



Iskander Shamsutdinov

Nikita Bagrov

Darya Tolmacheva

Egor Salnikov

Saveliy Lekhtin

Egor Solodovnikov

Evgeniy Spiridonov

Problem

Configuring and managing deployments of modern applications is hard and time consuming.

- A lot of documentation and pitfalls
- Complex YAML configuration files (k8s, ansible e.t.c.)
- Efficiently allocating and managing resources (CPU, memory, storage) across multiple instances of app



Our Goal

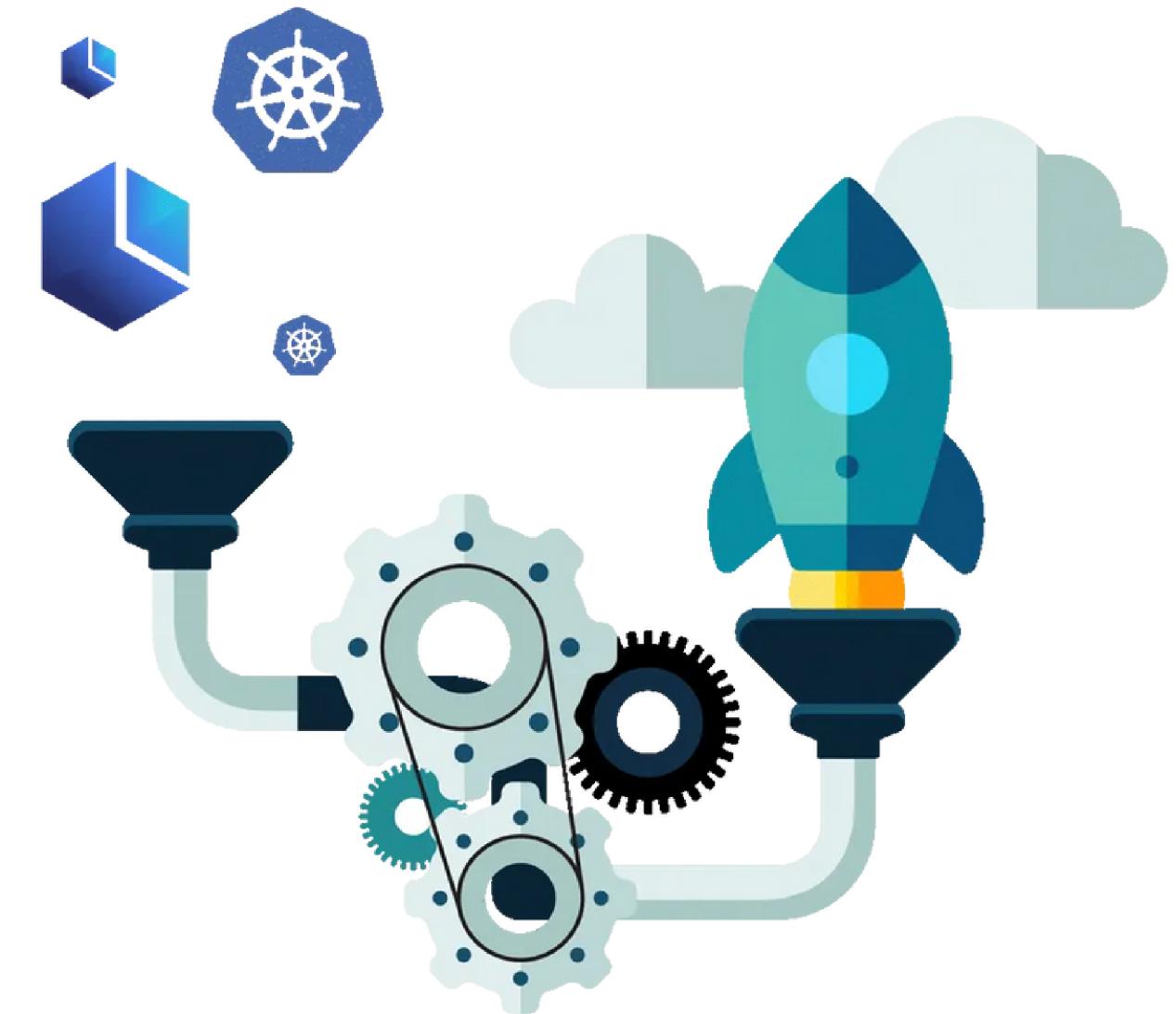


Simplify deployment of applications with the use of modern orchestration platforms.

