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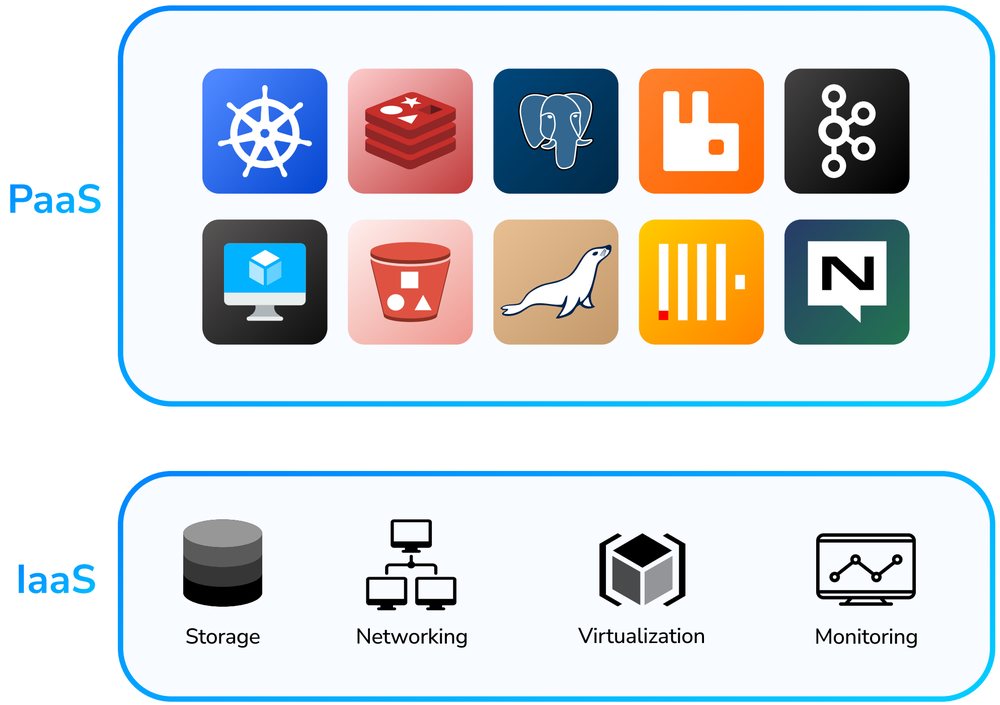
COZYSTACK

Your own PaaS platform

What is Cozystack?

- CNCF Sandbox - March 4, 2025
- Nex-gen cloud platform fully based on Kubernetes
- Managed Services with full lifecycle management
- Ready infrastructure stack with minimum dependencies
- Platform framework which can be simple extended with new apps

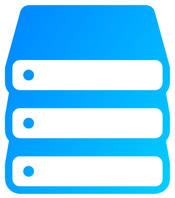


Multiple services available with just a click

Managed Kubernetes

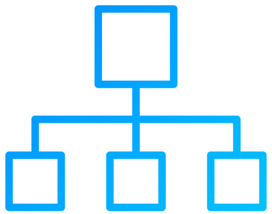
Managed Databases

Virtual Machines



Persistent Volumes

S3 Storage



Load balancers

Monitoring and Alerts

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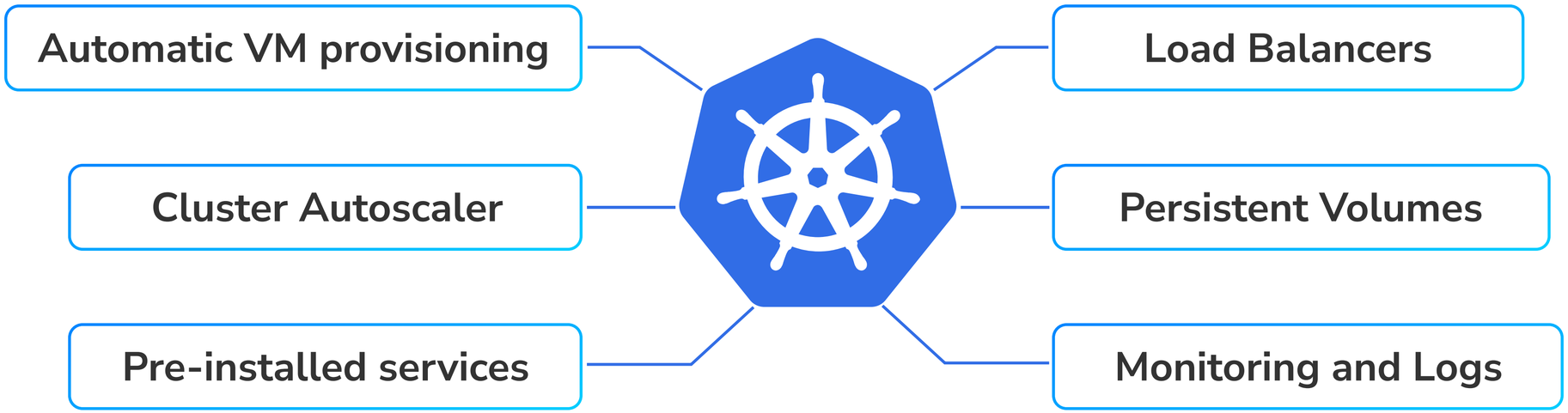
Truly managed Kubernetes

Managing Kubernetes clusters on-premises often is challenging.
We offer a simple, full-featured Kubernetes solution that just works, like in every cloud, but on your bare metal servers.



