Sahibinden's Cloud Transformation

Deploying MySQL, Cassandra, MongoDB and Apache Kafka using OpenShift Virtualization

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Presenters

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About sahibinden.com

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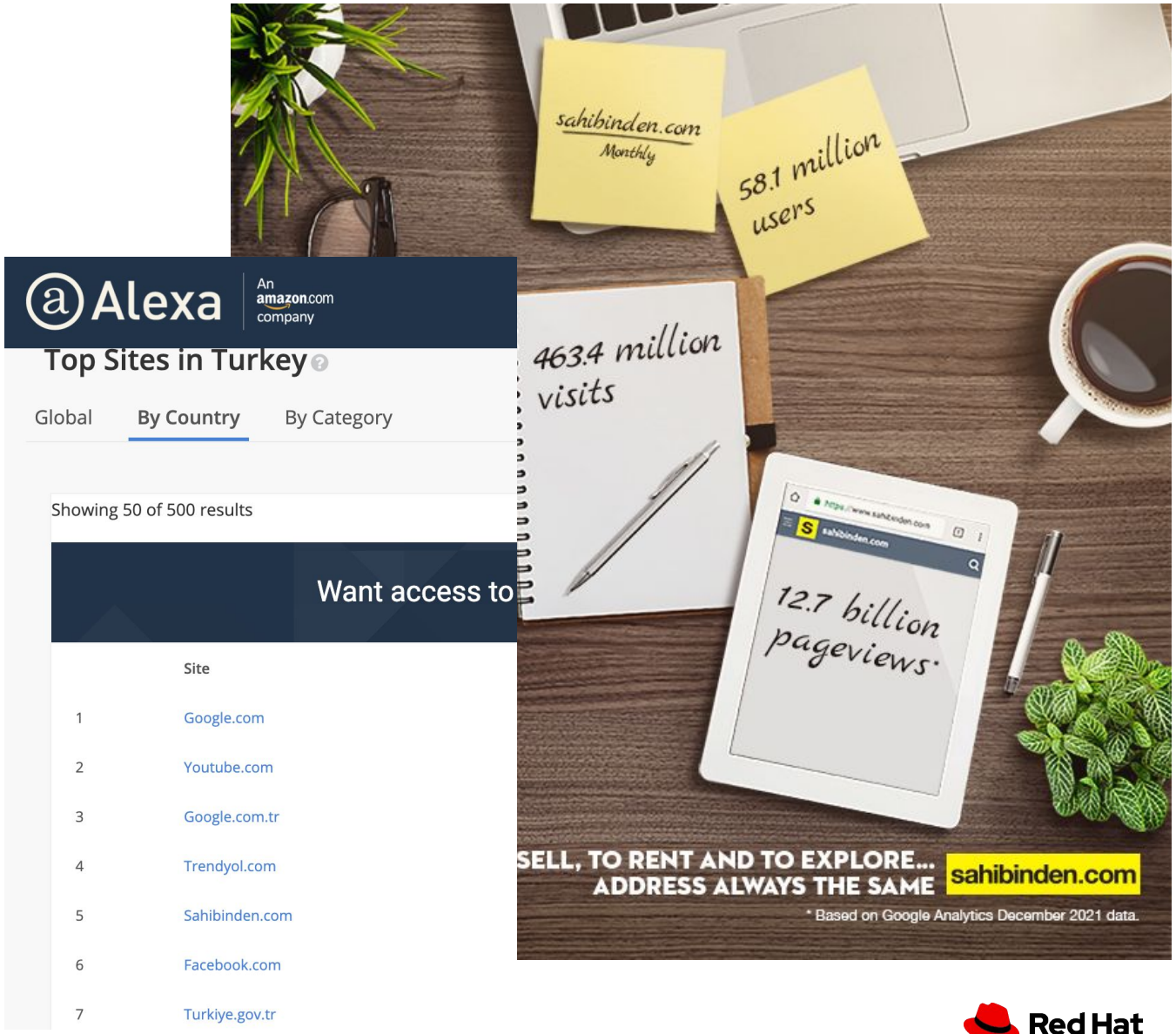
- **sahibinden.com** is one of the biggest marketplaces of Turkey and it is also the ambassador of e-commerce history in Turkey.
- It has **58.1 million** monthly active users, **463.4 million** visits, **12.7 billion** pages views
- It is one of **top 5** classifieds platforms in the world
- It is **one of the top most** visited site in Turkey
- sahibinden.com has 2 on-premise data centers (Istanbul and Ankara) and 1 data center in public cloud (GCP)