So developers can **focus on building applications** without the complexity of managing infrastructure.

Solution - serverless web hosting

- Easy deployment
- Autoscaling
- Comprehensive Monitoring
- Reliable performance



Market Validation

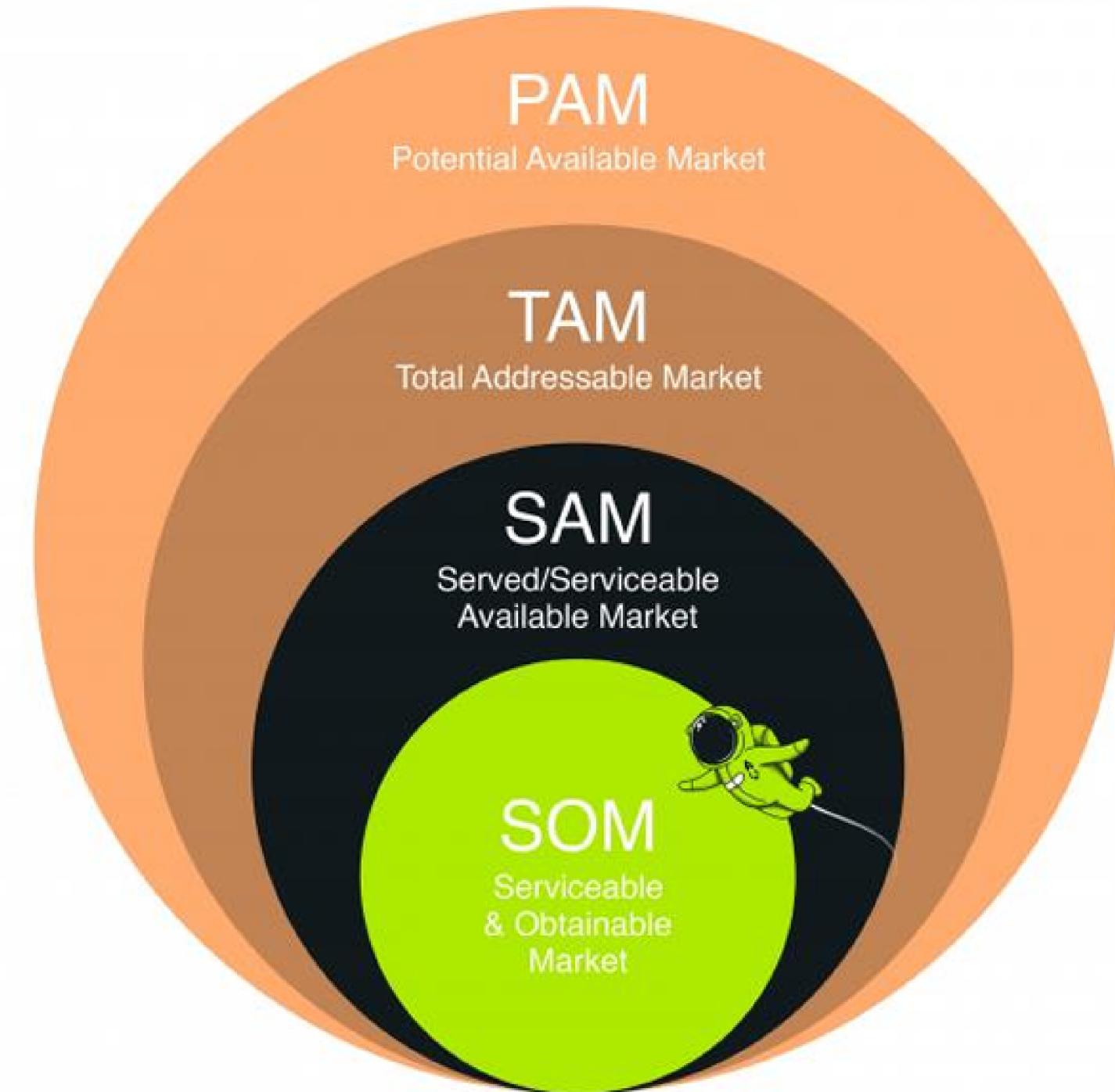
Target Audience

- Backend Developers
- Full stack developers
- DevOps engineer



Market size

- PAM - 26.9 million.
- TAM - 16.14 million developers
- SAM - 1.05 million developers
- SOM - 0.21 million