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Why Bare Metal Matters

- Bare metal is back — **faster**, **cheaper**, **sovereign**
- **Predictable costs**, no hidden cloud fees
- **Your data, your rules** — secure and air-gapped
- **Perfect for AI**, regulated, and edge workloads

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But rebuilding a cloud-like experience on bare metal... is hard

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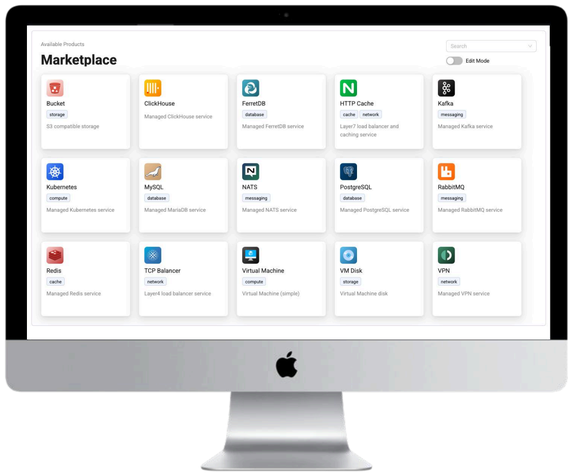
But rebuilding a cloud-like experience on bare metal... is hard

Not with cozy!

COZYSTACK

Introduction

With Cozystack, you can transform your bunch of servers into an intelligent system with a simple REST API for spawning Kubernetes clusters, Database-as-a-Service, virtual machines, load balancers, HTTP caching services, and other services with ease.



Monitoring

GPU

Kubernetes

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COZYSTACK

Layer 4

Managed Kubernetes

Databases-as-a-Service

Kubernetes API

Layer 3

Operators

Cluster API

Monitoring

Flux CD

Layer 2

Storage
LINSTOR

Networking
OVN

Virtualization
KubeVirt

Layer 1

OS and Hardware

Talos Linux

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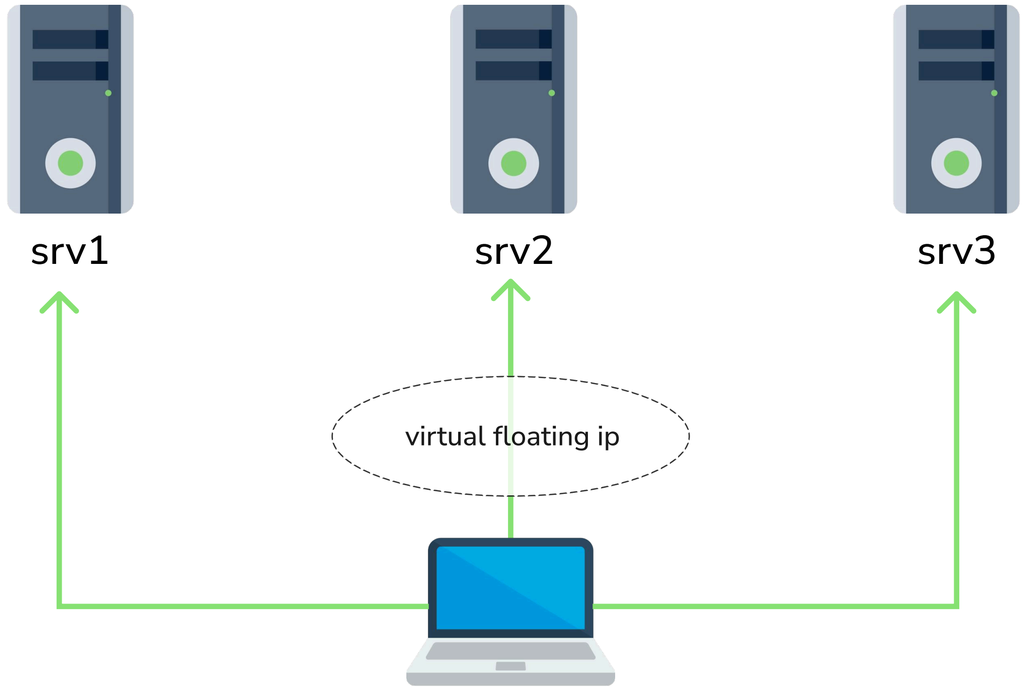
Simple installation

We significantly simplified the cluster setup, turning the installation process into a simple and enjoyable experience.



