

CLOUD TRANSFORMATION

New Era Start ! Now !

1G



1980s

Analog Voice

Human-to-human
Early Mobile Phones

2G



1990s

Digital Voice

Low-Speed Data
Voice and Some Text

3G



2000s

Mobile Broadband

High-Speed Data
Internet Access

4G



2010s

**Faster/Better 3G/
IP-Based Network**

High-Speed Data
Internet Access

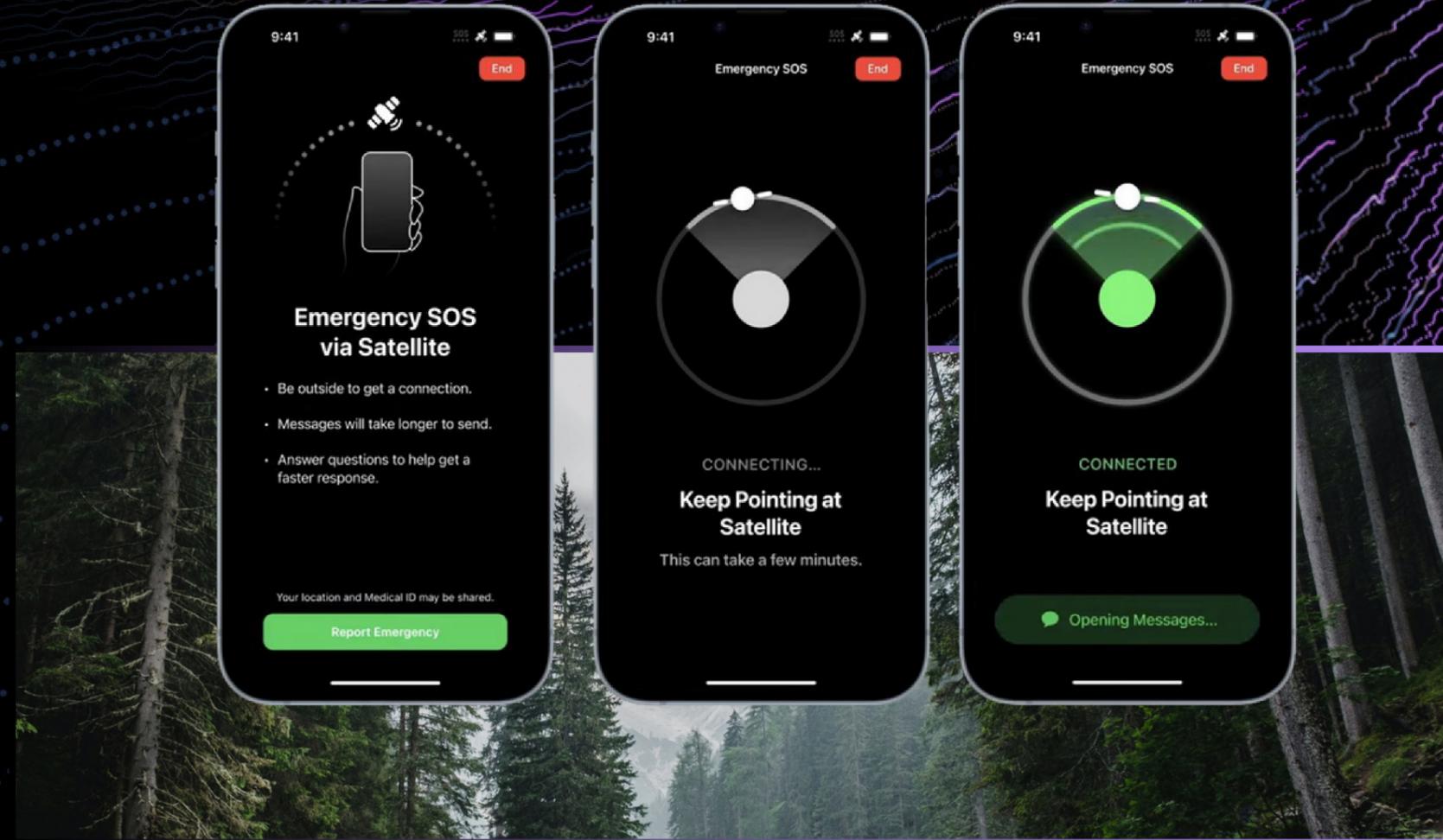
5G



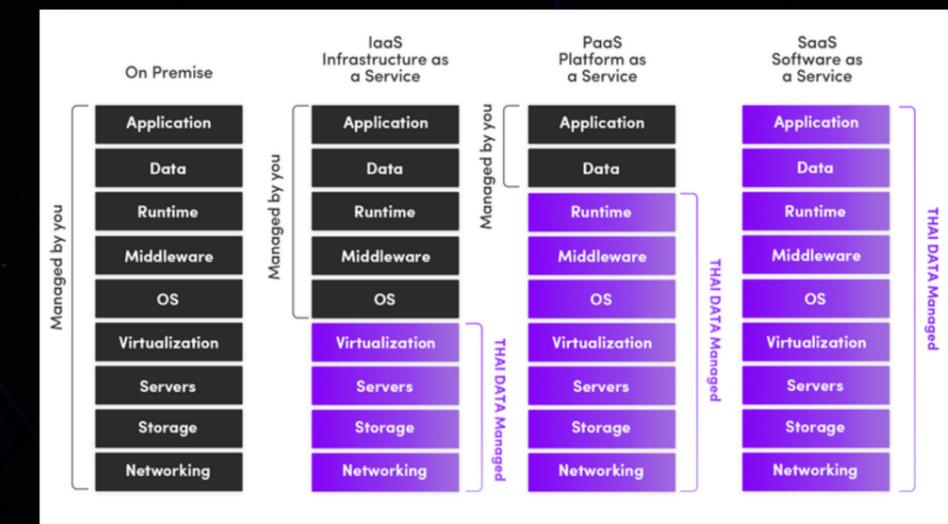
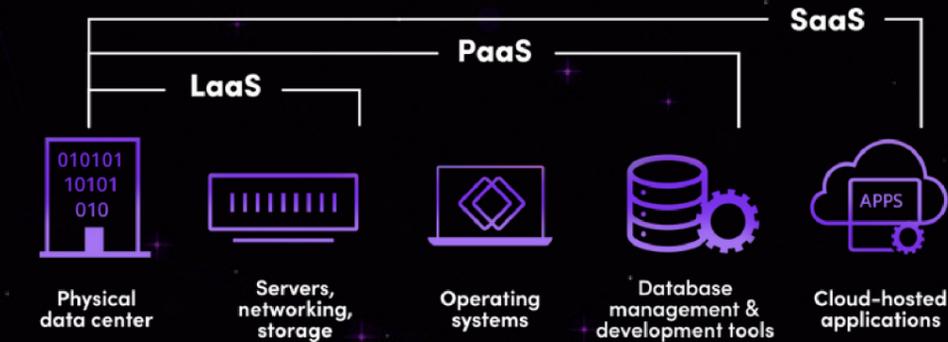
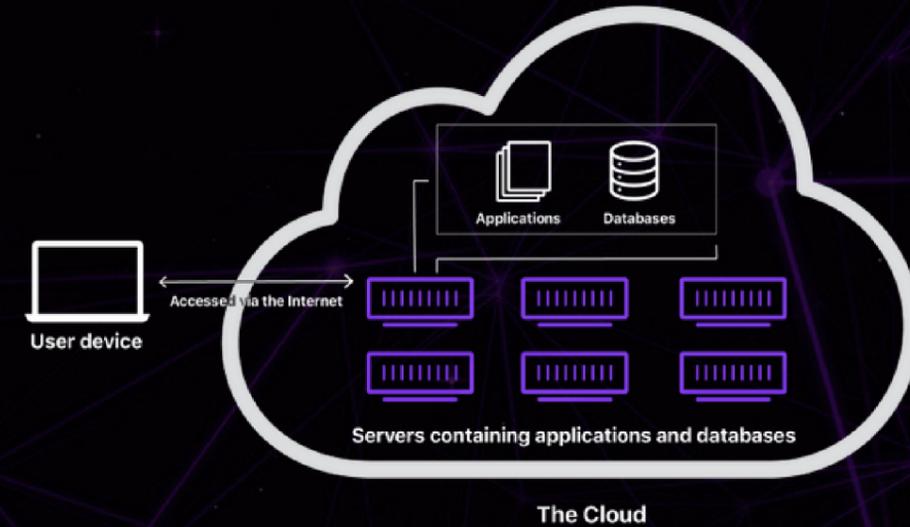
2020s

**Interconnected
Devices, Sensors, and
Systems**

For Consumers, Governments, and
Businesses



CLOUD ?



Concept

Redundant

Anytime Anywhere

Vertical and Horizontal Scale

Sustainable

Software-as-a-Service (SaaS)

Platform-as-a-Service (PaaS)

Infrastructure-as-a-Service (IaaS)

Function-as-a-Service (FaaS)

Everything as a services !

LOUD COMPUTING

On-Premies vs Cloud

Deployment

	Cloud	On-Premise
Key Factors		
Installation	Easy and fast	Time-consuming
Availability	On-demand	When bought and deployed
Investment	Less	High
Business Risks	Low	High

Energy Savings

	Cloud	On-Premise
Key Factors		
Energy Savings	Comes part of a package	To be managed individually
Cost-Savings	High	Low
Scope for SMEs	High	Low
Scope for Corporates	High	Low
Maintenance Burden	Taken care of by CSP	Enterprise's responsibility

CLOUD COMPUTING

On-Premies vs Local Cloud vs Global Cloud

On-Premises

9%

Software Licenses

- Customisation & Implementation
- Hardware
- IT Personnel
- Maintenance
- Training

Ongoing Costs

- Apply Fixes, Patches, Upgrade
- Downtime
- Performance tuning
- Rewrite customizations
- Rewrite integrations
- Upgrade dependent applications
- Ongoing burden on IT
- Maintain/upgrade hardware
- Maintain/upgrade network
- Maintain/upgrade security
- Maintain/upgrade database

