Alibaba Cloud for Financial Services

Made by the Industry, for the Industry

ALIBABA CLOUD FOR FINANCIAL SERVICES OVERVIEW

Alibaba Cloud is the technology and intelligence backbone of Alibaba Group, and it is responsible for the commercialisation of our digital capabilities for all Alibaba Group businesses. It offers a complete set of cloud services to customers worldwide, including elastic computing, database, storage, network virtualization services, large-scale computing, security, management and application services, data analytics, a machine learning platform, and IoT services.

Utilising these capabilities, alongside extensive financial industry experience, we have built a comprehensive suite of cloud-native financial products and solutions that are road tested within the Alibaba financial services business before they are made available to the public.

Financial Services Industry Solutions Foundation

Regulatory Compliance	Security and Privacy	Network Availability and Latency	Scalability and Reliability	Disaster Recovery and Backup
Adaptability to Regulatory Requirements	Preserving Customer Trust	The Highest Assurance	A Platform for Growth	Business Continuity

The Alibaba Cloud Industry Solutions Building Blocks

OUR FINANCIAL SOLUTION ROADMAP

Alibaba Cloud introduces the Financial Digital-native solutions, solving industry challenges while keeping up with trends.

DIGITAL ONBOARDING AND SERVICING
Solutions for Digital Channel & Marketing Team

Know Your Customer	Mobile First	eWallet	Sales and Service	Collaboration Suite	Customer Notification

AGILITY AT THE CORE
Solutions for Application Development Team

- Cloud-Native App Management
  CloudOps, DevOps, SecOps, AIOps, FinOps
- Financial Distributed Application Architecture and Middleware
- Serverless Application
- Cloud-Native Database

TRUSTED INSIGHT-DRIVEN DECISION MAKING
Solutions for Data Analytics and Engineering, and Risk Management Team

- Stock Market Data
- Privacy-Preserving
- Data Visualization
- Digital Engagement and Operations
- Lending and Credit Management
- Data Analytics Platform
- AI and Machine Learning
- Blockchain Cloud Services

ROBUST AND ELASTIC INFRASTRUCTURE
Solutions for Cloud and IT Team

Compute	Network	Storage
High Availability, Global Network		Landing Zone, Cloud Migration, Smart Hosting
Public Cloud	Hybrid Cloud	Private Cloud

SECURE AND COMPLIANT FOUNDATION
Solutions for Security, Technology Risk, and Compliance Team

End-to-End Security	Security Compliance	ESG and Sustainability

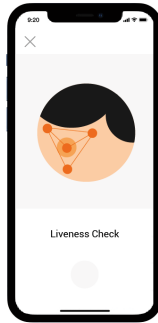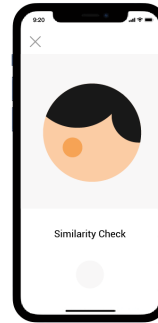## ZOLOZ - A Digital and Remote Online Solution for eKYC

ZOLOZ Real ID adheres to the international information security standards: ISO27001 and PCI-DSS. The liveness technology meets **the ISO-30107-3 level 2 standard**.

Verify the ID authenticity and extract the information via OCR

Use liveness detection during verification

Compare the ID photo with the submitted photo for the similarities

Provide verification results

ZOLOZ Certifications & Recognitions

ISO Information Security	**ISO Presentation Attack Detection**	**Payment Card Industry Information Security Certification**	**Standard for Mobile Identity Technology (ISO TC68)**	**SOC 2 Type II Report [Hong Kong (China) Node]**

Alibaba Mobile Platform as a Service - The Mobile-first Cloud-native Platform

Alibaba Mobile Platform as a Service provides one-stop solution for mobile app lifecycle management including app development, testing and operations. Alibaba Mobile Platform as a Service helps organizations build reliable and high-performance apps with accelerated iteration while reducing costs.

Optimization

Mobile Analytics Service

Content Delivery Platform

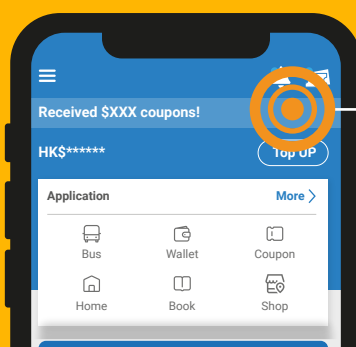**Mobile Deployment Service**

Dedicated Security & DR

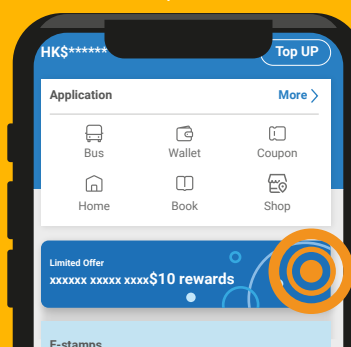Mobile Marketing - Enrich customer profile through mobile analytics