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Business Challenges & Drivers

- Improving system availability, reliability and application resilience with multi-cloud active-active datacenters
- Improved scalability, flexibility and reusability with a unified compute platform, while being compliant to government regulations
- Maintaining legacy infrastructure and homegrown automation
- Enhance and modernize the underlying infrastructure and applications based on open source technologies

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- Improved Customer Experience 
- Improved Return of Investment 
- Improved Operational Efficiency 
- Attracting and Retaining the Talent 

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Sahibinden's Requirements

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Introduce

App Services & Middleware

- Relational Database
- Object/NoSQL Database
- AI/ML
- Big Data
- Messaging & Streaming
- API GW

PaaS

- Admin-Developer Console
- Developer Services
- Logging
- CI/CD Tools
- Serverless
- Container Orchestration
- Container Registry
- Automated Operations
- Monitoring & Alarms
- Service Mesh

IaaS

- Load Balancing as A Service
- Identity Mgmt.
- Dashboard
- Telemetry
- SDS (Cloud Storage)
  - Object
  - Shared
  - Image
  - Block
- Compute
- SDN (Networking)
- BMaaS (BareMetal Prov)
- IaC (Orchestration)

Physical Infrastructure

- Server
- Network Infrastructure
- Physical Storage

Identity Access Mgmt.

- SSO
- Authentication
- AD Integration
- Authorization

Multi Cluster Management

- Unified Cluster View
- Config Mgmt.
- Lifecycle Toolsets
- Application Lifecycle
- Governance
- Compliance Mgmt.

Enable

- **Installation & Integration**
- **Technical Enablement**
- **Managed Services**