Cloud-Computing

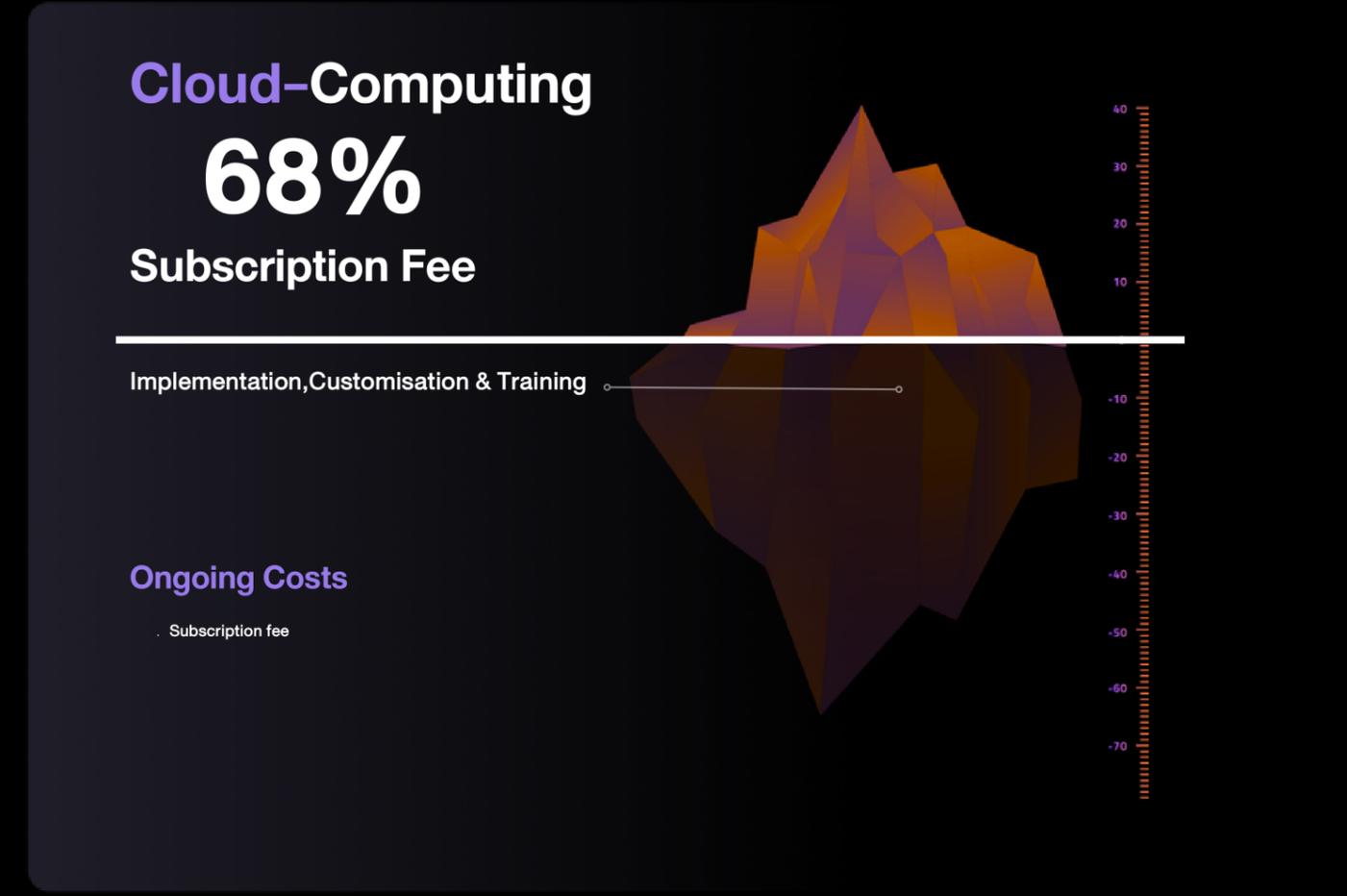
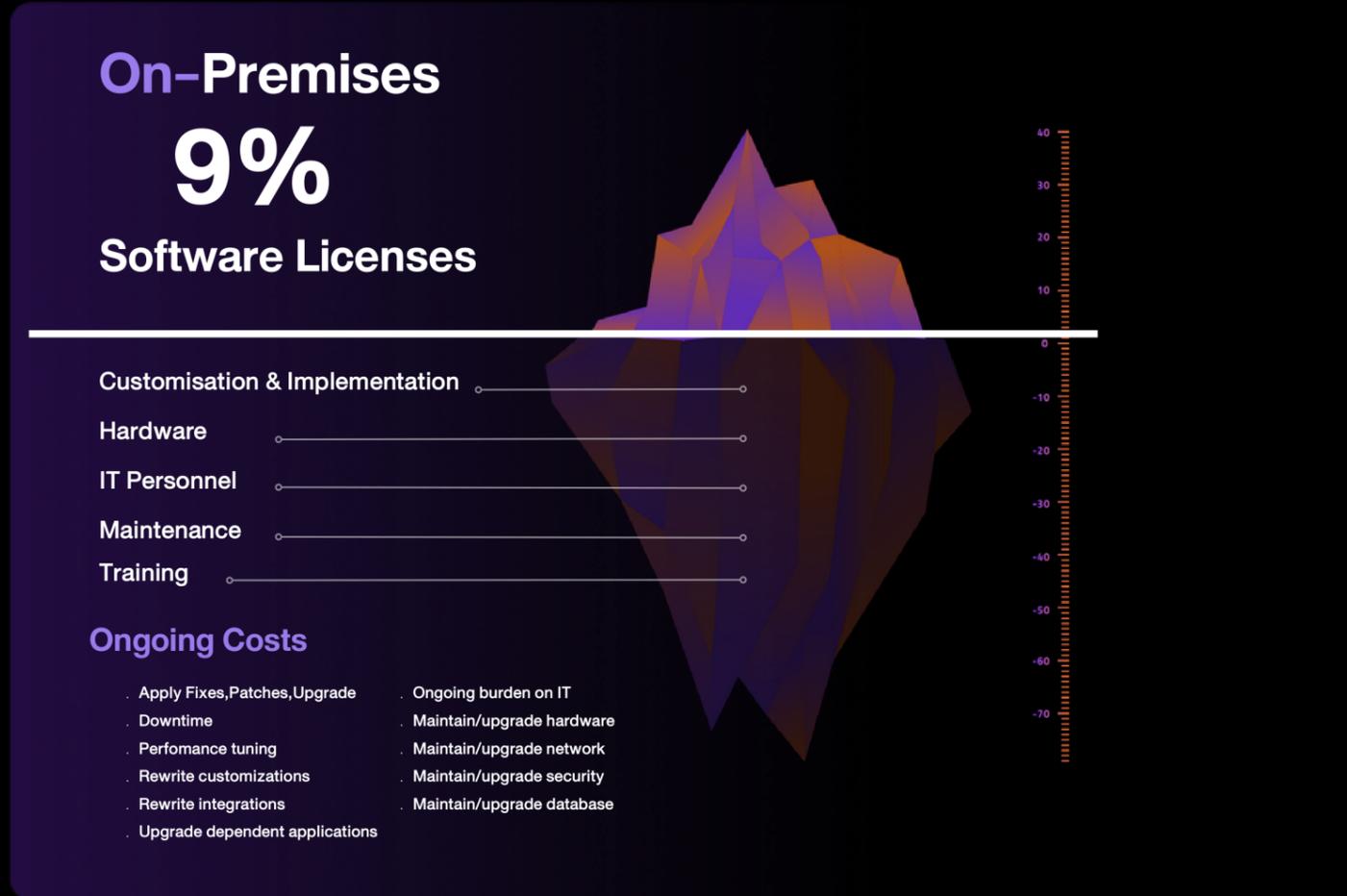
68%

Subscription Fee

- Implementation, Customisation & Training

Ongoing Costs

- Subscription fee



CLOUD COMPUTING

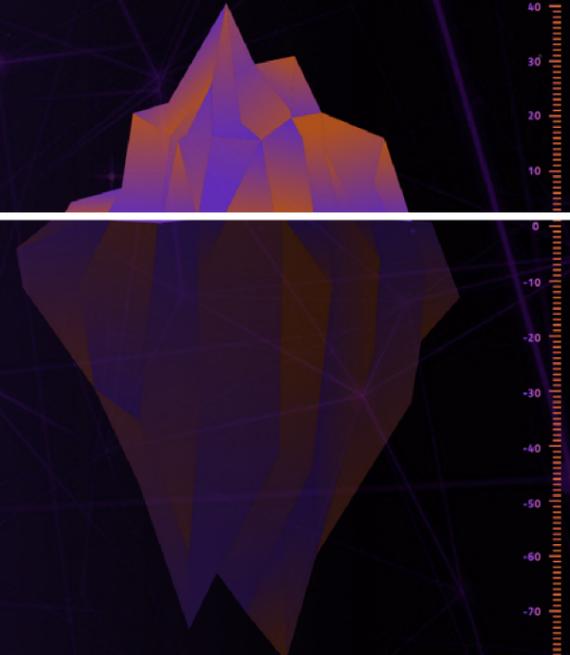
On-Premies vs Local Cloud vs Global Cloud