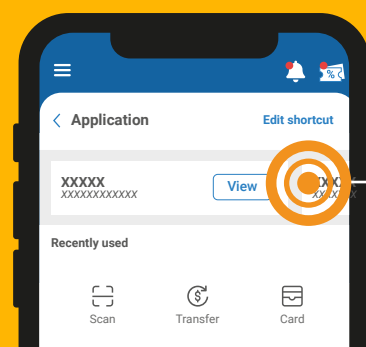### Mobile App User

Targeted In-app Notification
Push Notification

Customer Insight

Content Delivery
Target Ads

Video Sales and Service Center

Financial Intelligence

The Video Sales and Service Center has become an innovative business engagement point in the context of the epidemic.

| Identity Verification | Process Control | Picture Enhancement |

Audio And Video Channel

Signaling Channel

User
App / Mini App / H5 / IoT
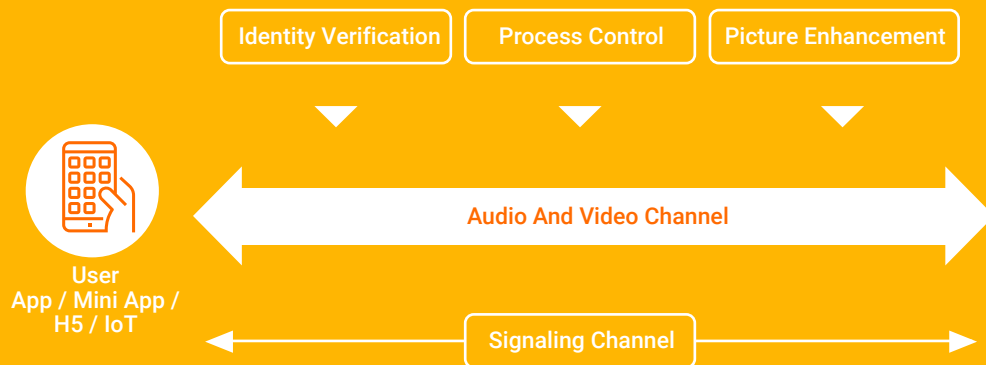
Premium DingTalk for Collaboration Suite