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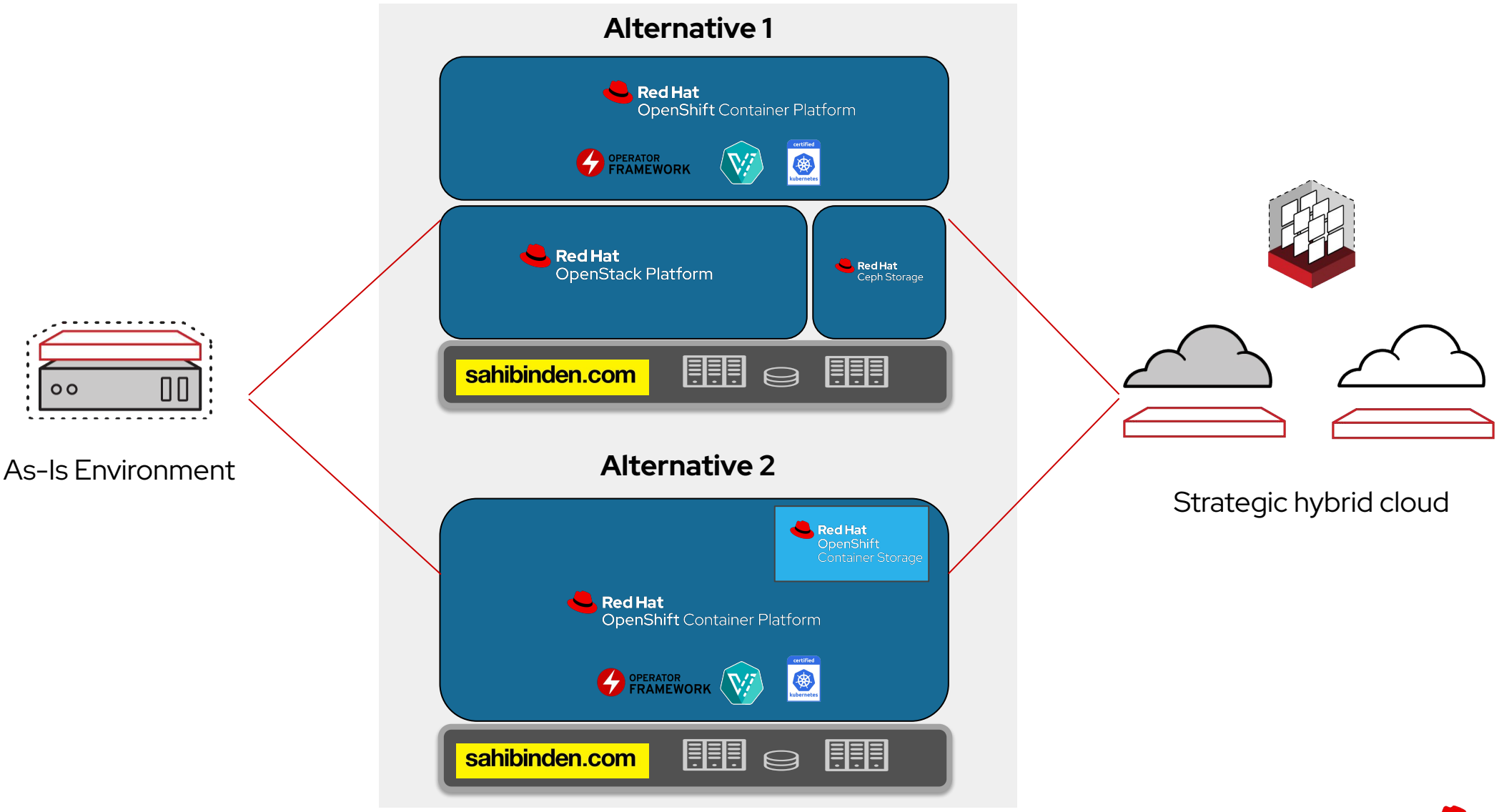
Initial Solution Options