MANAGEMENT

(DHCP, matchbox, talos-bootstrap)

Marketplace
- Marketplace

IaaS
- Virtual Machines
- Kubernetes
- VM Instances
- VM Disks
- Buckets

PaaS
- ClickHouse
- FerretDB
- Kafka
- MySQL
- NATS
- PostgreSQL
- RabbitMQ
- Redis

NaaS
- HTTP Cache
- TCP Balancer
- VPN

Administration
- Info

Cluster: default Namespace: tenant-kvaps

Available Products

Marketplace

Search

Edit Mode

Bucket
storage
S3 compatible storage

ClickHouse
Managed ClickHouse service

FerretDB
database
Managed FerretDB service

HTTP Cache
cache network
Layer7 load balancer and caching service

Kafka
messaging
Managed Kafka service

Kubernetes
compute
Managed Kubernetes service

MySQL
database
Managed MariaDB service

NATS
messaging
Managed NATS service

PostgreSQL
database
Managed PostgreSQL service

RabbitMQ
messaging
Managed RabbitMQ service

Redis
cache
Managed Redis service

TCP Balancer
network
Layer4 load balancer service

Virtual Machine
compute
Virtual Machine (simple)

VM Disk
storage
Virtual Machine disk

VPN
network
Managed VPN service

Marketplace
- Marketplace

IaaS
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NaaS
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Administration
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Cluster: default Namespace: tenant-kvaps

apps.cozystack.io/v1alpha1/kuberneteses > Create

Create apps.cozystack.io/v1alpha1/kuberneteses

OpenAPI | Manual

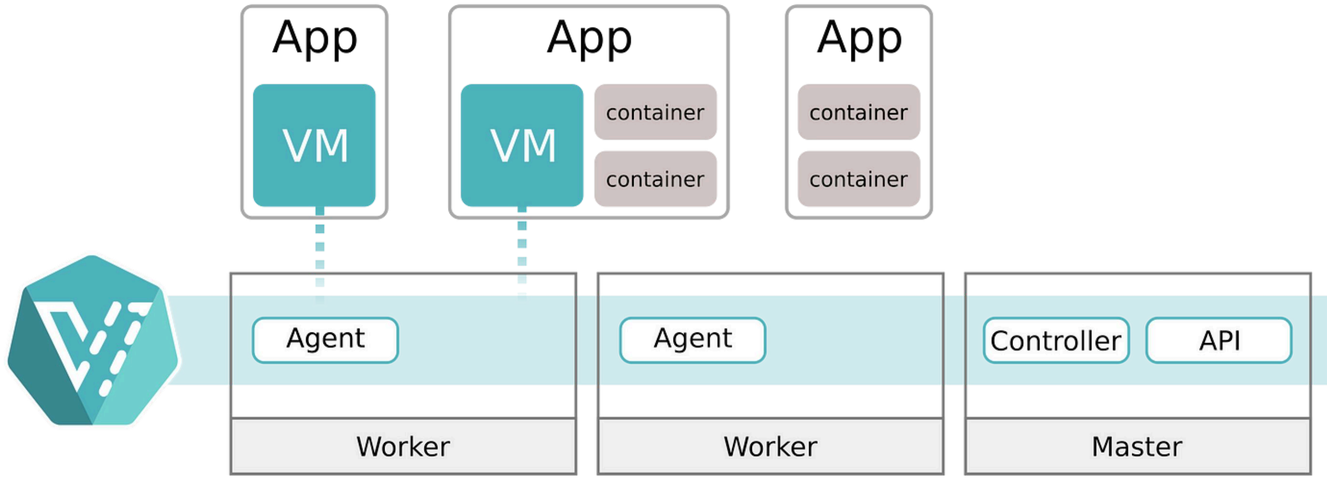
metadata
- name: name

spec
- storageClass: replicated
- version: v1.33
- host: host
- nodeGroups
  - md0
    - minReplicas*: 0
    - maxReplicas*: 10
    - instanceType*: u1.medium
    - ephemeralStorage*: 20Gi
    - roles

```yaml
apiVersion: apps.cozystack.io/v1alpha1
kind: Kubernetes
metadata:
  namespace: tenant-kvaps
spec:
  addons:
    certManager:
      enabled: false
    gatewayAPI:
      enabled: false
    velero:
      enabled: false
    fluxcd:
      enabled: false
    gpuOperator:
      enabled: false
    ingressNginx:
      enabled: false
      exposeMethod: Proxied
    monitoringAgents:
      enabled: false
  controlPlane:
    konnectivity:
      server:
        resourcesPreset: micro
    replicas: 2
    scheduler:
      resourcesPreset: micro
    apiServer:
      resourcesPreset: medium
    controllerManager:
      resourcesPreset: micro
  host: ""
  nodeGroups:
    md0:
      instanceType: u1.medium
      maxReplicas: 10
      minReplicas: 0
      roles:
        - ingress-nginx
      ephemeralStorage: 20Gi
```

