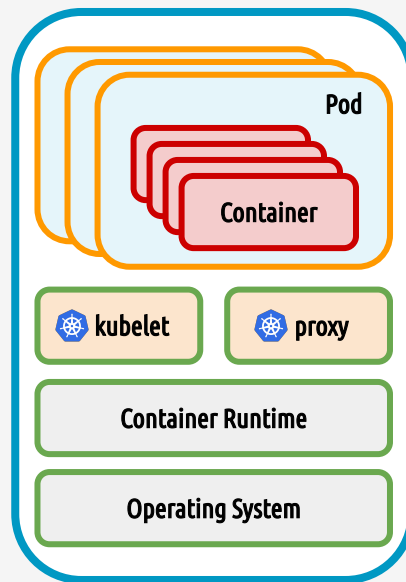
Pod Networks (Calico / Canal / Flannel / Weave Net)



BARE-METAL SERVER



BARE-METAL SERVER



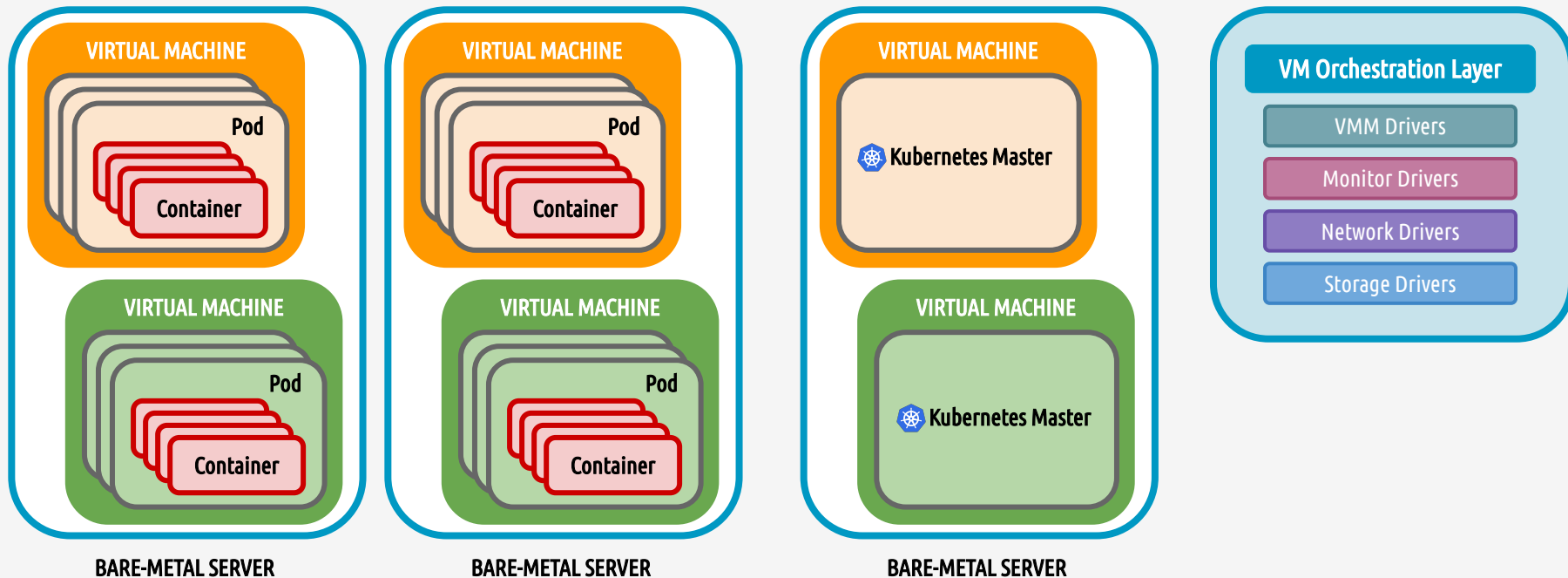
BARE-METAL SERVER

Deploying Container-based Apps

Multi-Tenancy & Security: Managed Kubernetes Clusters

VM Virtual Networks (IPv4 / IPv6 / Dual Stack)