DingTalk Hot Functions

Video Conference

DING Notification Alert

To-do List

Multi-group Live Broadcast

Smart Assistant

Application Center

Premium DingTalk - Dedicated Security

Mini-program Platform

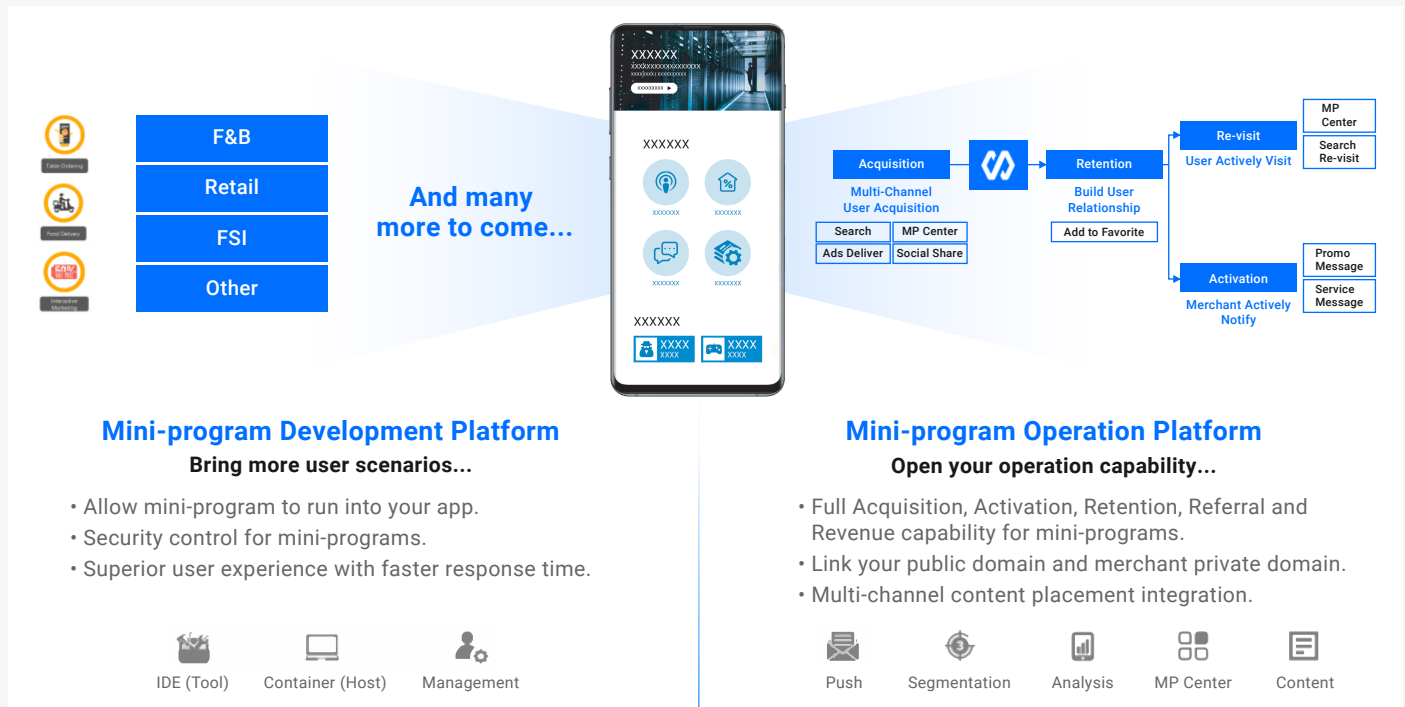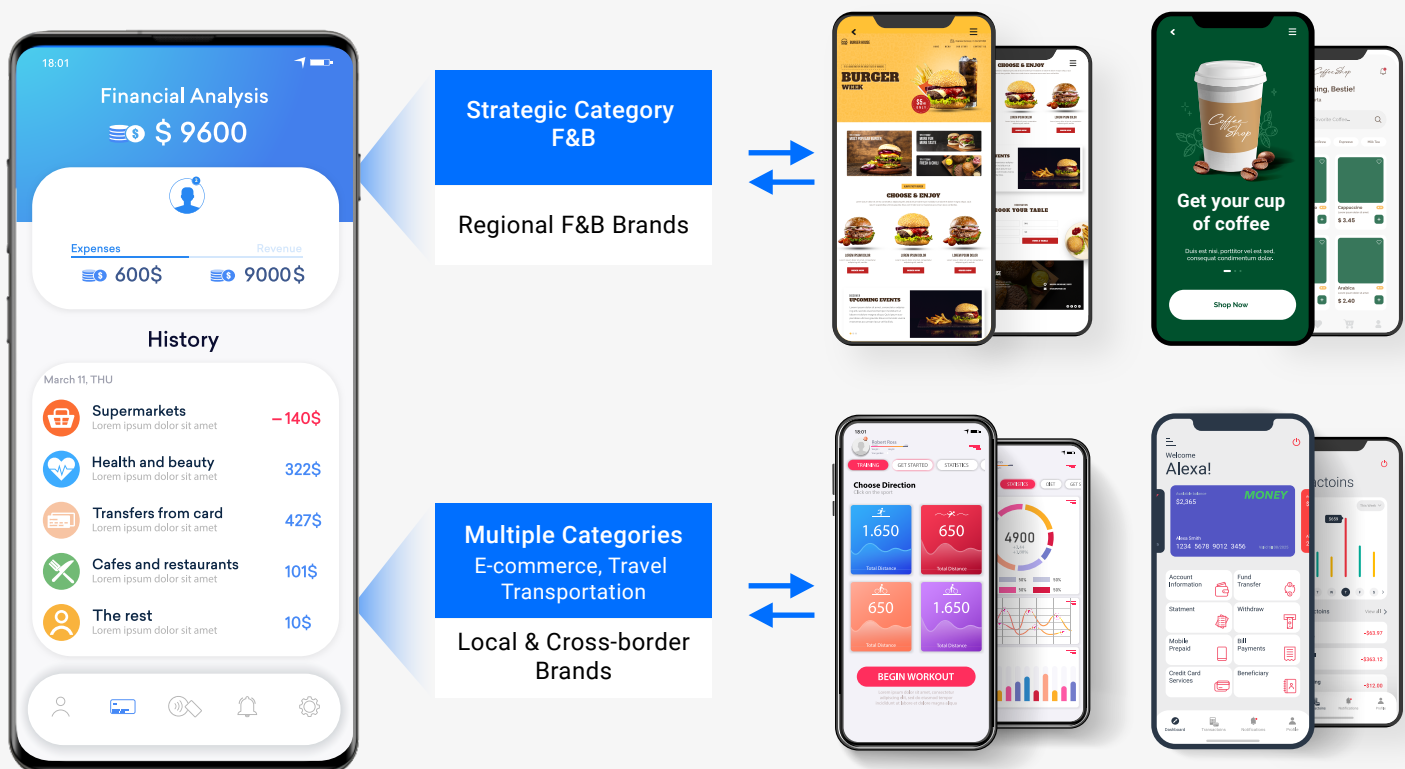Easily create your mini-program, and create your business ecosystem with our mini-program platform across F&B, retail and other industries.

Introduction to Mini-program Platform Products

F&B
Retail
FSI
Other

And many more to come...