Robust virtualization system

- Ability to run VMs as pods
- Same ecosystem for containers and VMs
- GPU support for running AI workloads
- Working Kubernetes services and network policies



Databases-as-a-Service

Powered by operator approach.
Highly-available by default.
With ultimate bare metal performance

You can simple:

- Create databases
- Manage users and access rights
- Configure automatic backups
- Monitor through the dashboards
- Configure and recieve alerts

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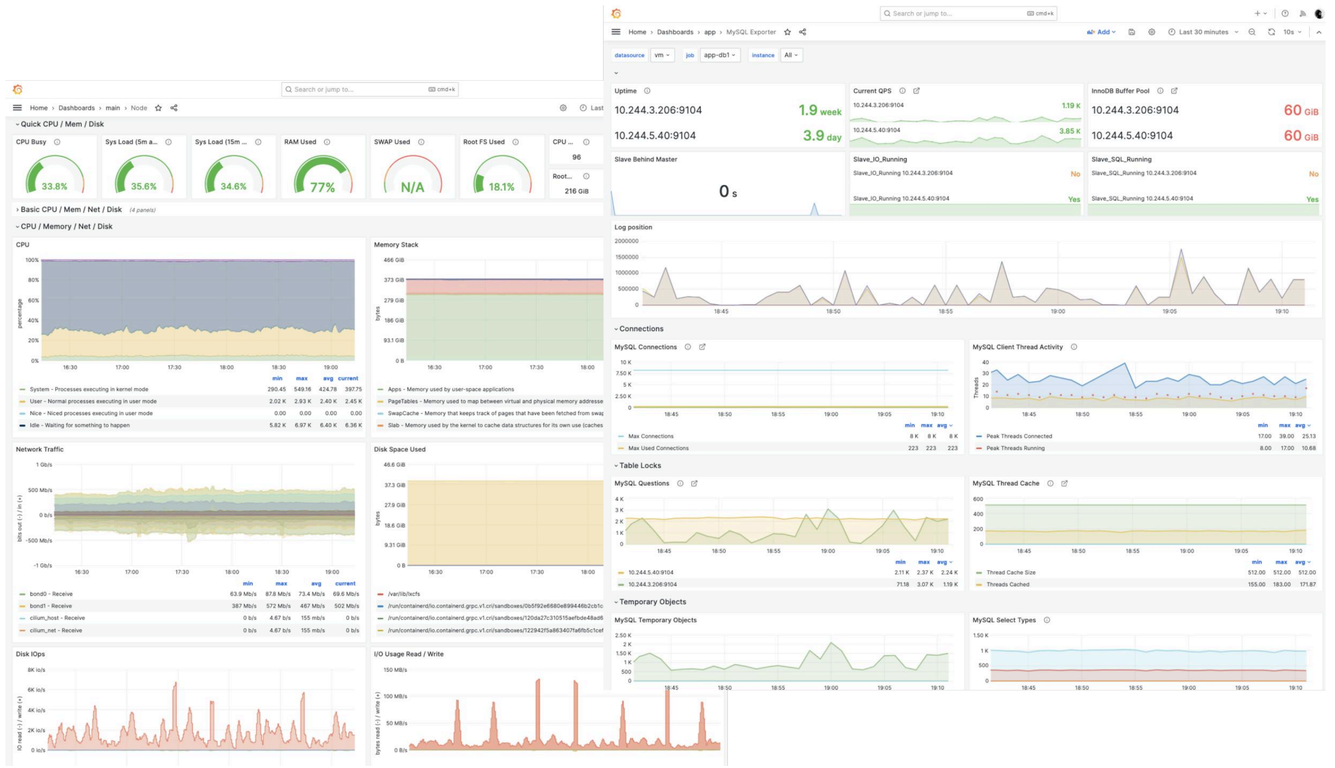
Ready monitoring stack

- Pre-configured Grafana dashboards
- Enabled automatically for every deployed service
- Integrated IRM (Incident Response Management) system
- Collecting logs and events



powered by VICTORIA METRICS

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Get a ready cluster out-of-nothing in just 30 minutes:

COZYETACK

Simple integration

Cozystack offers a robust, ready-to-use backend for building both public and private clouds, and seamless integration with your infrastructure.

