Megaport

LIVE Webinar Series

19 April 2023

How to Deploy Multicloud Applications With Megaport ONE

Megaport

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Senior Product Designer

Michael Vitale,
VP, Advanced Software

Nathan Grey,
Senior DevOps Engineer

How To Deploy Multicloud Applications Using Megaport ONE

April 19th, 2023 - 3:00PM BST / 4:00PM CEST (EMEA)

Our Speakers

Michael Vitale
VP, Advanced Software

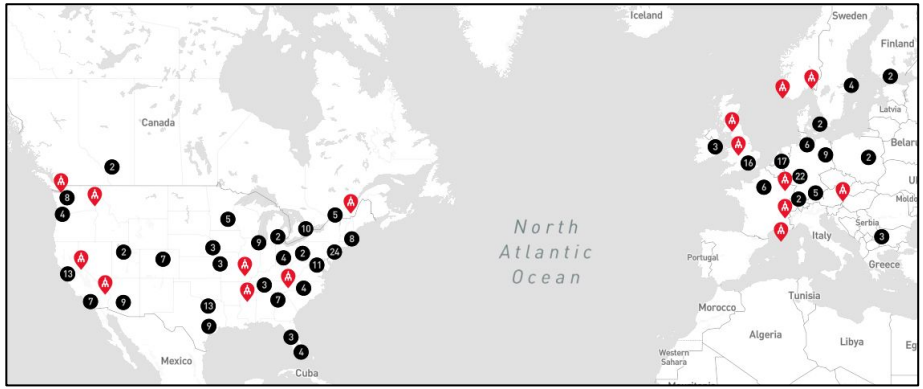
Nathan Grey
Senior DevOps Engineer

Marcelo McAndrew
Senior Product Designer

About Megaport

The leader in Network-as-a-Service (NaaS)

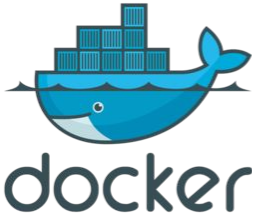
Megaport operates the largest Software Defined Network (SDN) platform globally, providing our 2,700+ customers the ability to connect to 802+ enabled data centres in 145 cities throughout 25 countries in North America, Europe, Asia, and Australia. Our Network as a Service solutions remove the need for customers to invest in direct, physical, point-to-point interconnection. We operate a standards-based, neutral platform, and have partnerships with 119 unique data centre operators, allowing our customers to connect to applications without the limitations of being tied to a particular data centre operator or geographic connection location.