XXXXXX
XXXXXXXXXXXXXXXXX
XXXXXXXXXXXXX

XXXXXX
Acquisition
Multi-Channel User Acquisition
Search | MP Center
Ads Deliver | Social Share

Retention
Build User Relationship
Add to Favorite

Re-visit
User Actively Visit
MP Center
Search Re-visit

Activation
Merchant Actively Notify
Promo Message
Service Message

Mini-program Development Platform
Bring more user scenarios...

- Allow mini-program to run into your app.
- Security control for mini-programs.
- Superior user experience with faster response time.

IDE (Tool) | Container (Host) | Management

Mini-program Operation Platform
Open your operation capability...

- Full Acquisition, Activation, Retention, Referral and Revenue capability for mini-programs.
- Link your public domain and merchant private domain.
- Multi-channel content placement integration.

Push | Segmentation | Analysis | MP Center | Content

We Have Many Merchants Mini-programs Ready for You to Tap Across Selective Regions; You are Not in a Cold Start

Strategic Category F&B

Regional F&B Brands

Multiple Categories
E-commerce, Travel Transportation

Local & Cross-border Brands

Financial Analysis
$ 9600

Expenses $ 600$ | Revenue $ 9000$

History

March 11, THU

Supermarkets
Lorem ipsum dolor sit amet — −140$

Health and beauty
Lorem ipsum dolor sit amet — 322$

Transfers from card
Lorem ipsum dolor sit amet — 427$

Cafes and restaurants
Lorem ipsum dolor sit amet — 101$

The rest
Lorem ipsum dolor sit amet — 10$

EMAS Mobile Quality Centre: Mobile Testing

With the rapid development of mobile digital channel and fast changing business requirements with version iteration, traditional manual testing is no longer sustainable to ensure testing efficiency and quality.

MQC provides the perfect solution with cloud based mobile test lab **with more than 200+ real mobile devices** and expert services to support best in class testing.

Product Highlights

Self-service Testing

Abundant popular real mobile devices are available online, and multiple devices can be tested simultaneously.

Expert Testing

Provide fully commissioned customized testing services and comprehensive test reports within 48 hours after the requirements are confirmed.

Automated Testing

Support online test procedure recording and automatically generate test scripts.

Device	Test Reports

🔍 Search by brand and model   Show Filter ∨

Remaining Free Trial Period:30:00   Remaining Resource Plan Period:00:00 ⊘

huawei – ANA–NX9 (P40 5G) ● Idle
Resolution:1080x2340
System Version:10
Device Class:Unknown
Use Now

HTC – htc desire 21 pro ● Idle
Resolution:1920x1080
System Version:10
Device Class:Unknown
Use Now

Apple – iPhone 7 ● Idle
Resolution:750x1334
System Version:15.5
Device Class:Unknown
Use Now

Sony – 701SO (XPERIA XZ1) ● Idle
Resolution:1080x1920
System Version:9
Device Class:Unknown
Use Now

docomo – SO–04J (XPERIA XZ) ● Idle
Resolution:1080x1920
System Version:9
Device Class:Unknown
Use Now

Sony – 702SO (XPERIA XZ2) ● Idle
Resolution:1080x2160
System Version:9
Device Class:Unknown
Use Now

KDDI – SOV40 (XPERIA 1) ● Idle
Resolution:1096x2560
System Version:11
Device Class:Unknown
Use Now

Xiaomi – Mi 10 ● Idle
Resolution:1080x2340
System Version:10
Device Class:Unknown
Use Now

OPPO – CPH1911 (F11) ● Idle
Resolution:1080x2340
System Version:10
Device Class:Unknown
Use Now

KDDI – SHV41 (AQUOS R) ● Idle
Resolution:1080x2032
System Version:9
Device Class:Unknown
Use Now

OPPO – CPH2197 (A74) ● Idle
Resolution:1080x2400
System Version:11
Device Class:Unknown
Use Now

samsung – SM–A716S (A71) ● Idle
Resolution:1080x2400
System Version:10
Device Class:Unknown
Use Now

SOFAStack: Financial Distributed Application Architecture and Middleware

Help Financial Enterprises Adopt Cloud-native Technologies

A one-stop, cloud-native platform that allows financial enterprises to develop and maintain highly available applications that use a distributed architecture.