Realization of Sahibinden Requirements

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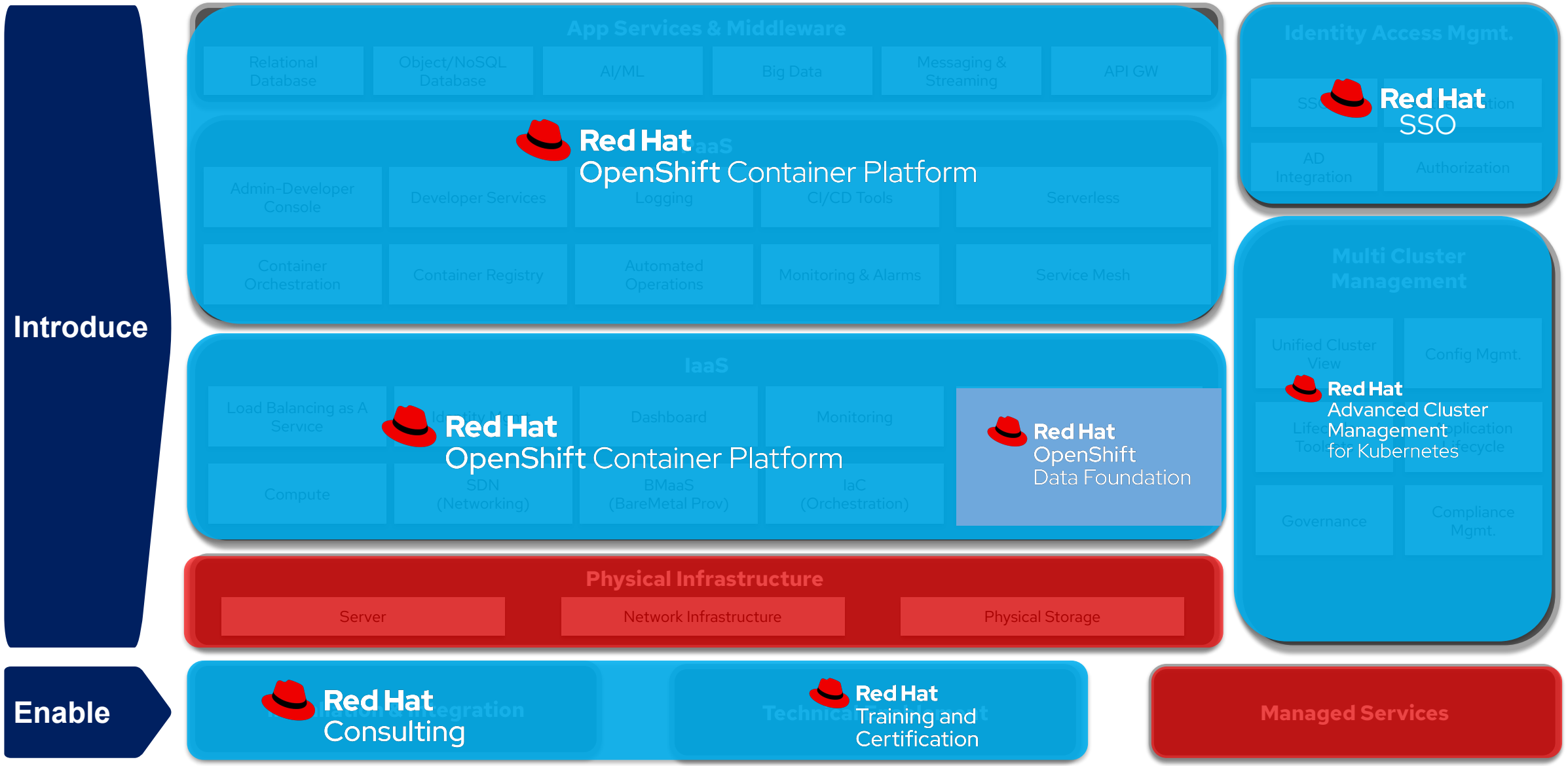

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Why did Sahibinden choose Red Hat OpenShift?

Stable, security-focused and a comprehensive platform across hybrid IT environments with clear Enterprise Kubernetes leadership.

Ability to run virtualized workloads and container workloads in a streamlined and well-integrated manner

