ZTrust

Your one-stop solution for hassle-free
Identity and Access Management

Secure Any App & Any Device on Cloud

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What is ZTrust?

Secure Any App & Any Device on Cloud

Your one stop solution for hassle free IAM

ZTrust provides a seamless **Omnichannel Login Experience** to your customers, making it quicker, effortless, secure, and more efficient to access your services.

Powered by Keycloak, the OOTB Single Sign On (SSO) Solution helps safeguard applications all-in-one place and unlocks accesses with just one click.

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Solution to the common challenges

Challenges

1. Inconsistent User Experience
2. Password fatigue
3. Scalability & Integration Issues
4. Complex Access Management
5. Compliance Challenges
6. High Cost
7. Security & Vulnerability
8. Connecting Modern Applications

Solutions

1. Intuitive User Experience
2. Hassle-Free Login Experience
3. Seamless Integration at Scale
4. Centralized Access Management
5. Regulatory Compliance Assurance
6. Budget-Friendly IAM Solution
7. Proactive Threat Defence
8. Extended Authentication API

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ZTrust - Features

Multitenancy

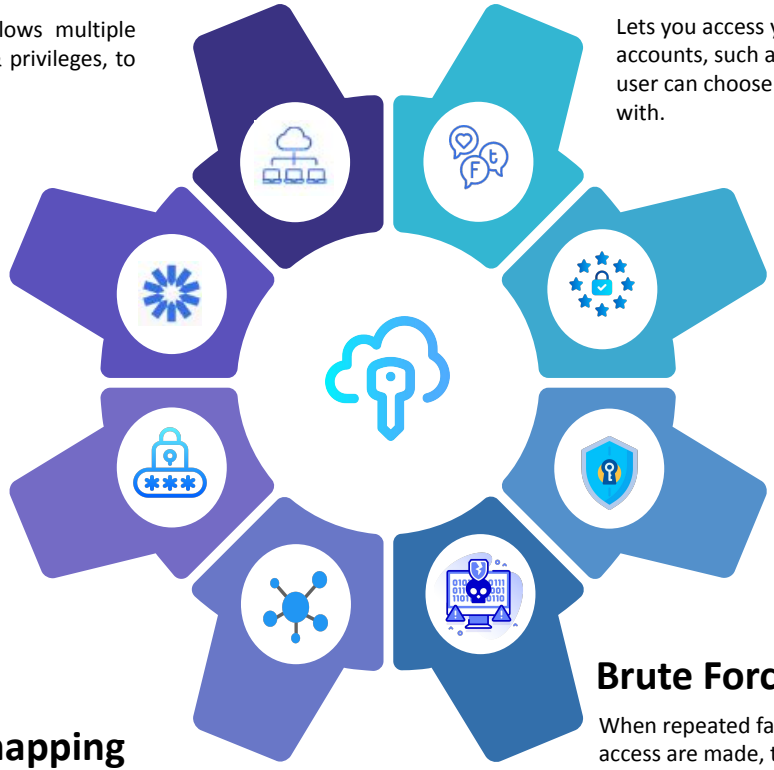
Multi-tenancy at the realm level which allows multiple groups of users, sharing common accesses & privileges, to use the same application securely

Social Media Login

Lets you access your account by logging in with social network accounts, such as Github, Google, Linkedin and Facebook. The user can choose which service they would like to authenticate with.

JWT Based Authentication

The solution is enabled with JWT token-based authentication along with JWE, Certificate based JWT encryption, Integration with JAVA Apps



GDPR Compliance

The solution complies with GDPR, featuring email notifications on user disable, deactivate, OTP login, MFA (FaceID and Fingerprint), QR Code based Login and ReCaptcha on Login/Registration.

Password & Session Invalidator

Password Invalidator invalidates password after first login to SSO and the session invalidator invalidates all other sessions except the current user session.

Multi factor Authentication

OTP/Authenticator based Login, Captcha on Login/Registration, Biometric Authentication and Push Notification based authentication.

Brute Force Detection

When repeated failed login attempts to gain unauthorized access are made, the system detects this and provides customized alerts.

One to many user mapping

Single Phone number/Email to be mapped with multiple user ids for authentication to the selected users for better monitoring and tracking purposes.