Profit expectations

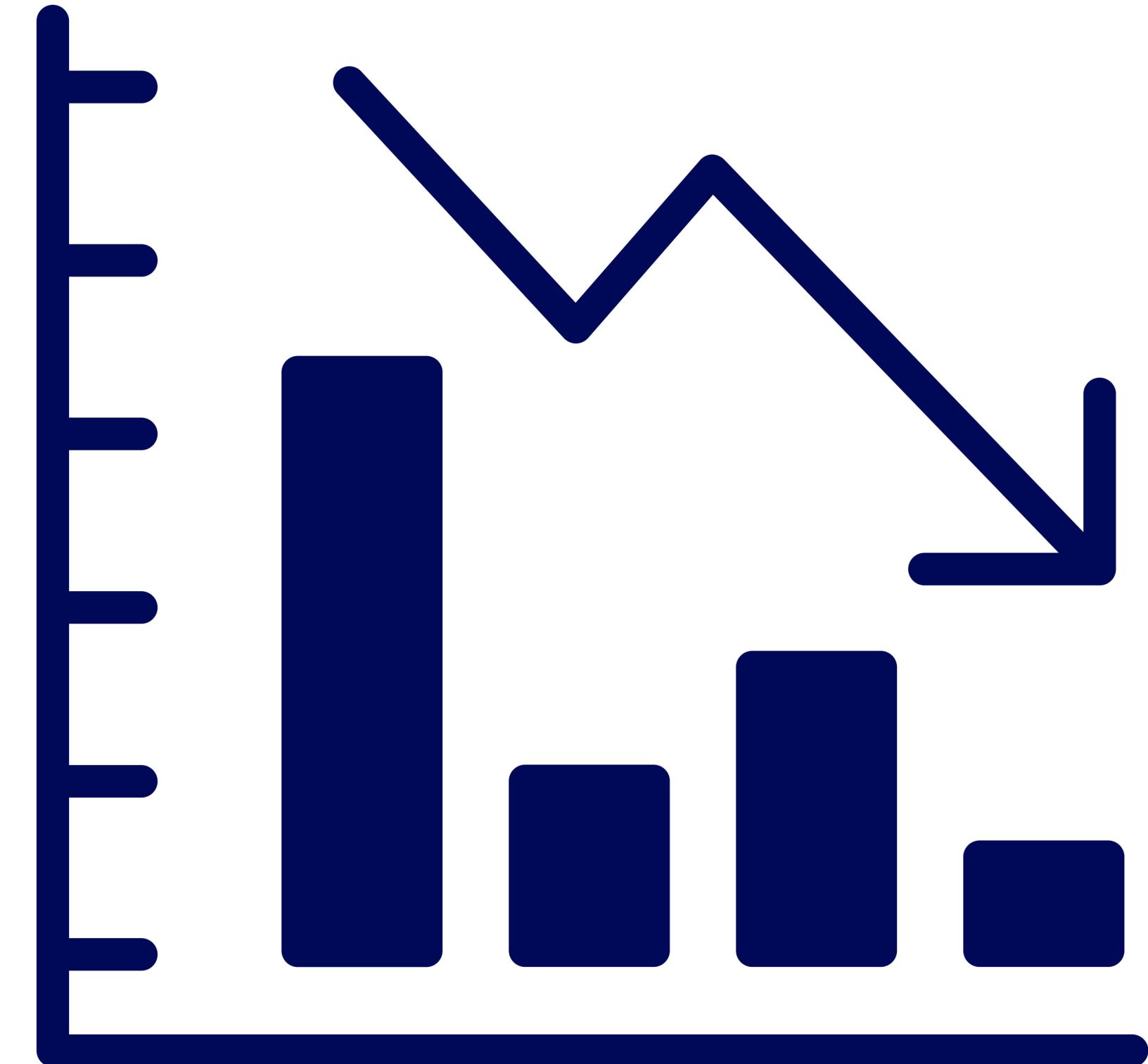
The cost will vary depending on the resources the user requires. The minimum cost per month will be 5\$. The optimal tariff to the user will cost 20\$



