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# Alibaba Group Holding (9988.HK, BABA)



## Decoding Alibaba Cloud AI Full Stack & Introduce MaaS Revs Forecast

### CITI'S TAKE

This report analyzes Alibaba Cloud's vertically integrated AI stack, from its T-Head semiconductor offering to its IaaS, PaaS, and MaaS layers. Our MaaS analysis focuses on Qwen LLM, Model-Scope platform, and progress in application and agentic AI. We forecast AI-related revs to grow at 90% CAGR from FY26-31E to reach 70% of total cloud revs by FY2031 with MaaS revs growing at 235% CAGR to reach Rmb438.6bn, representing 53% of total cloud revs by FY2031. We reiterate our Buy rating on BABA with TP of US\$205/HK\$204 for ADR/H shares respectively and anticipate significant value-unlocking opportunities as Alibaba demonstrates the improving strength of its AI full-stack capabilities with cost synergies and improving cloud margins potential riding on continuous AI innovation. We believe Alibaba is well-positioned to capitalize on the rapid growth of the token economy and reaffirm its status as our top pick for China AI play.

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**Raising cloud revs forecast** - We raise our FY2028-2029 cloud revs assumption and introduce FY30-31 forecast and now model consolidated cloud revs to grow at 39% CAGR from FY26-31E to reach Rmb833.4bn by 2031E with external cloud revs growing at 44% CAGR to Rmb666.8bn or US\$95.2bn (vs company target of US\$100bn) by 2031E. This is driven by 90% CAGR for AI-related revs to reach Rmb585.5bn or 70% of total while non-AI cloud revs to grow at 13% CAGR with revs contribution declining from 85% in FY26 to 30% in FY31.

**MaaS revs to reach 53% of total by 2031** - We forecast MaaS related revs to grow at 235% CAGR to reach Rmb438.6bn (US\$62.6bn) by 2031 and accounted for 53% of total cloud revs. Thanks to BABA's multi-chip architecture strategy and contribution from T-Head AI accelerator, we forecast AI-IaaS revs to grow at 46% CAGR to Rmb128.7bn and account for 15% of total cloud revs by 2031 while we model AI-PaaS revs to grow at 40% CAGR to Rmb18.2bn but only represent 2% of total cloud revs.

**Cumulative capex spend** - We forecast capex to be maintained at Rmb130-140bn per year with cumulative capex estimated at Rmb822.9bn for six years (FY26-31) and our estimated capex spend suggest avg of 32% of cloud revs for six years period.

|                    |         |      |        |             |              |        |     |                 |              |     |          |             |         |             | Current Fiscal Year |     | Next Fiscal Year |     |
|--------------------|---------|------|--------|-------------|--------------|--------|-----|-----------------|--------------|-----|----------|-------------|---------|-------------|---------------------|-----|------------------|-----|
| Company            | Ticker  | Ccy  | Price  | Mkt Cap (M) | Date & Time  | Rating |     | Short-Term View | Target Price |     | ESPR (%) | Div Yld (%) | ETR (%) | Last Rpt Yr | EPS                 |     | EPS              |     |
|                    |         |      |        |             |              | Old    | New |                 | Old          | New |          |             |         |             | Old                 | New | Old              | New |
| Alibaba Group Hldg | 9988.HK | HK\$ | 139.00 | 2,667,744   | 08 May 16:10 | 1      | nc  | -               | 204.00       | nc  | 46.8     | 1.4         | 48.2    | Mar-25      | 3.837               | nc  | 6.121            | nc  |
| Alibaba Group Hldg | BABA    | US\$ | 140.06 | 336,011     | 08 May 16:00 | 1      | nc  | -               | 205.00       | nc  | 46.4     | 1.4         | 47.8    | Mar-25      | 30.693              | nc  | 48.236           | nc  |

1 = Buy, 2 = Neutral, 3 = Sell, H = High Risk

ESPR = Expected Share Price Return, ETR = Expected Total Return, nc = no change

Source: Citi Research

^ Catalyst Watch

See Appendix A-1 for Analyst Certification, Important Disclosures and Research Analyst Affiliations.

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## Earnings Estimates

| Company Name       | Ticker  | Last Rpt Year | Currency | Last Reported Year |        |        |        |        | Current Fiscal Year |       |       |       |        | Next Fiscal Year |        |        |        |        |
|--------------------|---------|---------------|----------|--------------------|--------|--------|--------|--------|---------------------|-------|-------|-------|--------|------------------|--------|--------|--------|--------|
|                    |         |               |          | 1Q                 | 2Q     | 3Q     | 4Q     | FY0    | 1Q                  | 2Q    | 3Q    | 4Q    | FY1    | 1Q               | 2Q     | 3Q     | 4Q     | FY2    |
| Alibaba Group Hldg | 9988.HK | Mar-25        | Rmb      | 2.089              | 1.907  | 2.790  | 1.580  | 8.176  | 1.844               | 0.545 | 0.886 | 0.564 | 3.837  | 1.262            | 1.369  | 2.038  | 1.454  | 6.121  |
| Alibaba Group Hldg | BABA    | Mar-25        | Rmb      | 16.474             | 15.255 | 22.317 | 12.638 | 65.406 | 14.749              | 4.361 | 7.089 | 4.514 | 30.693 | 9.945            | 10.787 | 16.059 | 11.460 | 48.236 |

Source: Citi Research

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## BABA's AI Full-Stack Capability

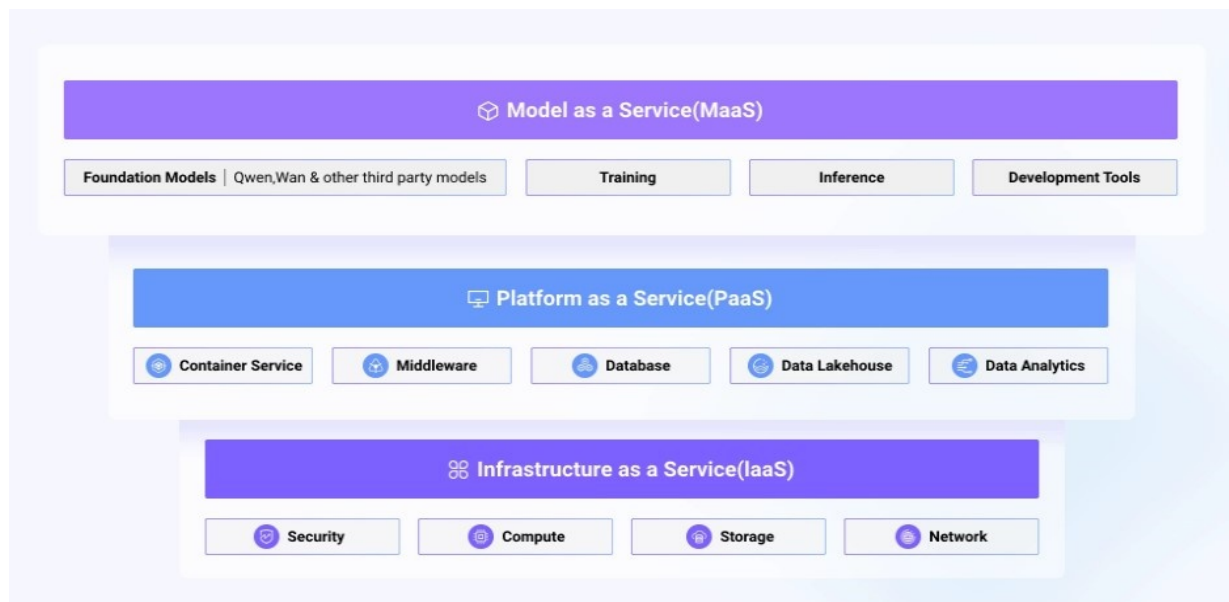
As highlighted by CEO Mr. Eddie Wu during latest [FY3Q26 earnings call](#) that Alibaba has developed a comprehensive, **full-stack AI capability** to meet the exponential growth in AI demand. Its AI strategic roadmap provides end-to-end coverage, from the AI infrastructure layer (chips and cloud computing) to the application layer. The latter is anchored by the Alibaba Token Hub and includes the Qwen foundation models, Model as a Service (MaaS), and various enterprise and consumer applications, creating a fully integrated AI ecosystem.

The success of this full-stack strategy is evident in the performance of Alibaba's **infrastructure layer**. Driven by sustained, strong AI demand, the Cloud Intelligence Group's revenue from external customers accelerated to 35% in FY3Q26, with AI-related product revenue delivering triple-digit year-over-year growth for the tenth consecutive quarter. This momentum has expanded its market share to 36% and pushed its cumulative external revenue through February for FY2026 surpassed Rmb100bn, per management.

A primary catalyst for this expansion was attributed to MaaS platform, where token consumption has grown six-fold in the last three months, positioning it to become the Cloud Intelligence Group's largest revenue product. Underpinning this growth is the T-Head division's proprietary AI chips, which have achieved cumulative shipment of 470,000 units. With >60% of these chips serving >400 external enterprise customers, T-Head is providing the critical compute capacity that strengthens the overall competitiveness of Alibaba's cloud and MaaS offerings.

The **application layer** comes with core mission of creating, delivering, and applying tokens. With the establishment of new [Alibaba Token Hub](#) (ATH) business group, which comprised of the Tongyi Lab, the MaaS Business Line, the Qwen Business Unit, the Wukong Business Unit, and the AI Innovation Business Unit, ATH aims to provide the organizational foundation for executing Alibaba's AI strategy and serves as the hub for efficient coordination across its various AI businesses.

Figure 1. AliCloud all-in-one full stack services



Driven by strong market demand and confidence in its full-stack capabilities, Alibaba's management is targeting significant growth opportunities in its cloud and AI businesses. The company has set a goal to **achieve US\$100 billion** in combined cloud and AI external revenue within the next five years. Management expects MaaS to be the primary engine for this growth, projecting it will contribute the majority of the growth and become the largest revenue component by that time. We noted in FY3Q26 [review note](#) that by targeting AI and cloud business revs to >US\$100bn in five years, driven by capitalizing on the enterprise adoption of large AI models for complex B2B workflows with key growth drivers including MaaS as the primary growth engine, bespoke AI and cloud solutions for enterprise-specific training and inference and an expansion of traditional CPU-centric cloud computing to support the operational needs of AI agents. By transitioning from selling resources to **selling "intelligence"** and leveraging proprietary T-Head chips for efficiency, management expects **non-linear growth in both revs and profitability**.

In fact, Ali management has commented on its full-stack capability several times in the past, this includes the keynote speech during [2025 Apsara Conference](#) (on Sept 29, 2025), where Chairman and CEO Eddie Wu commented that *"Alibaba Cloud is strategically positioned as a full-stack AI service provider, dedicated to delivering robust computing with maximized efficiency for training and deploying large AI models on the cloud."* During the Apsara conference, BABA also disclosed that as of Sept 2025, over 600mn models downloads of Qwen and Wan series model, with 170,000 derivative models and more than 800,000 AI agents build on Model Studio and over one million corporate and individuals using Qwen through Model Studio.

## The Rmb380bn capex investment

Alibaba first provided its three-year Rmb380bn capex plan in Feb 2025, framing it as a "once-in-a-generation" opportunity presented by Artificial Intelligence. While it was initially set as a three-year target, recent management comment suggest that plan will be accelerated.

During the 2025 Apsara keynote speech ([Citi note](#)), Mr. Eddie Wu also highlighted that the AI-driven intelligent revolution is moving the transformation from AGI to ASI (Artificial SuperIntelligence) where LLMs will be the operating system in the AI era and AI Cloud will become the next generation of computers. Mr. Wu also commented that with the demand for AI infrastructure accelerating, Ali is committed to increasing its global **datacenter capacity by tenfold by 2032** to support the evolving ASI era. Mr. Wu also noted that only 5-6 global super cloud platforms are likely to exit to provide large-scale computational resources/AI services, we believe, with AliCloud being a world leading full-stack Ai service provide, Alibaba is well-positioned to capture the evolution upside translating to sustainable cloud revs growth with efficiency margins upside in coming years.

During FY2Q26 (Nov 2025) earnings call, Alibaba management noted that given supply chain constraint, mgmt expects AI demand will continue to outpace capacity in next 2-3 years, and its current 3-year Rmb380bn capex budget likely to deploy ahead of schedule.

## History of Alibaba Cloud

[Alibaba Cloud](#) was established by Alibaba Group in Sept 2009, originally aiming to support the internal infrastructure of Alibaba's ecommerce ecosystem such as handling of vast amounts of data and transactions especially during Singles Day promotion. Since its inception, Alibaba Cloud has grown to become the largest cloud computing company in China and the 4<sup>th</sup> largest in the world, per BABA 2025 Annual report. As highlighted in FY2025 annual report ([link](#)), Alibaba Group is the world's fourth largest and Asia Pacific's largest Infrastructure-as-a-service provider by revenue in 2024 in U.S. dollars, according to Gartner April 2025 report.

Between 2010 and 2014, Alibaba Cloud had transitioned from an internal solution to a public cloud services provider, offering elastic computing, data storage, and analytics to external clients. A key development during this time was the 2013 debut of Apsara, its proprietary cloud computing engine, which became the foundation for its scalable services in web hosting, big data, and machine learning.

Alibaba Cloud began its global expansion in 2015 by opening a data center in Silicon Valley, signaling its intent to compete with established international players like AWS and Microsoft Azure at that time (but BABA has since scaled back its presence in the US since 2018 amid political tension as noted by [CIO Dive article](#) dated Sept 4, 2018). Gartner included Alibaba Cloud in its Magic Quadrant for Cloud Infrastructure as a Service (IaaS) in 2016, which suggests an important recognition. In 2017, Alibaba announced the 12-year partnership with international Olympic Committee to become the official "Cloud Services" and "Ecommerce Platform Services" Partner as well as a founding partner of the Olympic Channel. Since 2019, Alibaba Cloud has intensified its focus on artificial intelligence, launching the Machine Learning Platform for AI to provide developers with efficient tools for building and deploying AI models, positioning itself as a leader in the AI sector.

## Stages of Ali Cloud revenues and growth trend

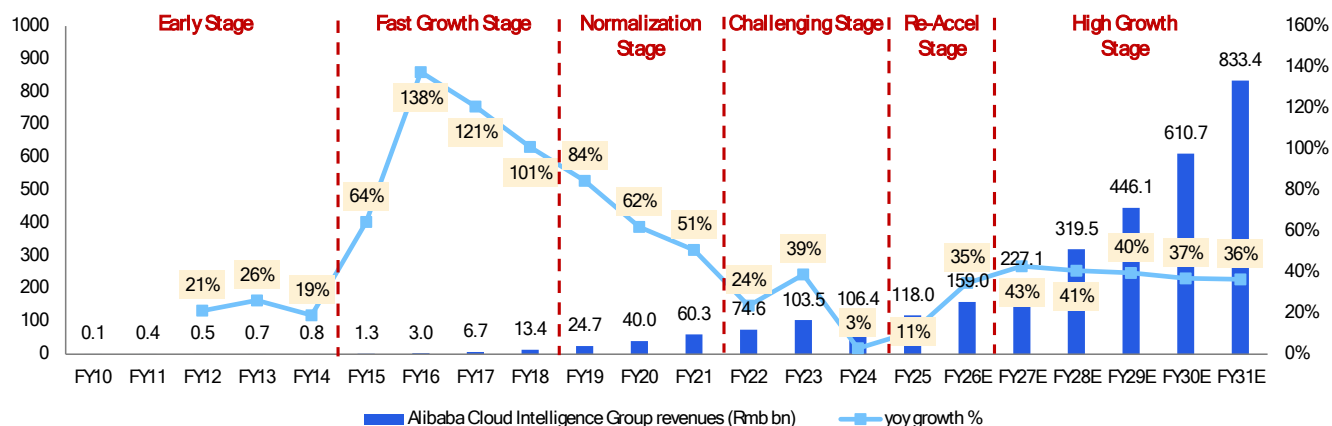
Since the inception in 2009, Alibaba Cloud has been through a few transition stages where we will discuss briefly the revenues scale during its early stage (FY2010-2014), fast growth stage (FY2015-2018), normalization growth (FY2019-2021), challenging stage (FY2022-2024), reaccelerating stage (FY2025-FY2026), AI high-growth stage (FY2027-2028).

- **Early stage (FY2010-2014)** – Based on the reported financial, cloud revs were Rmb144mn in 2010 and grew to Rmb425mn in 2011 before experiencing slow growth of 19% yoy to Rmb773mn in 2014 or 1.5% of total group revs. As noted in earlier part of this note, during this period, Alibaba Cloud had transition from an internal solution to a public cloud service provider offering elastic computing, data storage to external clients.
- **Fast growth stage (FY2015-2018)** – During this period, AliCloud also started to expand its services to global markets and cloud revs experienced fast acceleration with 64%/138%/121%/101% yoy growth from FY2015 to 2018, respectively, demonstrating fast ramp of cloud customers and revs generated per customer. Ali first reported the breakdown of segment EBITA in 2016, AliCloud incurred a loss of Rmb2.65bn or -86.3% of revs in 2016. The loss ratio improved to -25%/-23% in FY2017-2018.
- **Normalization stage (2019-2021)** – After the strong growth stage, revenues growth had become more normalized in subsequent few years on the back of

higher base, growing competition. During this stage, revs growth decelerated to 84%/62%/51% for FY2019–2021.