CLOUD LOWERS TOTAL COST OF OWNERSHIP

On-Premises

9%

Software Licenses

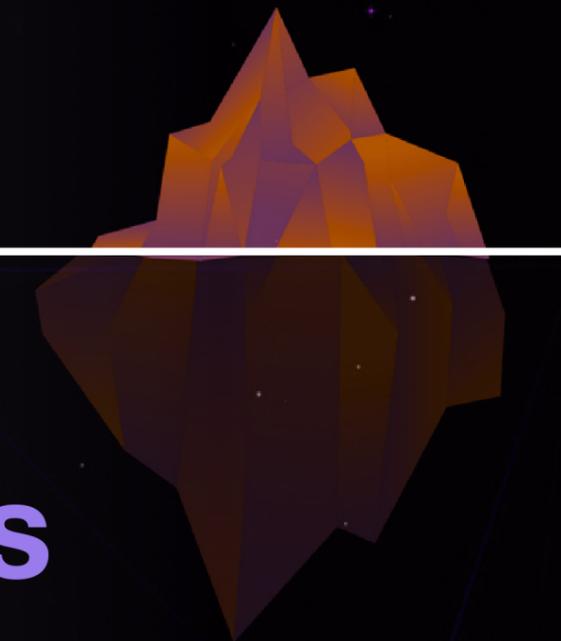


Cloud-Computing

68%

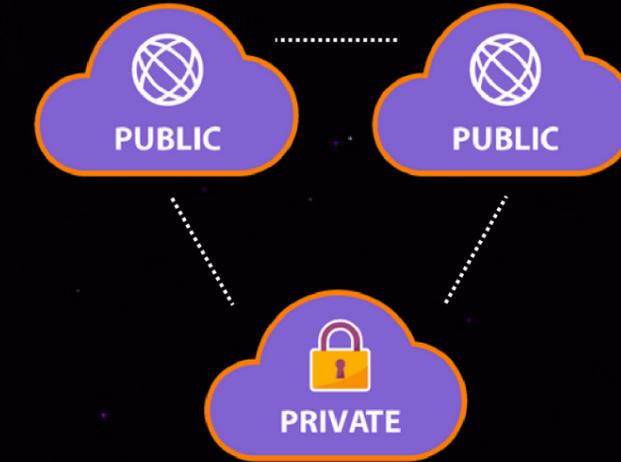
Subscription Fee

77% less



LOUD INFRASTRUCTURE Model

- Private Cloud
- Public Cloud
- Hybrid Cloud
- Multi-cloud



CLOUD INFRASTRUCTURE Model



PUBLIC CLOUD

- Services are owned and operated by cloud provider (no CAPEX, no ongoing maintenance costs).
- Cloud providers have data centres located at different regions across the world (high redundancy, close to customers).
- Provision of resources in minutes and usage on as need basis (highly scale).
- Lesser security as the platform is shared.
- Lesser flexibility and control over cloud environment.



HYBRID CLOUD

- Businesses can keep data which needs to be secured by their standards in their on-premise environment.
- Greater flexibility and more deployment options.
- Extend on-premise infrastructure to the cloud without making further capital investments.
- Network complexities and potential compliance issues
- Can be very expensive.



PRIVATE CLOUD

- Business has complete control over the environment.
- Business can implement its own security protocols at every layer.
- Data is held in environment that is in complete control by business.
- Purchase and maintenance have to be bared by business.
- More expensive than public cloud.

Why Alibaba Cloud?

No.1

in China

According to IDC, Alibaba Cloud is solidly positioned as the No. 1 cloud computing service provider in China.

Source : IDC China Public Cloud Services Tracker, 2019 Q3

No.1

in Asia Pacific

According to Gartner, Alibaba Cloud ranks 1st among cloud service providers in Asia Pacific, with 19.6% market share.

Source : Gartner Market Share : IT Services, Worldwide, 2019, 13 April 2020

No.3

in the World

According to Gartner, Alibaba Cloud ranks 3rd among cloud service providers in terms of market share in the world, being a leader among providers in emerging markets.

Source : Gartner Market Share : IT Services , Worldwide, 2019, 13 April 2020

DATA CENTERS AROUND THE WORLD

<p>200+</p> <p>Services in more than 200 countries and regions</p>	<p>No. 1</p> <p>The No. 1 cloud service provider in China, with a 42.4% market share</p>
<p>30 Regions</p>	<p>970 PB</p> <p>of data was processed during 2019's Double 11</p>
<p>544,000/sec</p> <p>544,000 transactions per second during peak time on 11.11. 2019</p>	<p>1 Million</p> <p>More than one million paying customers</p>
<p>3,200+</p> <p>More than 3,200 CDN nodes globally</p>	<p>No. 3</p> <p>Ranked third in terms of global IaaS market share</p>
<p>10,000</p> <p>Alibaba Cloud ECS can create ten thousands instances in eight minutes</p>	<p>89 Zones</p>
<p>No. 1</p> <p>The No. 1 Cloud Service Provider in Asia Pacific</p>	<p>70+</p> <p>obtained 70+ security accreditations</p>



○ Regions outside Chinese Mainland

○ Regions in Chinese Mainland

Alibaba Cloud offers an expanding network of CDN nodes and deployment regions, including the first public cloud data center regions in the Middle East (Dubai) and Indonesia, a string of strategic data centers in Asia, and a strong presence in North America, Europe, and Australia.

Data center regions in China offer BGP backbone network lines providing high-quality coverage country-wide to ensure stable and fast access inside the Mainland. In general, we recommend customers to select the data center closest to their end-users to further speed up online access.