92%
Developer Lower Learning Costs

80%
Application Development Increased Efficiency

90%
Manpower & Ops Cost Savings

Peak Volume Supportability

Elastic Computing & Scalability

Disaster Recovery, System High Availability

The Total Economic Impact of SOFAStack™ by Forrester Consulting

Microservice

Database Proxy

SOFA Boot

SOFA

Distributed Transaction

Message Queue

Distributed Tracing

AVAILABILITY
99.99%+

CONSISTENCY
Eventual Consistency at Any Condition

SCALABILITY
Support App, Database, Region Scale Out
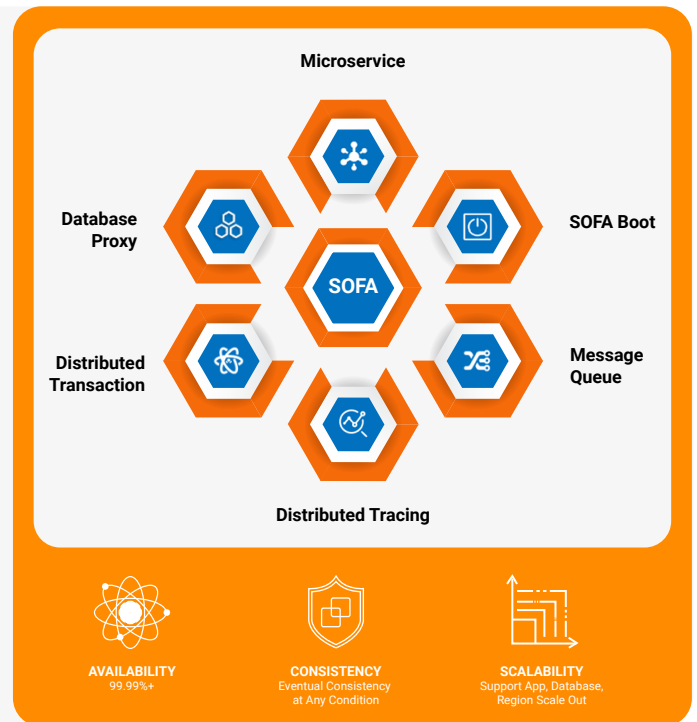
Distributed Database

PolarDB-X

A distributed relational database service, designed for challenges of ultra-high concurrency, massive data storage, and large table performance bottlenecks

Strong Consistency
- MVCC with TSO to ensure consistency
- RPO=0

High Performance
- Up to 40% performance improvement
- Fast data access and low latency over private RPC

Easy Operation & Maintenance
- Automatic load balancer for all requests
- Convenient incremental data subscription

Smooth User Experience
- One-Click instance launch
- Easy configuration for adding RO nodes
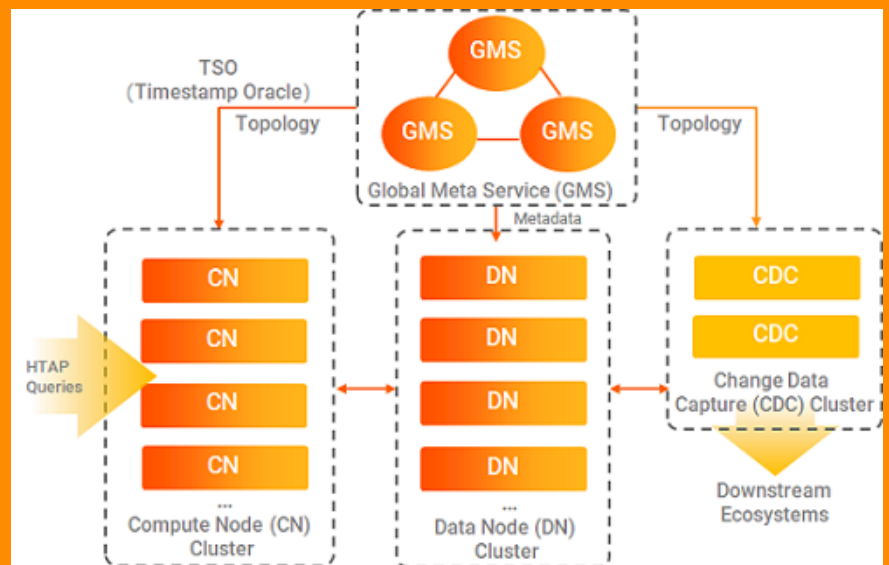
TSO
(Timestamp Oracle)

Topology

GMS

GMS   GMS

Global Meta Service (GMS)

Topology

Metadata

HTAP Queries

CN

CN

CN

CN

...
Compute Node (CN) Cluster

DN

DN

DN

DN

...
Data Node (DN) Cluster

CDC

CDC

Change Data Capture (CDC) Cluster

Downstream Ecosystems

Trusted Insight-driven Decision Making

Solutions for Data Analytics and Engineering, and Risk Management Team

Privacy-preserving Computing

Privacy-preserving Computation Promotes Efficient and Controlled Data Circulation

Protect the Security and Privacy of **Raw Data**

Protect the Privacy of **Computing Results**

Data

COMPUTING
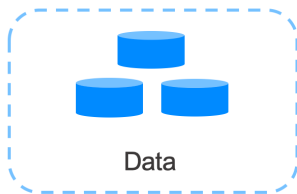
Computing Results

Compliance in Data Use

Privacy Protection During Computing
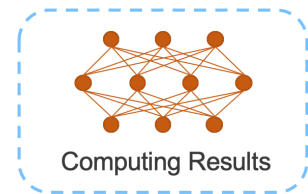
Privacy Protection During the Release of the Computing Results

The Goal of Privacy-preserving Computation is to Bring Out the Value of Data by Integrating and Sharing Data While Protecting Personal Privacy and Data Security.