- **Challenging stage (FY2022–2024)** – In FY4Q21, cloud revs saw a big deceleration to 38% yoy, down from 50–60% from previous few quarters, mainly related to the transition of an Internet company’s overseas cloud services from Alibaba Cloud to US cloud service provider due to the geo-political tension. [Caixin](#) reported on May 14, 2021, that the “internet” company is Bytedance’s TikTok business. The transition had resulted in fast deceleration of revs growth to 24% in FY2022. With Bytedance launching its own enterprise-level cloud service Volcano Engine on June 10, 2021 ([Reuters](#)) we reconcile Bytedance had subsequently also moved out its domestic cloud business from Alibaba Cloud to its own platform, together with intense pricing competition in China and BABA’s decision to also cutting back “low-margin” project-based cloud customers, AliCloud revs decelerated sharply to 4%/3% in FY2023/2024. AliCloud turned adjusted EBITA profitable in FY4Q22 with Rmb598mn or 3.2% margin. In FY2023–2024, adjusted EBITA reached Rmb4.1bn/Rmb6.1bn or 4%/5.8% margin.
- **Reaccelerating stage (FY2025–2026)** – After the challenging period, cloud revs started to show reacceleration with quarterly yoy growth continued to accelerate from 5.7%/7%/13%/18% in FY1Q25–4Q25 and further accelerate to 26%/34%/36% in FY1Q26–3Q26 and we currently model cloud revs to grow at 41% yoy in FY4Q26. The reacceleration growth mainly driven by 10 quarters of triple digit AI-related revs growth which accounted for ~20% of total cloud revs as of FY1Q26 as disclosed by the company. Adjusted EBITA margins further improved to 8.9% in FY25 and stabilized around 9% in FY2026.
- **High-growth stage (FY2027–2028)** – On FY3Q26 earnings call, management provided US\$100bn revs target in next five years, which suggests revenues CAGR of >40% for the next five years. Nonetheless, consensus and we have raised our forecast for cloud revs growth to exceed 40% in next couple years, and we still model some deceleration in subsequent years based on our conservative view.

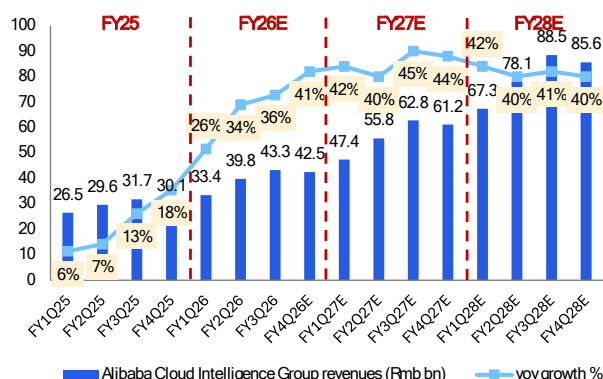
Figure 2. Alibaba Cloud Intelligence Group revenues



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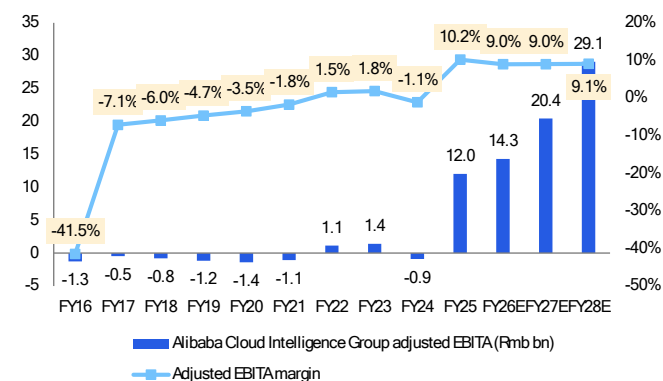
Source: Company Reports and Citi Research Estimates, Note: Alibaba changed its Cloud reporting revs from external to consolidated starting from June 2023 (FY1Q24)

**Figure 3. Alibaba Cloud Intelligence Group revenues by quarter**



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Source: Company Reports and Citi Research Estimates

**Figure 4. Alibaba Cloud Intelligence Group adjusted EBITA**



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Source: Company Reports and Citi Research Estimates

## External vs internal Cloud revs

Historically, BABA only reported external customer revs for its cloud revs, starting from FY1Q24 (or June quarter 2023), BABA changed its reporting to consolidated cloud revs, including both external and internal (ie: cloud demand from its ecommerce and other internal business units). We reconcile internal revs account for 25–30% of total cloud revs. Since the reacceleration of cloud revs starting FY1Q25, external revs have been growing slightly slower than total cloud revs growth, suggesting internal revs were growing slightly faster. For example, in FY4Q25, total cloud revs grew 18% while external customer grew 17% yoy and FY2Q26 total cloud revs grew by 34% yoy while external customer grew 29% yoy, mainly because internal business segment have been the early adopter of AI model and AI agentic tools, etc to strengthen business operation and optimize cost, hence internal demand has been very strong and make sense during nascent stage of AI revs take off, internal demand might be growing faster than external.

## AI-related revs growing at triple digit yoy

As early as FY1Q26 (Aug 2025), BABA noted on its earnings call that AI related revs accounted for 20% of total cloud revs and with AI related revs growing at triple digit for 8<sup>th</sup> consecutive quarter. Later during FY2Q26 earnings in Nov 2025, BABA reiterated that AI related revs accounted for more than 20% of external customer revs with contribution continue to increase driven by accelerated adoption of AI product across broad range of enterprise customers with a growing focus on value added applications, including coding assistants. And in latest FY3Q26 earnings call in Mar 2026, BABA noted that AI-related revs continue to grow at triple digit yoy for 10<sup>th</sup> consecutive quarter. We traced back starting from FY4Q24 earnings call (May 2023), BABA commented that AI-related revs increased triple digit yoy, and specifically during that quarter, BABA noted that core public cloud offerings recorded double-digit yoy growth demonstrating that they are returning to growth.

## US\$100bn revenue target and MaaS as key driver

As noted above, during FY3Q26 earnings call, BABA management announced its goal to achieve US\$100 billion in combined cloud and AI external revenue within the next five years with MaaS being the primary engine for this growth and projecting MaaS to contribute the majority of the growth and become the largest

revenue component by that time, implying over 40% revs CAGR for the next five years. We believe market remains skeptical whether the 40% revs CAGR is achievable, and we previously were modeling deceleration starting FY2029E after forecasting >40% for FY2027E and FY2028E.

In light of the continued acceleration of enterprise demand and continued improvement of AI model intelligence (including Qwen series) and declining token prices, we believe the adoption rate will further accelerate in the coming years. Combining top-down and bottom-up analysis, we raise our cloud revs forecast for FY2028 and FY2029 and introduce our forecast for FY2030 and FY2031.

## Raising Cloud revenues forecast

### AI-related and MaaS to reach 70%/53% of total by 2031

We now forecast consolidated cloud revs to grow at 39% CAGR from FY26-31E to reach Rmb833.4bn by 2031E with external cloud revs to grow at 44% CAGR to Rmb666.8bn or US\$95.2bn (close to mgmt target of US\$100bn) by 2031E.

Within the total consolidated revs, we forecast AI-related revs to grow at 90% CAGR to reach Rmb585.5bn or 70% of total cloud revs by 2031E (up from 15% in FY2026) while non-AI-related revs will grow at 13% CAGR to Rmb247.9bn with revs contribution declining from 85% of total in FY2026 to 30% in FY2031.

Within the AI-related revs, we forecast MaaS related revs to grow at 235% CAGR to reach Rmb438.6bn (US\$62.6bn) by 2031 and accounted for 53% of total cloud revenues. We forecast AI-IaaS revs to grow at 46% CAGR to Rmb128.7bn and accounted for 15% of total cloud revs while AI-PaaS revs to grow at 40% CAGR to Rmb18.2bn and represent 2% of total cloud revs.

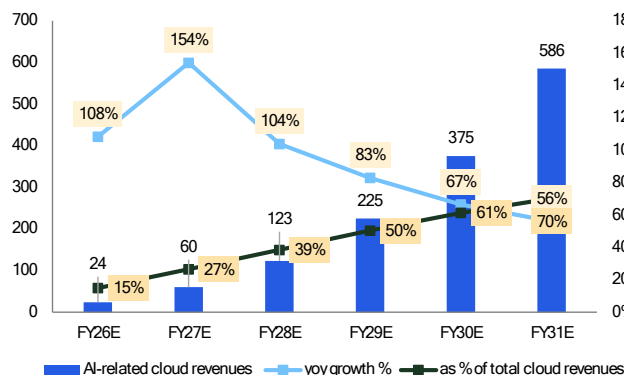
Figure 5. Growth drivers of Alibaba Cloud Intelligence Group revenues

| Rmb bn                                   | FY26E      | FY27E      | FY28E      | FY29E      | FY30E      | FY31E      | FY26-31E CAGR |
|------------------------------------------|------------|------------|------------|------------|------------|------------|---------------|
| <b>Cloud Intelligence Group revenues</b> | <b>159</b> | <b>227</b> | <b>320</b> | <b>446</b> | <b>611</b> | <b>833</b> | <b>39%</b>    |
| <i>yoy growth %</i>                      | 35%        | 43%        | 41%        | 40%        | 37%        | 36%        |               |
| <b>1. AI-related cloud revenues</b>      | <b>24</b>  | <b>60</b>  | <b>123</b> | <b>225</b> | <b>375</b> | <b>586</b> | <b>90%</b>    |
| <i>yoy growth %</i>                      | 108%       | 154%       | 104%       | 83%        | 67%        | 56%        |               |
| <i>as % of total cloud revenues</i>      | 15%        | 27%        | 39%        | 50%        | 61%        | 70%        |               |
| <b>1.1 MaaS revenues</b>                 | <b>1</b>   | <b>10</b>  | <b>54</b>  | <b>133</b> | <b>260</b> | <b>439</b> | <b>235%</b>   |
| <i>yoy growth %</i>                      |            | 859%       | 438%       | 146%       | 96%        | 69%        |               |
| <i>as % of total cloud revenues</i>      | 1%         | 4%         | 17%        | 30%        | 43%        | 53%        |               |
| <b>1.2 IaaS revenues</b>                 | <b>19</b>  | <b>43</b>  | <b>59</b>  | <b>80</b>  | <b>100</b> | <b>129</b> | <b>46%</b>    |
| <i>yoy growth %</i>                      |            | 124%       | 39%        | 35%        | 25%        | 28%        |               |
| <i>as % of total cloud revenues</i>      | 12%        | 19%        | 19%        | 18%        | 16%        | 15%        |               |
| <b>1.3 PaaS revenues</b>                 | <b>3</b>   | <b>8</b>   | <b>10</b>  | <b>12</b>  | <b>15</b>  | <b>18</b>  | <b>40%</b>    |
| <i>yoy growth %</i>                      |            | 122%       | 29%        | 28%        | 20%        | 23%        |               |
| <i>as % of total cloud revenues</i>      | 2%         | 3%         | 3%         | 3%         | 2%         | 2%         |               |
| <b>2. Non-AI-related cloud revenues</b>  | <b>135</b> | <b>167</b> | <b>196</b> | <b>221</b> | <b>236</b> | <b>248</b> | <b>13%</b>    |
| <i>yoy growth %</i>                      | 27%        | 23%        | 18%        | 12%        | 7%         | 5%         |               |
| <i>as % of total cloud revenues</i>      | 85%        | 73%        | 61%        | 50%        | 39%        | 30%        |               |

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Source: Company Reports and Citi Research Estimates

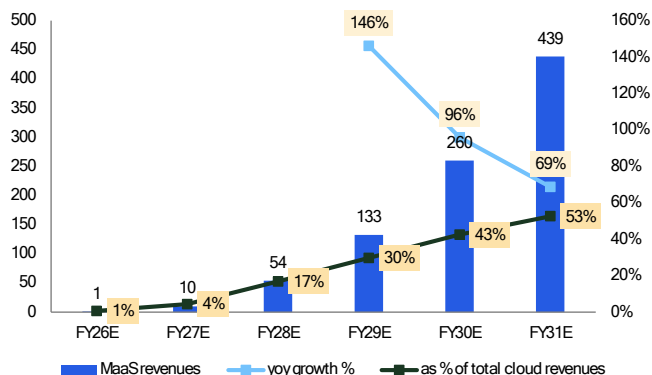
Figure 6. AliCloud AI-related cloud revenues (Rmb bn)



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Source: Company Reports and Citi Research Estimates

Figure 7. AliCloud MaaS revenues (Rmb bn)



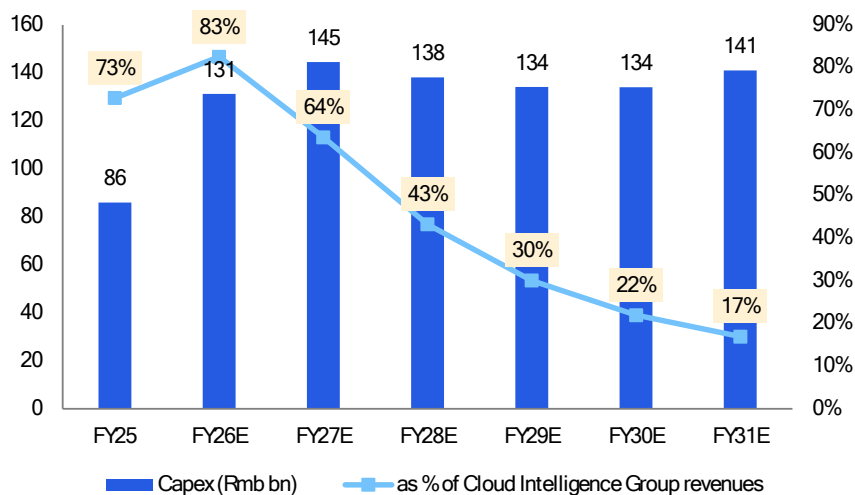
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Source: Company Reports and Citi Research Estimates

## Cumulative Capex spend

We had previously forecasted BABA capex spend to remain stable at around Rmb130-140bn per year and we now introduce our FY2030-31E capex forecast to sustain the similar momentum. Cumulatively, our estimated capex spend amounts to Rmb822.9bn for six years from FY2026 to FY2031. And we forecast capex as % of total cloud revs to decline from 83% in FY2026 to 17% in FY2031. Our forecast suggest that capex will account for average of 32% of cloud revs for 6 years period.

Figure 8. Capital expenditure of Alibaba



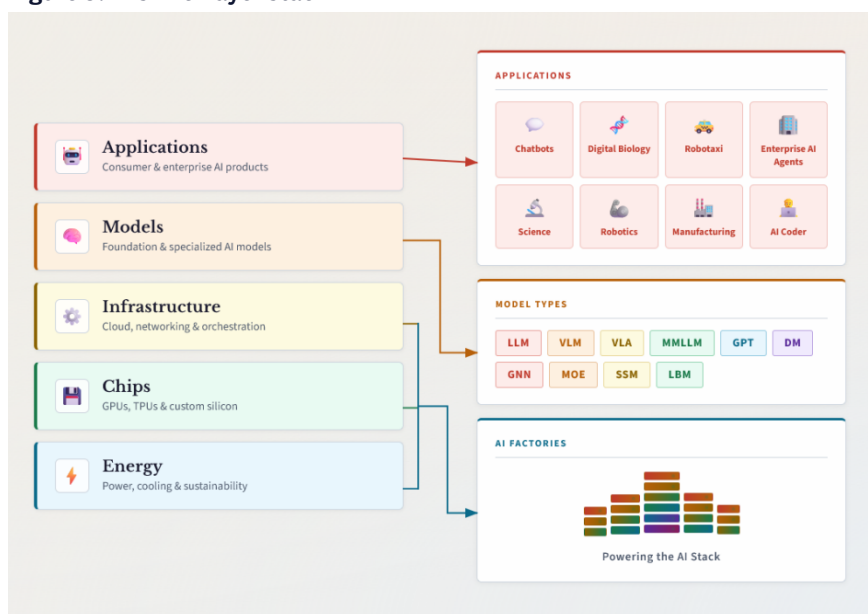
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Source: Company Reports and Citi Research Estimates

## Decoding AliCloud's AI Full-Stack

As we mentioned in our recent MiniMax's initiation report ([link](#)), Nvidia CEO Jensen Huang recently pointed out (10 March 2026; see company [link](#)) that AI, when viewed as infrastructure, resolves into a five-layer stack, like "five-layer cake." At the foundation of the AI stack is **Energy**. For every token produced, there is use of power, and energy is the first principle of AI infrastructure. The **Chips** layer sits above energy, which are the processors designed to transform energy into computation. **Infrastructure** is above chips, which consists of land, power delivery, cooling, construction, networking and the systems that orchestrate tens of thousands of processors into one machine. Industry experts now call these systems **AI factories**, which are designed to **manufacture intelligence**. The 4<sup>th</sup> layer is **Model**. Different AI models understand different kinds of information differently. And the 5<sup>th</sup> layer is **Applications**, which sits on the top and is usually seen as where **economic value** is created. Other than energy, we believe **Alibaba Cloud has exposure in four out of the five layers of AI stack illustrated by Nvidia with evolving development in the application layer.**

Figure 9. AI's five-layer stack



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Source: Nvidia, Citi Research

## Silicon (Chips) Layer – T-Head (Pingtounge)

### Background of T-Head Unit

Established on Sept 19, 2018, Pingtounge or T-Head is a wholly-owned semiconductor chip business entity of Alibaba Group. Before the establishment of Pingtounge, as announced by [Xinhuanet](#) on April 20, 2018, Alibaba had acquired an integrated circuit design house, Hangzhou C-Sky Microsystems Co., Ltd (founded in 2001). According to the article, C-Sky was the only embedded CPU volume provider in China with its own instruction set architecture and CTO of Alibaba Zhang Jianfeng commented that the acquisition was an important step for Alibaba's chip development. Following the acquisition, T-Head was spun-out of DAMO Academy and formed the T-Head unit. T-Head has a full-stack product

series for cloud and edge integration, covering data center AI chips and processor IP licensing.

### DAMO Academy and its relationship with T-Head

**DAMO (Discovery, Adventure, Momentum and Outlook) Academy** was established in 2017 as a global research institute by Alibaba Group with the vision “**Tech to the Future**” and positioned itself as a “research institution committed to unraveling the mysteries of science and technology, driven by the vision of advancing humanity”. Per [Alibaba’s statement](#) at the establishment of the academy, the research labs would focus on both foundational and disruptive technology research including data intelligence, internet of things, fintech, quantum computing and human-machine interaction. In addition, the labs will also focus on topics such as machine learning, network security, visual computing, Natural Language Processing (NLP), etc. According to [DAMO website](#), it is noted that the academy has successfully incubated a number of well-known technical products including Tongyi, T-Head, Xiaomanly and others.

In 2023, DAMO Academy went through significant restructuring including 1) the announcement in [May 2023](#) (Per SCMP May 15, 2023) of transferring the autonomous driving lab to Cainiao for application development (which later as reported by Reuters dated [Jan 29, 2026](#), Cainiao was reportedly planning to merge its autonomous driving operation as part of its investment into Chinese startup Zelos Technology) and 2) shutdown of its quantum computing lab announced in [Nov 2023](#) (per Reuters Nov 27, 2023) and donate the lab to Zhejiang University.