Easy to extend

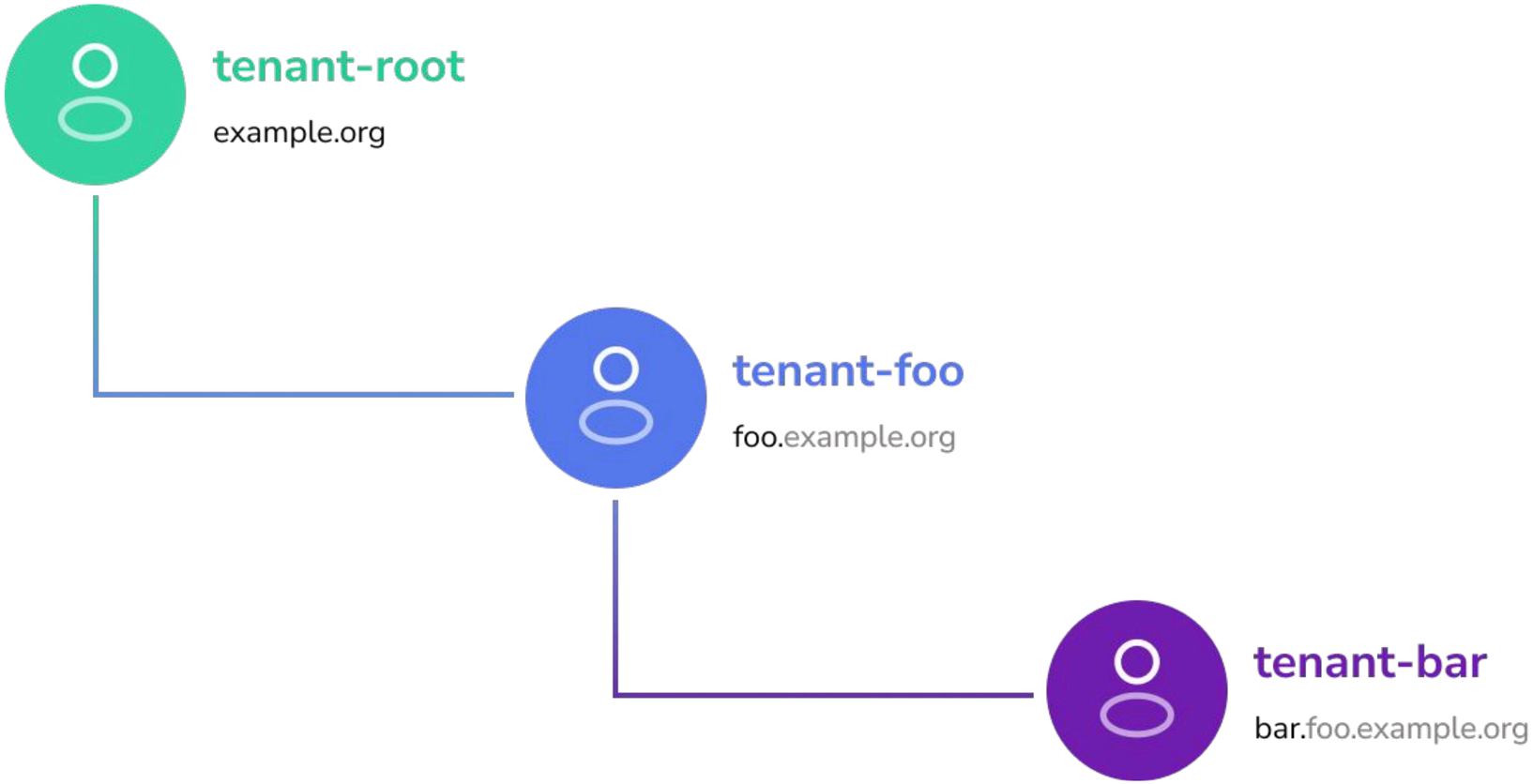
Each package in the platform consists of a set of YAML files. Therefore, anyone with some familiarity with Kubernetes primitives can modify or expand the platform. Delivery of packages to the system is handled by FluxCD, a well-known and widely used tool in the community.

Kubernetes API:

- Bucket
- Tenant
- Postgres
- Kubernetes
- MySQL
- RabbitMQ
- Redis
- VirtualMachine

Cost efficient and secure by design

Our unique tenant model enables efficient allocation of cloud resources for the control plane, ensuring cost-efficiency and the desired level of security