Availability of comprehensive tools for DevOps and developers

Delivery Project Summary

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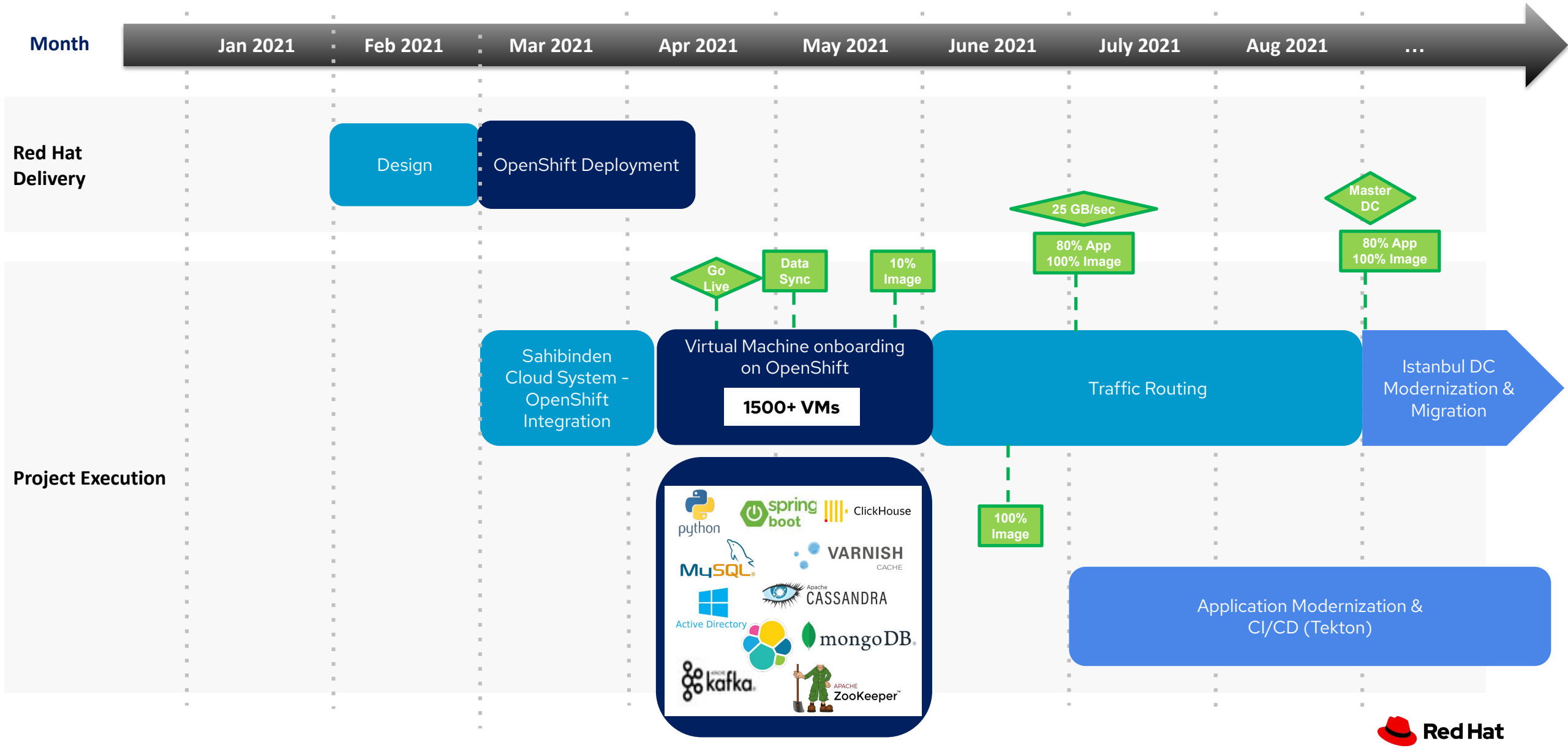

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Current Deployment Architecture