Post restructuring, as reported by [SCMP](#) dated Dec 20, 2023, DAMO Academy has established a new research unit that support >100 postdoctoral candidates to conduct researches in AI and semiconductor. The first batch of recruits was reportedly to do work on AI LLMs, multimodal data generation, advanced video-compression technologies.

### Chip architectures by T-Head

T-Head focuses in three main architectures: **1) ARM – cloud-based; 2) RISC-V (IoT/Edge) and 3) Proprietary AI (for inference)**. Since the establishment, T-Head has successfully launched a series of products which include: Hanguang 800 AI inference chip, Zhenwu 810E training and inference integrated AI accelerator chip, Yitian 710 Arm server CPU and Zhenyue 510 SSD controller chip. For physical world, it also has Yuzhen ultra-high frequency (UHF) RFID electronic tag chip that has been applied in logistics, warehousing, asset management and IoT industry.

#### RISC-V series

- **XuanTie Series** – On July 25, 2019, as reported by [Bloomberg](#), Alibaba announced the release of **XuanTie 910**, it was considered as the first fully formed product by T-Head, designed to serve more heavy-duty IoT applications including autonomous driving cars, networking and server computing.
  - On March 24, 2026, various news source including [CNBC](#) reported that Alibaba has released **XuanTie C950**, a CPU based on RISC-V architecture that compete with Arm’s blueprints, targeting to serve agentic AI purposes. This is a 5nm, 3.2GHz processor features 1000-instruction Out of order window and is designed for Agentic AI. Ali noted that the new CPU is able to handle the processing of multi-step tasks carried by AI agents. XuanTie C950 will be installed in data centers as it is designed for running AI model inferencing. BABA noted that XuanTie CPUS can be customized for specific

inference patterns to better support different usages of chips for different customers and able to achieve 30% improvement in performance compared to other mainstream products.

### SSD IC

- **Zhenyue 510** – On Nov 2, 2023, reported by [SCMP](#), Ali released a new RISC-V-based controller chip for server storage, Zhenyue 510 during its annual Apsara cloud computing conference. This controller integrated circuit (IC) for enterprise solid-state drives (SSDs) will be deployed in Alibaba Cloud's data center to support application including AI training, online transaction and big data analysis. Based on open-standard RISC-V architecture, Zhenyue 510 provides chip developers the ability to configure and customize their designs. There are two algorithmic innovation for Zhenyue 510: 1) LDPC (Low-Density Parity-Check) and 2) optimal voltage search that achieve high reliability at lower cost through optimizing operating voltage of the NAND Flash.

### Ultra-high frequency RFID chips

- **Yuzhen 611 & 612** – On Nov 15, 2022, at the 2022 International Internet of Things Exhibition (IOTE), T-Head released the Yuzhen 611 and Yuzhen 612, which are ultra-high frequency (UHF) RFID electronic tag chips designed for Internet of Everything scenarios.
  - Yuzhen 611 is a single-port chip with an industry-leading sensitivity of -24dBm suitable for a variety of scenarios including supermarket retail, smart logistics, supply chain, airline parcel tracking, and asset management, greatly improving production and inventory efficiency.
  - Yuzhen 612 features a dual-port omnidirectional antenna design, providing greater versatility to meet the demands of complex scenarios such as stacked or obscured goods.

### Server processor

- **Yitian series** – [Announced](#) on October 19 2021, Yitian is built on 5nm process technology, powered by 128 Arm cores with 3.2GHz to delivery “exceptional performance and excellent energy efficiency”. Each chip has 60bn integrated transistors and is the first server processor that is compatible with Armv9 architecture and includes 8 DDR5 channels and 96-lane PCIe 5.0 that provide high memory and I/O bandwidth.
  - Reported by [Yahoo Tech](#) dated 30 April, 2024, according to a recent study published in the Transactions on Cloud Computing journal by IEEE, Yitian 710 was identified as the fastest ARM-based CPU for cloud servers. It is deployed at scale across Ali Cloud for video encoding, HPC and gaming workloads and also deployed in a leading Chinese telco's AI computing centers.

### AI Chips

- **Hanguang 800 (AI Inference NPU)**: On 25 Sept 2019, [Alibaba](#) unveiled its first AI inference chip, a neural processing unit (NPU) named Hanguang 800 that specializes in acceleration of machine learning tasks. It was initially used internally within Alibaba business operation in product search and automatic translation on ecommerce sites, personalized recommendations, advertising and intelligent customer service. The Hanguang 800's remarkable test performance is propelled by its integrated, self-developed hardware framework and highly optimized algorithm designs. These components are specifically

tailored for business applications, including the retail and logistics sectors of the Alibaba ecosystem. It powers Taobao's recommendation engine and image recognition at hyperscale.

- **Zhenwu 810E** – As reported by various news article including [SCMP](#) on Jan 30, 2026, Alibaba unveiled its new AI chip, Zhenwu 810E, which is a ASIC chip supports 96GB of HBM2e memory for training and inference. It is based on self-developed inter-chip interconnect technology, Inter-Chip-Network (ICN), which offers high performance, high bandwidth and low latency which is suitable for large-scale model training and inference application.
  - Each Zhenwu 810E chip is equipped with seven ICN inter-chip interconnect ports. Paired with T-Head's proprietary interconnect acceleration library, it enables multi-card collaboration to efficiently support the demands of large-scale model training and inference. The chip is supported by self-developed AI product software stack features a complete software ecosystem and toolchain. It supports developers and businesses to expand at application level and support optimization of hardware performance.
  - SCMP noted that the performance is comparable to Nvidia's H20. The chip has been deployed in Ali Cloud's computing clusters and is used by external clients. Per product website, the use case scenarios are for autonomous driving, AI multimodal training and inferencing. [Morning Star](#) reported on Jan 29, 2026 that key enterprise customers adopting Zhenwu 810E including State Grid of China, XPeng Motors and Chinese Academy of Sciences. The article also reported that the new chip has more than 400 clients and also has been used internally for training for Qwen models.

### Network interface card

- **Panmai 920** – On April 28, 2026, at the 2026 Digital China Summit, Alibaba's T-Head released its first smart network interface card (NIC), the Panmai 920, which is the first 400G smart NIC in China with a built-in PCIe Switch and support a maximum throughput bandwidth of 400 Gbps. As reported by [Sina finance article](#) (28 April 2026), it can be applied in scenarios such as AI computing clusters with tens of thousands of cards, general-purpose computing clusters and high-performance storage. Accordingly, the Panmai 920 has already entered mass production and will be deployed in Alibaba Cloud's data centers.
  - The Panmai 920 is a smart NIC created for large-scale AI computing scenarios. It is equipped with a self-designed smart NIC chip and uses PCIe 5.0 and 112G PAM4 Ethernet technology.
  - It also supports multi-path RDMA, which can effectively reduce the completion time for training and inference tasks. At the same time, it integrates fine-grained network awareness tools and user-programmable congestion control algorithms to effectively handle and prevent congestion, ensuring that critical business operations are not affected. The Panmai 920 also introduces a chip-level network architecture with a built-in PCIe Switch, allowing the card to connect directly to GPUs and SSDs with extremely low latency.

A [China Daily](#) article dated Jan 30, 2026 reported that with the launch of Zhenwu 810E by T-Head, the “new chip” completes Alibaba's AI “golden triangle” combining cloud services at AliCloud, AI model development by Tongyi Lab and chips from T-Head.

Figure 10. T-Head product summary

| Product name                           | Date of release | Technical features                                                                                                                                                                                                                                                                    | Use cases                                                                                                                                                                                  | Comparable products                                                                                    |
|----------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>AI chips</b>                        |                 |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                            |                                                                                                        |
| <b>Zhenwu 810E (真武810E)</b>            | 29-Jan-26       | <ul style="list-style-type: none"> <li>- Proprietary Inter-Chip-Network (ICN) at 700GB/s</li> <li>- 96GB HBM2e memory</li> <li>- PCIe5.0 x 16 host bus</li> <li>- Compatibility to mainstream AI ecosystem and AICloud products</li> </ul>                                            | <ul style="list-style-type: none"> <li>- Autonomous driving</li> <li>- AI training</li> <li>- AI reasoning</li> <li>- Multimodal models</li> </ul>                                         | Nvidia H20, A800; Huawei Ascend 910B/910C; Kunlunxin P800, Biren BR100/BR104                           |
| <b>Hanguang 800 (含光800)</b>            | 25-Sep-19       | <ul style="list-style-type: none"> <li>- 820 TOPS peak performance</li> <li>- 78563 IPS inference performance</li> <li>- 500 IPS/W</li> <li>- Support mainstream deep learning framework including TensorFlow, Caffe, MXNet, ONNX</li> </ul>                                          | <ul style="list-style-type: none"> <li>- Ecommerce marketing</li> <li>- Ecommerce search</li> <li>- AI reasoning</li> </ul>                                                                | Nvidia T4 and L4; AWS Inferentia; Meta MTIA; Kunlunxin Gen1/2, Ascend 310/310P, Cambricon MLU series   |
| <b>RISC-V</b>                          |                 |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                            |                                                                                                        |
| <b>Xuantie c950 (玄铁c950)</b>           | 24-Mar-26       | <ul style="list-style-type: none"> <li>- 22/GHz single-core performance</li> <li>- 3.2GHz clock speed</li> <li>- RVA23.1 mandatory extensions</li> </ul>                                                                                                                              | <ul style="list-style-type: none"> <li>- Data centers</li> <li>- autonomous systems</li> <li>- AI accelerators</li> </ul>                                                                  | <ul style="list-style-type: none"> <li>- Intel Xeon6</li> <li>- Arm V2</li> <li>- AMD Zen5</li> </ul>  |
| <b>Xuantie 910 (玄铁910)</b>             | 25-Jul-19       | <ul style="list-style-type: none"> <li>- 16-core infrastructure</li> <li>- 7.1 coremark/MHz single-core performance</li> <li>- 2.5GHz clock speed</li> <li>- 8MB L2 cache</li> </ul>                                                                                                  | <ul style="list-style-type: none"> <li>- AI</li> <li>- 5G</li> <li>- Autonomous driving</li> </ul>                                                                                         | ARM Cortex-A72/A75; SiFive Performance P550; SiFive Intelligence X280; Ventana Veyron V1               |
| <b>Server Processor</b>                |                 |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                            |                                                                                                        |
| <b>Yitian 710 (倚天710)</b>              | 19-Oct-21       | <ul style="list-style-type: none"> <li>- 5nm process technology</li> <li>- 128 Arm v9 12-core CPU</li> <li>- 2.75 GHz clock speed</li> <li>- 8-channel DDR5 DRAM</li> <li>- 96-lane PCIe 5.0 I/O</li> <li>- 250W maximum power</li> </ul>                                             | <ul style="list-style-type: none"> <li>- Video coding</li> <li>- Big data analysis</li> <li>- Ecommerce</li> <li>- AI reasoning</li> </ul>                                                 | Intel Xeon 6, AMD EPYC9005 series, Nvidia Grace, AmpereOne, AWS Graviton3/Graviton 4, Azure Cobalt 100 |
| <b>Network interface card</b>          |                 |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                            |                                                                                                        |
| <b>Panmai 920 (磐脉920)</b>              | 28-Apr-26       | <ul style="list-style-type: none"> <li>- 400Gbps bandwidth</li> <li>- 400Mpps packet forwarding rate</li> <li>- 32-channel PCIe5.0</li> <li>- 112G PAM4 network interface</li> </ul>                                                                                                  | <ul style="list-style-type: none"> <li>- Smart compute cluster</li> <li>- High-performance storage</li> <li>- Generic compute cluster</li> <li>- Database and big data analysis</li> </ul> | Nvidia BlueField-3 DPU; Nvidia ConnectX-7; Broadcom Thor 2 (BCM57608); Huawei HiSilicon                |
| <b>SSD IC</b>                          |                 |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                            |                                                                                                        |
| <b>Zhenyue 510 (镇岳510)</b>             | 1-Nov-23        | <ul style="list-style-type: none"> <li>- 3400K IOPS</li> <li>- 4 microsecond latency</li> <li>- PCIe5.0 / DDR5.0 high-speed interface</li> <li>- 420K IOPS/W efficiency</li> <li>- Support 32TB+ storage</li> </ul>                                                                   | <ul style="list-style-type: none"> <li>- AI training</li> <li>- AI reasoning</li> <li>- Distributed storage</li> <li>- Online transactions</li> </ul>                                      | Samsung PM1743 Controller; Marvell Bravera SC5; InnoGrit Tacoma (IG5666)                               |
| <b>Ultra-high frequency RFID chips</b> |                 |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                            |                                                                                                        |
| <b>Yuzhen 611/612 (羽阵611/612)</b>      | 15-Nov-22       | <ul style="list-style-type: none"> <li>- EPC global G2 V2 ISO/IEC18000-6C protocol</li> <li>- -24dBm read sensitivity</li> <li>- HBM±10KV electrostatic discharge protection</li> <li>- -40 ~ +85°C operating temperature range</li> <li>- 96-bit TID, 128-bit EPC storage</li> </ul> | <ul style="list-style-type: none"> <li>- Shoes, apparel retail</li> <li>- FMCG retail</li> <li>- Smart logistics</li> <li>- Supply chain management</li> </ul>                             | NXP UCODE8; Impinj Monza R6                                                                            |

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Source: Company Reports, Citi Research

## Alibaba Cloud Infrastructure

### Domestic and international data centers

Alibaba Cloud operates data centers in 94 availability zones in 29 regions around the world, of which 13 regions are located in domestic China with the data center in Hangzhou opened in 2011 and the latest one in Wuhan opened in 2023. 15 regions are located in overseas countries including Singapore, Thailand, Malaysia, Indonesia, Philippines, Japan, South Korea, US, Mexico, Germany, UK, UAE, KSA and Hong Kong. As announced on Sept 25, 2025, Alibaba Cloud plans to launch more data centers in eight locations in the coming year, this includes first one in Brazil, France and the Netherlands while additional data centers to be added in Mexico, Japan, South Korea, Malaysia and Dubai. Alibaba CDN currently supports 2300+ nodes in China and 900+ international nodes covering 70+ countries.

Figure 11. Regions and availability zones of AliCloud data center

| Region Name                                      | Country / Territory  | Primary Cities          | Year Est. | Availability Zones | Status  | Notes                                            |
|--------------------------------------------------|----------------------|-------------------------|-----------|--------------------|---------|--------------------------------------------------|
| <b>China Mainland</b>                            |                      |                         |           |                    |         |                                                  |
| <b>China (Hangzhou)</b><br>cn-hangzhou           | China                | Hangzhou                | 2011      | 3                  | Active  | First Alibaba Cloud region; HQ city              |
| <b>China (Qingdao)</b><br>cn-qingdao             | China                | Qingdao                 | 2012      | 2                  | Active  | Second region launched                           |
| <b>China (Beijing)</b><br>cn-beijing             | China                | Beijing                 | 2013      | 3                  | Active  | Capital region; major enterprise hub             |
| <b>China (Zhangjiakou)</b><br>cn-zhangjiakou     | China                | Zhangjiakou             | 2014      | 2                  | Active  | Green energy focus; cold climate cooling         |
| <b>China (Shenzhen)</b><br>cn-shenzhen           | China                | Shenzhen                | 2014      | 3                  | Active  | Tech hub; proximity to Hong Kong                 |
| <b>China (Shanghai)</b><br>cn-shanghai           | China                | Shanghai                | 2015      | 3                  | Active  | Financial hub; largest enterprise region         |
| <b>China (Hohhot)</b><br>cn-huhehaote            | China                | Hohhot                  | 2017      | 2                  | Active  | Inner Mongolia; renewable energy                 |
| <b>China (Chengdu)</b><br>cn-chengdu             | China                | Chengdu                 | 2020      | 2                  | Active  | Southwest China hub                              |
| <b>China (Guangzhou)</b><br>cn-guangzhou         | China                | Guangzhou               | 2020      | 3                  | Active  | Pearl River Delta; manufacturing belt            |
| <b>China (Heyuan)</b><br>cn-heyuan               | China                | Heyuan                  | 2020      | 2                  | Active  | Guangdong province backup region                 |
| <b>China (Ulanqab)</b><br>cn-wulanchabu          | China                | Ulanqab                 | 2020      | 2                  | Active  | Inner Mongolia; AI workload focus                |
| <b>Greater China &amp; Asia Pacific</b>          |                      |                         |           |                    |         |                                                  |
| <b>China (Hong Kong)</b><br>cn-hongkong          | Hong Kong SAR        | Hong Kong               | 2014      | 3                  | Active  | International gateway; financial services        |
| <b>Singapore</b><br>ap-southeast-1               | Singapore            | Singapore               | 2015      | 3                  | Active  | International HQ; APAC flagship; AI GC Hub       |
| <b>Japan (Tokyo)</b><br>ap-northeast-1           | Japan                | Tokyo                   | 2016      | 4                  | Active  | 4th DC launched Mar 2026; AI demand surge        |
| <b>Malaysia (Kuala Lumpur)</b><br>ap-southeast-3 | Malaysia             | Kuala Lumpur            | 2017      | 3                  | Active  | 3rd DC launched Jul 2025; 4th planned 2026       |
| <b>Indonesia (Jakarta)</b><br>ap-southeast-5     | Indonesia            | Jakarta                 | 2018      | 3                  | Active  | First intl. public cloud provider in Indonesia   |
| <b>South Korea (Seoul)</b><br>ap-northeast-2     | South Korea          | Seoul                   | 2022      | 2                  | Active  | Additional DC planned; semiconductor ecosystem   |
| <b>Philippines (Manila)</b><br>ap-southeast-6    | Philippines          | Manila                  | 2021      | 2                  | Active  | 2nd DC opened Oct 2025                           |
| <b>Thailand (Bangkok)</b><br>ap-southeast-7      | Thailand             | Bangkok                 | 2022      | 2                  | Active  | 2nd DC opened Feb 2025; GenAI focus              |
| <b>Europe</b>                                    |                      |                         |           |                    |         |                                                  |
| <b>Germany (Frankfurt)</b><br>eu-central-1       | Germany              | Frankfurt               | 2016      | 3                  | Active  | Operated with Vodafone; C5 certified; 100% green |
| <b>UK (London)</b><br>eu-west-1                  | United Kingdom       | London                  | 2018      | 2                  | Active  | 2 AZs launched Oct 2018                          |
| <b>France (Paris)</b><br>eu-west-2               | France               | Paris                   | 2026*     | —                  | Planned | Announced Sep 2025; launch expected 2026         |
| <b>Netherlands</b><br>eu-west-3                  | Netherlands          | Amsterdam               | 2026*     | —                  | Planned | Announced Sep 2025; launch expected 2026         |
| <b>Americas</b>                                  |                      |                         |           |                    |         |                                                  |
| <b>US (Silicon Valley)</b><br>us-west-1          | United States        | San Jose/Silicon Valley | 2015      | 2                  | Active  | First US region; tech ecosystem proximity        |
| <b>US (Virginia)</b><br>us-east-1                | United States        | Ashburn/Virginia        | 2015      | 2                  | Active  | East Coast US; enterprise & government           |
| <b>Mexico (Querétaro)</b><br>mx-central-1        | Mexico               | Querétaro               | 2025      | 1                  | Active  | First LatAm region; launched 2025                |
| <b>Brazil (São Paulo)</b><br>sa-east-1           | Brazil               | São Paulo               | 2026*     | —                  | Planned | Announced Sep 2025; launch expected 2026         |
| <b>Middle East &amp; Africa</b>                  |                      |                         |           |                    |         |                                                  |
| <b>UAE (Dubai)</b><br>me-east-1                  | United Arab Emirates | Dubai                   | 2016      | 2                  | Active  | 2nd DC launched Oct 2025; MENA hub               |
| <b>Saudi Arabia (Riyadh)</b><br>me-central-1     | Saudi Arabia         | Riyadh                  | 2023      | 2                  | Partner | Partner region (SAU); Vision 2030 alignment      |

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Source: Company Reports, Citi Research

As reported by various news media including [CNBC on April 8th 2026](#), Alibaba and a leading Chinese telco launched a data center in China designed for AI training and inferencing. The data center will feature 10,000 of Alibaba's self-developed Zhenwu AI chips while the telco will own and operate the data center. Both Alibaba and the telco stated that the Shaoguan facility site could expand to 100,000 chips in the future.