Learn more about Megaport: https://www.megaport.com/

Megaport ONE

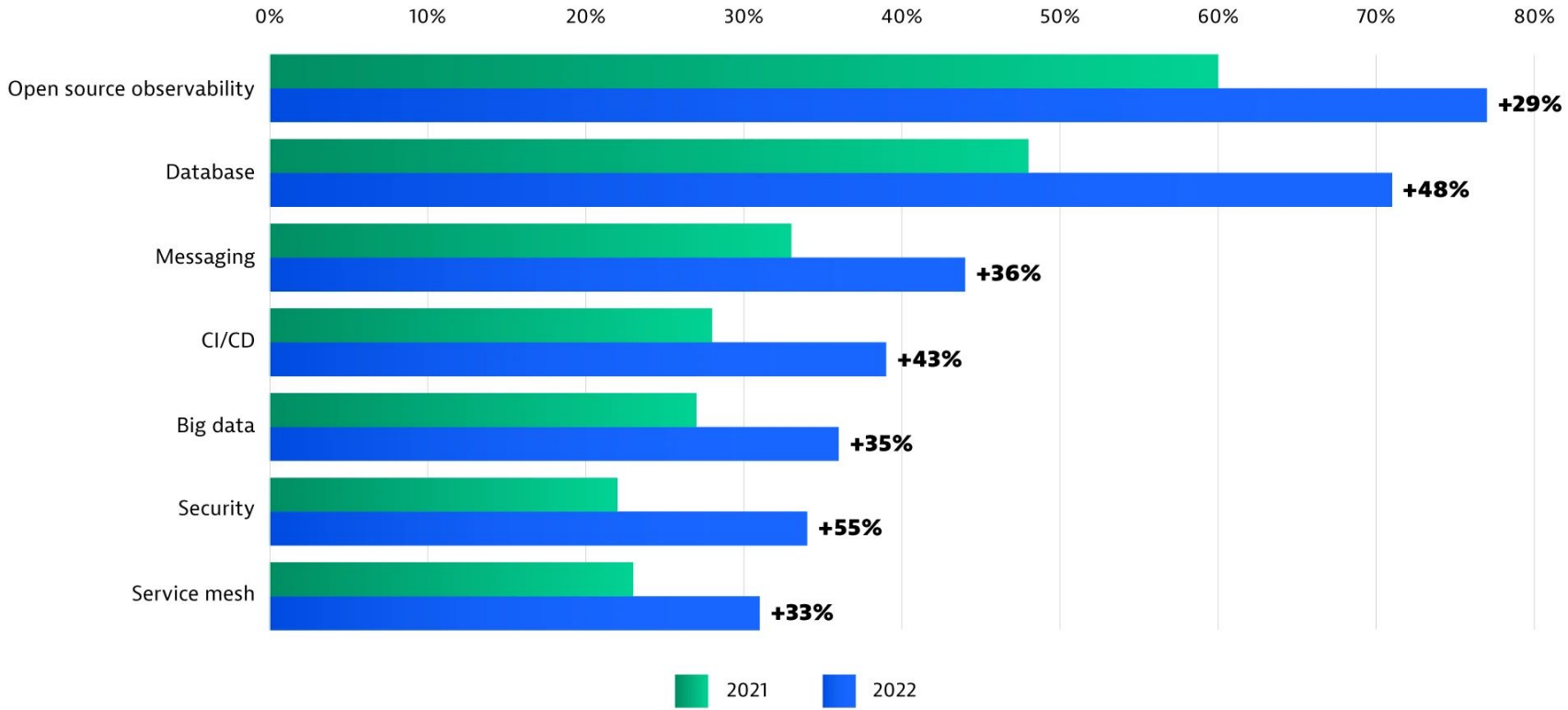
Cloud Native Computing



Cloud native computing is an approach in software development that utilizes cloud computing to "build and run scalable applications in modern, dynamic environments such as public, private, and hybrid clouds".These technologies such as containers, microservices, serverless functions, cloud native processors and immutable infrastructure, deployed via declarative code are common elements of this architectural style. Cloud native technologies focus on minimizing users' operational burden.

Top Kubernetes workload categories

Percentage of organizations + YoY growth



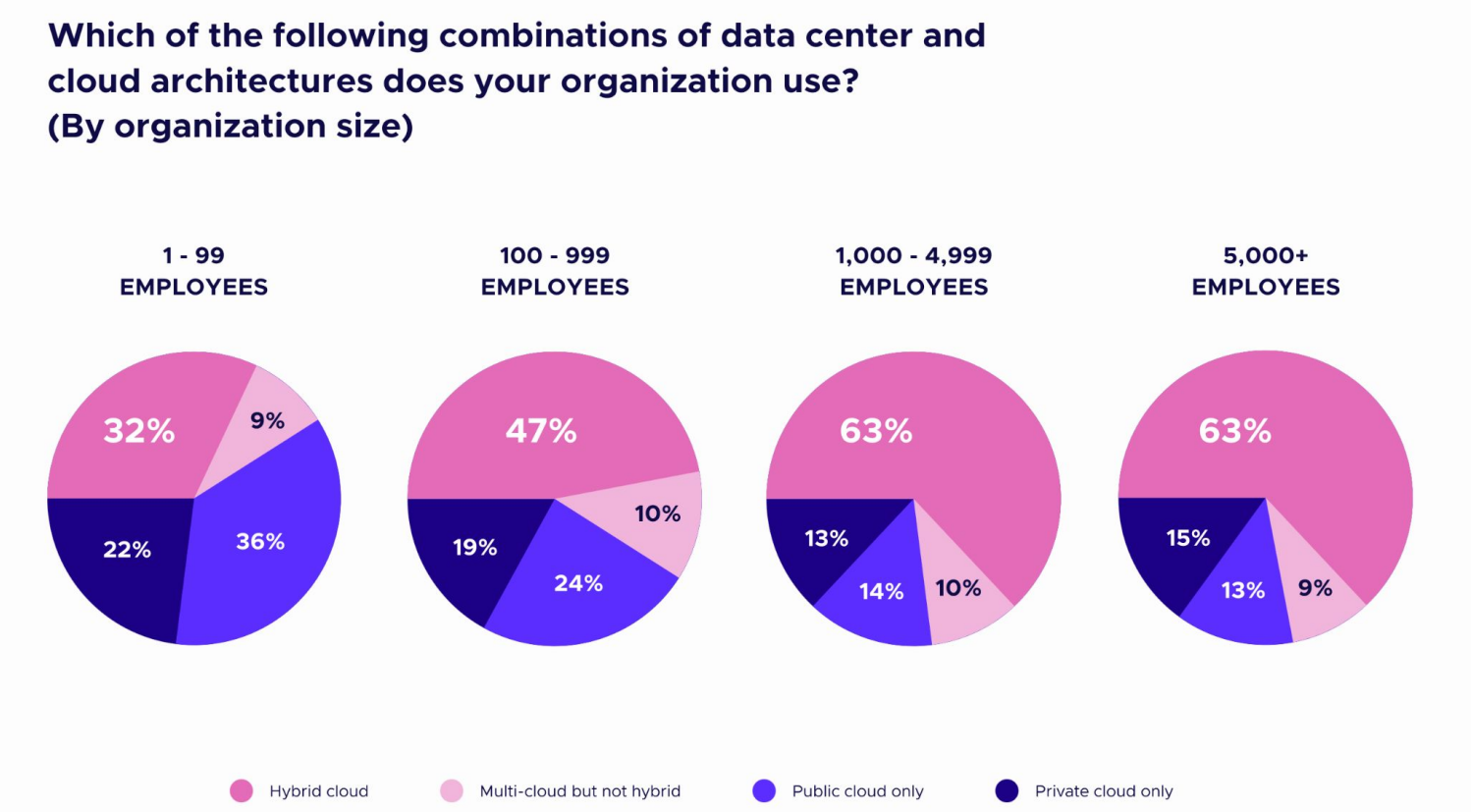
Kubernetes in the wild: https://www.dynatrace.com/news/blog/kubernetes-in-the-wild-2023/