<p>Singapore</p> <p>Availability Zone: 3</p> <p>Released in 2015</p>	<p>Australia (Sydney)</p> <p>Availability Zone: 2</p> <p>Released in 2016</p>	<p>Thailand (Bangkok)</p> <p>Availability Zone: 1</p> <p>Released in 2022</p>	<p>Malaysia (Kuala Lumpur)</p> <p>Availability Zone: 2</p> <p>Released in 2017</p>	<p>Indonesia (Jakarta)</p> <p>Availability Zone: 3</p> <p>Released in 2018</p>
<p>Philippines (Manila)</p> <p>Availability Zone: 1</p> <p>Released in 2021</p>	<p>India (Mumbai)</p> <p>Availability Zone: 2</p> <p>Released in 2018</p>	<p>Japan (Tokyo)</p> <p>Availability Zone: 3</p> <p>Released in 2016</p>	<p>South Korea (Seoul)</p> <p>Availability Zone: 1</p> <p>Released in 2022</p>	<p>US (Virginia)</p> <p>Availability Zone: 2</p> <p>Released in 2015</p>
<p>US (Silicon Valley)</p> <p>Availability Zone: 2</p> <p>Released in 2014</p>	<p>Germany (Frankfurt)</p> <p>Availability Zone: 3</p> <p>Released in 2016</p>	<p>UK (London)</p> <p>Availability Zone: 2</p> <p>Released in 2018</p>	<p>UAE (Dubai)</p> <p>Availability Zone: 1</p> <p>Released in 2016</p>	<p>SAU (Riyadh - Partner Region)</p> <p>Availability Zone: 2</p> <p>Released in 2022</p>
<p>China (Hong Kong)</p> <p>Availability Zone: 3</p> <p>Released in 2014</p>	<p>China (Qingdao)</p> <p>Availability Zone: 2</p> <p>Released in 2012</p>	<p>China (Beijing)</p> <p>Availability Zone: 12</p> <p>Released in 2013</p>	<p>China (Zhangjiakou)</p> <p>Availability Zone: 3</p> <p>Released in 2014</p>	<p>China (Hohhot)</p> <p>Availability Zone: 2</p> <p>Released in 2017</p>
<p>China (Ulanqab)</p> <p>Availability Zone: 3</p> <p>Released in 2020</p>	<p>China (Hangzhou)</p> <p>Availability Zone: 8</p> <p>Released in 2011</p>	<p>China (Shanghai)</p> <p>Availability Zone: 11</p> <p>Released in 2015</p>	<p>China (Nanjing - Local Region)</p> <p>Availability Zone: 1</p> <p>Released in 2021</p>	<p>China (Shenzhen)</p> <p>Availability Zone: 6</p> <p>Released in 2014</p>
<p>China (Heyuan)</p> <p>Availability Zone: 2</p> <p>Released in 2020</p>	<p>China (Guangzhou)</p> <p>Availability Zone: 2</p> <p>Released in 2020</p>	<p>China (Chengdu)</p> <p>Availability Zone: 2</p> <p>Released in 2020</p>	<p>China (Fuzhou - Local Region)</p> <p>Availability Zone: 1</p> <p>Released in 2022</p>	<p>China (Wuhan - Local Region)</p> <p>Availability Zone: 1</p> <p>Released in 2023</p>

NETWORK NODES

3200+
Nodes

70+
Countries

6
Continents

900+
Distribution of International Nodes

2300+
Distribution of Nodes in China

ATTESTATIONS & CERTIFICATIONS

GLOBAL

Alibaba Cloud adheres to international information security standards and is committed to using international best practices.

 CSA STAR CSA Three-tiered Cloud Security Assurance Program	 ISO 27001 Information Security Management Standard	 ISO 20000 Information Technology Service Management Standard
 ISO 22301 Business Continuity Management Standard	 ISO 9001 Quality Management Systems Standard	 ISO 27017 Code of Practice for Cloud-Specific Information Security Controls
 ISO 27018 Code of Practice for Protecting Personal Data in the Cloud	 ISO 27701 Extension to ISO 27001 for Privacy Information Management	 ISO 29151 Code of Personally Identifiable Information Protection
 BS 10012 Personal Information Management System	 PCI DSS Payment Card Data Industry Data Security Standards v3.2.1	 PCI 3DS PCI 3DS Core Security Standard supports 3DS transaction security
 SOC1 Type II Report Internal Controls Over Financial Reporting	 SOC2 Type II Report Internal Controls Relevant to Security, Availability, and Confidentiality	 SOC3 Report General Use Report Relevant to Security, Availability, and Confidentiality

INDUSTRY

Alibaba Cloud adheres to all the domestic information security standards of the countries and regions where our cloud services are deployed.

 GxP US US FDA Regulation on ERES Part 11 of Title 21 CFR	 TISAX DE Trusted Information Security Assessment Exchange	 HIPAA/HITECH US Health Insurance Portability and Accountability Act
 MPA US Motion Picture Association Guidelines	 SEC Rule-17a US Securities and Exchange Commission (SEC) Rule 17a	 OSPAR SG Outsourced Service Provider's Audit Report (OSPAR) in Singapore
 FERPA & HECVAT US Family Educational Rights and Privacy Act	 COPPA US Children's Online Privacy Protection Rule	 DPP - Broadcast UK DPP Committed to Security Programme for Broadcast
 DPP - Production UK DPP Committed to Security Programme for Production	 FISC JP Center for Financial Industry Information Systems	

DATA PROTECTION & PRIVACY

Alibaba Cloud has completed independent cyber risk assessments to valid Alibaba Cloud's security posture. Customers can leverage Alibaba Cloud' third party cyber risk assessment report to reduce their supplier due-diligence burden.

 <p>GDPR EU General Data Protection Regulation</p>	 <p>EU Cloud CoC EU Verification-ID: 2020LVL02SCOPE013</p>	 <p>PDPA SG Personal Data Protection Act in Singapore</p>	 <p>PDPO HK The Personal Data (Privacy) Ordinance in Hong Kong</p>
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 <p>PDPA MY Personal Data Protection Act in Malaysia</p>	 <p>DPTM SG Data Protection Trustmark in Singapore</p>	 <p>APEC CBPR SG APEC Cross Border Privacy Rules System (Singapore)</p>	 <p>APEC PRP SG APEC Privacy Recognition for Processors System (Singapore)</p>
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Cloud Services ?