ZTrust - Features

Disaster Recovery

The solution is enabled with a Disaster recovery environment and database to come to aid in case of outages and issues.

Customized Sign-in page & Mail templates

The SSO login page theme and notification emails can be customized to align with the customer's web page and theme design, respectively.

Identity Token Size Optimisation

The solution optimizes large ID tokens generated from the RBAC model, wrapper to optimize and retrieve roles post-authentication.

Re-Engineered cache

Cache was reengineered using Infinispan, optimising performance & integration capabilities

Inactive User Tracking

Track the irregular/inactive users of the app, Deactivate the user and inform the user to self activate using the Extended API.

Secure AD integration as user Federation

The solution integrates the customer's Active Directory system using secure LDAPS, which utilizes a self-signed certificate for secure communication between client and server, instead of a CA certificate.

Deactivation of Idle users

Deactivate Idle users in SSO after certain time period.

Extended Authentication API

Our solution enables authentication features through an API, allowing it to act on behalf of the customer or user upon receiving a direct grant.

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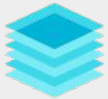
Key Components

Based on upstream Keycloak 20.0.0



Tech Stack

- Angular JS, Bootstrap, Freemaker, PatternFly
- REST Easy
- JPA, Jackson 2.x, Apache HTTP Server, Wildfly Server, Quarkus Framework
- Keycloak Libraries and Adapters
- Spring Boot authentication modules

System Requirements

- RHEL for Traditional apps
- RH Openshift(OCP) for Cloud native apps
- Red Hat Runtime (Quarkus)

**Compatible with all container systems & cloud Platform*

An ideal IAM solution on any platform

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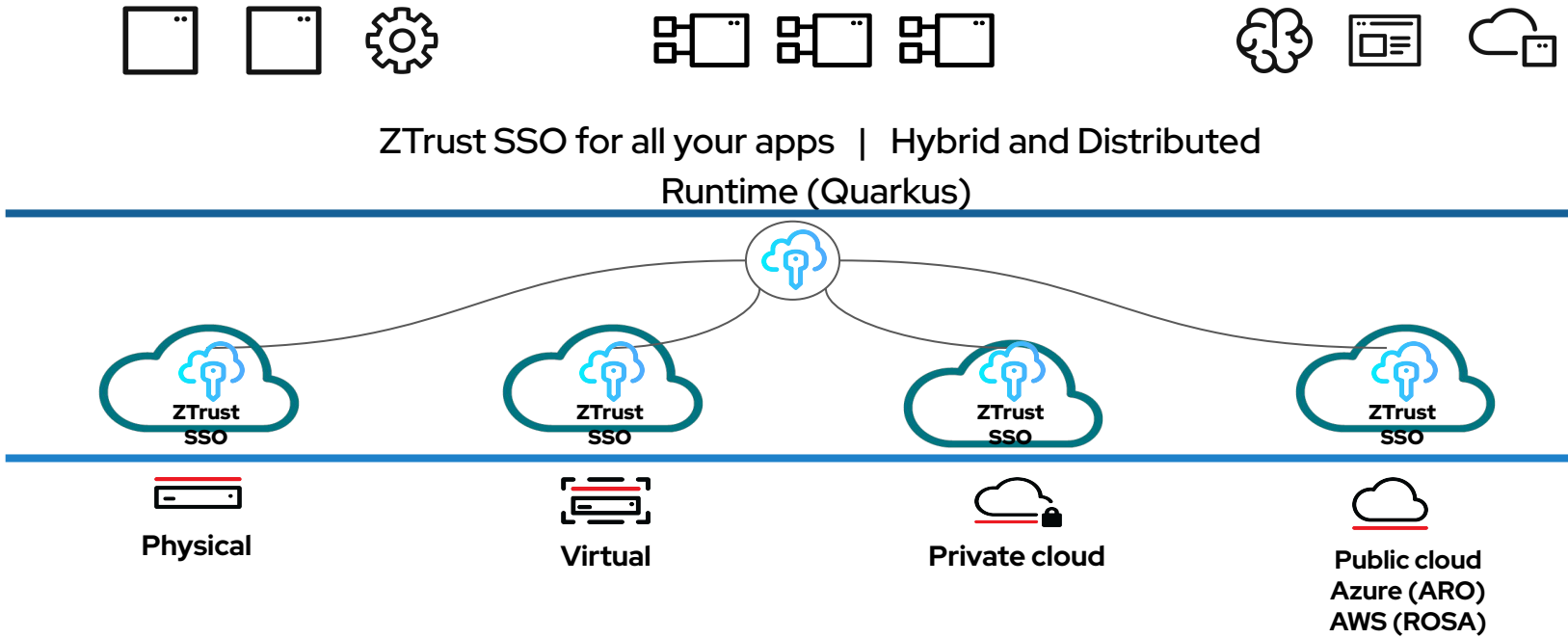
Traditional apps