Kubernetes: The Operating System for the Cloud

> *At Dynatrace, we use Kubernetes for any new software project, from build pipelines to SaaS offerings. We also see the same trend with our customers.* ***Kubernetes effectively has emerged as the operating system for the cloud.***
>
> *- Anita Schreiner, Dynatrace VP Delivery*

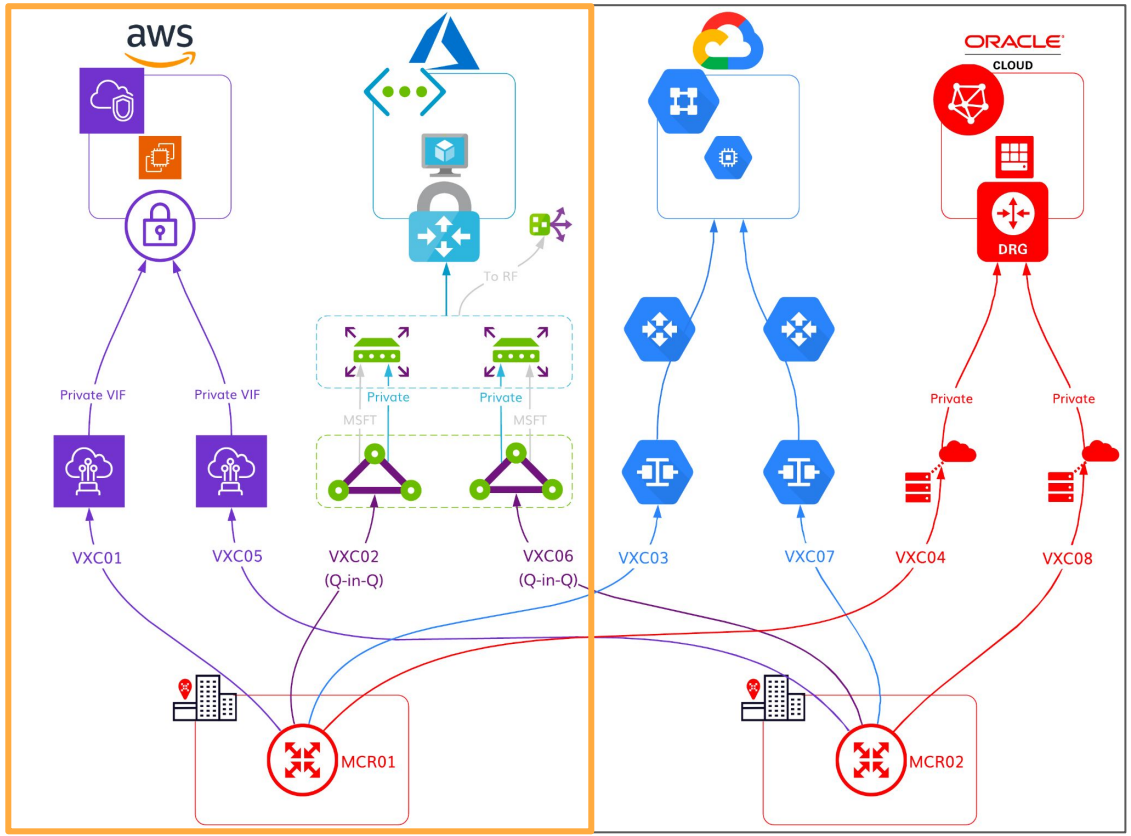
Kubernetes in the wild: https://www.dynatrace.com/news/blog/kubernetes-in-the-wild-2023/

Where are the workloads today?



CNCF 2022 Annual Survey: https://www.cncf.io/reports/cncf-annual-survey-2022/

Cloud Networking



Dual MCRs as hubs that connect CSPs in an HA configuration without requiring on-premise infrastructure.

Megaport Lab Studio

servicedeployed.io/dashboard

ONE DEMO

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Mike Vitale | COMPANY ADMIN

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- Marketplace

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- Clusters
- Applications
- Repositories

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- CSP Looking Glass
- MCR Looking Glass
- MegaIX Looking Glass
- IX Telemetry

TENANT
- Settings
- Notifications
- Billing Markets

- Support

Collapse Sidebar

Dashboard

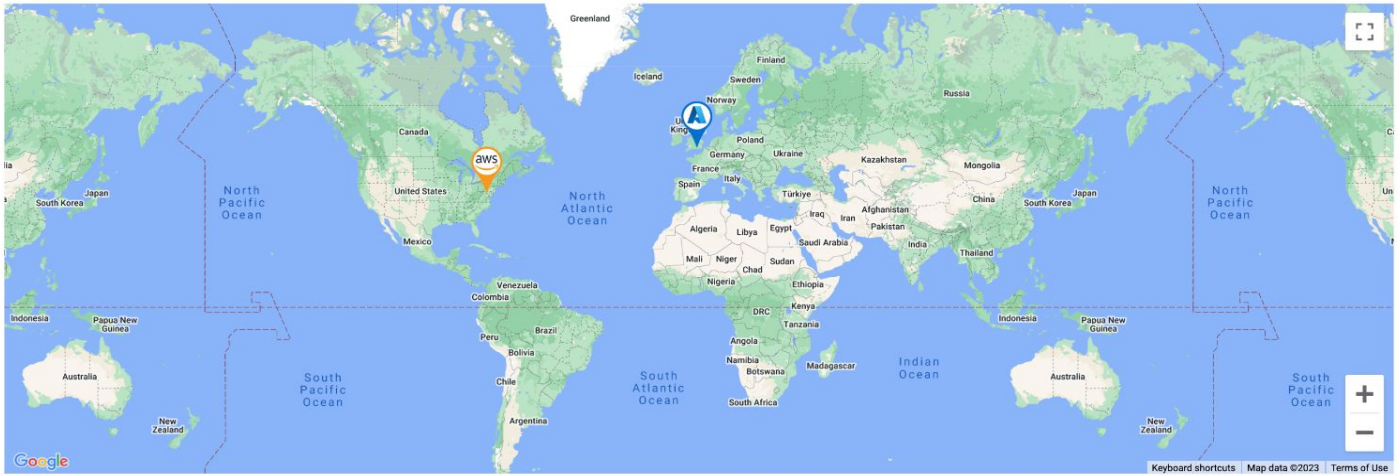
Connect Anything, Control Everything.