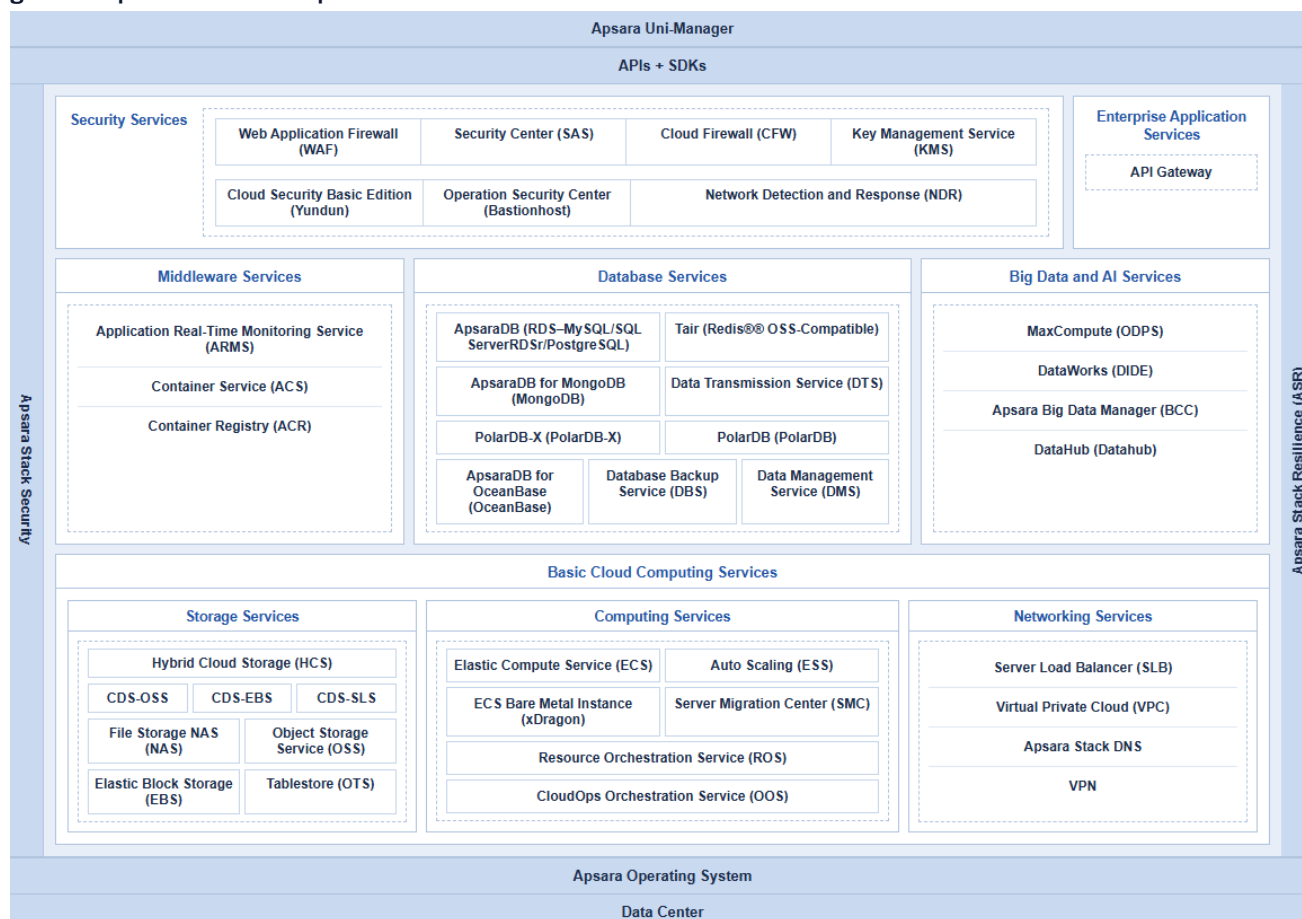
### China context vs the world in data center

Data Center GAINs (Gen AI Names) Multi-Asset - Strong Absorption Supports Solid 2026 and LT Data Center Demand

According to a comment by [Cargoson](#) on 4 Jan 2026 (a transport management software company) quoted a report dated Nov 2025, China ranks # 4 globally with 449 data centers behind the US at 5,427 data centers, Germany 529 and UK 523. Within that, China has 190 hyperscale data centers or 16% of global total (rank # 2 behind the US at 642 or 54% of global total). Global data center capacity reached 122.2 gigawatts (GW) as of 1Q25, per Synergy Research Group, of which China accounted for 16% of global total or 19.6GW. Hyperscale operators accounted for 44% of global data center capacity and is expected to grow to 61% by 2030.

### Apsara full-stack cloud operating system

Figure 12. Apsara full stack capabilities



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Source: Company Reports, Citi Research

[Apsara Stack](#) is an enterprise-grade cloud platform designed specifically for public service sectors and enterprise customers based on the Apsara distributed operating system to ensure the isolation of resources and cloud management. With its capacity for local deployment, Apsara Stack provides dedicated **computing, storage, and network resources** to meet the needs of public service sectors and enterprise customers for asset self-ownership, security compliance, and autonomous O&M. Thanks to its elastic and agile nature, Apsara Stack enables customers to maximize resource utilization and expedite service deployment with ease. Apsara offers more than 40 cloud products covering IaaS, PaaS, big data and security spanning across key solutions such as Disaster Recovery and Backup, Multi-region deployment, cloud-native applications, integrated O&M and Operational Industry cloud. On figure 8, we detail the product/services offered by Alibaba Cloud and the function feature.

Figure 13. Alibaba Cloud product/services by category and description

| PRODUCT / SERVICE                | DESCRIPTION                                                    | PRODUCT / SERVICE                      | DESCRIPTION                                              |
|----------------------------------|----------------------------------------------------------------|----------------------------------------|----------------------------------------------------------|
| <b>COMPUTE</b>                   |                                                                | <b>SECURITY</b>                        |                                                          |
| Elastic Compute Service (ECS)    | Scalable virtual cloud servers (IaaS) for various workloads    | Anti-DDoS                              | Protection against distributed denial-of-service attacks |
| Elastic Container Instance (ECI) | Serverless container runtime without managing servers          | Web Application Firewall (WAF)         | Protects web apps from common exploits and bots          |
| Auto Scaling                     | Automatically adjusts compute capacity based on demand         | Security Center                        | Unified threat detection and security management         |
| Batch Compute                    | Large-scale parallel and batch computing jobs                  | SSL Certificates Service               | Managed SSL/TLS certificate issuance and deployment      |
| Function Compute                 | Serverless, event-driven function execution (FaaS)             | Cloud Firewall                         | Network-level firewall for VPC traffic control           |
| Simple Application Server        | Lightweight cloud server for small apps and websites           | IDaaS (Identity as a Service)          | Centralized identity and access management               |
| <b>STORAGE</b>                   |                                                                | <b>BIG DATA &amp; ANALYTICS</b>        |                                                          |
| Object Storage Service (OSS)     | Scalable, secure cloud object/blob storage                     | MaxCompute                             | Large-scale data warehousing and batch analytics         |
| Apsara File Storage NAS          | Managed network-attached storage (NFS/SMB)                     | DataWorks                              | Data integration, development, and governance platform   |
| Cloud Disk (Block Storage)       | High-performance persistent block storage for ECS              | Realtime Compute (Flink)               | Stream processing for real-time data pipelines           |
| Hybrid Backup Recovery (HBR)     | Cloud-based backup and disaster recovery                       | Quick BI                               | Business intelligence and data visualization tool        |
| Tablestore                       | NoSQL wide-column data storage for massive datasets            | E-MapReduce                            | Managed Hadoop/Spark big data processing clusters        |
| <b>NETWORKING</b>                |                                                                | Data Integration                       | ETL service for moving data across systems               |
| Virtual Private Cloud (VPC)      | Isolated private network environment in the cloud              | <b>CONTAINERS &amp; DEVOPS</b>         |                                                          |
| Server Load Balancer (SLB)       | Distributes traffic across multiple backend servers            | Container Service for Kubernetes (ACK) | Managed Kubernetes cluster service                       |
| Elastic IP Address (EIP)         | Static public IP addresses for cloud resources                 | Container Registry (ACR)               | Managed Docker image repository                          |
| CDN (Content Delivery Network)   | Accelerates content delivery globally                          | Alibaba Cloud DevOps (Yunxiao)         | CI/CD, code hosting, and project management              |
| Express Connect                  | High-speed private connectivity between VPCs or on-premises    | Resource Orchestration Service (ROS)   | Infrastructure-as-code (IaC) for cloud resources         |
| Global Accelerator               | Improves global application access speed and reliability       | Serverless Kubernetes (ASK)            | Kubernetes without managing nodes                        |
| NAT Gateway                      | Enables internet access for VPC instances                      | <b>MIDDLEWARE &amp; APP SERVICES</b>   |                                                          |
| <b>DATABASES</b>                 |                                                                | Message Queue (MQ / RocketMQ)          | Distributed message queuing for decoupled architectures  |
| ApsaraDB RDS                     | Managed relational DB (MySQL, PostgreSQL, SQL Server, MariaDB) | API Gateway                            | Manage, publish, and secure APIs                         |
| PolarDB                          | Cloud-native relational database with high performance         | Microservices Engine (MSE)             | Service mesh and microservices governance                |
| ApsaraDB for Redis               | Managed in-memory key-value store                              | EventBridge                            | Serverless event bus for application integration         |
| ApsaraDB for MongoDB             | Managed NoSQL document database                                | Log Service (SLS)                      | Centralized log collection, query, and analysis          |
| AnalyticDB                       | Cloud data warehouse for real-time analytics                   | <b>IOT &amp; EDGE COMPUTING</b>        |                                                          |
| Data Lake Analytics (DLA)        | Serverless SQL queries over data lakes                         | IoT Platform                           | Connect, manage, and communicate with IoT devices        |
| Lindorm                          | Multi-model database for IoT and time-series data              | Link IoT Edge                          | Edge computing for IoT data processing at the source     |
| <b>AI &amp; MACHINE LEARNING</b> |                                                                | IoT Security Center                    | Security management for IoT device fleets                |
| PAI (Platform for AI)            | End-to-end ML platform for model training and deployment       | <b>MEDIA &amp; CDN</b>                 |                                                          |
| Machine Translation              | Neural machine translation across multiple languages           | ApsaraVideo VOD                        | Video-on-demand hosting, transcoding, and delivery       |
| Image Search                     | AI-powered visual product search                               | ApsaraVideo Live                       | Live streaming platform with low latency                 |
| Intelligent Speech Interaction   | ASR, TTS, and NLP voice services                               | Media Processing                       | Automated video/audio transcoding and processing         |
| Face Recognition                 | Facial detection, comparison, and attribute analysis           | Alibaba Cloud CDN                      | Global content delivery acceleration                     |
| Alibaba Cloud Model Studio       | Build and deploy large language model (LLM) applications       | <b>HYBRID &amp; MULTI-CLOUD</b>        |                                                          |
| Qwen (通义千问)                      | Alibaba's proprietary large language model (LLM)               | Apsara Stack                           | Private cloud solution for on-premises deployment        |
|                                  |                                                                | Cloud Enterprise Network (CEN)         | Global private network connecting VPCs and on-premises   |
|                                  |                                                                | Smart Access Gateway (SAG)             | SD-WAN solution for branch office connectivity           |

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Figure 14. AliCloud's product availability by IDC zone

| Region                                  | Compute |     |     |    |     | Storage |     |     |        | Database |         |         |       |            | Network |     |     |     |    | AI / ML |              |     |
|-----------------------------------------|---------|-----|-----|----|-----|---------|-----|-----|--------|----------|---------|---------|-------|------------|---------|-----|-----|-----|----|---------|--------------|-----|
|                                         | ECS     | GPU | ACK | FC | ECI | OSS     | EBS | NAS | Backup | RDS      | PolarDB | MongoDB | Redis | AnalyticDB | VPC     | SLB | CDN | CEN | GA | PAI     | Model Studio | ENS |
| <b>China Mainland</b>                   |         |     |     |    |     |         |     |     |        |          |         |         |       |            |         |     |     |     |    |         |              |     |
| China (Hangzhou)                        | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ✓          | ✓       | ✓   | ✓   | ✓   | ✓  | ✓       | ✓            | ✓   |
| China (Qingdao)                         | ✓       | ⚡   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | ⚡            | ✓   |
| China (Beijing)                         | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ✓          | ✓       | ✓   | ✓   | ✓   | ✓  | ✓       | ✓            | ✓   |
| China (Zhangjiakou)                     | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ✓       | ⚡            | ✓   |
| China (Shenzhen)                        | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ✓          | ✓       | ✓   | ✓   | ✓   | ✓  | ✓       | ✓            | ✓   |
| China (Shanghai)                        | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ✓          | ✓       | ✓   | ✓   | ✓   | ✓  | ✓       | ✓            | ✓   |
| China (Hohhot)                          | ✓       | ⚡   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | X            | ✓   |
| China (Chengdu)                         | ✓       | ⚡   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | ⚡            | ✓   |
| China (Guangzhou)                       | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ✓          | ✓       | ✓   | ✓   | ✓   | ✓  | ✓       | ✓            | ✓   |
| China (Heyuan)                          | ✓       | ⚡   | ✓   | ⚡  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | X            | ✓   |
| China (Ulanqab)                         | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ✓       | ⚡            | ✓   |
| <b>Greater China &amp; Asia Pacific</b> |         |     |     |    |     |         |     |     |        |          |         |         |       |            |         |     |     |     |    |         |              |     |
| China (Hong Kong)                       | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ✓          | ✓       | ✓   | ✓   | ✓   | ✓  | ✓       | ✓            | ✓   |
| Singapore                               | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ✓          | ✓       | ✓   | ✓   | ✓   | ✓  | ✓       | ✓            | ✓   |
| Japan (Tokyo)                           | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ✓          | ✓       | ✓   | ✓   | ✓   | ✓  | ✓       | ⚡            | ✓   |
| Malaysia (KL)                           | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | ⚡            | ✓   |
| Indonesia (Jakarta)                     | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | ⚡            | ✓   |
| South Korea (Seoul)                     | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | ⚡            | ✓   |
| Philippines (Manila)                    | ✓       | ⚡   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | X            | ✓   |
| Thailand (Bangkok)                      | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | ⚡            | ✓   |
| <b>Europe</b>                           |         |     |     |    |     |         |     |     |        |          |         |         |       |            |         |     |     |     |    |         |              |     |
| Germany (Frankfurt)                     | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ✓          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | ⚡            | ✓   |
| UK (London)                             | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | ⚡            | ✓   |
| <b>Americas</b>                         |         |     |     |    |     |         |     |     |        |          |         |         |       |            |         |     |     |     |    |         |              |     |
| US (Silicon Valley)                     | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ✓          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | ⚡            | ✓   |
| US (Virginia)                           | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ✓          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | ⚡            | ✓   |
| Mexico (Querétaro)                      | ✓       | ⚡   | ✓   | ⚡  | ✓   | ✓       | ✓   | ⚡   | ✓      | ✓        | ⚡       | ✓       | ✓     | X          | ✓       | ✓   | ✓   | ✓   | ✓  | X       | X            | ✓   |
| <b>Middle East</b>                      |         |     |     |    |     |         |     |     |        |          |         |         |       |            |         |     |     |     |    |         |              |     |
| UAE (Dubai)                             | ✓       | ✓   | ✓   | ✓  | ✓   | ✓       | ✓   | ✓   | ✓      | ✓        | ✓       | ✓       | ✓     | ⚡          | ✓       | ✓   | ✓   | ✓   | ✓  | ⚡       | ⚡            | ✓   |
| Saudi Arabia (Riyadh)                   | ✓       | ⚡   | ✓   | ⚡  | ✓   | ✓       | ✓   | ⚡   | ✓      | ✓        | ⚡       | ✓       | ✓     | X          | ✓       | ✓   | ✓   | ✓   | ✓  | X       | X            | ✓   |

#### COMPUTE PRODUCTS

ECS — Elastic Compute Service  
GPU — Elastic GPU Service  
ACK — Container Service for Kubernetes  
FC — Function Compute (Serverless)  
ECI — Elastic Container Instance

#### STORAGE PRODUCTS

OSS — Object Storage Service  
EBS — Elastic Block Storage  
NAS — File Storage NAS  
Backup — Cloud Backup (BaaS)

#### DATABASE PRODUCTS

RDS — ApsaraDB RDS (MySQL/PG/SQL Server)  
PolarDB — Cloud-native relational DB  
MongoDB — ApsaraDB for MongoDB  
Redis — Tair (Redis-compatible)  
AnalyticDB — Real-time data warehouse

#### NETWORK PRODUCTS

VPC — Virtual Private Cloud  
SLB — Server Load Balancer  
CDN — Content Delivery Network  
CEN — Cloud Enterprise Network  
GA — Global Accelerator

#### AI / ML PRODUCTS

PAI — Platform for AI (ML training/inference)  
Model Studio — GenAI model deployment  
ENS — Edge Node Service (3,200+ nodes)

#### AVAILABILITY LEGEND

✓ Generally Available  
⚡ Partial / Limited availability  
X Not available / Not confirmed

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## Elastic computing services

### SHENLONG architecture (virtualization technology)

SHENLONG architecture (or X-Dragon) is a proprietary bare metal server architecture developed by Alibaba Cloud that integrates software and hardware with dedicated chips used to reduce virtualization overheads. It offers direct access

to CPU and RAM resources which built around a custom X-Dragon MOC card). It is the virtualization technology behind Alibaba Cloud Elastic Compute Service (ECS). The first two generations were called Xen and KVM and X-Dragon before renamed as SHENLONG in its 3<sup>rd</sup> generation. During [2021 Apsara conference](#), Alibaba released its 4<sup>th</sup> generation of SHENLONG architecture with significant improvement in storage IOPS, network PPS and network latency. It supports a variety of elastic computing product forms, such as elastic bare metal, virtual machines, and elastic container instances, serving multiple industries, such as healthcare, new government affairs, intelligent manufacturing, the Internet, and education.