Blockchain Cloud Services

BaaS provides secure, stable, easy-to-use, and open blockchain cloud services to build an Internet featuring mutual trust and efficient collaboration.

Why BaaS?

Ease of Deployment
- Flexible public cloud or on premise deployment
- Support Cross-chain interoperability and multi-cloud deployment
- Support Ant Chain, Hyperledger Fabric and Ethereum Quorum (Beta)

Security Service
- Provide CA certificate service
- Create a multi-dimensional Blockchain security system

Monitoring
- Monitor the Blockchain state in real time and give automatic alerts
- Quality assurance with committed Service Level Agreement (SLA)

Recognition
- Number 1 in Blockchain patents in the world since 2017
- APAC's 1st and World's 2nd Hyperledger Fabric Certified Service Provider

CloudQuotation: Real-time Trade Data Manager

CloudQuotation provides your global customers with a quotation service that establishes stable, high-quality connections to exchanges all around the world at ultra-low latency. It provides a unified standard interface for customers to access the quotation services of various exchanges, along with the required security measures.

Stock Exchange

Cloud Quotation

Financial Institutions

Digital Engagement and Operations Platform

Enrich Customer Digital Channel Engagement

Targeted In-app Notification

Push Notification

Channel Usage Behavior

CRM

E.G. Income, Customer Segmentation Etc.

Mobile Channel Target Audience

Omni-channel Target Audience

Call Centre

E.G. Recent Engagement Etc.

Mobile Usage Behavior

Mobile App User

Customer Insight

Digital Engagement Platform

POS of Store

E.G. Spending, Active Stores Etc.

Channel Usage Behavior

Credit Card

E.G. Card Type, Spending Etc.

Mobile Channel Target Audience

Omni-channel Target Audience

Content Delivery

Social Media

Targeted Ads

E.G. Personal Interest Etc.

■ **Alibaba Mobile Platform as a Service**

■ **Digital Engagement and Operations Platform**

■ **Financial Institution's Own System**

Robust and Elastic Infrastructure
Solutions for Cloud and IT Team

IT Governance - Landing Zone

Cloud computing has improved the efficiency of resource delivery and daily operations like never before. Enterprise IT governance is the rational planning and allocation of enterprise IT resources. The Alibaba Cloud Enterprise IT Governance solution provides a set of management capabilities to help enterprises of all sizes smoothly migrate to the cloud and maximize the value of IT resources.

Infrastructure - IT Governance - Landing Zone

Resource & Structure
- Resource Directory
- Shared Accounts
- Application Accounts
- Service Catalog

Identity & Permission
- Access Control
- Role based SSO
- Permission Templates
- Role Templates

Compliance & Baseline
- Strategy & Control
- Operation Audit
- Configuration Audit
- Account Baselines

Cost Management
- Cost Center
- Cost Analysis
- Centralized Billing

Network & Security
- Cloud Enterprise Network
- Shared VPC
- NAT Gateway
- Cloud Security Center
- Cloud Firewall