$$0.21 \text{ million} * 5\$ = 1.05 \text{ million } \$$$

Reality

- Advertisement
- Registration bonus
- Referral bonus



Technical infrastructure

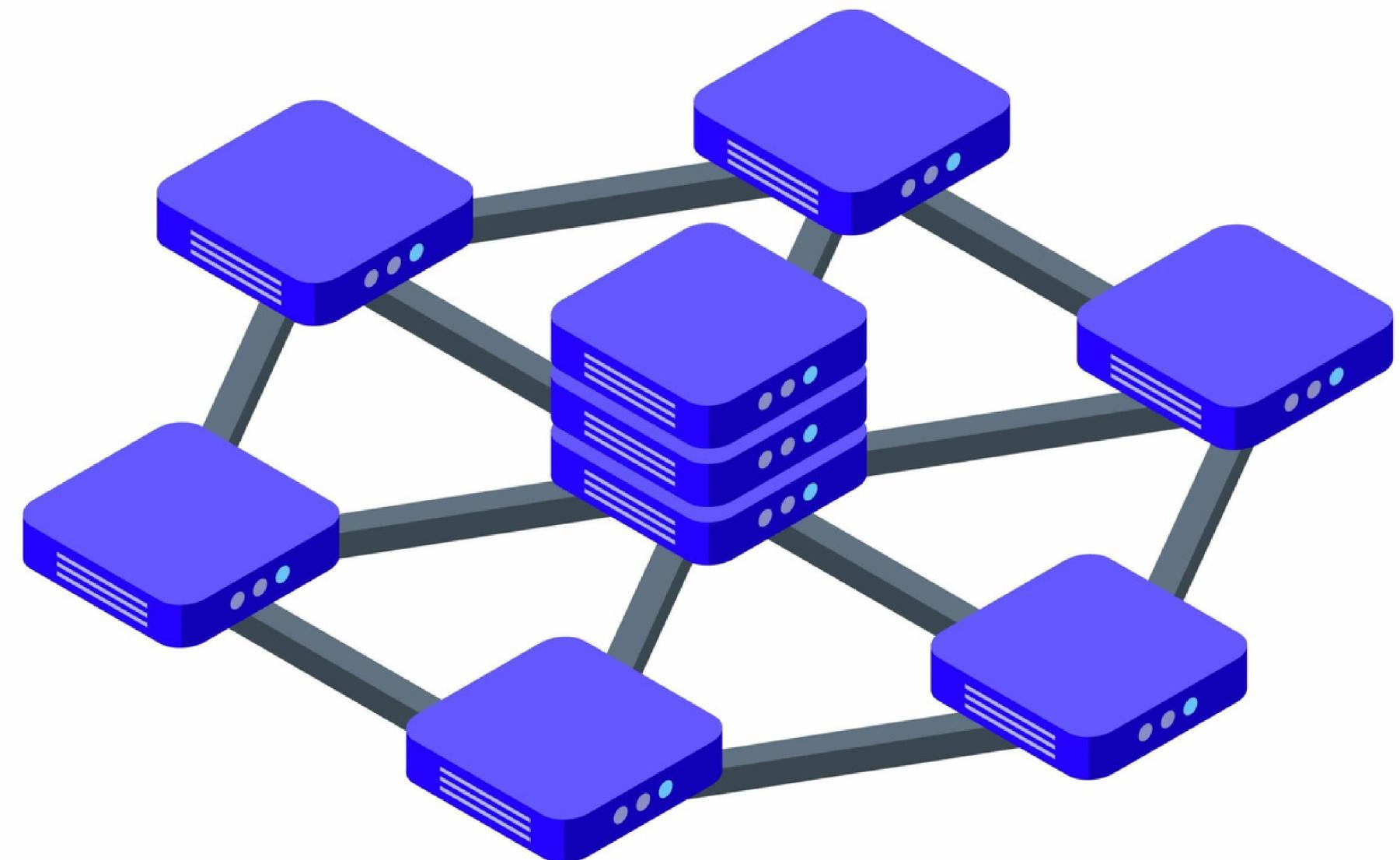
Core components

- Frontend webserver
- On premise K8S cluster
- Identity and access manager
- Manifest's constructor
- Cluster management system
- Metrics and alerting system
- Visualisation platform
- Database and cache



Kubernetes cluster

- Dominant platform for orchestrating and managing software containers and microservices
- More than 5.6 million developers use Kubernetes
- Opensource and supported by CNCF