## Storage

### Pangu (distributed storage)

According to [Alibaba Cloud](#), Pangu is a high-reliability, high-availability and high-performance distributed file system developed by Alibaba Cloud. As a storage core of Alibaba Cloud, Pangu 1.0 supported the rapid development of multiple business lines of Ali Cloud, including ECS, NAS, OSS, Table Store, Max Compute and AnalyticDB. Following the success of Pangu 1.0, Alibaba Cloud introduced Pangu 2.0 in 2018, a redesigned storage engine built to leverage modern hardware advancements and meet evolving business demands. It serves as a unified storage core for Alibaba Cloud, Alibaba Group, and Ant Financial, supporting a wide range of services. One of the key upgrades for Pangu 2.0 is the separation of Storage and Computing so that storage cluster can delivery higher performance to serve multiple computing clusters efficiently.

## Networking

### Luoshen (networks on the cloud)

Apsara [Luoshen](#) represents Alibaba Cloud networks on the cloud that manages infrastructure network system. Apsara Luoshen has undergone three generations. The first generation is the classic network, which was mainly used to solve the problem of connectivity. The second generation launched the VPC network for security isolation. And the third generation Apsara Luoshen, which provides solutions to connect to the cloud, and offers the same capabilities as conventional enterprise networks. Alibaba Cloud defines the final stage as Networkless. In this stage, the networks are invisible to end users.

Figure 15. Selected Customer Case Studies

| Customer                                       | Region                     | Industry                            | Alibaba Cloud Service Used                                                             | Use Case                                                                                                                         | After / Key Improvements                                                                                                                                                                                                                                                       |
|------------------------------------------------|----------------------------|-------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Airbnb                                         | Global (HQ: USA)           | Travel & Hospitality                | Qwen LLM                                                                               | AI-powered customer service agent                                                                                                | Consolidated core customer service on Qwen; CEO cited superior <b>quality, speed, and cost-effectiveness</b> vs. alternatives                                                                                                                                                  |
| Dingdong                                       | China                      | E-commerce & Retail                 | Qwen LLM via Model Studio                                                              | "DingXiaoDong" AI assistant for pre-sales, product recommendations, logistics & customer support                                 | <b>70% reduction in model inference costs</b> ; automated pre-sales, recommendations, and logistics support                                                                                                                                                                    |
| RayNeo (TCL Electronics)                       | China / Global             | Consumer Electronics & AR Wearables | Qwen LLM (Multimodal)                                                                  | AI-powered voice assistant embedded in AR smart glasses                                                                          | Context-aware multi-turn conversations, real-time AI translation, immersive navigation; <b>avg. AI query response time of 1.3 seconds</b>                                                                                                                                      |
| Hongqi (FAW Group)                             | China                      | Automotive                          | Qwen LLM + T-Head AI Chip + Alibaba Cloud Infrastructure                               | "Lingxi" intelligent cockpit — voice-driven multi-stop trip planning, integrated Alibaba ecosystem services (Taobao, Amap, Dama) | Millisecond-level responses; complex multi-intent voice commands (e.g., plan multi-stop itineraries); car transformed into a <b>"service delivery terminal"</b> ; debuted on Hongqi HS6 PHEV                                                                                   |
| ZEEKR (EV Brand)                               | China                      | Automotive & Manufacturing          | Quick BI (AI-powered Business Intelligence)                                            | Unified supply chain, manufacturing, and DTC sales data into "Jishu BI" platform with real-time OTD dashboards                   | Query latency reduced to <b>seconds</b> ; <b>60% executive adoption rate</b> ; industry-leading <b>76-day vehicle delivery time</b> ; contributed to a record <b>37-month IPO</b>                                                                                              |
| PRO-NET                                        | Malaysia (Southeast Asia)  | Automotive & EV / Mobility Tech     | Qwen LLM, Model Studio, Platform for AI (PAI)                                          | Internal AI chatbot for operations; future expansion to customer-facing apps and vehicle infotainment                            | Cloud-first, data-driven foundation established; AI chatbot in development; advancing Malaysia's EV ecosystem and aligning with <b>Malaysia AI Nation 2030</b> goals                                                                                                           |
| GoTo Group                                     | Indonesia (Southeast Asia) | Digital Ecosystem / Super App       | Alibaba Cloud Infrastructure (Compute, Database, Networking, Security, Analytics)      | Full cloud migration of GoTo's services to Alibaba Cloud; digital talent development                                             | Cloud migration began Oct 2024; data remains <b>onshore in Indonesia</b> ; streamlined operations; Alibaba Cloud committed to training <b>800,000 individuals by 2033</b> ; GenAI Hackathon co-hosted in May 2025                                                              |
| Olympic Broadcasting Services (OBS)—Paris 2024 | Europe (France)            | Media, Sports & Broadcasting        | OBS Cloud 3.0, AI Multi-Camera Replay, Qwen LLM (for future AMD system)                | Cloud-first Olympic broadcasting; AI-powered 3D multi-camera replay across 14 venues, 21 sports                                  | Cloud became <b>primary distribution method</b> for first time in Olympic history; <b>11,000+ hours of content</b> produced (15% more than Tokyo 2020); <b>70% of global distribution over cloud</b> ; 54 broadcasters used OBS Live Cloud; AI replays ready in <b>seconds</b> |
| EKS InTec GmbH                                 | Europe (Germany)           | Manufacturing & Industrial          | Alibaba Cloud Workspace, Edge Computing, AI                                            | Scalable digital twin technology for smart factory training and production optimization                                          | Digital twins accessible from <b>any device via cloud streaming</b> ; reduced hardware investment; launched in Germany & China by end of 2024; expanding to Asian markets by mid-2025                                                                                          |
| Salesforce (via Alibaba Cloud Partnership)     | Europe / Global            | Enterprise SaaS / CRM               | Alibaba Cloud Infrastructure (hosting Salesforce Sales Cloud, Service Cloud, Platform) | Enabling multinational (incl. European) companies to run Salesforce in mainland China with data residency compliance             | Compliant, localized Salesforce experience on Alibaba Cloud; <b>global CX consistency with local relevance</b> ; Deloitte recognized as 2024 Salesforce on Alibaba Cloud Partner                                                                                               |
| Cainiao Network (Alibaba Logistics)            | China / Global             | Logistics & Supply Chain            | AI, Robotics, Machine Learning, Route Optimization                                     | Fully automated "Future Warehouse"; AI-driven parcel sorting, route optimization, demand forecasting                             | Order processing time <b>↓ 50%</b> ; warehouse productivity <b>↑ 70%</b> ; logistics costs <b>↓ 30%</b> via AI route optimization; <b>25% reduction</b> in stockouts/overstock; handled <b>1 billion+ orders</b> during peak sales                                             |
| Alime (Alibaba E-commerce Platform)            | China                      | E-commerce & Retail                 | Alime AI Chatbot (NLP + ML)                                                            | AI customer service agent handling pre-sales, order tracking, returns, and product queries                                       | <b>95% of customer inquiries</b> handled by AI; response times <b>↑ 80%</b> faster; customer service costs <b>↓ 50%</b> ; customer retention <b>↑ 30%</b> ; handled <b>9 million queries</b> on Singles' Day 2017                                                              |
| 30+ Automakers & Smart Driving Providers       | China / Global             | Automotive & Autonomous Driving     | T-Head "Zhenwu" PPU AI Chips, Alibaba Cloud Infrastructure                             | Smart driving R&D — data processing, model training, simulation                                                                  | <b>100,000+ T-Head Zhenwu PPU cards</b> deployed; used by <b>30+ automakers</b> ; all major Chinese automakers reportedly adopted Alibaba Cloud for domestic and international operations by 2026 Singapore Motor Show                                                         |
| Saudi Cloud Computing Company (SCCC)           | Middle East (Saudi Arabia) | Government & Cloud Infrastructure   | Alibaba Cloud Full Stack (JV Partnership)                                              | Delivering advanced cloud computing services tailored to Saudi businesses; supporting Vision 2030                                | Joint venture established; specialized cloud solutions and ecosystem support for Saudi businesses; aligned with <b>Saudi Vision 2030</b> digital transformation goals                                                                                                          |
| Nokia + Cainiao (Logistics)                    | China / Global             | Logistics & Telecom                 | Industrial-grade Private Wireless + AI Robotics                                        | Digital transformation of Alibaba's Cainiao Smart Logistics Network warehouses                                                   | Enhanced warehouse efficiency via advanced robotic systems and industrial-grade private wireless; reduced operational costs                                                                                                                                                    |

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## Platform-As-A-Services (PaaS)

Alibaba's PaaS, supported by Apsara Cloud operating system, is designed for application development, AI training, and data management without the infrastructure maintenance. Essentially, this is a cloud-based environment that allow developers to build, deploy and scale applications without managing underlying infrastructure like servers, OS or storage.

Key product offerings include Platform for AI (PAI), Model Studio, Apsara DB for RDS database, container services, Blockchain as a Service (BaaS).

### Platform For AI (PAI)

**PAI** is a machine learning or deep learning engineering platform for enterprises and developers. It provides easy-to-use, cost-effective performance, and easy-to-scale plug-ins that can be applied to various scenarios. With over 140 built-in optimization algorithms, Platform for AI (PAI) provides whole-process AI engineering capabilities including data labeling, model building (PAI-Designer and PAI-DSW), model training (PAI-Train), compilation optimization, and inference deployment (PAI-EAS).



### ApsaraDB RDS

ApsaraDB RDS is a stable, reliable, cost-effective, and scalable online database service that supports most mainstream database engines, including MySQL, SQL Server, PostgreSQL, and MariaDB. It automates infrastructure management, patching, backups, failover, and monitoring.

### Container Services for Kubernetes (ACK)

Alibaba Cloud Container Service for Kubernetes (ACK) integrates virtualization, storage, networking, and security capabilities. ACK allows developers to deploy applications in high-performance and scalable containers and provides full lifecycle management of enterprise-class containerized applications.

**AgentRun**, a one-stop Agentic AI infrastructure platform built on the globally leading Function Compute (FC) technology. It integrates the extreme elasticity, zero maintenance, and pay-per-use features of Serverless with AI-native application scenarios, helping enterprises achieve optimal cost and efficiency improvements, with an average Total Cost of Ownership (TCO) reduction of 60%.

## Alibaba Token Hub (ATH)

On March 16, 2026, Alibaba announced it has established Alibaba Token Hub (ATH) a major strategic business group to consolidate its AI operations and to focus on “token-based” economics to capture how AI has transformed from intelligence into action as the agentic era takes hold. Headed by Alibaba Group CEO Eddie Wu, ATH is structured around a three-layer framework which aligns with its core mission of creating, distributing and applying tokens. ATH comprises of five main divisions focusing on three-layer framework of 1) **creating (Tongyi)**, 2) **distributing (MaaS)** and 3) **applying (Qwen, Wukong, Innovation) of AI tokens**.

As [Alibaba](#) pointed out that at the application layer, it deploys tokens in real-world settings to power **Wukong**, its newly launched enterprise-grade AI-native agent platform. Wukong empowers businesses to deploy “digital partners”—AI agents capable of executing daily workflows. This represents a strategic evolution of AI from passive “thinking partners,” like chatbots, to active “doing partners” that can perform tasks autonomously. On the consumer front, Alibaba’s flagship Qwen App is becoming China’s first all-in-one personal AI assistant for life, work, and learning, with 300 million monthly active users as of February.

### AI restructuring in April

On April 8, Group CEO Eddie Wu issued an internal letter announcing a new round of major organizational adjustments centered on the goal of “accelerating AI development.” Core measures include establishing a new Group Technology Committee and upgrading the former Tongyi Lab to the Tongyi Large Model Business Unit, aiming to further integrate resources and strengthen investment and synergy in large models and AI infrastructure.

According to the internal letter as reported by Sina Finance dated Apr 8 ([link](#)), the newly established Group Technology Committee will be chaired by Mr. Eddie Wu himself. Core members include Zhou Jingren, Wu Zeming, and Li Feifei. Specifically, 1) Zhou Jingren serves as the committee’s Chief AI Architect and will lead the newly upgraded Tongyi Large Model Business Unit. 2) Li Feifei is responsible for Alibaba Cloud technology and AI cloud infrastructure construction and will also serve as Alibaba Cloud’s Chief Technology Officer (CTO). 3) Wu Zeming

is responsible for the group's business technology platform and AI inference platform development, focusing on his role as Alibaba Group's CTO.

Figure 16. Alibaba Token Hub (ATH) Business Group Structure and Positioning

| BUSINESS UNIT                       | STRATEGIC ROLE<br>(TOKEN FLOW)            | CORE RESPONSIBILITIES                                                                                                                                               |
|-------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tongyi Lab</b>                   | <i>Create Token<br/>(Production)</i>      | Responsible for foundational model research and development, especially leading multi-modal models, and continuously pushing the capability limits of large models. |
| <b>MaaS Business Line</b>           | <i>Deliver Token<br/>(Distribution)</i>   | Builds an efficient and open model service platform and technical framework to support the entire industry's AI ecosystem and its partners.                         |
| <b>Qianwen Business Dept.</b>       | <i>Apply Token<br/>(Consumer Entry)</i>   | Dedicated to creating a globally leading personal AI assistant, focusing on the growth of C-side user interaction and traffic.                                      |
| <b>Wukong Business Dept.</b>        | <i>Apply Token<br/>(Enterprise Entry)</i> | Builds a B-side AI-native work platform, deeply integrating model capabilities into enterprise workflows to establish a consumption moat.                           |
| <b>AI Innovation Business Dept.</b> | <i>Apply Token<br/>(Innovation)</i>       | Explores various cutting-edge AI application scenarios to rapidly validate new business models and identify incremental markets.                                    |

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Source: Company Reports, Citi Research

## Tongyi Lab (Tongyi Large Model Business Unit)

Tongyi Lab is the AI research lab under Alibaba Group focusing on R&D of large model technology including research, training, iteration of foundational model systems. The team is dedicated to promoting the open sourcing of model capabilities, ecosystem building and industry applications. As part of the AI restructuring announced on April 8, 2026, Tongyi Lab has been upgraded to Tongyi Large Model Business Unit under the Alibaba Token Hub (ATH) and led by Zhou Jingren. Tongyi Qianwen (Qwen) series is a family of large language and multimodal models developed by Tongyi Lab.

## Model-as-a-Service (MaaS)

### Alibaba Cloud Model Studio (Bailian Platform)

Launched in Oct 2023, the Alibaba Cloud Bailian Platform or Model Studio is a one-stop model service platform, integrating the full series of Qwen model and other maintain stream third-party LLMs and providing official Qwen APIs and OpenAI-compatible APIs and supports multimodal capabilities such as text, image and audio/video. It is often time called as the aggregator of models – as it allows customers to use non-Alibaba models while staying within the Alibaba billing ecosystem. It supports scenarios such as code generation, translation, data mining and intention recognition. It allows developers to call models on demand without managing infrastructure. It offers over 200 industry-leading models including proprietary Qwen series and Wan models, and DeepSeek, Kimi, GLM, MiniMax, and others. Over 1mn enterprise and individual users currently using Model Studio. As a unified entry point for enterprise AI implementation, Model Studio simplifies complex model calls into standardized services. It provides RAG (Retrieval

Augmentation), Agent orchestration tools and Agent Store which offers enterprises more than hundreds of the ready-to-use industry-specific intelligent agents. More than 800,000 agents have been created on Model Studio supporting scenarios like content creation, intelligent marketing and production optimization. Bailian is the domestic version and Model Studio is now available in Singapore, Germany and the US.

During 2025 Apsara conference in Sept 2025, Alibaba Cloud's Bailian platform was upgraded to support the development and implementation of Agents on the basis of model into real world business operations. Bailian Platform's newly launched ModelStudio-ADK high a code framework that address the pain points of enterprises by enabling enterprises to develop Agents with autonomous planning and cyclic execution capabilities. Bailian has built seven enterprise-level capabilities, including the MCP Server for tool connection, the RAG Server for multi-modal data fusion, the system-level sandbox, the intelligent memory server, the full-link observability system, dynamic reasoning scheduling and the Pay Server. MaaS Business unit will be led by Zhou Jinren.

## Qwen Business Unit

According to [Yahoo Finance article](#) citing SCMP on Dec 10<sup>th</sup>, 2025 that Alibaba has set up a new division, Qwen Consumer Business Group, led by Wu Jia, to overseas Qwen chatbot app, Quark AI assistant, Cloud Drive, AI hardware products and UC Browser and online reading platform Shuqi. The move suggests that Alibaba tried to consolidate the management of consumer use of its AI offering. With the establishment of ATH, Qwen Business Group is now grouped under ATH with the focus and responsible on "applying" token on consumer end products.