Operation & Monitoring
- Centralized Alert Rules
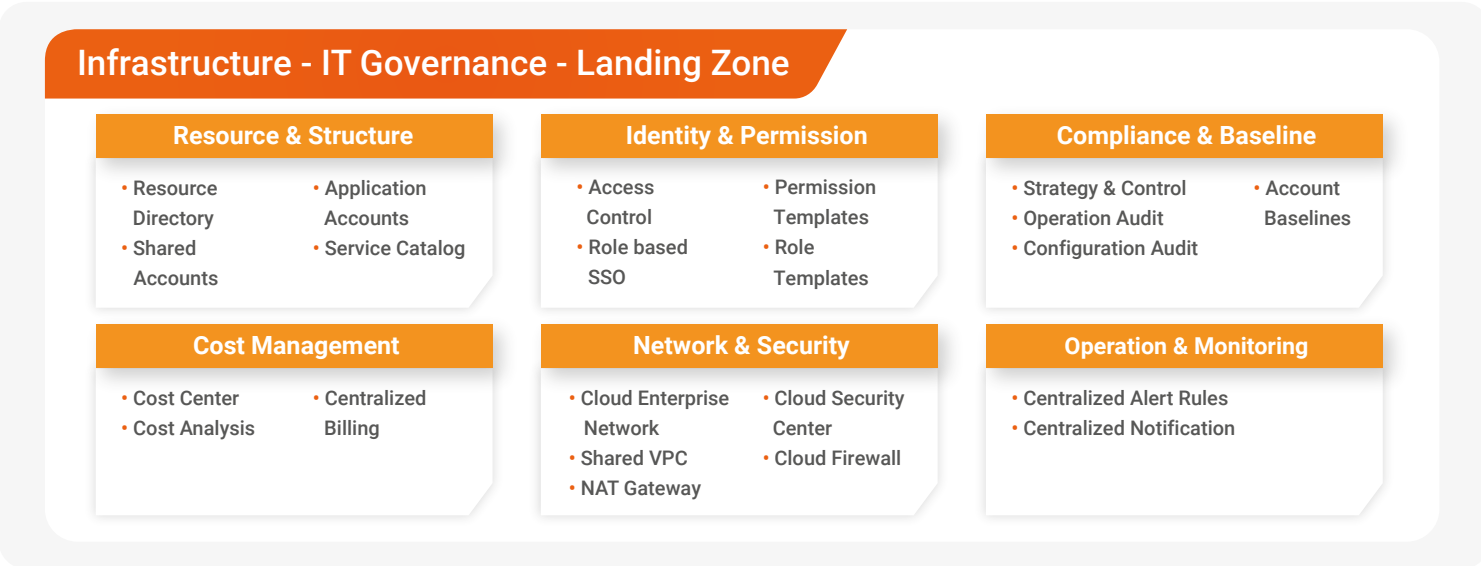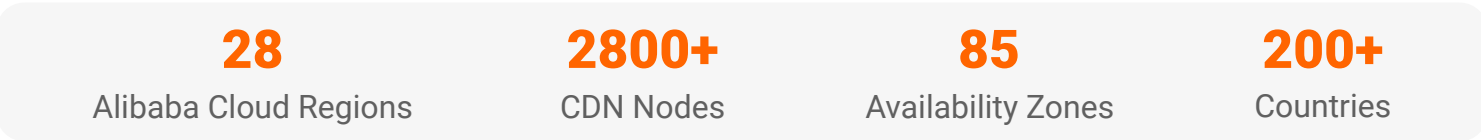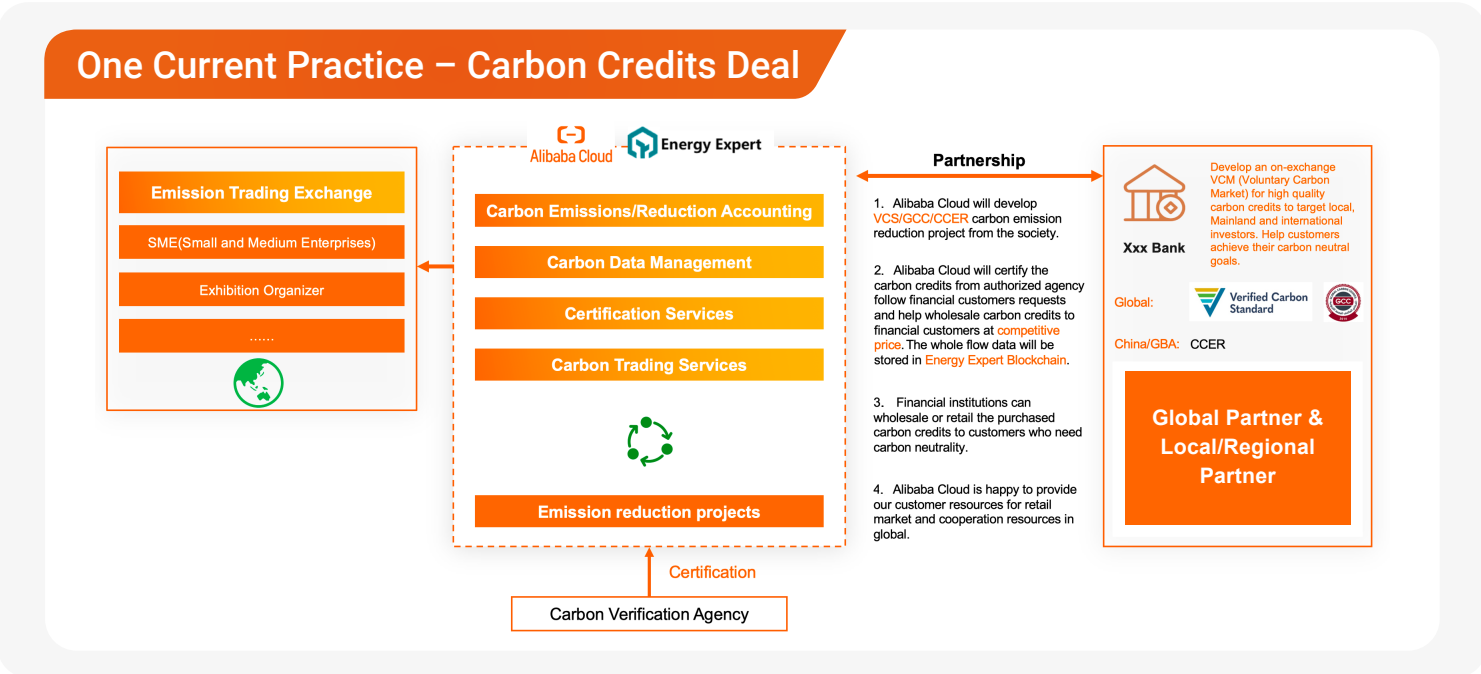- Centralized Notification

Alibaba Cloud Global Infrastructure

28	**2800+**	**85**	**200+**
Alibaba Cloud Regions	CDN Nodes	Availability Zones	Countries

ESG: Energy Expert

How does it work in Financial Industry?