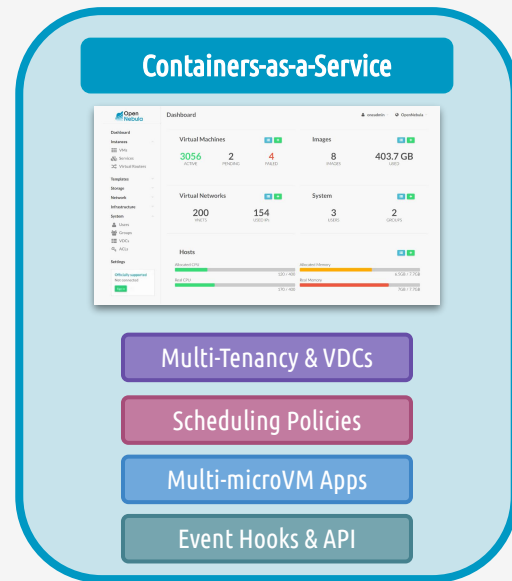
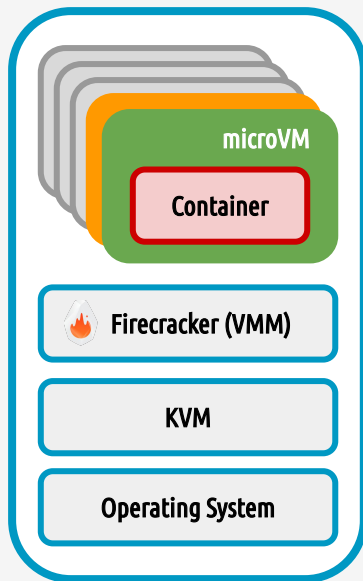
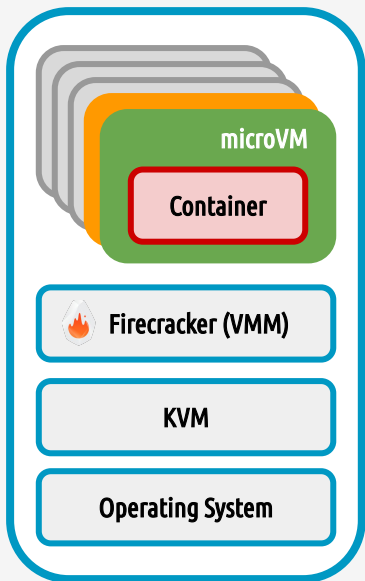
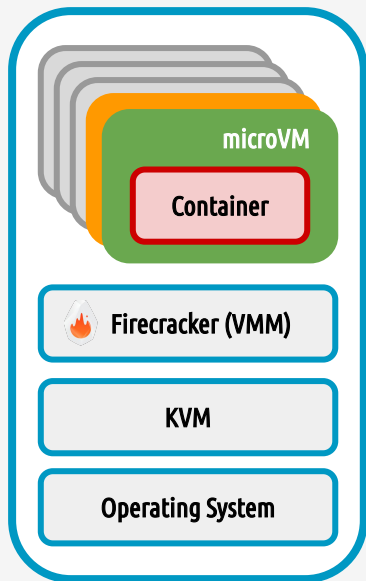
Pod Networks



Deploying Container-based Apps

OpenNebula's Native Container Orchestration Model

microVM Virtual Networks (IPv4 / IPv6 / Dual Stack)

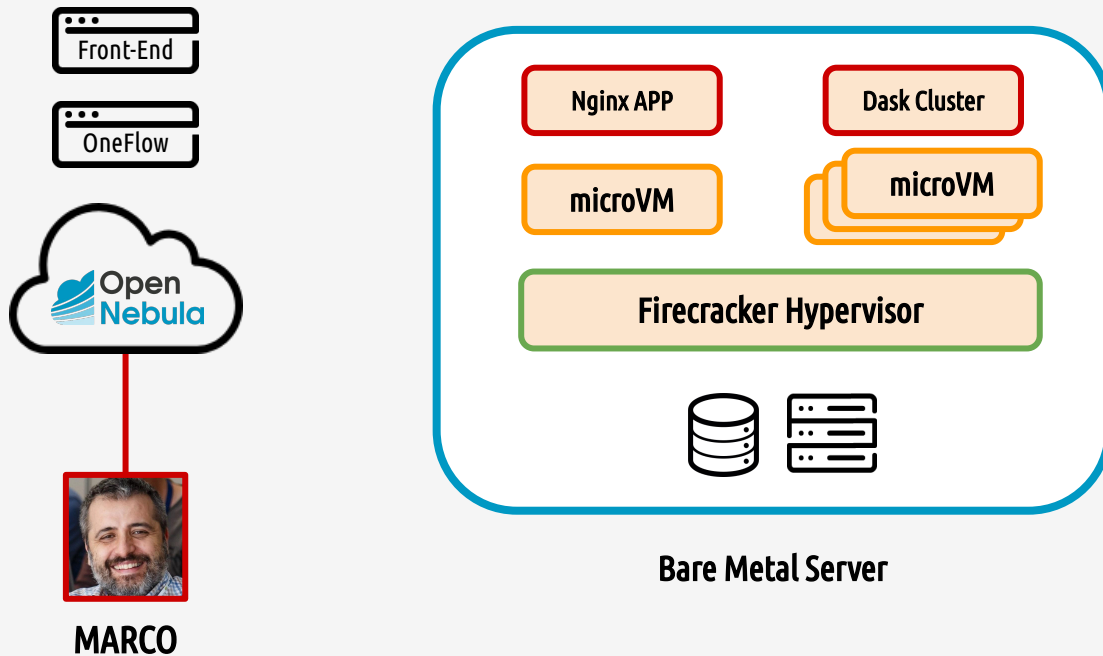


Public Cloud / Edge Resources

On-Premises / Hosted

Today's Demo

A View From the Eagle's Eye



Mastering Containers

Give it a try! 🚀



Deploying Container-Based
Applications with OpenNebula

ARTICLE



OpenNebula vs Kubernetes:
Comparing Two Container Orchestration Models

ARTICLE



Mastering Containers
with OpenNebula

WHITE PAPER



miniONE

Install a single-node LXD/KVM/FC Cloud

minione.opennebula.io



OpenNebula 5.12

Try “Firework”, our latest release!

opennebula.io/firework



ONEedge.io

This work has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement ONEedge 880412

Next Generation Edge Cloud Platform

Build & Manage an On-Demand Edge Cloud
Using Resources from Bare-Metal Providers





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