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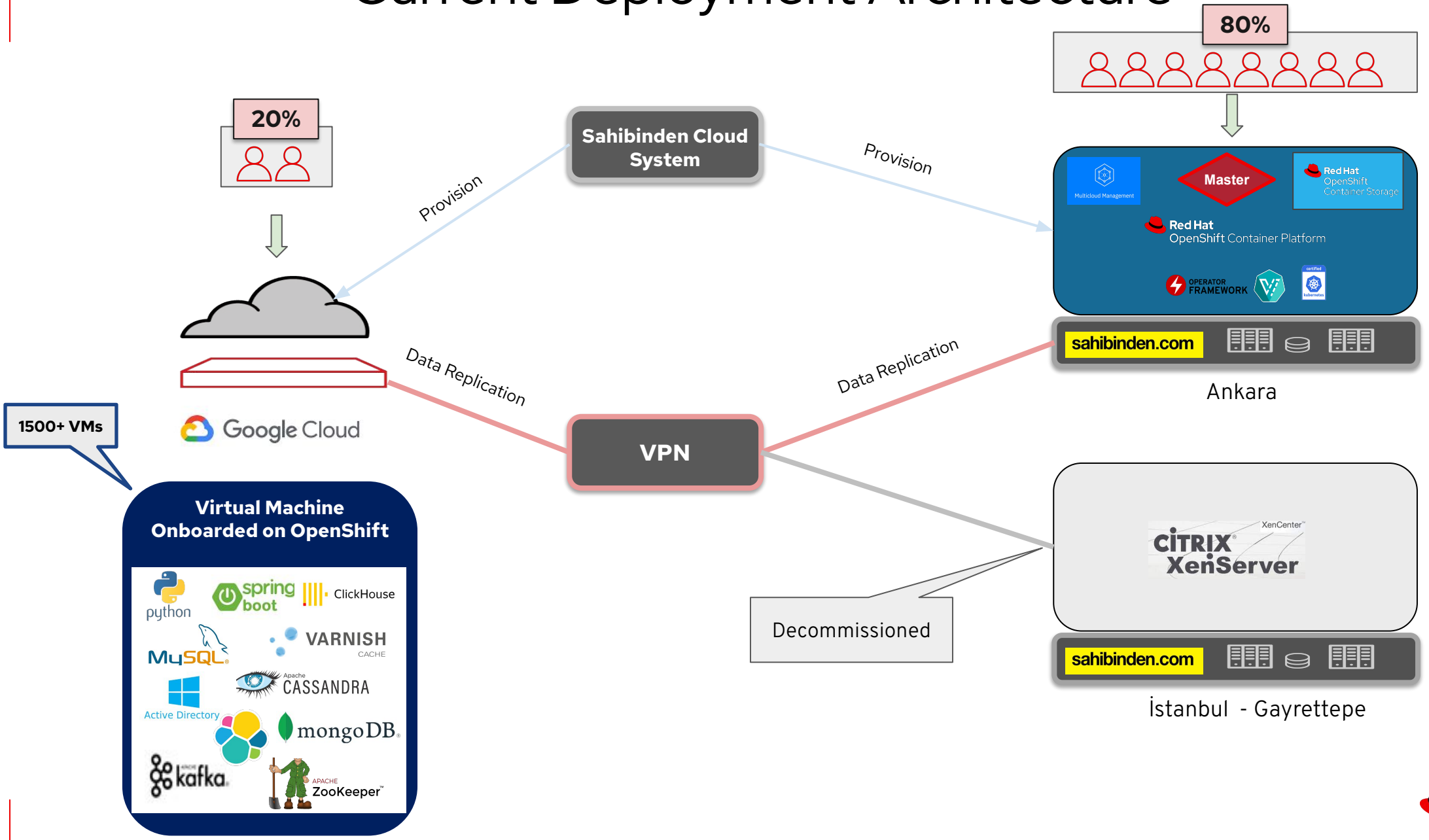

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Future Deployment Architecture