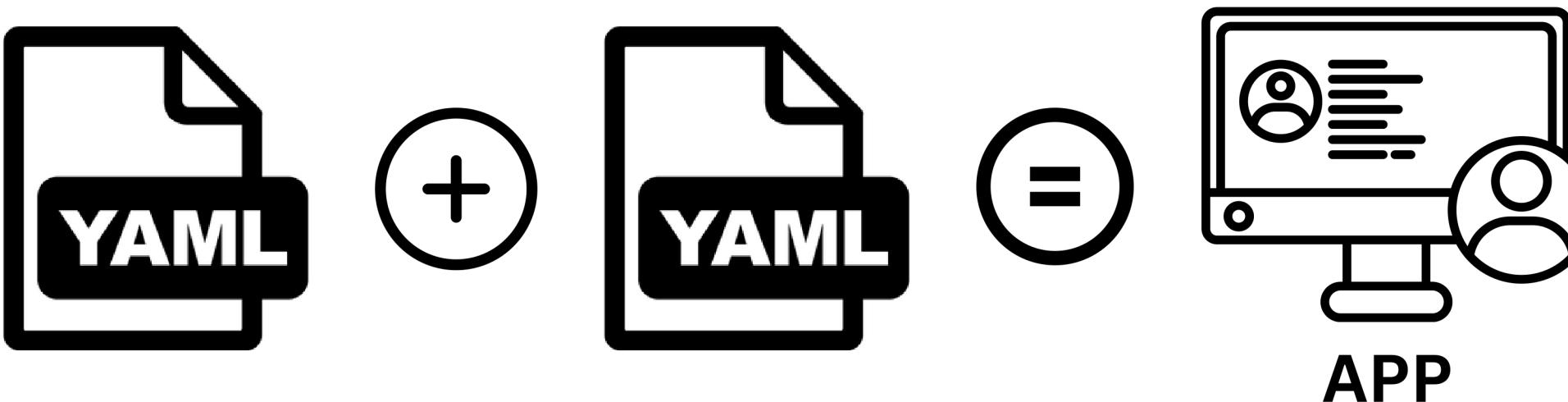
IAM service

- Inspired by Open Policy Agent
- Role-based access control
- Ensures user's data security



Manifests constructor

- Gets user request and compose several configuration file for k8s deployment
- Ensures versioning and flexibility



Cluster management system

- Core component
- Gateway for k8s cluster
- Operates namespaces
- Schedules application deployment
- Gather metrics and logs