Cloud-native apps

AI/ML Functions



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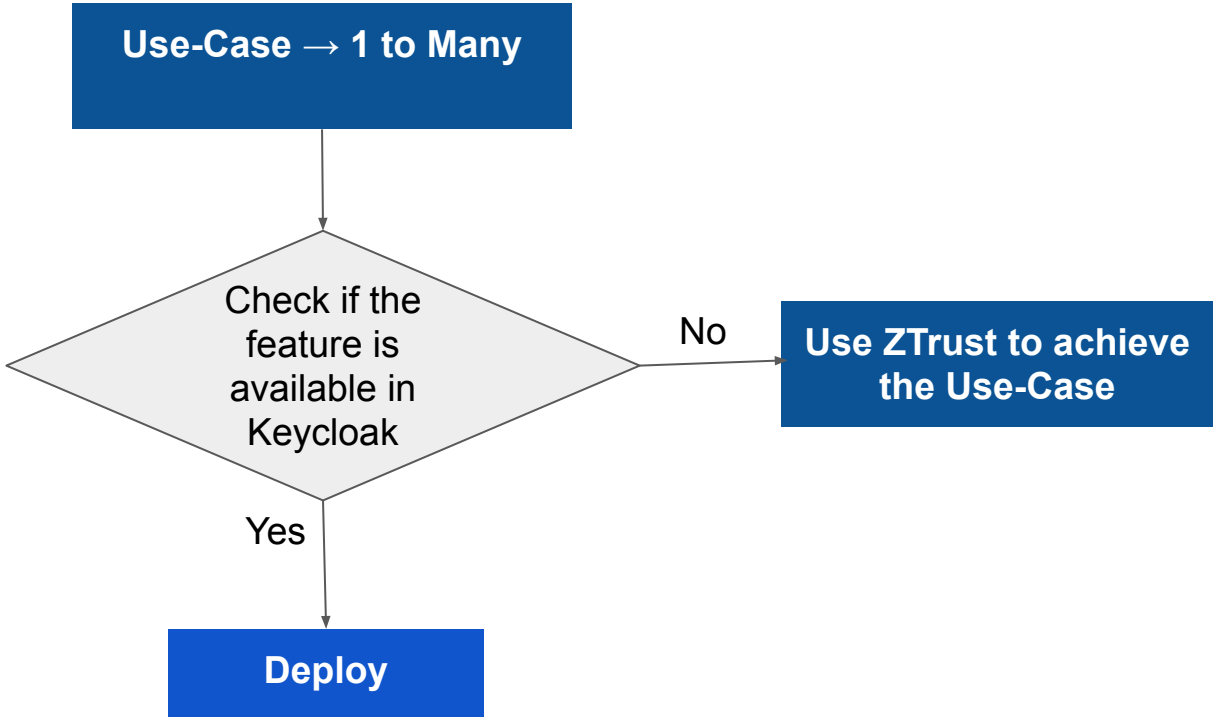
ZTrust Rationale



ZTrust Release Methodology

GitLab

Source Code Management

Jenkins

Release Management

ZTrust

docker

QUARKUS

KEYCLOAK

Confluence

Documentation Management

Helpdesk

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Development | **Build & Release** | **Customer Service**

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Customer Success Story

Customer Name	Digital Insurance Company
Deployed On	AWS EKS Kubernetes
No. of Environments	4
No. of Active Users	493672
No. of Concurrent Users during Peak Hours	212143
No. of Pods	12(standard), 20(Peak Hours)
Keycloak Clustering	Yes
Projected No. of Users	1 Million by 2023
Applications secured by Keycloak	Godigit Insurance Online, Digit Plus, ABS(Agent Portal)
Keycloak Features Implemented	Extended Auth Flow with Mobile and Email OTP, Token based Authentication, One to Many user mapping