## Wukong: AI-Native Agentic Platform

With the establishment of Alibaba Token Hub, Alibaba also unveiled [Wukong](#), an AI-native enterprise platform designed to bring advanced agentic capabilities directly into business workflows. Built on enterprise-grade security infrastructure, the platform can coordinate multiple agents to handle complex tasks within a single interface, making it a powerful productivity tool tailored to the demands of modern business environments. Wukong will be led by Chen Hang. Wukong is also integrated with Alibaba's broader ecosystem such as Taobao, Tmall, 1688, Alipay, and Alibaba Cloud with modular agent skills. This positions Wukong to support diverse business functions—from e-commerce storefront design and supplier management to payment processing and cloud infrastructure orchestration. The platform also supports third-party agent skill integrations.

## AI Innovation Business Unit

The AI innovation Business Unit leads the role to actively explore new AI application. It will in-charge of incubating cutting-edge AI products and explore the commercialization and implementation of the products and the unit will be led by Group CEO Eddie Wu.

## Tongyi Lingma (AI Coding Assistant)

Tongyi Lingma, initially launched in 2023, is an intelligent coding assistant developed by Alibaba Cloud to leverage AI to enhance programming experience. It offers automatic code continuation at line and function levels, unit test generation, converting natural language into code, generating comments, single-line completions and explaining code. It is often time referred to be comparable to GitHub Copilot or Cursor. It is an AI "coding copilot + agent" embedded inside the

computer IDE, it helps developers write, edit, debug, and build apps automatically using natural language prompts. Lingma is equipped with comprehensive codebase awareness and advanced tool-calling capabilities and powered by SOTA models. In Ask mode, Lingma delivers instant and accurate solutions. In Agent mode, Lingma autonomously devises the objectives, breaks it down to manageable To-dos according user requirement and dynamically adjust the To-dos throughout the process to accomplish coding tasks end-to-end. Examples of [customers](#) adoption stories include China Insurance, FinVolution Group, GaiaWorks and Hello Group.

## Foundation model – Qwen series

- **2023** – Alibaba published its first open-source model, the 7bn parameter LLM Qwen-7B and Qwen-7B-Chat, through ModelScope and Hugging Face in August 2023. The models' code, model weights, and documentation were made freely accessible to academics, researchers, and commercial institutions worldwide. Subsequently in late Aug 2023, Ali launched two more open-source model, large vision language models (LVLM), Qwen-VL and Qwen-VL-Chat. Qwen-VL is the multi-modal version of Qwen-7B, and capable of understanding both image inputs and text prompts in English and Chinese.
- **2024** – In June 2024, Ali released Qwen2 series, and in Sept, it unveiled 100 new open-source Qwen2.5 models ranging from 0.5 to 7.2 bn parameters. In Nov, it released a reasoning Ai model QwQ (Qwen with Questions), a 32B-Preview. First reasoning AI model to make open source.
- **2025** – Latest visual-language open model, Qwen2.5-VL was released in January. This is a multimodal model that serves as a visual agent to facilitate the execution of simple tasks on computers and mobile services. In April, Qwen 3 family featuring MoE architecture was released. Qwen3-Max, Qwen3-VL and Qwen3-Next were released in Sept. In Nov, Alibaba rebrand its Tongyi app to Qwen app and Qwen app reaches over 10mn downloads in one week. In Dec 2025, Qwen3-TTS was upgraded and open-source Qwen-Image-Layered and Qwen-Image-2512.
- **2026** – In Jan, Alibaba announced that Qwen app integrates with Taobao and Alipay and Qwen3-Max-Thinking was release. On Feb 16, 2026, BABA released Qwen3.5 and Qwen3.5-Plus (open-weight) and Qwen3.5-Pax-Preview was released in March. On April 2, Qwen3.6-Plus focusing on agentic coding and reasoning was released. On April 15, Qwen3.6-35B-A3B was released as open source. April 27, 2026, BABA launched HappyHorse-1.0, an image-to-video model.

As of late 2025, there were over 600mn downloads and 170,000+ derivative models on Hugging Face that are based on Qwen model family, making it one of the most popular open-source models. In summary, Qwen model consists of Text (Qwen2.5, Qwen3), Reasoning (QwQ, Qwen3-Max-Thinking), Code (Qwen-Coder, Qwen3-Coder), Vision-Language (Qwen-VL, Qwen2.5-VL), Audio (Qwen-Audio), Video (Wan series), Math (Qwen2-Math).

Specifically, according an article on [Towards Ai](#) on April 12, 2026, Qwen3.6-Plus was reportedly hit 1 trillion tokens in a single day on OpenRouter.

Per an article by [AI Base](#) dated Sep 1, 2025, citing a report by Frost & Sullivan that the enterprise-level large model market in China experienced explosive growth with 1H25 daily total token consumption of enterprise-level large models in China

reached 10.2 trillion, or 363% increase compared to 2H24. It noted that Alibaba Tongyi Qwen models lead with 17.7% market share as the most commonly chosen general-purpose large model by Chinese enterprises. This is followed by Bytedance Doubao at 14.1%, DeepSeek 10.3%.

Figure 17. Qwen model series development

| Model series    | Release / open-source date | Key model sizes (parameters)                                   | Context length                                  | Special Features / Breakthroughs                                                                                                                  |
|-----------------|----------------------------|----------------------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Qwen            | 11-Apr-23                  | 1.8B, 7B, 14B, 72B                                             | 8,192 tokens (extended from 2,048)              | First major open-weight LLM from Alibaba; strong bilingual (Eng/Chi) performance; introduced Qwen-Chat variants                                   |
| Qwen1.5         | 6-Feb-24                   | 1.8B, 7B, 32B, 72B, 110B                                       | 32,768 tokens                                   | Improved alignment & multilingual support (~30 languages); added 110B flagship; better instruction following                                      |
| Qwen2           | 7-Jun-24                   | 0.5B, 1.5B, 7B, 57B-A14B (MoE), 72B                            | 131,072 tokens                                  | Introduced MoE architecture (57B-A14B); trained on 7T+ tokens; strong coding & math uplift; 30-language support                                   |
| Qwen2.5         | 19-Sep-24                  | 0.5B, 1.5B, 3B, 7B, 14B, 32B, 72B                              | Up to 1,010,000 tokens (1M variant)             | Trained on 18T tokens; specialized sub-series: Qwen2.5-Coder, Qwen2.5-Math, Qwen2.5-VL; 1M context window introduced                              |
| QwQ-32B-Preview | 28-Nov-24                  | 32B                                                            | 32,768 tokens                                   | Dedicated reasoning/thinking model; chain-of-thought focus; outperformed OpenAI o1 on select benchmarks                                           |
| Qwen2.5-1M      | 27-Jan-25                  | 7B, 14B                                                        | 1,010,000 tokens                                | World-class long-context model; 100% accuracy on 1M Passkey Retrieval; F1 score 93.1 (surpassed GPT-4's 91.6)                                     |
| Qwen3           | 29-Apr-25                  | 0.6B, 1.7B, 4B, 8B, 14B, 32B (dense); 30B-A3B, 235B-A22B (MoE) | 32K native / 128K with YaRN (dense); 256K (MoE) | Hybrid Thinking Mode (switch between reasoning & instruct); 119-language support; MoE reintroduced at scale; strong agentic/tool-use capabilities |
| Qwen3-Coder     | 23-Jul-25                  | ~32B+ (Coder-Plus)                                             | 128K+ tokens                                    | Specialized coding agent; SWE-Bench Verified: 69.6%—surpassed Claude 3.5 Sonnet (49%) & GPT-4 Turbo (43.8%)                                       |
| Qwen3-Max       | 24-Sep-25                  | >1 Trillion (proprietary API)                                  | 1,000,000 tokens                                | Largest Qwen model; pretrained on 36T tokens; 100% on AIME25 & HMIMT with tool use; LiveCodeBench v6: 74.8                                        |
| Qwen3-VL        | 24-Sep-25                  | 4B, 8B, 235B-A22B                                              | 131,072 tokens                                  | Multimodal vision-language; "Thinking" variant for visual reasoning; strong OCR and document understanding                                        |
| Qwen3.5         | 16-Feb-26                  | 0.8B, 2B, 4B, 9B, 27B, 35B-A3B, 122B-A10B, 397B-A17B (MoE)     | 262K native / up to 1M                          | Ultra-large MoE flagship (397B-A17B); broad size range for edge-to-cloud deployment; continued hybrid thinking                                    |
| Qwen3.6         | 2-Apr-26                   | 27B (dense), 35B-A3B (MoE), Plus (API)                         | 262K native / up to 1M                          | Latest generation; Qwen3.6-Plus offers 1M context window; ultra-efficient sparse MoE (only 3B activated out of 35B)                               |

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Source: Company Reports, Citi Research

Figure 18. Qwen sub model series highlights

| Sub Series    | Base Series   | Focus Area                   | Key Highlight                                                         |
|---------------|---------------|------------------------------|-----------------------------------------------------------------------|
| Qwen-VL       | Qwen1/2/2.5/3 | Vision-Language (multimodal) | Combines vision transformer + LLM; supports image/video understanding |
| Qwen-Audio    | Qwen2/2.5     | Audio / Speech               | Speech recognition, synthesis, and audio understanding                |
| Qwen2.5-Coder | Qwen2.5       | Code Generation              | Matched GPT-4o on coding benchmarks (Nov 2024)                        |
| Qwen2.5-Math  | Qwen2.5       | Mathematics                  | Specialized for complex mathematical reasoning                        |
| QwQ           | Qwen2.5/3     | Reasoning / Thinking         | Chain-of-thought reasoning; outperformed OpenAI o1 on select tasks    |
| Qwen3-Coder   | Qwen3         | Coding Agents                | SWE-Bench Verified 69.6% – best open-source coding agent (Nov 2025)   |
| Qwen-Image    | Qwen3         | Image Generation             | Advanced text rendering, image editing, multi-style generation        |

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Source: Company Reports, Citi Research

Figure 19. Qwen model performance comparison

| Model                           | License     | Context Window | Input / Output (\$/1M) | Artificial Analysis |                        |                             | Other benchmarks |                 |                      |              |         |
|---------------------------------|-------------|----------------|------------------------|---------------------|------------------------|-----------------------------|------------------|-----------------|----------------------|--------------|---------|
|                                 |             |                |                        | Intelligence Index  | Speed (output token/s) | Blended Price (\$/1M/token) | GDPval-AA        | τ-Bench Telecom | Humanity's Last Exam | GFQA Diamond | MMU-Pro |
| Qwen3.6                         |             |                |                        |                     |                        |                             |                  |                 |                      |              |         |
| Qwen3.6 Max Preview (Reasoning) | Proprietary | 256K           | \$1.30 / \$7.80        | 52                  | 37                     | 2.9                         | 50%              | 96%             | 29%                  | 89%          | —       |
| Qwen3.6 Plus (Reasoning)        | Proprietary | 1M             | \$0.50 / \$3.00        | 50                  | 53                     | 1.1                         | 43%              | 98%             | 26%                  | 88%          | 78%     |
| Qwen3.6 27B (Reasoning)         | Open        | 262K           | \$0.60 / \$3.60        | 46                  | 66                     | 1.4                         | 46%              | 94%             | 22%                  | 84%          | 75%     |
| Qwen3.6 27B (Non-Reasoning)     | Open        | 262K           | \$0.60 / \$3.60        | 37                  | 69                     | 1.4                         | 45%              | 94%             | 14%                  | 83%          | 72%     |
| Qwen3.6 35B-A3B (reasoning)     | Open        | 262K           | \$0.248 / \$1.485      | 43                  | 197                    | 0.6                         | 40%              | 95%             | 20%                  | 84%          | 75%     |
| Qwen3.5                         |             |                |                        |                     |                        |                             |                  |                 |                      |              |         |
| Qwen3.5 397B-A17B (Reasoning)   | Open        | 262K           | \$0.60 / \$3.60        | 45                  | 53                     | 1.4                         | 35%              | 96%             | 27%                  | 89%          | 77%     |
| Qwen3.5 122B-A10B (Reasoning)   | Open        | 262K           | \$0.40 / \$3.20        | 42                  | 148                    | 1.1                         | 31%              | 94%             | 23%                  | 86%          | 75%     |
| Qwen3.5 35B-A3B (Reasoning)     | Open        | 262K           | \$0.25 / \$2.00        | 37                  | 182                    | 0.7                         | 27%              | 94%             | —                    | —            | —       |
| Qwen3.5 27B (Reasoning)         | Open        | 262K           | \$0.30 / \$2.40        | 42                  | 91                     | 0.8                         | 33%              | 94%             | 22%                  | 86%          | 75%     |
| Qwen3                           |             |                |                        |                     |                        |                             |                  |                 |                      |              |         |
| Qwen3 Max (Thinking)            | Proprietary | 256K           | \$1.20 / \$6.00        | 40                  | 48                     | 2.4                         | 32%              | 84%             | 26%                  | 86%          | —       |

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Source: Company Reports, Artificial Analysis, Citi Research

## Qwen model series & benchmark ranking comparison

### Qwen3.6-Max

The latest Qwen model – Qwen3.6-Max-Preview was released on April 20, 2026 which highlighted it took first place on SWE-bench Pro, Terminal Bench2.0, Skills Bench, SciCode and QwenClawBench and QwenWebBench. While this model is top of the line, it is not an open-weight model, it is proprietary and text-only AI model, and only be able to access through Alibaba Cloud Model Studio, Qwen Chat interface and Open Router. It is designed for advanced coding, reasoning and instruction following. It does outperform Qwen3.6-Plus in agentic coding (SWE-bench Pro), but it only features 256k context window, compared to 1mn context window for Qwen3.6-Plus.

### Qwen3.6-Plus

Released on April 2, 2026, [Qwen3.6-Plus](#) is a 1m context window model with significantly improved agentic coding capability and with better multimodal perception and reasoning ability. Qwen3.6-Plus receives comprehensive improvements in coding agents, general agents and tool usage by deeply integrating reasoning, memory and execution capabilities. In the coding agents, Qwen3.6-Plus demonstrates strong practical engineering performances. It also achieves top results in multiple challenging long-horizon planning tasks and evaluating STEM reasoning and precise information extraction from ultra-long

contexts. The model supports text, image and video input, output text. According to Artificial Analysis, the model scores a 50 on AA Intelligence Index, ranking at 19 out of 145. Pricing is US\$0.50 per 1M input tokens and US\$3.00/M output tokens.

### Qwen 3.5

With the release of Qwen3.5 series announced on Feb 16, 2026, Alibaba also introduce the open-weight version of 3.5 with Qwen3.5-397B-A17B. It is a native vision-language model achieving outstanding results across full range of benchmark evaluation including reasoning, coding, agent capabilities and multimodal understanding. The model is built on an innovative hybrid architecture that fuses linear attention with a sparse MoE and achieve remarkable inference efficiency.

Figure 20. Qwen3.6 Max (Preview) and Qwen3.6 Plus benchmark comparison

| Benchmark                       | Context                                 | Qwen 3.6<br>Max<br>(Preview) | Qwen 3.6<br>Plus | Qwen 3.5<br>Plus | Claude 4.5<br>Opus | GLM 5.1 |
|---------------------------------|-----------------------------------------|------------------------------|------------------|------------------|--------------------|---------|
| SuperGPQA                       | Graduate-Level Knowledge                | 73.9                         | 71.6             | 70.4             | 70.6               | 68.0    |
| AA-Omniscience Index            | Knowledge Reliability and Hallucination | 10.0                         | 3.0              | -30.0            | 13.0               | 2.0     |
| GDPval-AA                       | Real-World Valuable Task                | 51.0                         | 43.0             | 35.0             | 48.0               | 52.0    |
| QwenChineseBench                | Chinese Real-World Knowledge            | 84.0                         | 78.7             | 78.8             | 69.0               | 81.2    |
| QwenClawBench                   | Real-World Agent                        | 59.0                         | 57.2             | 51.8             | 52.3               | 58.7    |
| SkillsBench                     | Agent Skills                            | 55.6                         | 45.7             | 30.0             | 45.3               | 53.1    |
| ToolcallFormatIFBench           | Real-World Toolcall Following           | 86.1                         | 83.3             | 80.1             | 84.2               | 60.1    |
| QwenWebBench (Elo Rating)       | Artifacts                               | 1532                         | 1495             | 1182             | 1530               | 1558    |
| SciCode                         | Research Coding                         | 47.0                         | 40.7             | 42.0             | 49.5               | 43.8    |
| NL2Repo                         | Long-Horizon Coding                     | 42.9                         | 37.9             | 32.2             | 43.2               | 42.7    |
| Terminal-Bench 2.0 (Terminus-2) | Agentic Terminal Coding                 | 65.4                         | 61.6             | 52.5             | 59.3               | 63.5    |
| SWE-Bench Pro                   | Agentic Coding                          | 57.3                         | 56.6             | 50.9             | 57.1               | 58.4    |

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Source: Alibaba, Citi Research

Figure 21. Qwen3.6-27B (dense) and Qwen3.6-35B-A3B (MoE) benchmark comparison

| Benchmark                 | Context                     | Dense       |             |            | MoE             |                   | Claude 4.5<br>Opus |
|---------------------------|-----------------------------|-------------|-------------|------------|-----------------|-------------------|--------------------|
|                           |                             | Qwen3.6-27B | Qwen3.5-27B | Gemma4-31B | Qwen3.6-35B-A3B | Qwen3.5-397B-A17B |                    |
| Terminal-Bench 2.0        | Agentic Terminal Coding     | 59.3        | 41.6        | 42.9       | 51.5            | 52.5              | 59.3               |
| SWE-Bench Pro             | Agentic Coding              | 53.5        | 51.2        | 35.7       | 49.5            | 50.9              | 57.1               |
| SWE-Bench Verified        | Agentic Coding              | 77.2        | 75.0        | 52.0       | 73.4            | 76.2              | 80.9               |
| SWE-Bench Multilingual    | Multilingual Agentic Coding | 71.3        | 69.3        | 51.7       | 67.2            | 69.3              | 77.5               |
| QwenClawBench             | Real-World Agent            | 53.4        | 52.2        | 41.7       | 52.6            | 51.8              | 52.3               |
| QwenWebBench (Elo Rating) | Artifacts                   | 1487        | 1068        | 1197       | 1397            | 1186              | 1536               |
| NL2Repo                   | Long-Horizon Coding         | 36.2        | 27.3        | 15.5       | 29.4            | 32.2              | 43.2               |
| SkillsBench               | Agent Skills                | 48.2        | 27.6        | 23.6       | 28.7            | 30.0              | 45.3               |
| Claw-Eval (pass^3)        | Real-World Agent            | 60.6        | 46.2        | 25.0       | 50.0            | 48.1              | 59.6               |
| GPQA Diamond              | Graduate-Level Reasoning    | 87.8        | 85.5        | 84.3       | 86.0            | 88.4              | 87.0               |
| MMMU                      | Multimodal Reasoning        | 82.9        | 82.3        | 80.4       | 81.7            | 85.0              | 80.7               |
| RealWorldQA               | Image Reasoning             | 84.1        | 83.7        | 72.3       | 85.3            | 83.9              | 77.0               |