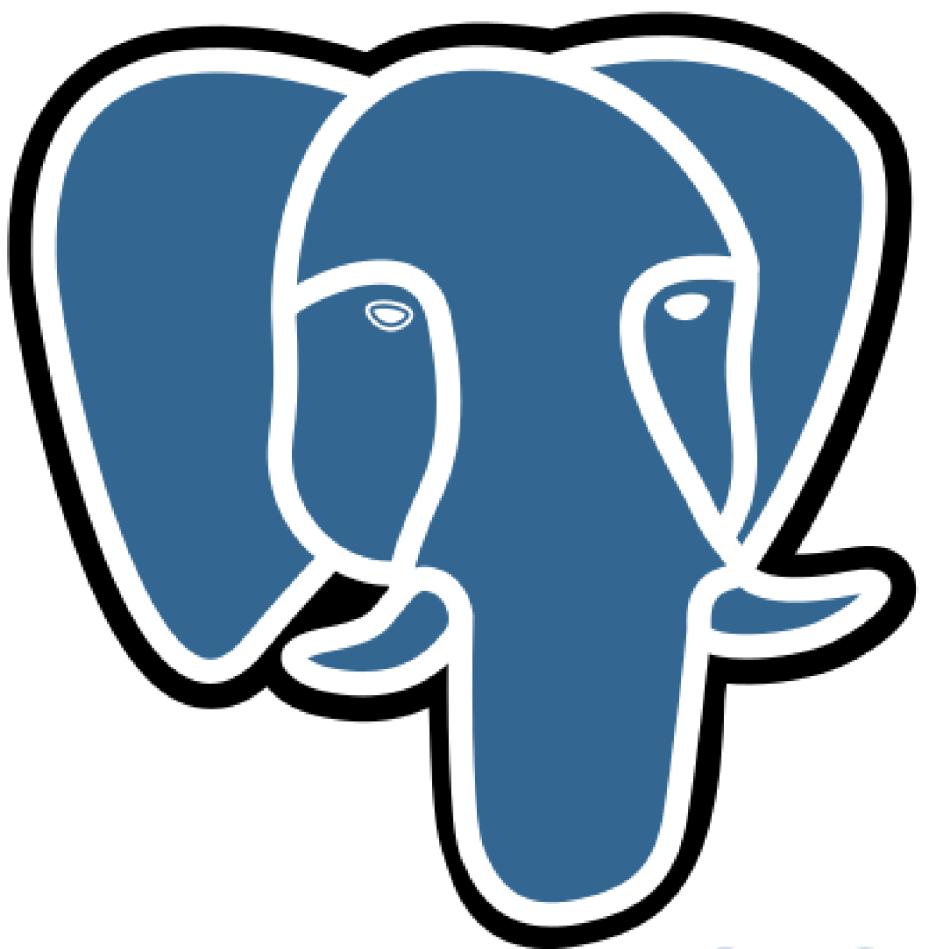


Monitoring system

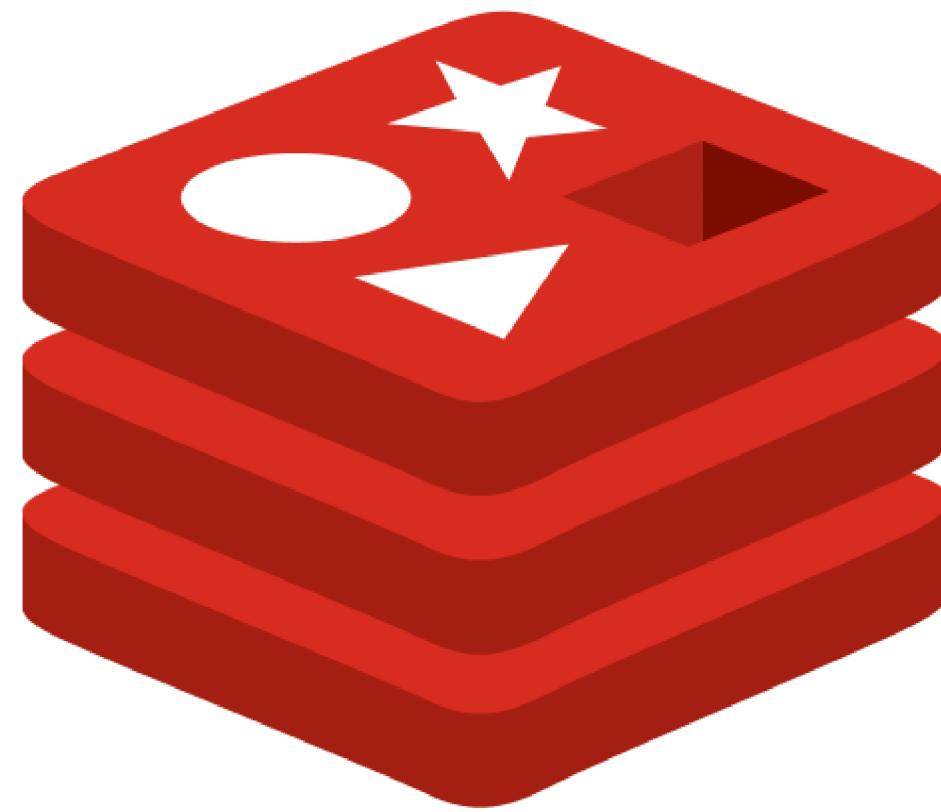
- Scraping metrics from exposed targets
- Building graphics and dashboards
- Watches for metrics and sends alerts in case of emergency