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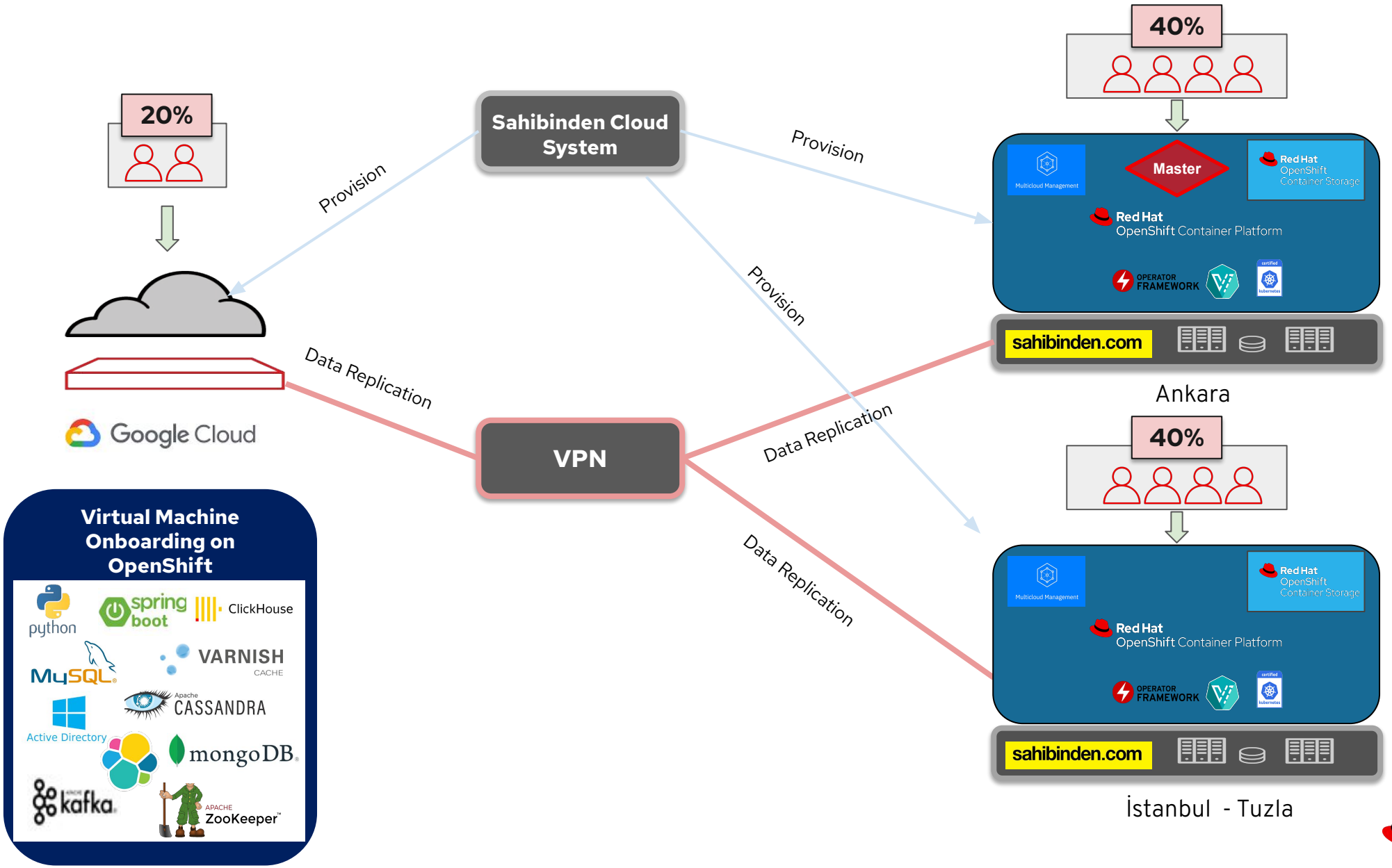

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MySQL, MongoDB, Apache Cassandra and Apache Kafka are being deployed on VMs on OpenShift

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Business Applications

RAL (API Gateway) | BINDEN (WEB App) | BACKEND BUSINESS SERVICES

enabled by

Middleware

Memcached	Varnish Cache	elastic	kafka + ZooKeeper
Used for content cache	Used for image cache	Searching and routing	Event streaming & messages

Databases

MySQL	mongoDB.	ClickHouse	Apache CASSANDRA
Keeps core data about business applications	Keeps login, information and session history ephemeral data	Contains user activity information for analytics	Impression count

Red Hat OpenShift Virtualization

enabled by

Red Hat OpenShift Container Platform

Red Hat OpenShift Data Foundation

Red Hat Enterprise Linux / RHEL CoreOS

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On-Premise Data Center

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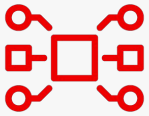
Benefits of deploying databases on VMs on OpenShift

Improved developer productivity with self service application catalog

Enabling CI/CD with GitOps including database components for microservices



Containerized apps can natively access Databases via Kubernetes Services

Thank you!

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