ALIBABA CLOUD PRODUCT PORTFOLIO

250+
Products

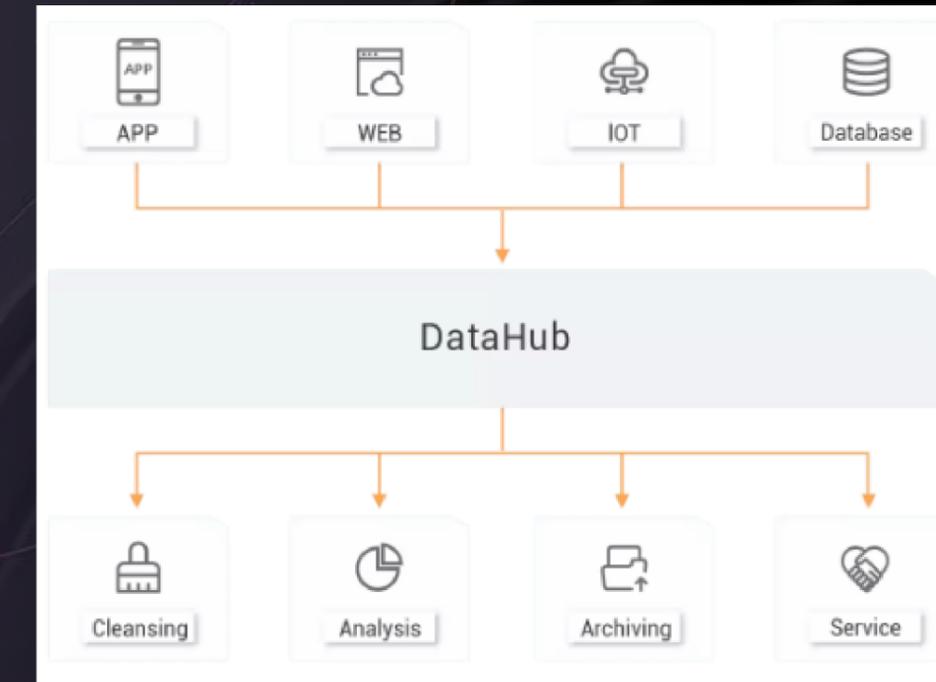
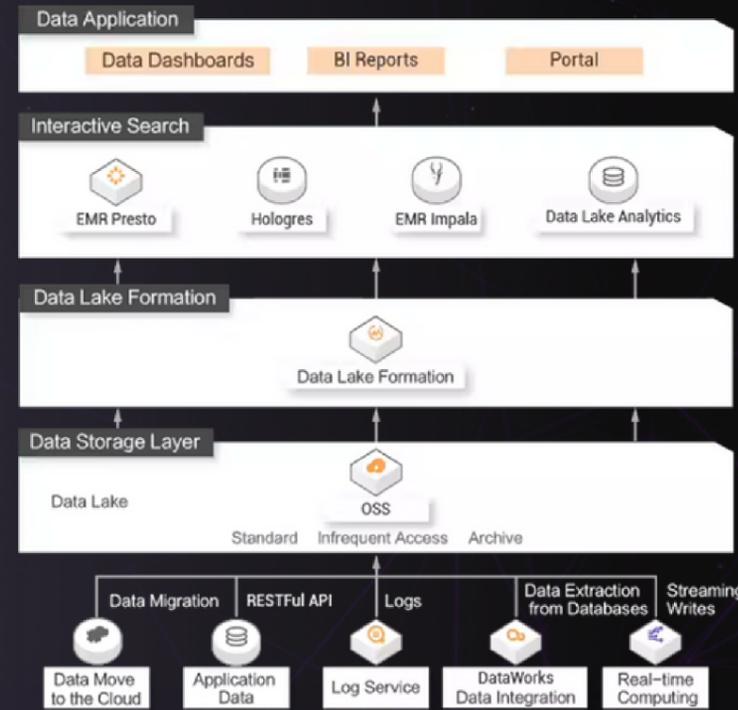
500
Solution

10k
Partner in international markets

Core Internet Technology	Middleware	Video and traffic	IOT	Application service	Security
	<ul style="list-style-type: none"> MQ – Rocket MQ MQ – MQTT Application Real Time Monitor EDAS Web + 	<ul style="list-style-type: none"> Video on Demand Apsara Live Video Media Transcode Service CDN Short message Service 	<ul style="list-style-type: none"> IoT Wireless Connect IoT Platform IoT Command Center 	<ul style="list-style-type: none"> Domains Alibaba Mail Web Hosting API Gateway 	<ul style="list-style-type: none"> Security Management (Managed Security Service) Application Security (WAF/CA/ Content Moderation/ Website Threat Inspector) Data Security (KMS/SSL Certificate) Network Security (Anti-DDos/Game Shield/Cloud Firewall) Server Security (Server-Guard / Security Center) Business Security (IDaaS / Cyber Security Law Consulting)
Data Intelligence	Database		Big Data & AI		
	<ul style="list-style-type: none"> RDS for MySQL RDS for SQL Server RDS for PostgreSQL RDS for PPAS RDS for Maria 	<ul style="list-style-type: none"> Redis MangoDB Data transfer service Data mgmt. Service ADAM 	<ul style="list-style-type: none"> POLAR DB for MySQL POLAR DB for Postgre Analytic DB for MySQL Analytic DB for Postgre Hi-Time series DB 	<ul style="list-style-type: none"> DataWorks E-Map Reduce Data V Elastic Search NLP / ASR 	<ul style="list-style-type: none"> MaxCompute / PAI Telsa / DataHub Quick BI Open Search Image Search
Cloud Infrastructures	Elastic Compute	Innovation Compute	Storage	Network	Private Cloud
	<ul style="list-style-type: none"> ECS Auto Scaling Reserved Instance Container Service for Kubernetes Elastic Container Instance Container Registry 	<ul style="list-style-type: none"> E-HPC Bare metal instance Function Compute GPU Instance FPGA Instance Super Compute Cloud 	<ul style="list-style-type: none"> Object Storage Service Block Storage File Storage Cloud Storage Gateway Hybrid Backup Recovery Table Store 	<ul style="list-style-type: none"> Virtual Private Cloud Express Connect NAT Gateway Server Load Balance VPN Gateway 	<ul style="list-style-type: none"> Cloud Enterprise Network Smart Access Gateway Global Acceleration 2.0 Shared Traffic Package Shared Bandwidth