Ports	MCRs	MVEs	Clusters	Apps
20	10	18	2	10

Global Resource Map

A visualization of your global resources.

Compute | Networking



Recent Deployments

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Marketplace
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Discovery
CSP Looking Glass
MCR Looking Glass
MegaIX Looking Glass
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Collapse Sidebar

Megaport Lab

160208ae-01e4-4cb9-8d57-03a197bd47a8

General
Cloud Credentials
Container Credentials
SSH Credentials
Users
Theming

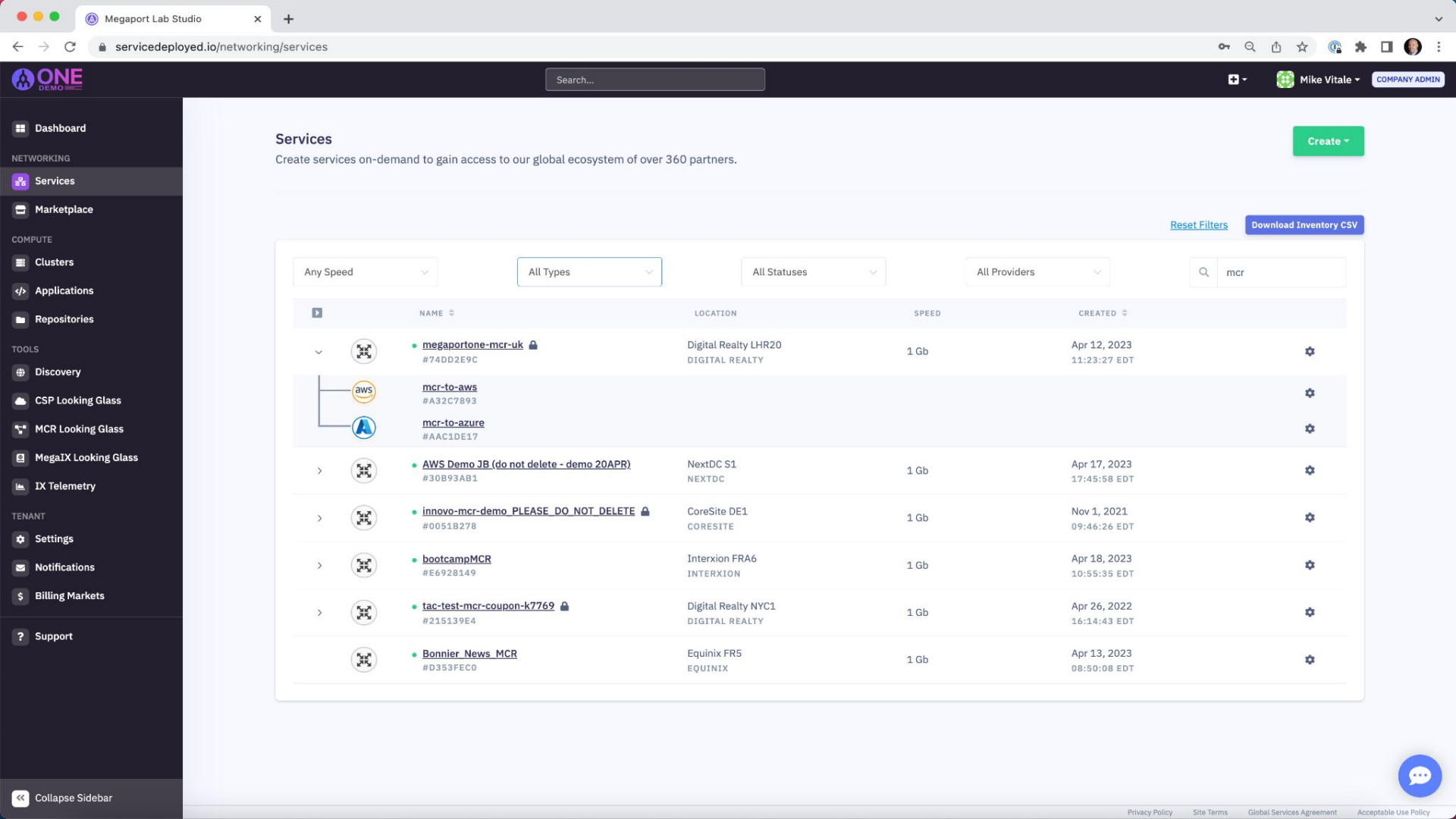
Cloud Credentials

You will not be able to view your credentials after you submit.

