2019 INVESTOR DAY
September 23-24, 2019 Hangzhou, China

Alibaba Cloud Intelligence
Leading Technology Propels Robust Growth

Jeff Zhang, Chief Technology Officer and President of Alibaba Cloud Intelligence
China's Unique Cloud Market Advances with Great Prospects

02

阿里巴巴数字经济市场存在巨大潜力

Becoming the Technology Infrastructure of Digital Economy

03

阿里云正在成为中国数字经济的技术基础设施
China’s Unique Cloud Market Advances with Great Prospects

阿里巴巴数字经济市场存在巨大潜力

Artsba Digital Economy Technology Strategy

阿里巴巴经济体整体技术战略

Becoming the Technology Infrastructure of Digital Economy

阿里云正在成为中国数字经济的技术基础设施
## Technology Middle Office for Alibaba Digital Economy

阿里巴巴经济体中台技术战略

<table>
<thead>
<tr>
<th>Business Development</th>
<th>Product Development</th>
<th>Technology Development</th>
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<tr>
<td>Computing Platform</td>
<td>Data Platform</td>
<td>Algorithm Platform</td>
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<tr>
<td>Payment</td>
<td>Logistics</td>
<td>Middleware</td>
</tr>
<tr>
<td>Logistics</td>
<td>Marketing</td>
<td>Database</td>
</tr>
<tr>
<td>Operating System</td>
<td>Storage</td>
<td>DevOps</td>
</tr>
<tr>
<td>Cloud</td>
<td>Security</td>
<td>Middleware</td>
</tr>
<tr>
<td>Alibaba DAMO Academy</td>
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<td>DevOps</td>
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<th>Data Computing</th>
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<th>Fin-Tech</th>
<th>Quantum Computing</th>
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- **Business Development**
  - Payment
  - Logistics
  - Marketing
- **Product Development**
  - Computing Platform
  - Data Platform
  - Algorithm Platform
  - Middleware
  - Database
  - Security
- **Technology Development**
  - Machine Intelligence
  - Data Computing
  - Robots
  - Fin-Tech
  - Quantum Computing
Four Technology Enablers of Enterprise Digital Transformation

Three Technology Enablers of Enterprise Digital Transformation

Mobility
Big Data
Cloud
IoT

Enterprise APP Marketplace / Dingtalk

Business Middle Office
User Center
Marketing Center

Data Middle Office
Local Data Platform
Data Retrieval Platform

AI Middle Office
Machine Learning

Cloud Operating System
Gesite Computing, Networking

IoT Platform
Edge Computing

Offline and Realtime Big Data Processing

Security

Business Security
Data Security
Basic Security
Alibaba Technology Core Advantages

1. Cloud Infrastructure
   云化基础设施

2. Data-intelligence Driven Business Decision-making Process
   数据智能驱动的业务决策

3. Business Architecture with Data and Operation Platform
   双中台为核心的业务架构

4. Intelligently Connected Ecosystem
   万物智联的生态
## Infrastructure Capabilities Achieved Constant Breakthrough and Recognition

### Cloud Infrastructure

<table>
<thead>
<tr>
<th>Database</th>
<th>491K Transactions/Sec</th>
<th>World #3 and Asia #1 Cloud database market share[1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hybrid Cloud</td>
<td>10K Nodes</td>
<td>Leader in IDC Financial Cloud MarketScape[2]</td>
</tr>
<tr>
<td>Security &amp; Privacy</td>
<td>5Bn Attacks/Day</td>
<td>The Greater China #1 WAF market share by Frost &amp; Sullivan[3]</td>
</tr>
</tbody>
</table>

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1. Gartner The Future of the DBMS Market is Cloud
2. IDC MarketScape: China Financial Cloud, 2019
3. Frost & Sullivan WAF Market Share, 2018

All status shown as of August 2019

WAF = Web Application Firewall
Only 20% server spending increased to support 70% business growth YoY in CY2018.

Big Data Benchmark (BigBench): The largest scale, fastest, most cost-effective as of October 2017.

600PB data processed during 2018 11.11 Global Shopping Festival, equivalent to 600 million 4K high definition movies.

World Record

Cost-efficiency

Only 20% server spending increased to support 70% business growth YoY in CY2018.

Global strongest data intelligence platform - Apsara Big Data Platform.

Data-intelligence driven business decision-making process.
Backbone for Digital Transformation - Data Middle Office and Business Middle Office

Business Architecture with Data and Operation Platform

2.5s Data Intelligence within Seconds

- Refresh exabytes of data in 2.5 seconds (about the data volume collected by Facebook from CY2018 Q1 to CY2019 Q1)

1K Modularized Business Components

- Abstracted dozens of business modules from 1,000+ systems

4 weeks Agile Innovation

- Built Freshippo IT system within 4 weeks
- Rewrote Lazada IT system in 6 months

3. Digital Transformation’s core support - Data Middle Office + Business Middle Office

- Business Architecture with Data and Operation Platform
- Agile Innovation

- Refresh exabytes of data in 2.5 seconds
- Abstracted dozens of business modules from 1,000+ systems
- Built Freshippo IT system within 4 weeks
- Rewrote Lazada IT system in 6 months
Data Middle Office Enables Mondelez China To Improve Decision-making Efficiency

- Applied Data Middle Office to merge data from all brands and channels data on one screen, improving decision-making efficiency.
- Unified data management and analysis across the channels and finance team, improving operation efficiency.
4

Intelligently Connected Ecosystem

万物智联的生态

Foundation of Intelligently Connected Ecosystem - AIoT (AI+IoT)

万物智联的基本核心 - AIoT

50% Cost-saving
Proprietary High-Performance Chips

自研高性能芯片

Wujian SoC Platform, 50% design cost reduced and 50% design cycle shortened
XuanTie 910, Open-source RISC-V, Best Performance Globally

200+ Types
AliOS Things

支持100+类型的传感器和200+类型的芯片模块兼容性

All data shown as of August 2019
AI
Capabilities:
Top 3 AI Demand in the World Used by Alibaba:
- Intelligent CRM
- Intelligent Customer Service
- Precision Marketing

Use Cases:
Financial Intelligence, City Brain, Intelligent Customer Service, Search Recognition.