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Source: Alibaba, Citi Research

Figure 22. Artificial Analysis Intelligence Index leaderboard (May 7, 2026)

|           |                               |    |     |       |      |    |
|-----------|-------------------------------|----|-----|-------|------|----|
| OpenAI    | GPT-5.5 (xhigh)               | 60 | 67  | 11.25 | 922  |    |
| Anthropic | Claude Opus 4.7 (max)         | 57 | 45  | 10.94 | 1000 |    |
| Kimi      | Kimi K2.6                     | 54 | 30  | 1.71  | 256  |    |
| Xiaomi    | MI Mo-V2.5-Pro                | 54 | 58  | 1.50  | 1000 |    |
| Meta      | Muse Spark                    | 52 | na  | na    | 262  |    |
| Alibaba   | Qwen3.6 Max Preview           | 52 | 36  | 2.92  | 256  |    |
| DeepSeek  | DeepSeek V4 Pro (Max)         | 52 | 34  | 2.17  | 1000 |    |
| Zai       | GLM-5.1                       | 51 | 54  | 2.15  | 200  |    |
| MiniMax   | MiniMax-M2.7                  | 50 | 44  | 0.52  | 205  |    |
| Tencent   | Hy3-preview                   | 42 | 85  | 0.00  | 256  | na |
| Mistral   | Mistral Medium 3.5            | 39 | 148 | 3.00  | 256  | na |
| StepFun   | Step 3.5 Flash 2603           | 38 | 176 | 0.00  | 256  | na |
| Nvidia    | Nvidia Nemotron 3 Super       | 36 | 167 | 0.41  | 1000 |    |
| Amazon    | Nova 2.0 Pro Preview (medium) | 36 | 143 | 3.44  | 256  |    |

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Source: Artificial Analysis, Citi Research

Figure 23. GDPval-AA ELO leaderboard (May 7, 2026)

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Source: Artificial Analysis, Citi Research

Figure 24. SuperCLUE composite rank as of Mar 2026 (score breakdown)

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Source: SuperCLUE, Citi Research

Figure 25. Artificial Analysis text-to-video leaderboard (no audio, May 7, 2026)

| Rank | Creator        | Model                          | ELO   | Samples | Release date | API pricing   |
|------|----------------|--------------------------------|-------|---------|--------------|---------------|
| 1    | Alibaba-ATH    | HappyHorse-1.0                 | 1,355 | 8,342   | Apr-26       | \$14.40 / min |
| 2    | ByteDance Seed | Dreamina Seedance 2.0 720p     | 1,271 | 8,658   | Mar-26       | na            |
| 3    | Kling AI       | Kling 3.0 1080p (Pro)          | 1,250 | 5,802   | Feb-26       | \$13.44 / min |
| 4    | Kling AI       | Kling 3.0 Omni 1080p (Pro)     | 1,233 | 5,218   | Feb-26       | \$13.44 / min |
| 5    | Video Rebirth  | Bach-1.0 Preview               | 1,225 | 3,508   | Apr-26       | na            |
| 6    | Kling AI       | Kling 3.0 Omni 720p (Standard) | 1,224 | 5,241   | Feb-26       | \$10.08 / min |
| 7    | Vidu           | Vidu Q3 Pro                    | 1,223 | 6,583   | Jan-26       | \$9.60 / min  |
| 8    | PixVerse       | PixVerse V6                    | 1,221 | 9,142   | Mar-26       | \$5.40 / min  |
| 9    | PixVerse       | PixVerse V5.6                  | 1,221 | 5,940   | Feb-26       | \$9.00 / min  |

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Source: Artificial Analysis, Citi Research

Figure 26. Artificial Analysis image-to-video leaderboard (no audio, May 7, 2026)

| Rank | Creator        | Model                        | ELO   | Samples | Release date | API pricing   |
|------|----------------|------------------------------|-------|---------|--------------|---------------|
| 1    | Alibaba-ATH    | HappyHorse-1.0               | 1,397 | 7,987   | Apr-26       | na            |
| 2    | ByteDance Seed | Dreamina Seedance 2.0 720p   | 1,348 | 4,836   | Mar-26       | na            |
| 3    | PixVerse       | PixVerse V6                  | 1,324 | 8,762   | Mar-26       | \$5.40 / min  |
| 4    | Vidu           | Vidu Q3 Pro                  | 1,288 | 6,359   | Jan-26       | \$9.60 / min  |
| 5    | Kling AI       | Kling 2.5 Turbo 1080p        | 1,284 | 4,463   | Sep-25       | \$4.20 / min  |
| 6    | Kling AI       | Kling 3.0 1080p (Pro)        | 1,282 | 5,740   | Feb-26       | \$13.44 / min |
| 7    | Kling AI       | Kling 3.0 Omni 1080p (Pro)   | 1,281 | 5,174   | Feb-26       | \$13.44 / min |
| 8    | PixVerse       | PixVerse V5.6                | 1,281 | 5,284   | Feb-26       | \$9.00 / min  |
| 9    | Kling AI       | Kling 2.6 Standard (January) | 1,271 | 5,172   | Jan-26       | na            |

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Source: Citi Research, Artificial Analysis

## AI Application integration with Ali's ecosystem

### Agentic AI development for AliCloud

#### Qwen integration with Alibaba ecosystem

Back on Jan 15 (Securities Times CN dated 15 Jan 2026, [link](#)), Alibaba officially announced that Qwen app has integrated with Alibaba ecosystem including Taobao, Alipay, Taobao Shangou and Amap for AI functionalities supporting food delivery, online shopping, flight ticket booking, route planning etc. The integration feature is open for all users for testing, together with beta testing for Qwen app mission assistant.

Users who downloaded the latest version of Qwen app at that time can enable application authorization for Taobao, Taobao Shangou, Fliggy, Alipay and Alipay AI to deploy their missions. At the same time, Qwen app also upgraded with over 400 AI office functions.

Alibaba also shared that Qwen app will leverage real world knowledge and the transactional and service data from Alibaba to enhance its model training in order to facilitate objective and accurate decision-making for AI shopping functions. Looking ahead, Ali will focus on developing agentic AI products such as AI shopping for Taobao marketplace.

Later reported by 36Kr dated 9 Feb 2026 ([link](#)), Qwen app has launched a Rmb3bn marketing campaign during Chinese New Year starting Feb 6 to subsidize users to place food delivery orders (particularly tea beverages) on Qwen app at a delivery fee of Rmb0.01. This also includes Rmb2bn for delivery fee waiver and Rmb1bn for cash envelope subsidies. According to Qwen, the campaign generated over 10mn orders in the first 9 hours with Qwen once becoming the most downloaded app on China App Store.

### Agentic products

On Apr 23, AliCloud officially launched an enterprise-level agent platform **JVS Crew** which enable enterprises to integrate with existing apps, SaaS and smart gadgets to acquire zero-barrier enterprise-level agentic capabilities. JVS Crew is embedded with 3 layers of security walls including identity wall, content wall and execution wall to support safe execution together with full-managed conversational management, cost management and channel integration. JVS Crew also adopted Harness engineering to separate reasoning and execution.

On Apr 28, Ali announced to upgrade its **QoderWork** with 10 expert modules covering six verticals including finance, legal, marketing, taxation, consulting and products. For example, the financial analysis modules support data research, financial information analysis, peer analysis and presentation generation. Within marketing module, AI can deploy market research, industry analysis, peer product analysis, strategic implementation and data output. Going forward, QoderWork aims to expand into more modules such as data and HR sectors.

On Apr 30, Alibaba officially released two agentic products, including digital employee **QoderWake** and **Qoder** mobile to fully cover enterprise and consumer use cases. QoderWake is positioned as a safe, self-evolutionary productive digital employee product to act as software engineer, operators and analyst roles. Currently QoderWake has opened for beta registration in which individuals and enterprises to apply for one or multiple digital employees and customize their features based on business or individual needs.

QoderWake adopts the latest Harness-First framework which can summarize and memorize its experience into memory, skills, strategies verification and workflows with embedded anti-rot governance. Currently the digital programmer feature of QoderWake has been launched within Alibaba which significantly improved productivity. Going forward, QoderWake will further release new features such as digital analyst, digital customer management, digital content editor and digital workflow staff.

Through Qoder mobile app, users can remotely manipulate its Qoder PC products to complete any missions. In contrast to agentic product on instant messenger app, Qoder mobile can directly display the chain of thought, workflow, pop-ups and user confirmation which significantly improve user experience. Qoder mobile has fully integrated with Qoder CLI capabilities and will soon integrate with full agentic products such as Qoder IDE, QoderWork, QoderWake.

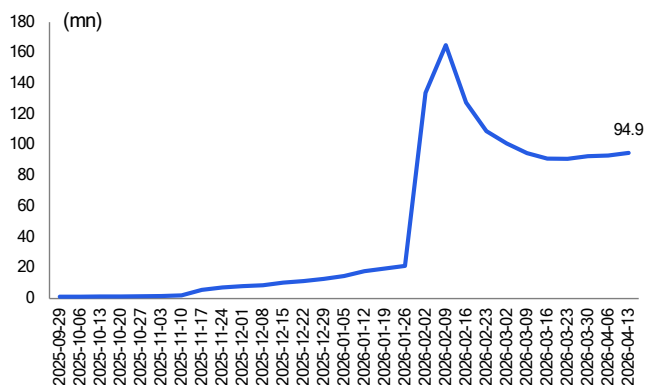
### Announcement of Qwen integrating to Taobao

On May 10, 2026, according to various news media including [Reuters](#) (10 May 2026), reported that Alibaba is working to deepen integration of Qwen with its Taobao marketplace, enabling users to browse, compare and purchase items via Qwen app by chatting with the AI agent, rather than manually navigating product listings. According to the report, Qwen app will gain access to the entire Taobao and Tmall catalog of over 4bn products, which is backed a “skills library” capable of

managing logistics and post-sales services. It will also offer shopping recommendation based on users' order history and shopping preferences.

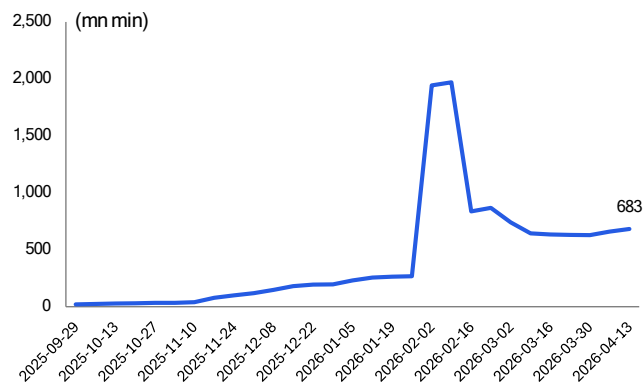
In addition, a Qwen-powered AI shopping assistant will be launched on Taobao app, offering tools including virtual try-ons and 30-day price tracking.

Figure 27. Qwen WAU from Oct'25 to Apr'26



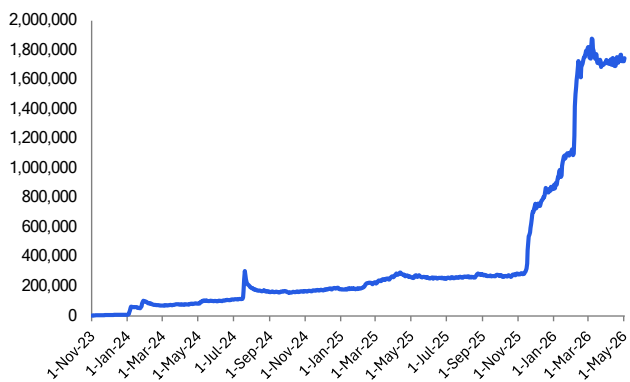
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Source: Questmobile, Citi Research

Figure 28. Qwen weekly time spent from Oct'25 to Apr'26



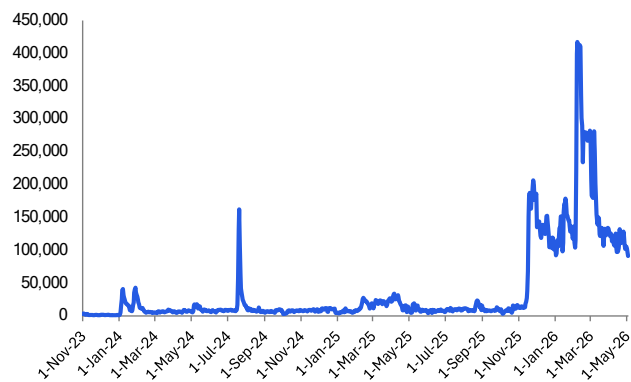
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Source: Questmobile, Citi Research

Figure 29. Qwen DAU trend on iOS in China



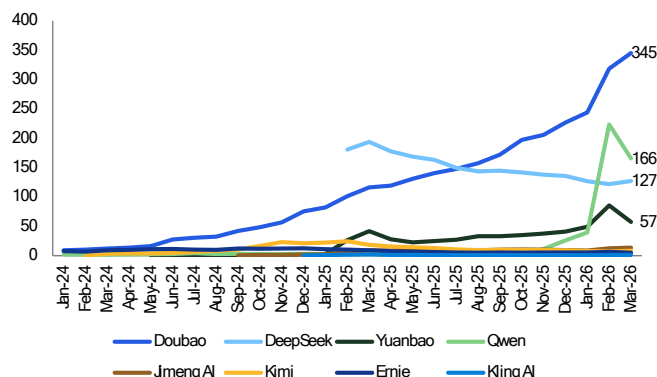
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Source: SensorTower, Citi Research

Figure 30. Qwen daily download trend on iOS in China



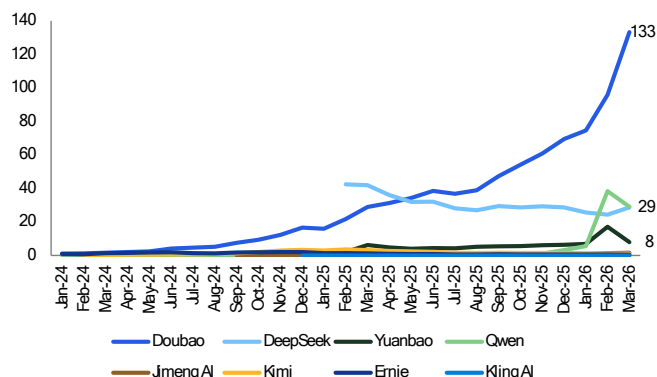
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Source: SensorTower, Citi Research

Figure 31. China AIGC app MAU (mn)



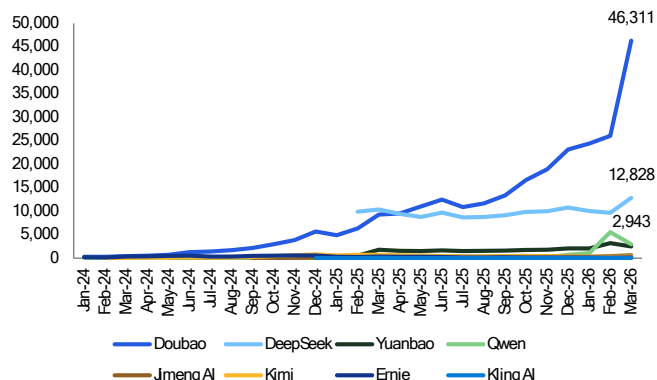
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Source: Questmobile, Citi Research

Figure 32. China AIGC app DAU (mn)



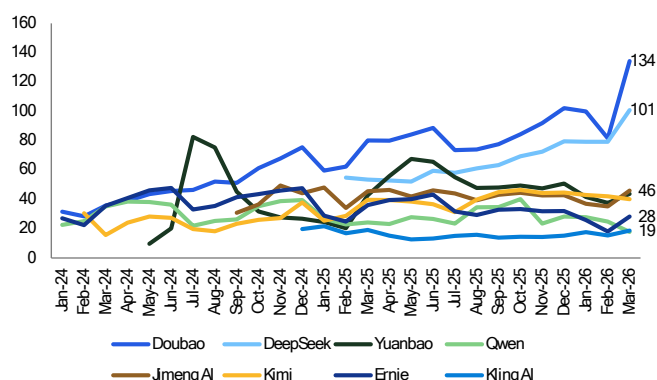
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Source: Questmobile, Citi Research

Figure 33. China AIGC app total time spent (mn min)



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Source: Questmobile, Citi Research

Figure 34. China AIGC app average time spent (min)



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Source: Questmobile, Citi Research

## Token Economies and usage scale

As we noted in our [MiniMax](#) Initiation report, we wrote that as highlighted by Nvidia on its [blog](#) (dated Mar 17, 2025), tokens are units of data processed by AI models during training and inference, which enable prediction, generation and reasoning. The faster tokens can be processed, the faster models can learn and respond. Tokenization is the process of converting data into standardized units called tokens. Transformer AI models use this method to process text, images, audio clips, or videos, and translate the information into token format. As highlighted by the explanation, **AI factories are designed to generate intelligence on a massive scale by processing data in the form of tokens and turning them into valuable, monetizable insights. As a result, many AI services are now adopting pricing models based on token consumption**, where the cost is determined by the number of tokens a model processes for both input and output.