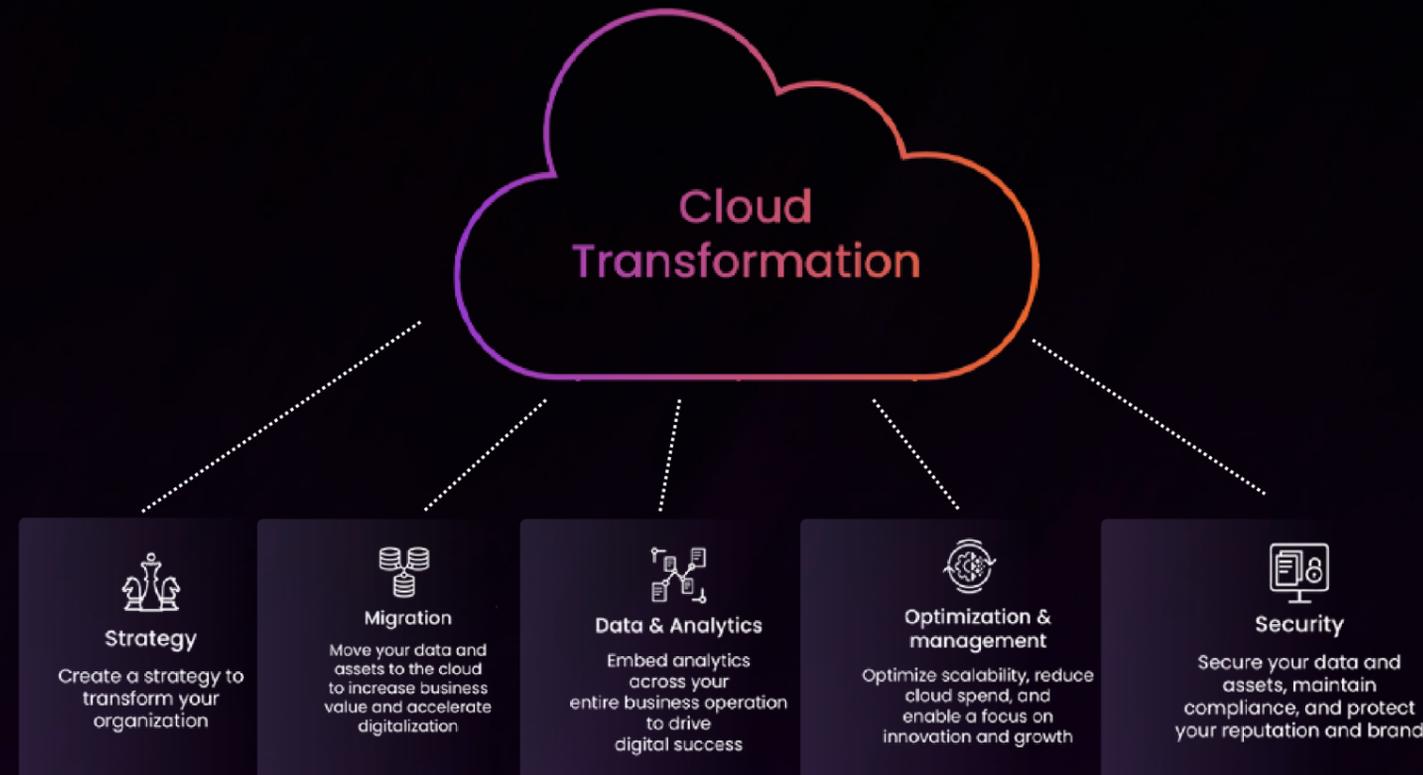
DATA LAKE & QUICK BI

A Key Component of the Cloud-Native Data Lake Framework



CLOUD TRANSFORMATION

From Strategy to Execution



Key Drivers Behind Cloud Transformation

-  **Capital Cost Reduction**
-  **Added Value**
-  **Improved Business Agility**
-  **Improve Collaboration Among Teams**

How powerful of cloud services

NETFLIX



NETFLIX DEPLOYED



USE CASE

InterContinental Hotels Group



InterContinental Hotels Group

5,400

hotels

100

million enrolled members.

810,000

guest rooms 100 countries

375,000

people work across the world

1,800

hotels its development pipeline.

Featured Products

Elastic Compute Service

Secure, scalable, high-performing virtual servers

ApsaraDB RDS for MySQL

Based on AlisQL to provide excellent stability and performance

Cloud Enterprise Network

Create your own enterprise class global network

Smart Access Gateway

BConnect enterprise networks to Alibaba Cloud

Security Center

Security Center provides round the clock security and protection

USE CASE

airasia

165

Destinations

25

Countries

Featured Products

Web Application Firewall

A cloud fierwall service utilizing big data capabilities to protect against web-based attacks