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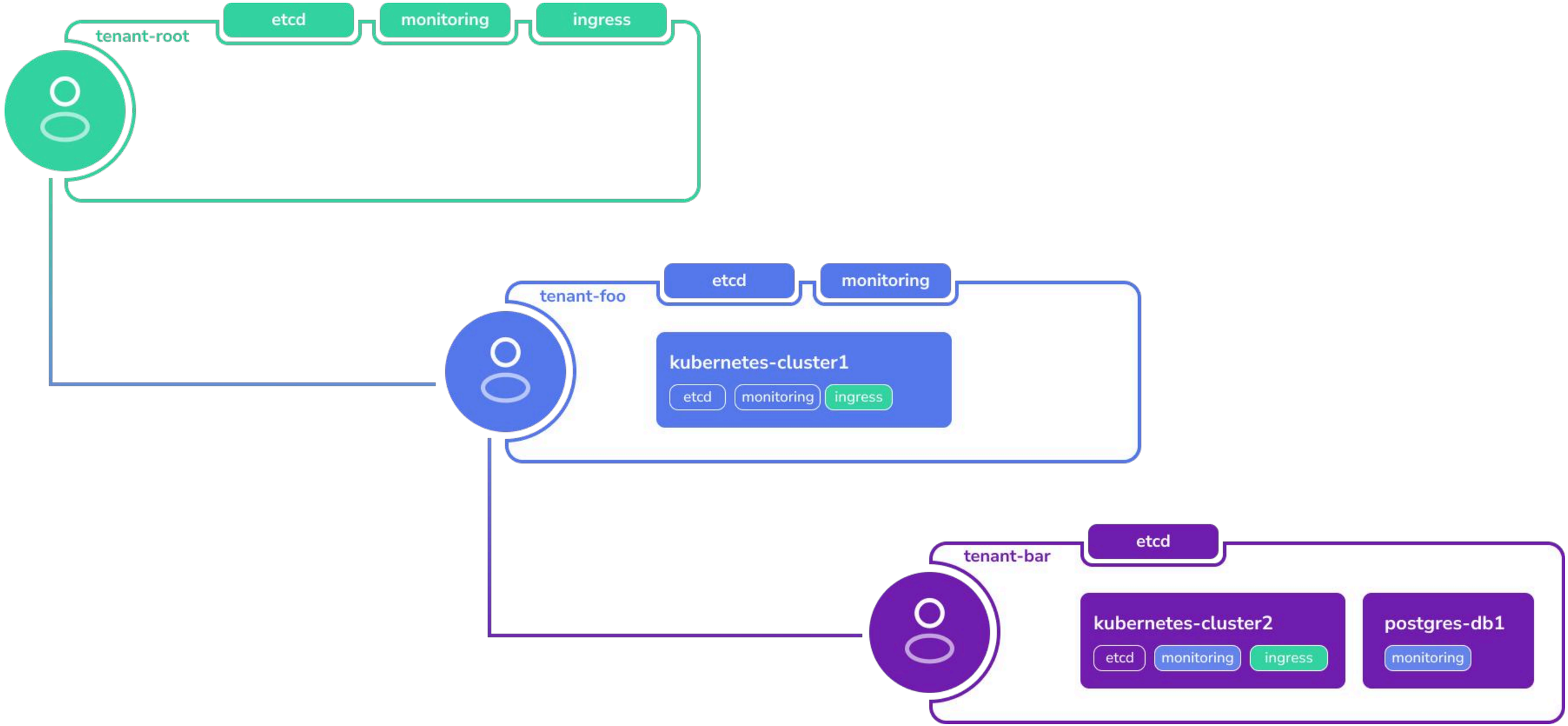
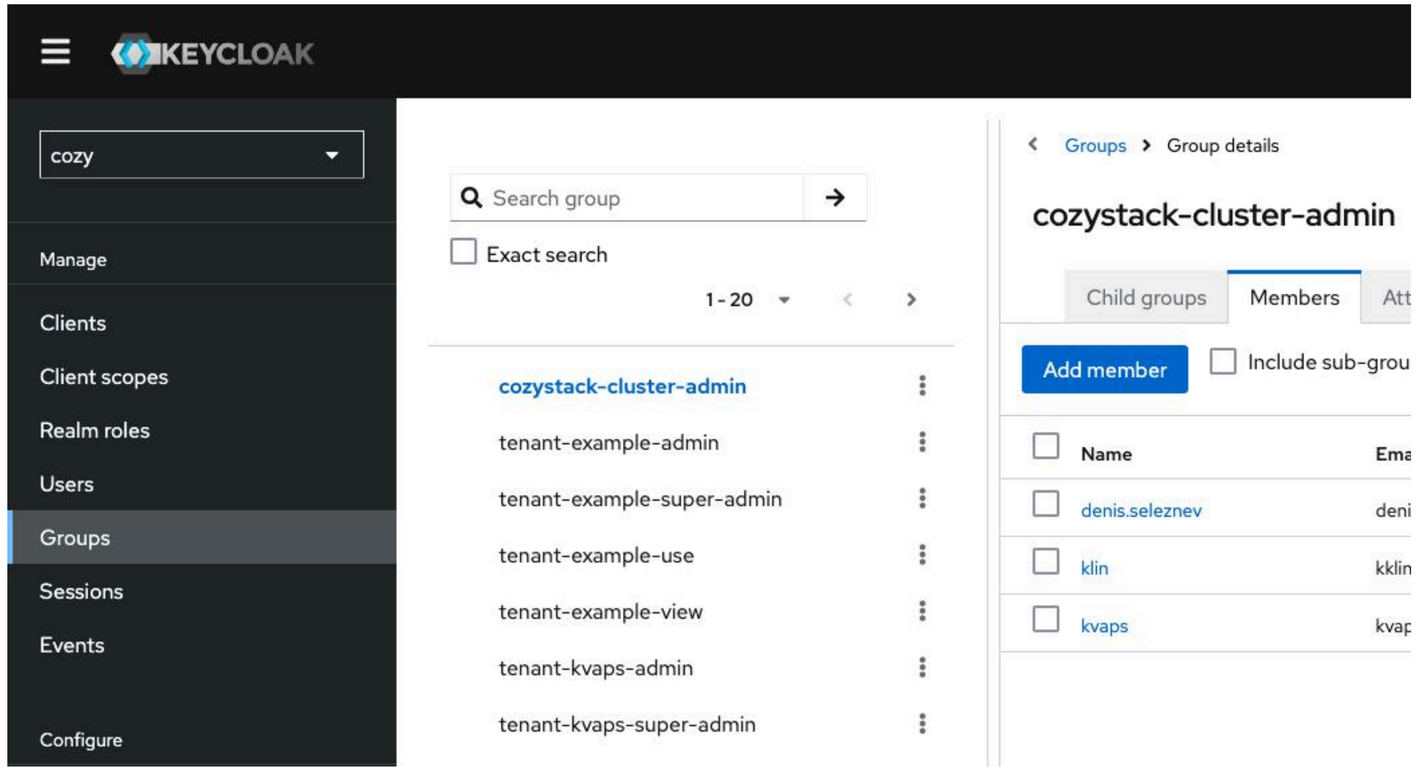
COZYSTACK