Customer Success Story

Customer Name	Biggest Mobility Platform
Deployed On	Azure AKS Kubernetes
No. of Environments	6
No. of Active Users	2 Million
No. of Concurrent Users during Peak Hours	1.1 Million
No. of Pods in Prod	30(Peak Hours)
Keycloak Clustering	Yes
Projected No. of Users	10 Million by 2024
Applications secured by Keycloak	Marketplace, MCP IOT Hub, Vendor Portal
Keycloak Features Implemented	Multitenancy, JWE, GDPR, Password Invalidator, Session Invalidator, Brute Force Detection, User Opt Out,Optimized ID Token, Extended Auth Flow

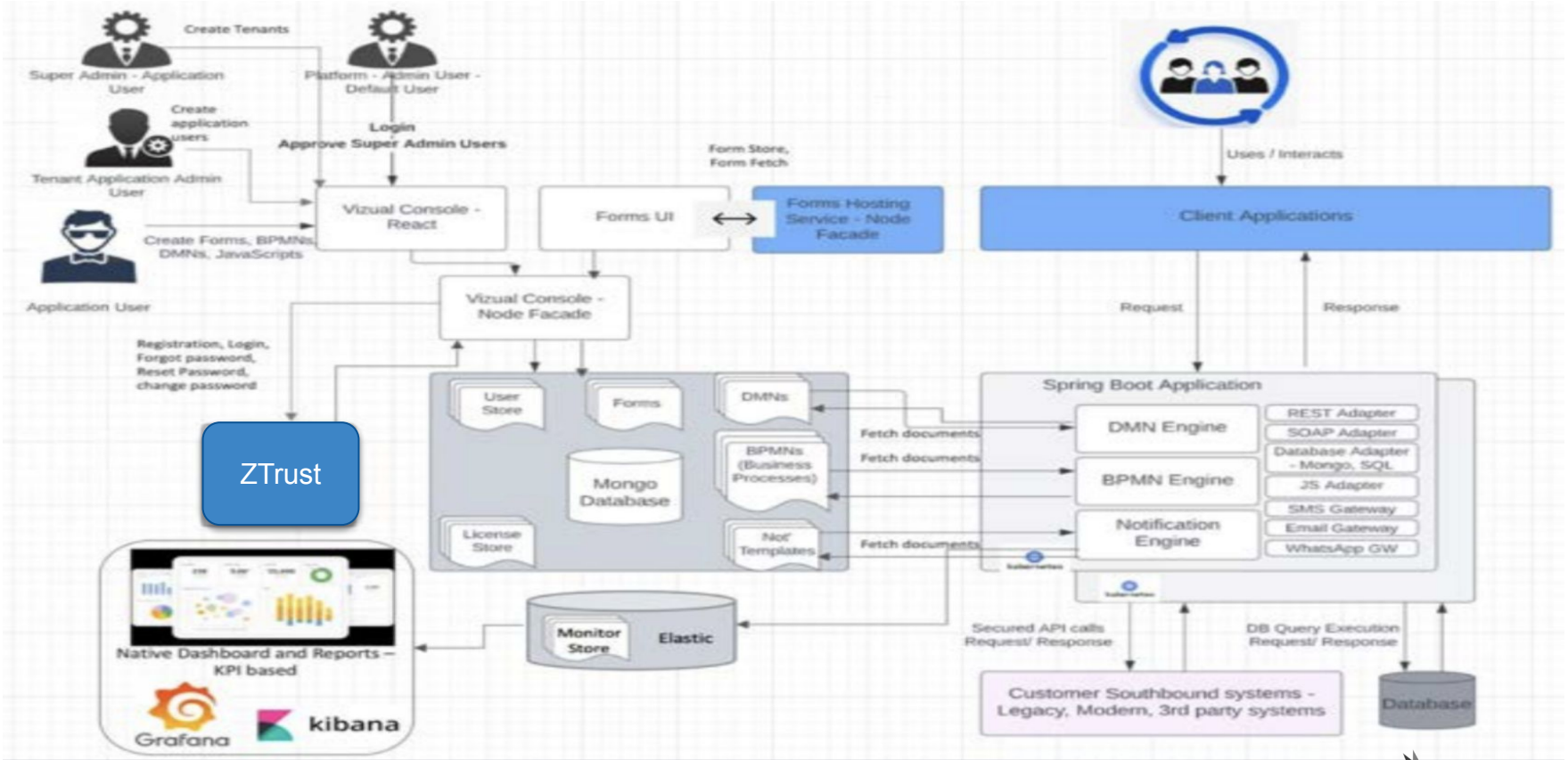
Customer Implementation Story

Customer Name	Leading Bank in INDIA
Deployed On	VMs and Kubernetes
No. of Environments	3
No. of Active Users	~10,000
No. of Concurrent Users during Peak Hours	~4000
No. of Pods in Prod	3(Peak Hours)
Keycloak Clustering	Yes
Projected No. of Users	To be Planned
Applications secured by Keycloak	Customer Account Validation App(In Progress)
Keycloak Features Implemented	Extended Auth Flow with API, Biometrics(FaceID and Fingerprint)

Use Case - Problem Statement

- Productionize Keycloak on Azure Kubernetes(Forecast of Users > 500000)
- Deploy Keycloak with multiple replicas which should be in-sync
- HA & Failover between Prod/DR
- Fix the slow JWE Token generation issue
- Enable Autoscaling on keycloak
- Keycloak in Prod-DR existing Architecture analysis and suggest modifications