Quantum Computing
Capabilities:
Quantum Computing Hardware Lab in Hangzhou

Use cases:
Logistics, Finance, Materials Simulation

Blockchain
Capabilities:
Ranked top 50 by Forbes in 2019

Use cases:
Retail (commodity source-tracking, e-invoice), Finance supply chain finance, cross-border remittance

Autonomous Driving
Capabilities:
• L4-level autonomous driving for logistics vehicle
• 1/10 cost by locating modules

Use cases:
• Semi-closed Park, Urban Logistics, Line Haul Logistics

All status shown as of August 2019

Cutting-edge Technology Innovations from the Alibaba DAMO Academy

達摩院的技術創新
01 Alibaba Digital Economy Technology Strategy

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China IT Spending with Huge Prospects

<table>
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<tr>
<th>Sector</th>
<th>China IT Spending</th>
<th>US IT Spending</th>
</tr>
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<tbody>
<tr>
<td>Public Sector</td>
<td>2,916 Bn</td>
<td>90 Bn</td>
</tr>
<tr>
<td>Traditional</td>
<td>329 Bn</td>
<td>10 Bn</td>
</tr>
<tr>
<td>Internet</td>
<td>78 Bn</td>
<td>90%</td>
</tr>
</tbody>
</table>

IT Spending of Public Sectors and Traditional Industries Surpasses that of Internet Companies

China Public Cloud Penetration Expects Great Potential

Source: Gartner Market Databook, 2Q2019 Update

US Public Cloud Penetration, 2018

- Public Cloud: 22%
- Non-Public Cloud: 78%
China's Unique Cloud Market: Advances with Great Prospects

Alibaba Digital Economy Technology Strategy

Becoming the Technology Infrastructure of Digital Economy
No.1 Public Cloud Provider in China and APAC

China, 2019 Q1
- Alibaba Cloud 43.0%
- Others 57.0%

APAC, 2017
- Alibaba Cloud 14.0%
- AWS 48.0%
- Others 41.0%

APAC, 2018
- Alibaba Cloud 14.0%
- AWS 48.0%
- Others 40.0%

Worldwide, 2018
- AWS 48.0%
- Alibaba Cloud 14.0%
- Others 40.0%

Source:
1. IDC China Public Cloud Service Tracker, CY2019Q1
2. Gartner Market Share: IT Services, 2018

中国第一、亚太第一、全球第三
No. 1 Public Cloud Provider in China and APAC
Public Sector: Building Digital Platform to Improve Public Services

State Taxation Administration

- Enhanced data analysis speed by ~360 times (from 12 hours to 2 minutes) to resolve the large-scale data challenge
- Full data visualization in T+1 timeframe for all tax bureaus in China since 2019

The People’s Government of Zhejiang Province

- Consolidated resources of 40+ provincial and 100+ city municipalities; combining 17.4 billion entries of data as of August 2019
- For new born baby registration, from 2-day offline 20+ forms to 1 online form
Retail: Providing Data-Driven Business Decision-Making Platform

- Haidilao
  - Leveraged Amap location service for better site selection to manage the risk of opening a new store; 200 new stores opened in 2018 compared to 100 over the past 24 years.
  - Employed Data Middle Office to develop the Haidilao Super App in 3 months.

- Li Ning
  - Applied Data Middle Office to aggregate marketing, sales, and service data from digitized retail stores to generate consumer insights and develop business analysis.
  - Leveraged data to do channel planning and intelligent product distribution across regions to improve decision-making efficiency.
### Internet: Enabling Rapid Business Expansion for Customers

互联网：全面支撑业务的高速扩张

<table>
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<tr>
<th>Company</th>
<th>Feature</th>
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<tr>
<td>ByteDance</td>
<td>• Supported 30 million users during the Spring Festival peak time with elastic computing resources</td>
</tr>
<tr>
<td>Xiaomi</td>
<td>• Improved speech model training efficiency by 80%, shortening training iteration from one week to one day</td>
</tr>
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Technology Infrastructure Covering the Entire Digital Economy

数字经济的全面基础设施
Strategic Cooperation with Top ISVs Offering 138 Vertical Solutions

与国内外顶级ISV和咨询伙伴建立战略合作,提供138个垂直行业解决方案
Building Talent Ecosystem for Inclusive Technology Empowerment
构建人才生态普惠全社会

Global Leaders
开发者生态
2M

Academic Cooperation
学术合作
400

Training Certificate
培训认证
1.3M

Open-source Community
开源社区
10K

Innovative Startups
创新创业
200K

All data shown as of August 2019
All data shown as of August 2019
Alibaba Cloud is Becoming the Technology Infrastructure of China’s Digital Economy
THANK YOU