tenant-root
etcd
monitoring
ingress
tenant-foo
etcd
monitoring
kubernetes-cluster1
etcd
monitoring
ingress
tenant-bar
etcd
kubernetes-cluster2
etcd
monitoring
ingress
postgres-db1
monitoring

Integrated Identity Management

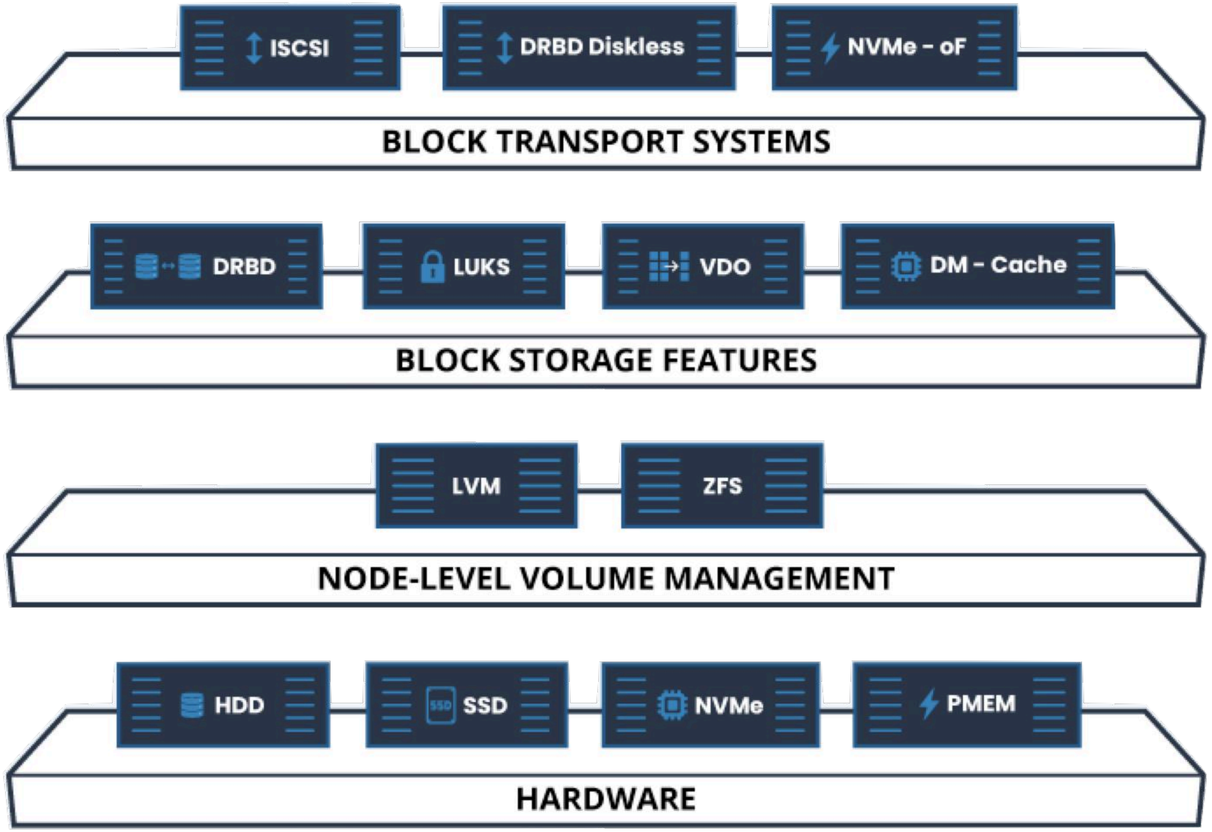
- Create users and manage access rights
- Assign users to multiple tenants
- Integration with LDAP and Active Directory
- Integration with known OIDC providers:

BitBucket
Facebook
GitHub
GitLab
Google
Microsoft



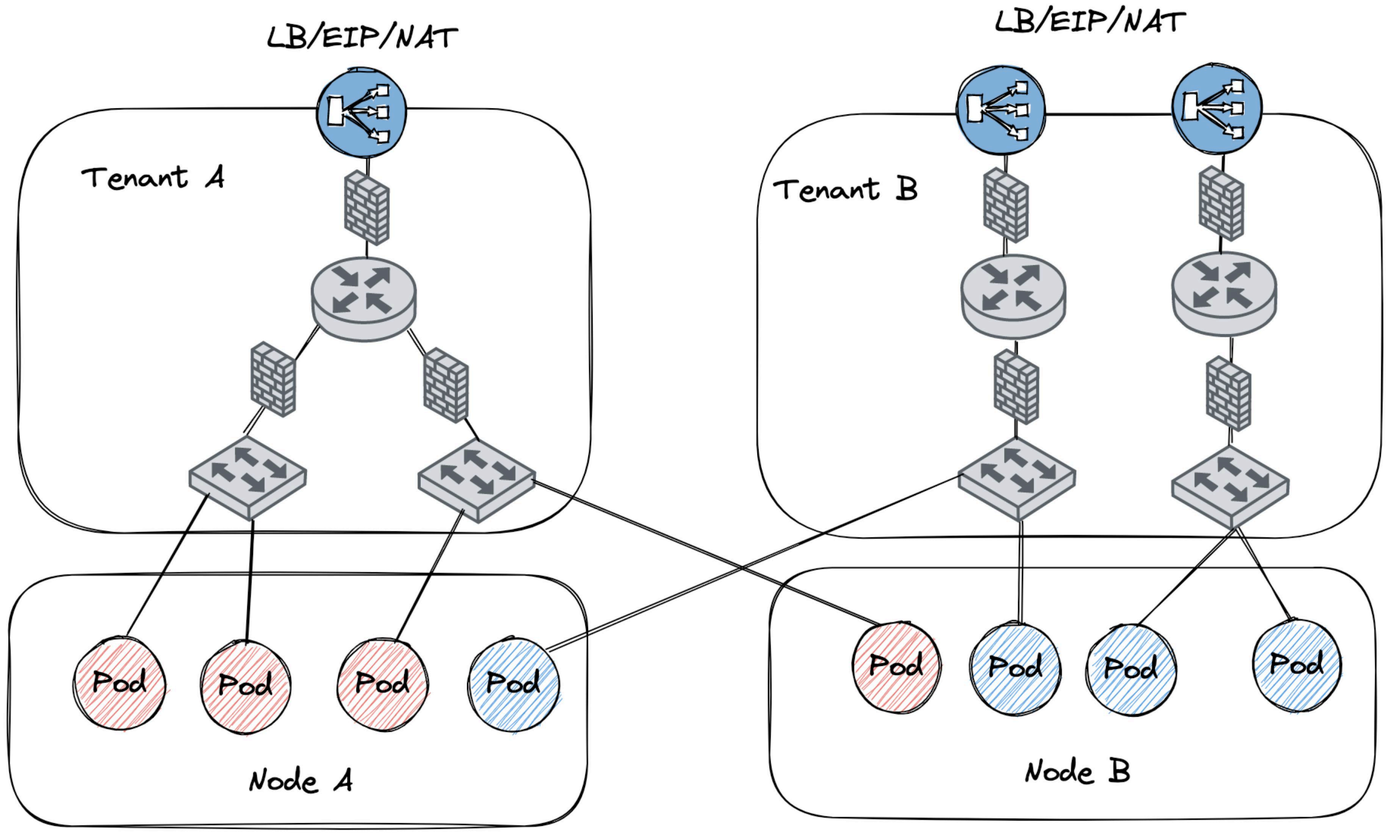
Fast and reliable storage

- Replication operating directly in the kernel
- Simple design
- Time-tested technologies
- Ready-to-use configuration



Modern networking fabric

- Multi-tenancy and VPCs (Virtual Personal Networks)
- Simple integration with your infrastructure
- Network offloading with eBPF and SR-IOV



COZYSTACK

github.com/cozystack/cozystack