ZTrust BFSI Implementation Statement



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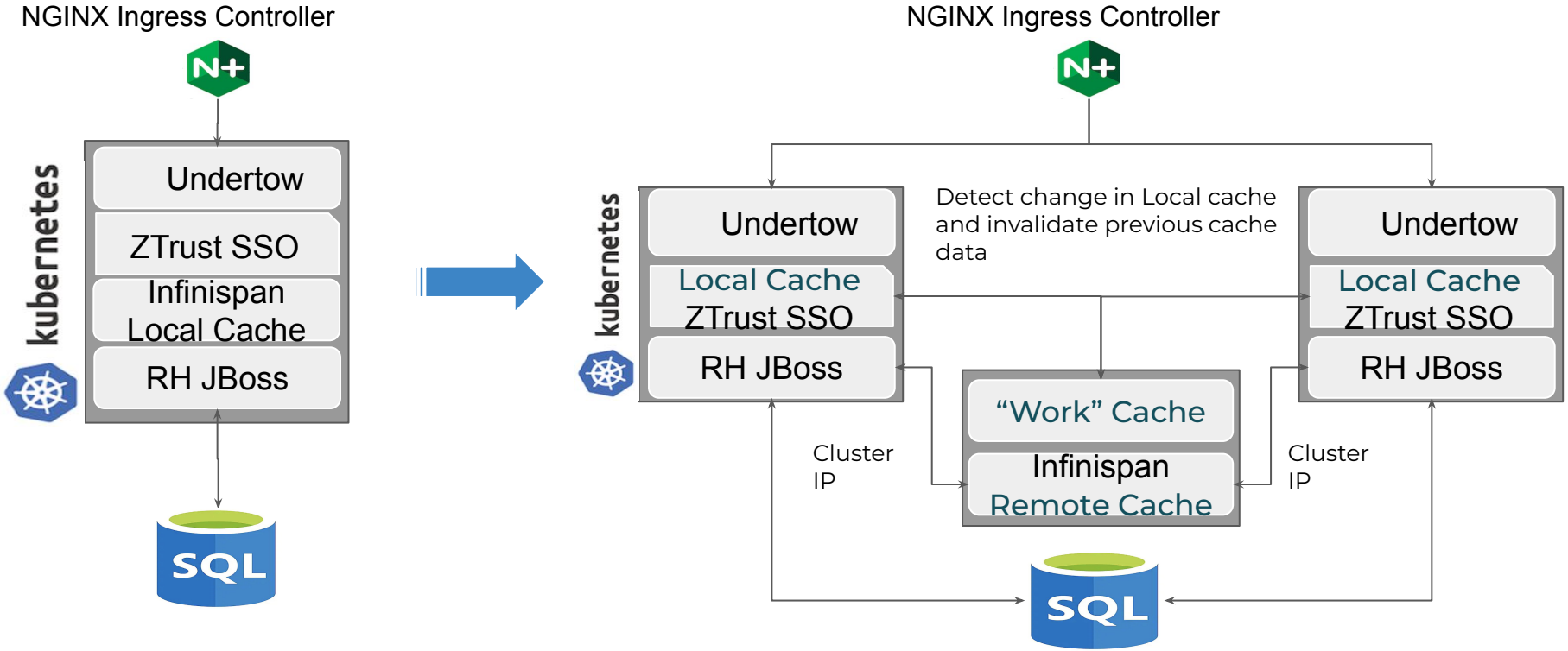
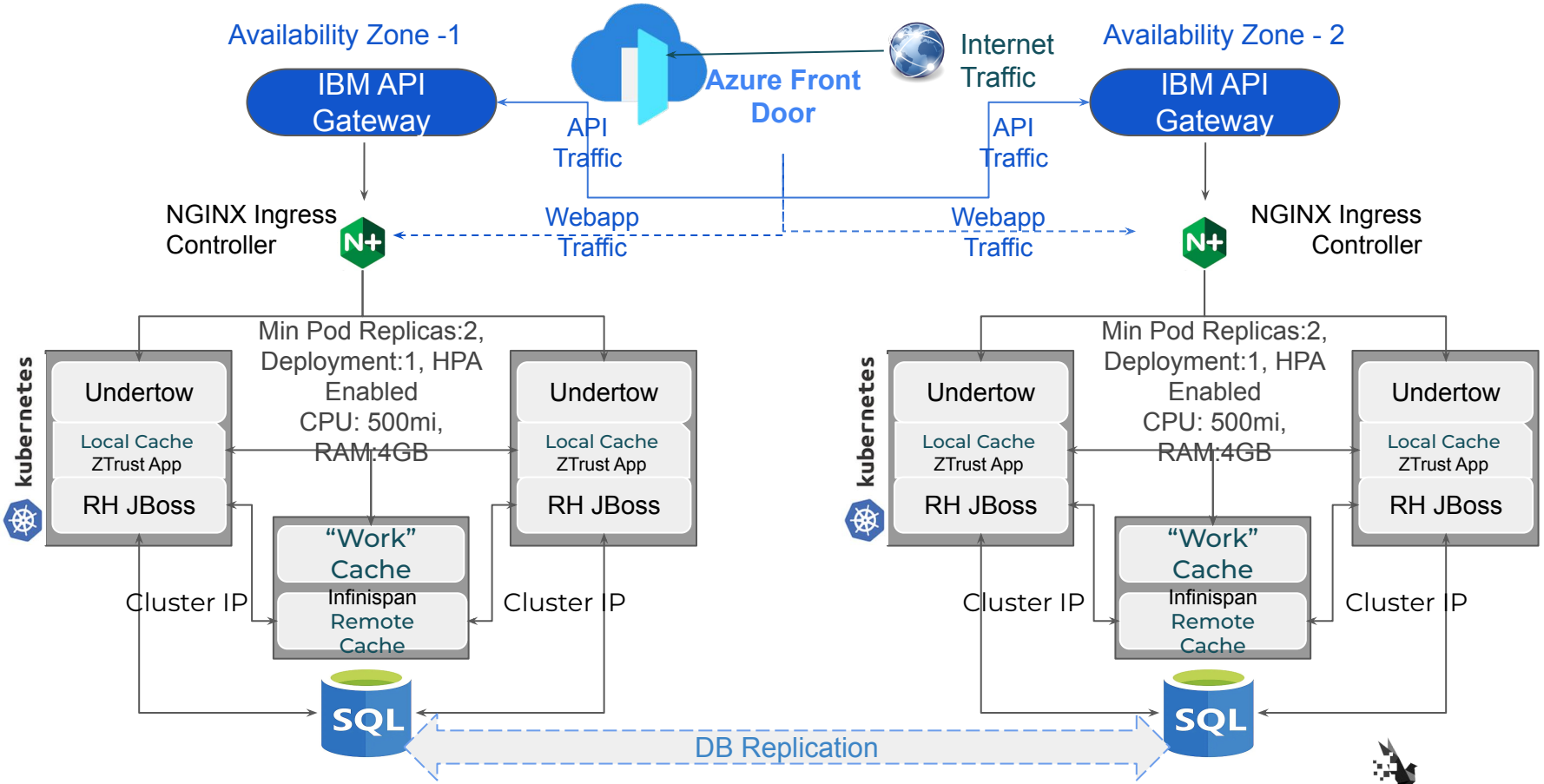