One Current Practice – Carbon Credits Deal

Alibaba Cloud · Energy Expert

Emission Trading Exchange
- SME(Small and Medium Enterprises)
- Exhibition Organizer
- ......

- Carbon Emissions/Reduction Accounting
- Carbon Data Management
- Certification Services
- Carbon Trading Services
- Emission reduction projects

Certification

Carbon Verification Agency

Partnership

1. Alibaba Cloud will develop VCS/GCC/CCER carbon emission reduction project from the society.

2. Alibaba Cloud will certify the carbon credits from authorized agency follow financial customers requests and help wholesale carbon credits to financial customers at competitive price. The whole flow data will be stored in Energy Expert Blockchain.

3. Financial institutions can wholesale or retail the purchased carbon credits to customers who need carbon neutrality.

4. Alibaba Cloud is happy to provide our customer resources for retail market and cooperation resources in global.

Xxx Bank

Develop an on-exchange VCM (Voluntary Carbon Market) for high quality carbon credits to target local, Mainland and international investors. Help customers achieve their carbon neutral goals.

Global: Verified Carbon Standard

China/GBA: CCER

Global Partner & Local/Regional Partner

Secure And Compliant Foundation

Solutions for Security, Technology Risk, and Compliance Team

Our End-to-end Security

Managed Security Service	Key Management Service
Cloud Firewall	Web Application Firewall
Data Encryption Service	Mobile Security
Security Center	Anti-DDoS
Penetration Test	

Mobile Security Armor

Provides stable, simple and effective security protection for mobile application (App), improves the overall security level of applications, and protects applications from being cracked and attacked.

Reinforcement Time
75 Seconds (on average)

Reinforced Size
0.3MB (on average)

Occupies Low CPU Usage
6.78% (on average)

Occupies Low Memory Usage
11% (on average)

Common Attacks to Android App

- Anti-debugging
- Secondary Packaging
- Memory Data Tampering
- Dynamic Debugging
- File Tampering
- Memory Dump
- ......

Targeted Protection from being compromised

- ☑ Anti-reverse Protection
- ☑ Anti-debugging Protection
- ☑ Tamper Protection
- ☑ Anti-theft Protection

12:36

Login or Email

Password

Forgot password?

Login

Don't have account Sign Up
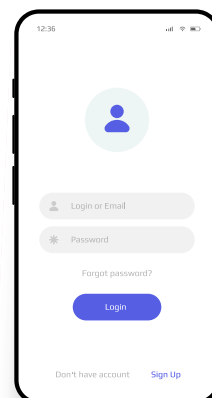
Compliance & Security

Regulations/Guidelines to look at when using cloud computing services

- **PCI DSS**
  The PCI Data Security Standards is applicable to all entities that store, process or transmit payment card information.

- **PCI 3DS**
  PCI 3DS is core security standard established by PCI Security Standards Council (PCI SSC), providing a framework for three critical EMV 3DS components - Access Control Server (ACS), Directory Server (DS), and 3DS Server (3DSS)- to implement physical and logical security controls to support the integrity and confidentiality of the 3DS transaction process.

- **Compliance for Different Regions**
  Alibaba Cloud is committed to facilitating the customers in compliance with the financial industry-specific regulatory requirements, including the initial high-level due diligence and risk assessment, solution selection, implementation and transition, and post-implementation assurance. Alibaba Cloud provides a full suite of offerings that can help, including responses in every due diligence evaluation aspect, best practices in services and product configuration, automated and continuous security check tools, as well as assurance over the design and operational effectiveness of internal controls.

Security Compliance: Compliance Advisory Service

Based on the rich experience of Alibaba Cloud in cloud security compliance, this service can help you meet security compliance requirements in different countries and regions.

- Cloud security compliance consultation

- Secure design and deployment based on new compliance requirements

- Strengthen the security compliance posture of your alibaba cloud infrastructure

FinTech Best Practices

ABOUT US

Established in 2009, Alibaba Cloud (alibabacloud.com), the digital technology and intelligence backbone of Alibaba Group, is among the world's top three IaaS providers, according to Gartner. It is also the largest provider of public cloud services in China, according to IDC.

Alibaba Cloud provides a comprehensive suite of cloud computing services to businesses worldwide, including merchants doing business on Alibaba Group marketplaces, start-ups, corporations and public services.

Alibaba Cloud is the official Cloud Services Partner of the International Olympic Committee.