Add Credential

CLOUD	STATUS	DESCRIPTION	MORE INFORMATION
Amazon Web Services	ADDED	mp1_thirdparty_full	
Google Cloud	ADDED	ie_google	
Microsoft Azure	ADDED	mp1_thirdparty_full	

Page Updated: 10:55:59 EDT - Refresh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IX Telemetry
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Services
Create services on-demand to gain access to our global ecosystem of over 360 partners.
Create
Reset Filters
Download Inventory CSV
Any Speed
All Types
All Statuses
All Providers
mcr
NAME
LOCATION
SPEED
CREATED
megaportone-mcr-uk
#74DD2E9C
Digital Realty LHR20
DIGITAL REALTY
1 Gb
Apr 12, 2023
11:23:27 EDT
mcr-to-aws
#A32C7893
mcr-to-azure
#AAC1DE17
AWS Demo JB (do not delete - demo 20APR)
#30B93AB1
NextDC S1
NEXTDC
1 Gb
Apr 17, 2023
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#0051B278
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CORESITE
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Nov 1, 2021
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#E6928149
Interxion FRA6
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Bonnier_News_MCR
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Equinix FR5
EQUINIX
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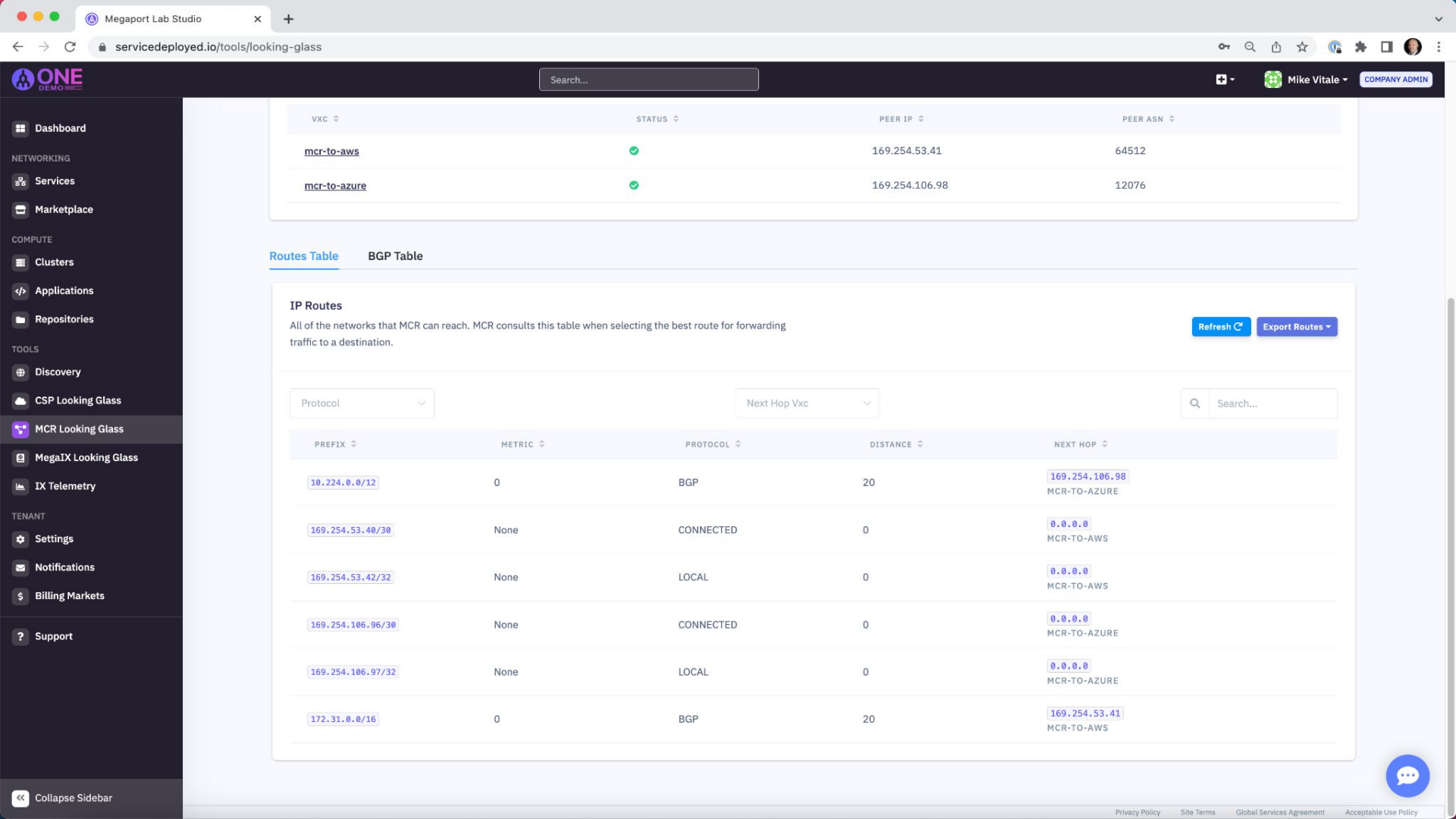
Megaport Lab Studio
servicedeployed.io/tools/looking-glass
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VXC
STATUS
PEER IP
PEER ASN
mcr-to-aws
169.254.53.41
64512
mcr-to-azure
169.254.106.98
12076
Routes Table
BGP Table
IP Routes
All of the networks that MCR can reach. MCR consults this table when selecting the best route for forwarding traffic to a destination.
Refresh
Export Routes
Protocol
Next Hop Vxc
Search...
PREFIX
METRIC
PROTOCOL
DISTANCE
NEXT HOP
10.224.0.0/12
0
BGP
20
169.254.106.98
MCR-TO-AZURE
169.254.53.40/30
None
CONNECTED
0
0.0.0.0
MCR-TO-AWS
169.254.53.42/32
None
LOCAL
0
0.0.0.0
MCR-TO-AWS
169.254.106.96/30
None
CONNECTED
0
0.0.0.0
MCR-TO-AZURE
169.254.106.97/32
None
LOCAL
0
0.0.0.0
MCR-TO-AZURE
172.31.0.0/16
0
BGP
20
169.254.53.41
MCR-TO-AWS
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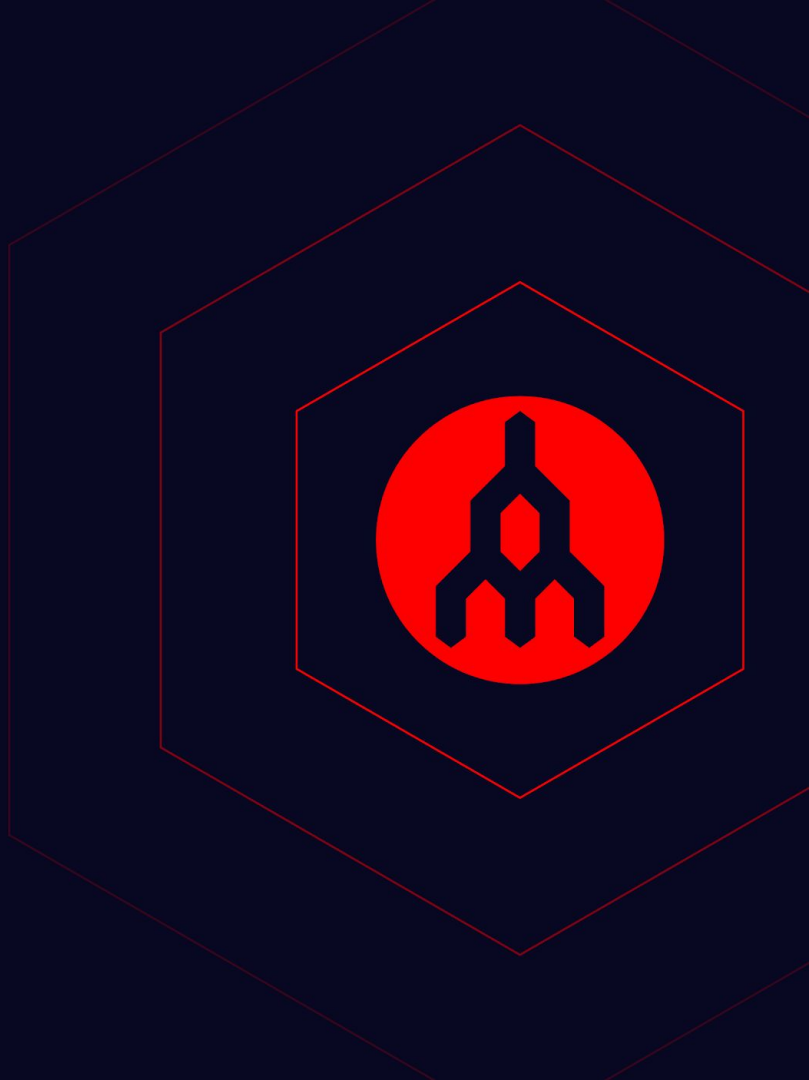
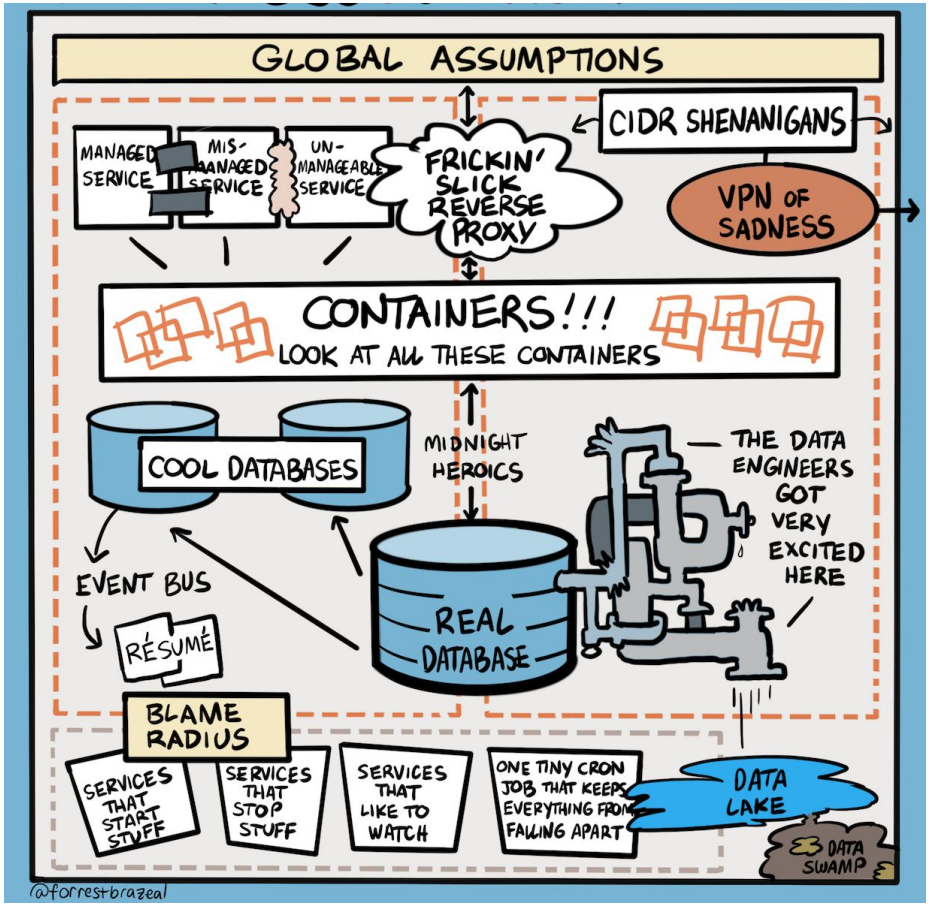
Enterprise Application Deployment