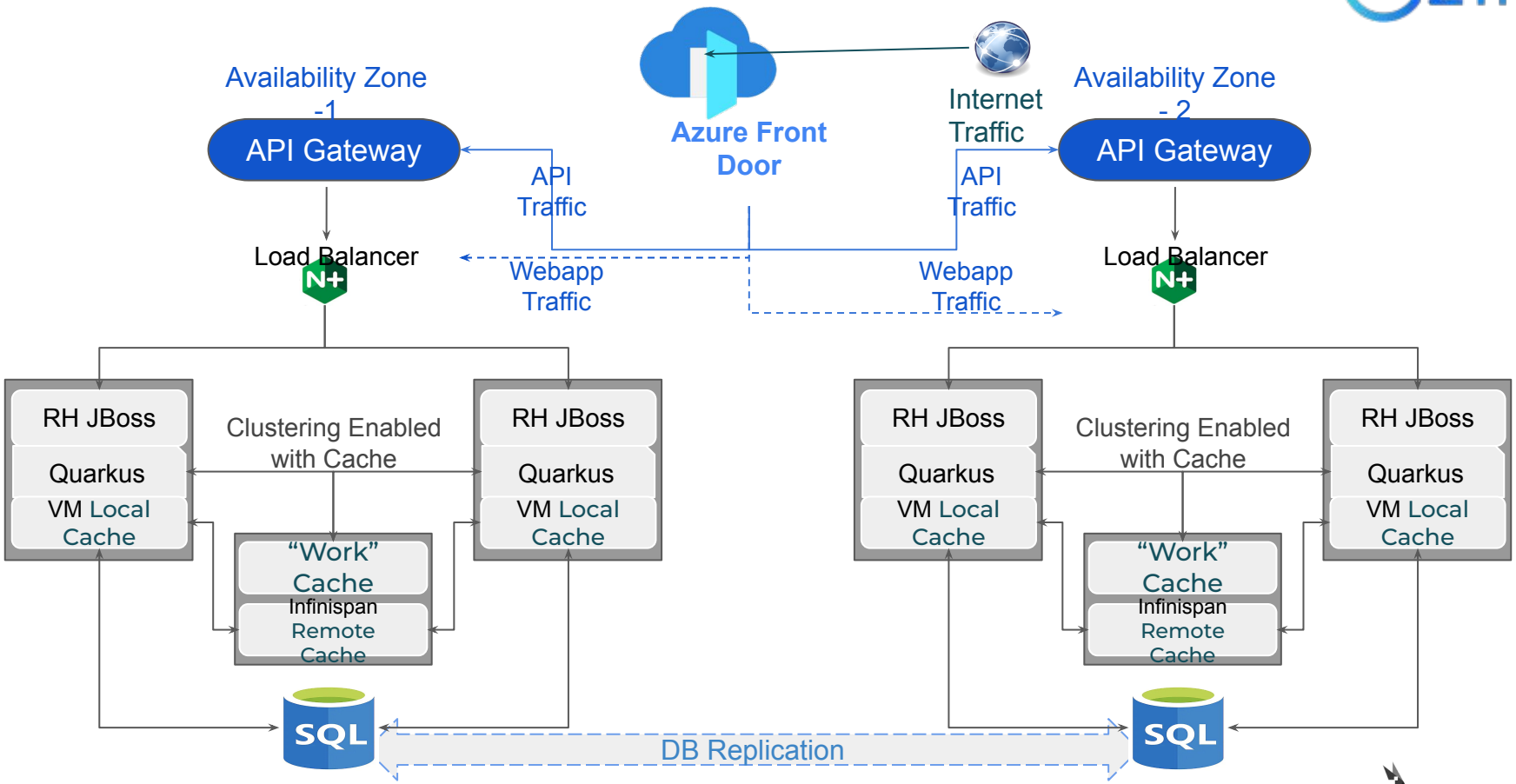
Mobility Platform Transformation