Database and caches

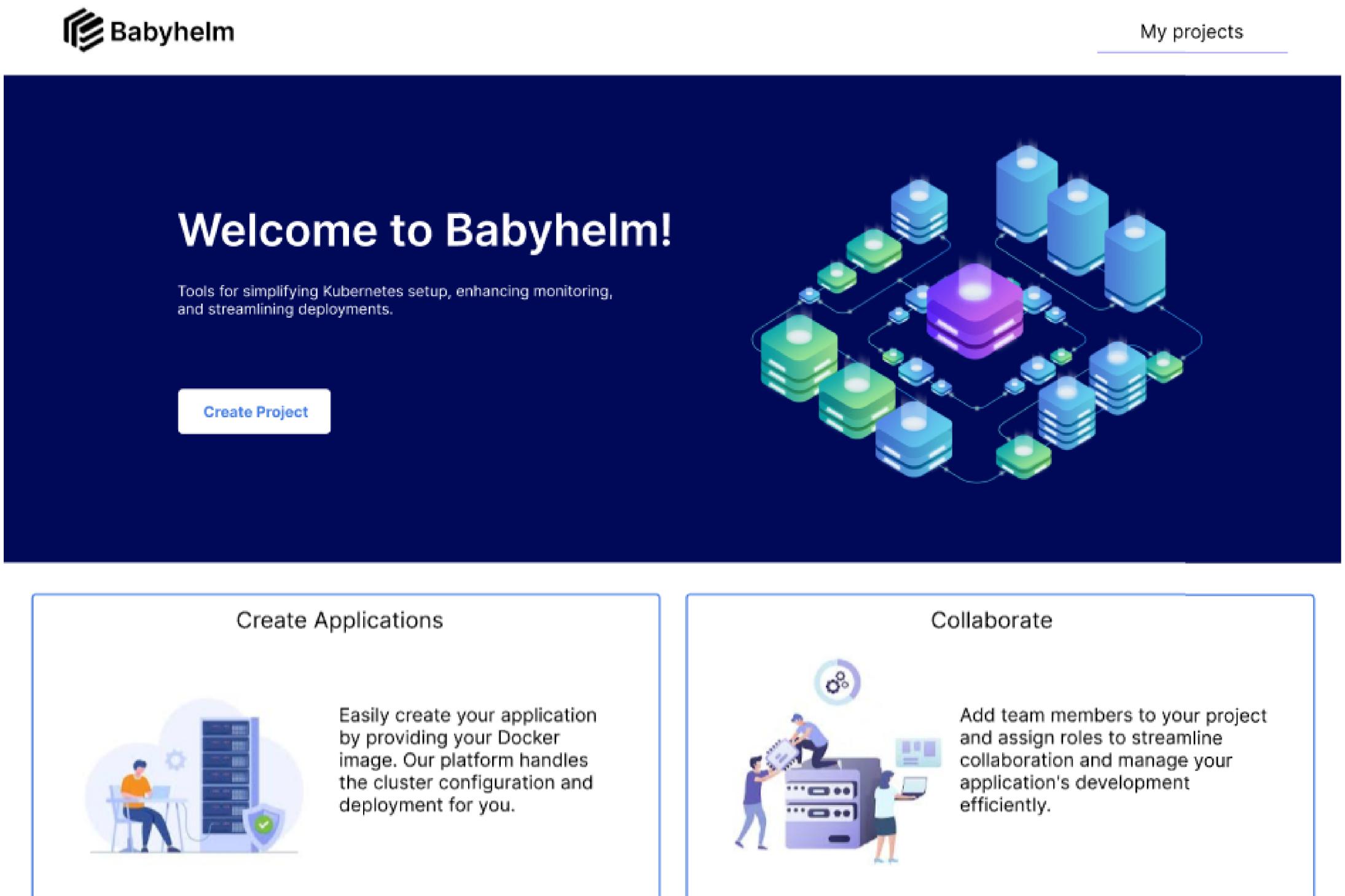


PostgreSQL

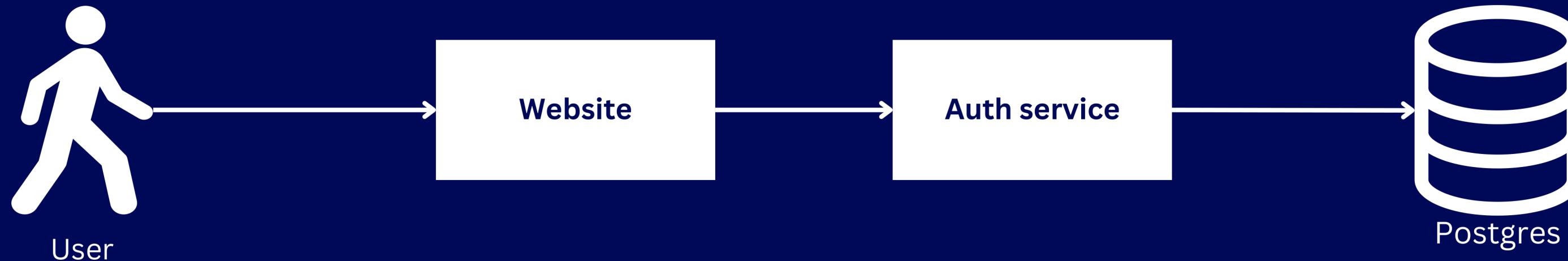


Frontend

- User-friendly interface
 - Multi-page website using React



Authentification scenario



Project application creation scenario