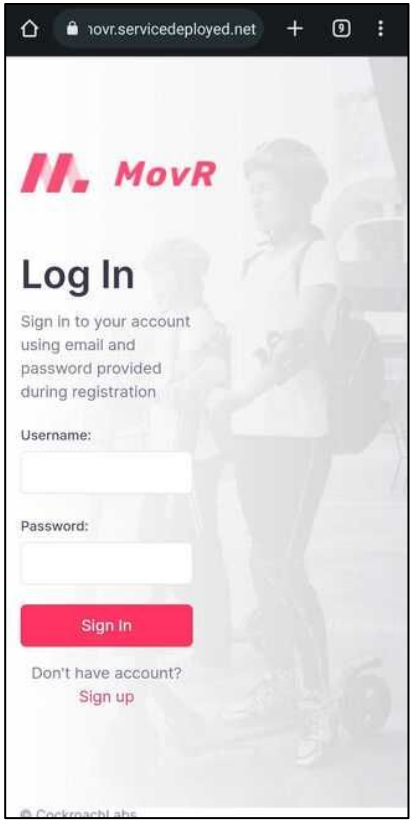
“Cloud Native” Architecture



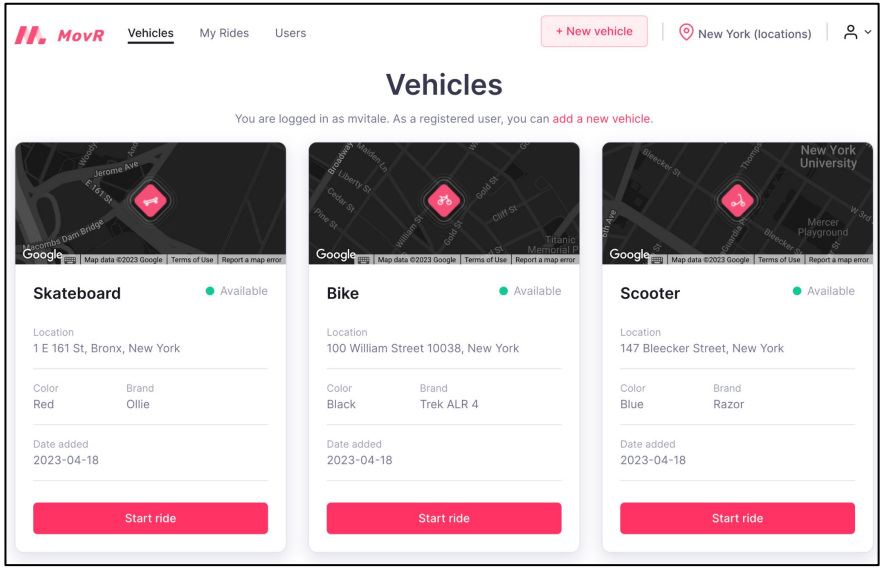
Tech Stack Review

SaaS / NaaS Orchestration	Megaport ONE Megaport Cloud Router
Cloud Service Providers	Amazon EKS Microsoft Azure
Cloud Native Infrastructure	Kubernetes Helm Package Manager
Enterprise Application Example	External DNS for kubernetes CLOUDFLARE Cert Manager NGINX Flask CockroachDB