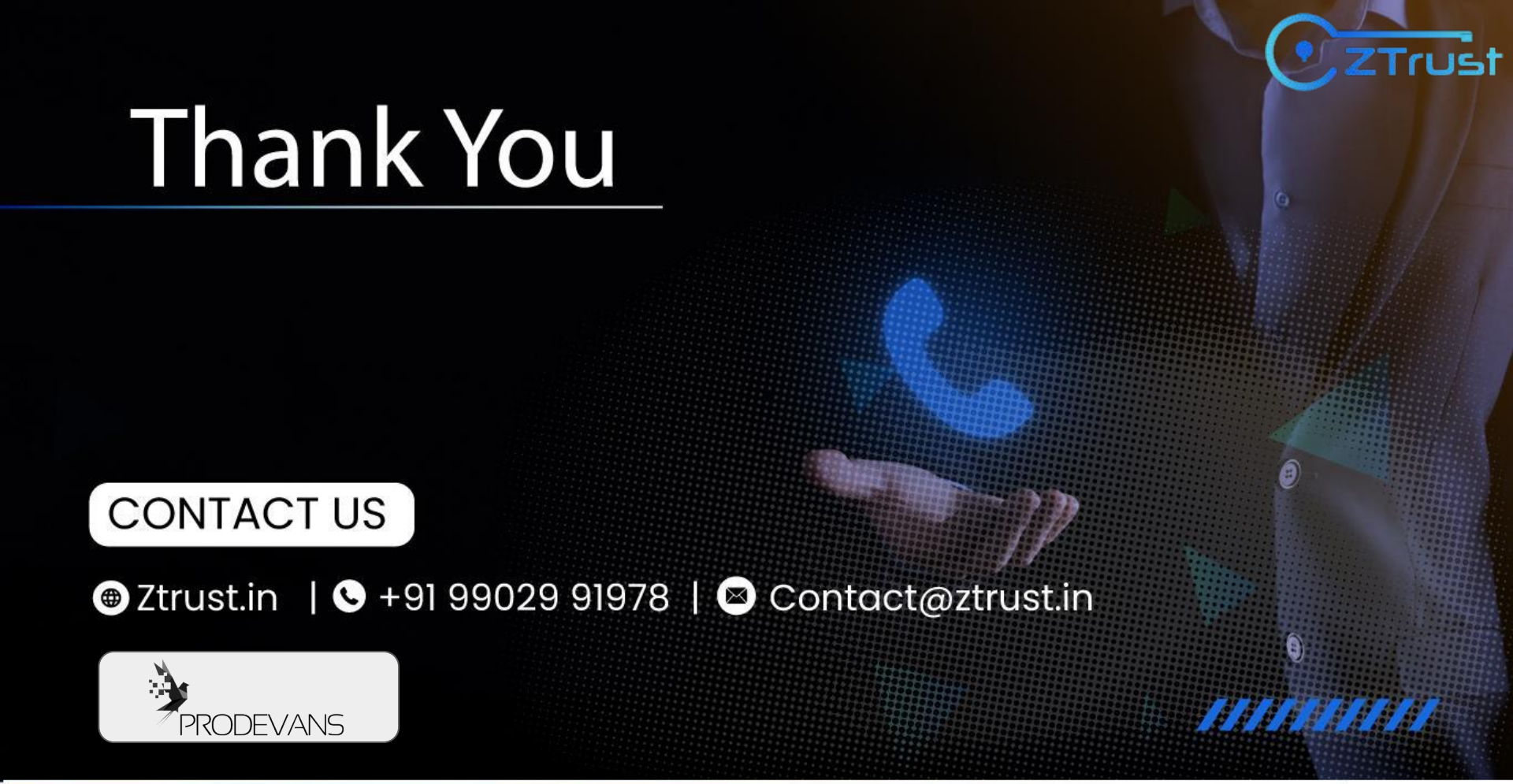
Mobility Platform Transformation



ZTrust on Azure Cloud



Thank You



CONTACT US

Ztrust.in | +91 99029 91978 | Contact@ztrust.in

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