Anti-DDos Pro

Anti-DDoS Pro is a value-added service to protect your online business

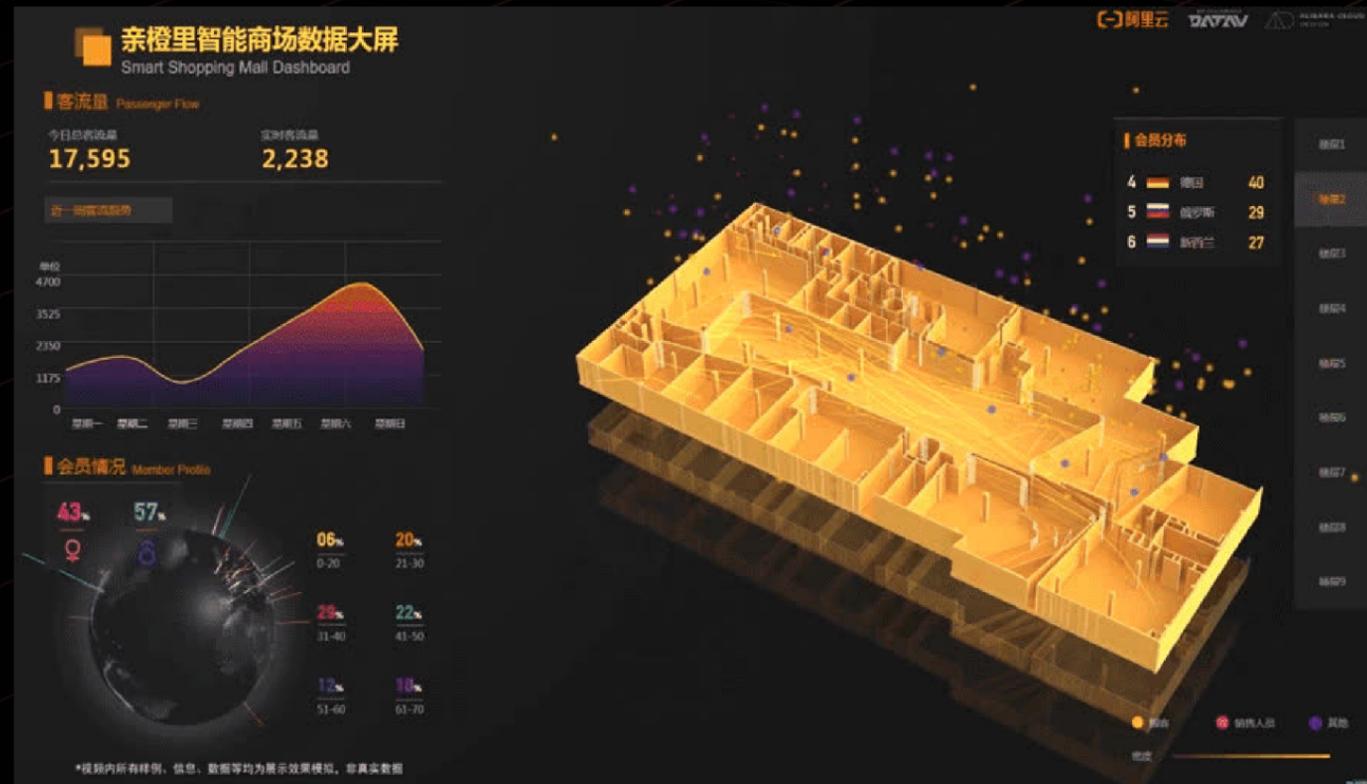
DATA V

Understand relationships, patterns, and trends. > data-driven > well-organized



DATA V

Understand relationships, patterns, and trends. > data-driven > well-organized

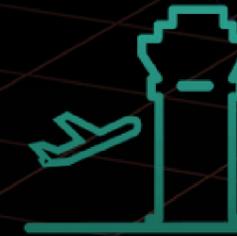


QIN CHENG LI SMART SHOPPING MALL

- Total number of visitors
- Number of visitors on each floor
- Proportions of male and female visitors number of vehicles
- Sales of each store
- Environment data.

DATA V

Understand relationships, patterns, and trends. > data-driven > well-organized



HONG KONG AIRPORT

This DataV visualization project shows people flows in the terminals and traffic on the tarmac at the airport in real time

DATA V

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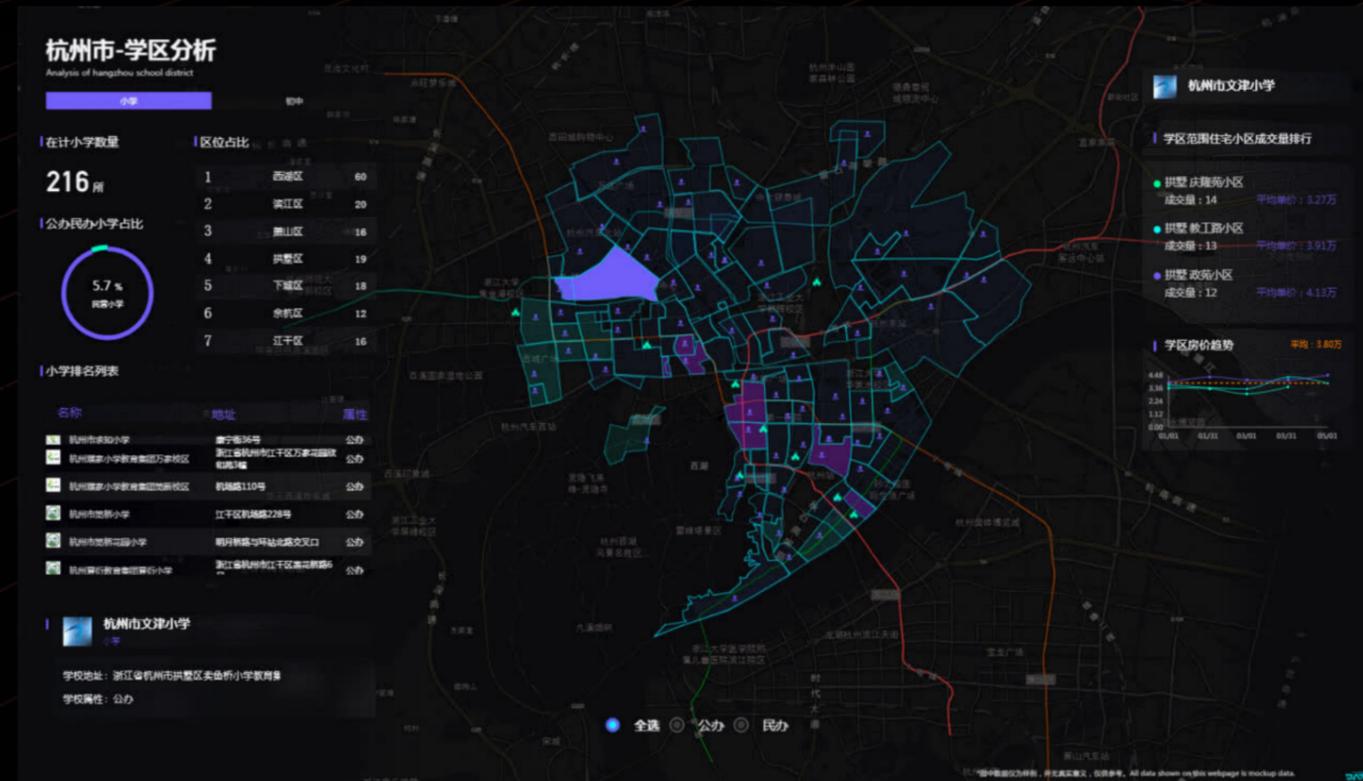


SMART FACTORY

full representation of the production parameters in each phase of a smart factory. The system also collects work data of each production line or workshop to a centralized control center to implement production control.

DATA V

Understand relationships, patterns, and trends. > data-driven > well-organized



ANALYSIS OF SCHOOL DISTRICTS IN HANGZHOU

The rankings and number of schools in each district of Hangzhou based on the distribution of primary and secondary schools. Displays the prices and sales volumes of real estate assets of each school district. The project presents the data in a clear and graphical manner.