Our example enterprise app

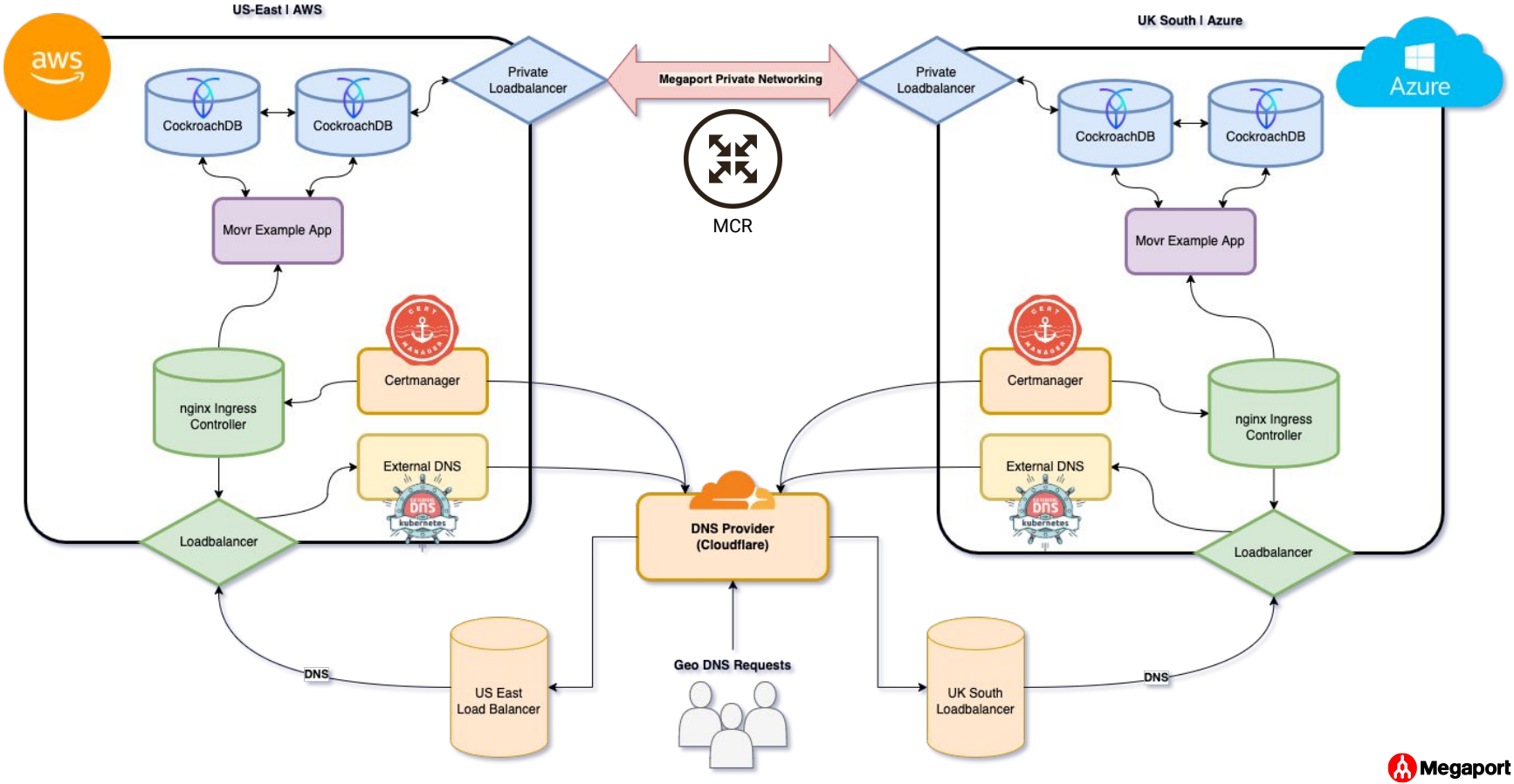


MovR is a fictional company that offers users a platform for sharing vehicles, like scooters, bicycles, and skateboards, in select cities across the United States and Europe. To serve users in two continents, the we need an application architecture that is globally available, resilient to system failures and optimized for latency.



CockroachDB MovR: https://www.cockroachlabs.com/docs/stable/movr-flask-use-case.html

Multicloud Architecture



Live Demonstration

Deploying multicloud applications

Live Demonstration

Creating a reusable application template

Please ask your questions
in the Q&A panel.

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Thank You For Joining Us!

Have more questions or would like us to contact you? Complete this form: https://mp1.tech/ml_contact_us

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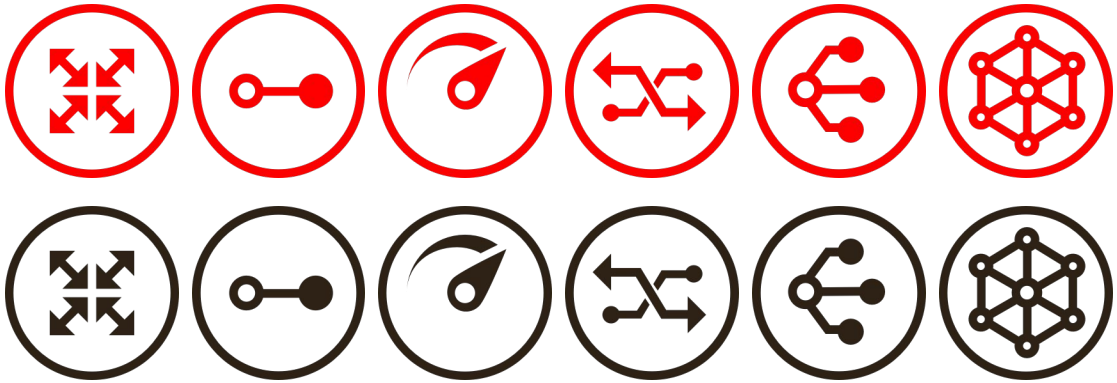
Megaport Product icons



MCR VXC Port IX MVE Marketplace

Partner Logos

rackspace

IBM Cloud

Google Cloud

NUTANIX

Microsoft Azure

Alibaba Cloud

ORACLE Cloud

aws

Supporting Icons