Most AI model providers charge on the per-million tokens basis (M tokens). For any API call to the model, users are charged on input and output price. Typically, most models charge cheaper on **input tokens** which are primary prompts entered by users and models "reading" user instructions and context. **Output** prices are

usually more expensive (3–5x more than input) and it covers intensive compute required for the model to “write” the response.

### Comparing China vs global token usage

The latest proliferation of agentic AI and demand of high-speed video generation has led to a surge in token consumption in China, which has recently surpassed the US as the largest token consumption country globally.

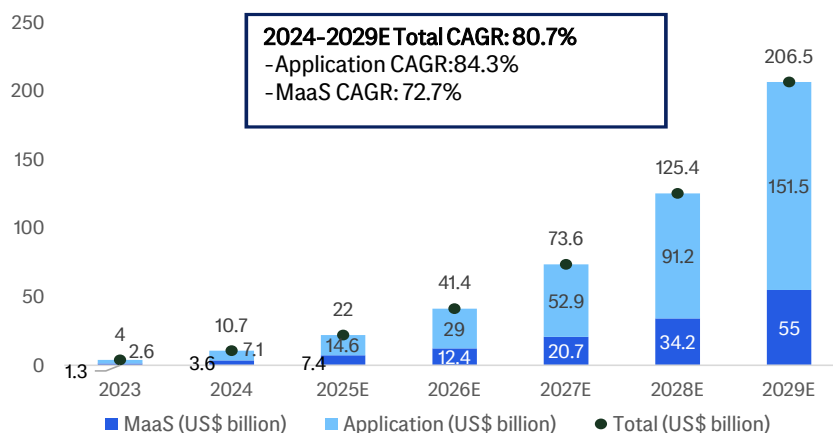
[Sina news](#) reported on Mar 30<sup>th</sup>, 2026 that according to the latest data from the National Data Administration, as of Mar 2026, China’s average daily AI token usage has exceeded 140trn, an increase of >1,400 times from the 100 billion at the beginning of 2024. The data was disclosed by Mr. Liu Liehong, director of the National Data Administration, during the 2026 annual meeting of the China Development High-level Forum. The article also highlighted the growth trend from 10bn in early 2024 to 30bn in June 2025 and later to 100bn in Dec 2025 and surpassing 140bn in Mar 2026. The article also highlighted that usage from enterprises is also showing rapid growth. In 2H25, average daily call volume for enterprise large model APIs reached 37trn tokens, an increase of 263% from 10.2trn in 1H25. The report also highlighted that in Feb 2026 China’s AI model weekly token calls surpassed those from the US for the first time. [Global Times](#) reported on Mar 29, 2026 that the recent surge in token usage drove up computing power and related services, and prompted major cloud providers in China to announce an average price increase of 30%+ for their AI cloud products.

### Global foundation model market size

According to CIC, the global foundation model will reach US\$206.5bn, representing a 2024–2029 CAGR of 80.7%. Within that, MaaS market is expected to grow at a 72.7% CAGR, from US\$7.4bn to US\$55bn, while the application market size is forecast to grow from US\$14.6bn to US\$151.5bn or an 84.3% CAGR.

MaaS is a business model where revs are charged on cloud-based APIs (Application Programming Interfaces) and licensing agreements. Developers and enterprises can then integrate these powerful model functions directly into their own products, applications, or internal systems. The revenue for MaaS is generated on a usage basis, meaning customers pay for processing or the number of API calls they make. Application-based revenue is generated by offering complete, end-user-facing software products that are built on top of a foundational AI model. These applications are sold directly to both individual consumers and enterprise clients, most commonly through a subscription model.

Figure 35. Global foundation model market size in terms of model-based rev



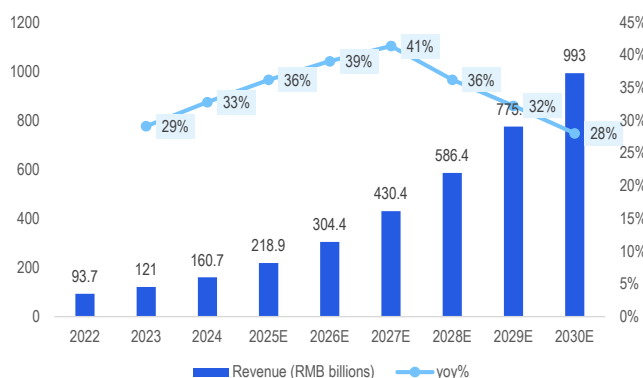
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Source: Citi Research, CIC

## China AI market TAM

According to Frost & Sullivan and China Academy of Information and Communication Technology (CAICT), China's AI market reached Rmb160.7bn or US\$23bn in 2024 and they had an estimate of +36% yoy to Rmb219bn (US\$31.3bn) for 2025. The AI market is expected to reach Rmb993bn or US\$141.9bn in 2030, suggesting a 2024-30 CAGR of 35.5%, per their estimates.

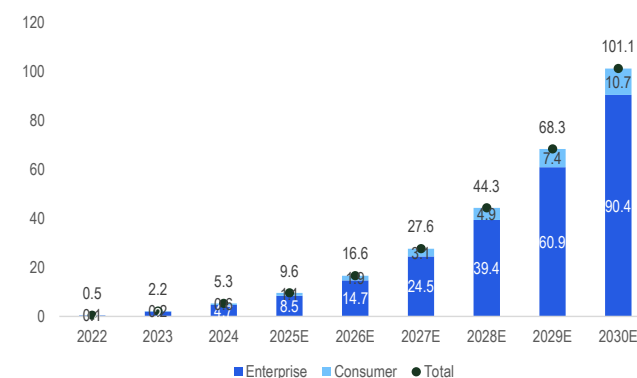
Figure 36. Market Size of AI Market in China in terms of revenue (RMB billions)



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Source: Citi Research, Frost & Sullivan, China Academy of Information and Communications Technology (CAICT)

Figure 37. Size of the LLMs Market in China in terms of revenue (RMB billions)



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Source: Citi Research, Frost & Sullivan, CAICT

Knowledge Atlas (Zhipu)'s prospectus quoting Frost & Sullivan and CAICT said that the size of the LLM market in China reached Rmb5.3bn in 2024, of which enterprise-based revs contributed Rmb4.7bn or 89% and consumer-based revs only Rmb0.6bn (11%). The prospectus further said that the total LLM market will reach Rmb101.1bn in 2030, representing a 2024-30 CAGR of 63.5%. Within that, the enterprise-based market is expected to reach Rmb90.4bn by 2030 or a 63.7% CAGR while the consumer-based market size is forecast to reach Rmb10.7bn by 2030 or a 61.6% CAGR.

As noted in the below charts by Open Router usage tracking, as of May 4, 2026, top five token usage companies are Tencent at 14.6% (mainly driven by its latest release of HY3 Preview which is free currently), Anthropic 13.6%, DeepSeek 10.3% (following the release of V4 recently), OpenAI 9.9% and BABA's Qwen usage is at 5.6%.

**Figure 39. Token usage share across OpenRouter by model author (week of May 4, 2026)**

| Company     | Market Share (%) |
|-------------|------------------|
| Tencent     | 14.6%            |
| Company A   | 14.3%            |
| Anthropic   | 13.6%            |
| DeepSeek    | 10.3%            |
| OpenAI      | 9.9%             |
| Moonshot AI | 8.7%             |
| Qwen        | 5.6%             |
| Zai         | 3.8%             |
| Company B   | 3.7%             |
| Others      | 15.4%            |

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Source: OpenRouter. Citi Research

The below chart shows that since the release of Qwen3.6, the token usage of Qwen models has jumped significantly in April before tapering off quickly.

The chart displays the growth of GitHub repository forks for various Qwen models. The Y-axis represents the number of forks, ranging from 0 to 1,800. The X-axis shows dates from February 6, 2026, to May 1, 2026. The legend identifies the following models: Qwen (dark blue), Qwen3 (light blue), Qwen3.5 (dark blue), Qwen3.6 (medium blue), and Others (black). The Qwen3.5 model shows a significant spike in forks, peaking at approximately 1,600 forks in early April 2026, while other models maintain low, stable counts.

| Date        | Qwen | Qwen3 | Qwen3.5 | Qwen3.6 | Others |
|-------------|------|-------|---------|---------|--------|
| 6-Feb-26    | 0    | 0     | 0       | 0       | 0      |
| 13-Feb-26   | 0    | 0     | 0       | 0       | 0      |
| 20-Feb-26   | 0    | 0     | 0       | 0       | 0      |
| 27-Feb-26   | 0    | 0     | 0       | 0       | 0      |
| 6-Mar-26    | 0    | 0     | 0       | 0       | 0      |
| 13-Mar-26   | 0    | 0     | 0       | 0       | 0      |
| 20-Mar-26   | 0    | 0     | 0       | 0       | 0      |
| 27-Mar-26   | 0    | 0     | 0       | 0       | 0      |
| 3-Apr-26    | 480  | 0     | 0       | 0       | 0      |
| 10-Apr-26   | 680  | 0     | 0       | 0       | 0      |
| 17-Apr-26   | 750  | 0     | 0       | 0       | 0      |
| 24-Apr-26   | 1420 | 0     | 0       | 0       | 0      |
| 1-May-26    | 1600 | 0     | 0       | 0       | 0      |
| 8-May-26    | 1450 | 0     | 0       | 0       | 0      |
| 15-May-26   | 950  | 0     | 0       | 0       | 0      |
| 22-May-26   | 780  | 0     | 0       | 0       | 0      |
| 29-May-26   | 50   | 0     | 0       | 0       | 0      |
| 5-Jun-26    | 50   | 0     | 0       | 0       | 0      |
| 12-Jun-26   | 50   | 0     | 0       | 0       | 0      |
| 19-Jun-26   | 50   | 0     | 0       | 0       | 0      |
| 26-Jun-26   | 50   | 0     | 0       | 0       | 0      |
| 3-Jul-26    | 50   | 0     | 0       | 0       | 0      |
| 10-Jul-26   | 50   | 0     | 0       | 0       | 0      |
| 17-Jul-26   | 50   | 0     | 0       | 0       | 0      |
| 24-Jul-26   | 50   | 0     | 0       | 0       | 0      |
| 31-Jul-26   | 50   | 0     | 0       | 0       | 0      |
| 7-Aug-26    | 50   | 0     | 0       | 0       | 0      |
| 14-Aug-26   | 50   | 0     | 0       | 0       | 0      |
| 21-Aug-26   | 50   | 0     | 0       | 0       | 0      |
| 28-Aug-26   | 50   | 0     | 0       | 0       | 0      |
| 4-Sep-26    | 50   | 0     | 0       | 0       | 0      |
| 11-Sep-26   | 50   | 0     | 0       | 0       | 0      |
| 18-Sep-26   | 50   | 0     | 0       | 0       | 0      |
| 25-Sep-26   | 50   | 0     | 0       | 0       | 0      |
| 2-Oct-26    | 50   | 0     | 0       | 0       | 0      |
| 9-Oct-26    | 50   | 0     | 0       | 0       | 0      |
| 16-Oct-26   | 50   | 0     | 0       | 0       | 0      |
| 23-Oct-26   | 50   | 0     | 0       | 0       | 0      |
| 30-Oct-26   | 50   | 0     | 0       | 0       | 0      |
| 6-Nov-26    | 50   | 0     | 0       | 0       | 0      |
| 13-Nov-26   | 50   | 0     | 0       | 0       | 0      |
| 20-Nov-26   | 50   | 0     | 0       | 0       | 0      |
| 27-Nov-26   | 50   | 0     | 0       | 0       | 0      |
| 4-Dec-26    | 50   | 0     | 0       | 0       | 0      |
| 11-Dec-26   | 50   | 0     | 0       | 0       | 0      |
| 18-Dec-26   | 50   | 0     | 0       | 0       | 0      |
| 25-Dec-26   | 50   | 0     | 0       | 0       | 0      |
| 1-Jan-27    | 50   | 0     | 0       | 0       | 0      |
| 8-Jan-27    | 50   | 0     | 0       | 0       | 0      |
| 15-Jan-27   | 50   | 0     | 0       | 0       | 0      |
| 22-Jan-27   | 50   | 0     | 0       | 0       | 0      |
| 29-Jan-27   | 50   | 0     | 0       | 0       | 0      |
| 5-Feb-27    | 50   | 0     | 0       | 0       | 0      |
| 12-Feb-27   | 50   | 0     | 0       | 0       | 0      |
| 19-Feb-27   | 50   | 0     | 0       | 0       | 0      |
| 26-Feb-27   | 50   | 0     | 0       | 0       | 0      |
| 5-Mar-27    | 50   | 0     | 0       | 0       | 0      |
| 12-Mar-27   | 50   | 0     | 0       | 0       | 0      |
| 19-Mar-27   | 50   | 0     | 0       | 0       | 0      |
| 26-Mar-27   | 50   | 0     | 0       | 0       | 0      |
| 2-Apr-27    | 50   | 0     | 0       | 0       | 0      |
| 9-Apr-27    | 50   | 0     | 0       | 0       | 0      |
| 16-Apr-27   | 50   | 0     | 0       | 0       | 0      |
| 23-Apr-27   | 50   | 0     | 0       | 0       | 0      |
| 30-Apr-27   | 50   | 0     | 0       | 0       | 0      |
| 7-May-27    | 50   | 0     | 0       | 0       | 0      |
| 14-May-27   | 50   | 0     | 0       | 0       | 0      |
| 21-May-27   | 50   | 0     | 0       | 0       | 0      |
| 28-May-27</ |      |       |         |         |        |

According to several news articles including [Towards AI](#) dated April 12, 2026 that Qwen3.6 Plus became the first model in history to process over 1 trillion tokens in a single day on Open Router (reaching 1.4 trillion token or [711% surge](#) (by Biggo.com dated April 7) in call volume on the platform), following the release of the model on April 2, 2026 where it started as free with 1mn-token context window compared to US\$5 per million input tokens charged by Claude Opus 4.6 at the time. We **note**

that the token usage tracking by OpenRouter tend to fluctuate a lot depending on the promotion of the model usage by model companies especially when there is newer version of the model release.

### Qwen API pricing

Figure 41. Qwen models – general language models token pricing (per 1M tokens)

| Model                 | Version   | Region                   | Input | Output                                    | Free Quota          |
|-----------------------|-----------|--------------------------|-------|-------------------------------------------|---------------------|
| Qwen-Turbo            | 7/15/2025 | Chinese Mainland         | ¥0.30 | ¥0.60                                     | 1M tokens (90 days) |
| Qwen-Turbo (Thinking) | 7/15/2025 | Chinese Mainland         | ¥0.30 | CoT+Response ¥3.00                        | 1M tokens (90 days) |
| Qwen-Flash            | 7/28/2025 | Chinese Mainland (≤128K) | ¥0.15 | ¥1.50                                     | 1M tokens (90 days) |
| Qwen-Flash            | 7/28/2025 | Chinese Mainland (≤256K) | ¥0.60 | ¥6.00                                     | 1M tokens (90 days) |
| Qwen-Flash            | 7/28/2025 | Chinese Mainland (≤1M)   | ¥1.20 | ¥12.00                                    | 1M tokens (90 days) |
| Qwen-Plus             | 12/1/2025 | Chinese Mainland (≤128K) | ¥0.80 | ¥2.00 (non-thinking) / ¥8.00 (thinking)   | 1M tokens (90 days) |
| Qwen-Plus             | 12/1/2025 | Chinese Mainland (≤256K) | ¥2.40 | ¥20.00 (non-thinking) / ¥24.00 (thinking) | 1M tokens (90 days) |
| Qwen-Plus             | 12/1/2025 | Chinese Mainland (≤1M)   | ¥4.80 | ¥48.00 (non-thinking) / ¥64.00 (thinking) | 1M tokens (90 days) |
| Qwen-Long             | 1/25/2025 | Chinese Mainland         | ¥0.50 | ¥2.00                                     | ✗ No free quota     |
| Qwen3-Max             | 1/23/2026 | Chinese Mainland (≤32K)  | ¥2.50 | ¥10.00                                    | 1M tokens (90 days) |
| Qwen3-Max             | 1/23/2026 | Chinese Mainland (≤128K) | ¥4.00 | ¥16.00                                    | 1M tokens (90 days) |
| Qwen3-Max             | 1/23/2026 | Chinese Mainland (≤256K) | ¥7.00 | ¥28.00                                    | 1M tokens (90 days) |
| Qwen3.5-Flash         | 2/23/2026 | Chinese Mainland (≤128K) | ¥0.20 | ¥2.00                                     | 1M tokens (90 days) |
| Qwen3.5-Flash         | 2/23/2026 | Chinese Mainland (≤256K) | ¥0.80 | ¥8.00                                     | 1M tokens (90 days) |
| Qwen3.5-Flash         | 2/23/2026 | Chinese Mainland (≤1M)   | ¥1.20 | ¥12.00                                    | 1M tokens (90 days) |
| Qwen3.6-Flash         | 4/16/2026 | Chinese Mainland (≤256K) | ¥1.20 | ¥7.20                                     | 1M tokens (90 days) |
| Qwen3.6-Flash         | 4/16/2026 | Chinese Mainland (≤1M)   | ¥4.80 | ¥28.80                                    | 1M tokens (90 days) |

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Source: Company report, Citi Research

### Coding pricing plan

Figure 42. Qwen3-Coder-Plus (v2025-09-23) Context: 1M

| Token Range | Mainland Input | Mainland Output | Global Input | Global Output |
|-------------|----------------|-----------------|--------------|---------------|
| 0 – 32K     | ¥4.00          | ¥16.00          | \$0.57       | \$2.29        |
| 32K – 128K  | ¥6.00          | ¥24.00          | \$0.86       | \$3.43        |
| 128K – 256K | ¥10.00         | ¥40.00          | \$1.43       | \$5.71        |
| 256K – 1M   | ¥20.00         | ¥200.00         | \$2.86       | \$28.60       |

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Source: Company report, Citi Research

Figure 43. Qwen3-Coder-Flash (v2025-07-28) Context:1M

| Token Range | Mainland Input | Mainland Output | Global Input | Global Output |
|-------------|----------------|-----------------|--------------|---------------|
| 0 – 32K     | ¥1.00          | ¥4.00           | \$0.14       | \$0.57        |
| 32K – 128K  | ¥1.50          | ¥6.00           | \$0.21       | \$0.86        |
| 128K – 256K | ¥2.50          | ¥10.00          | \$0.36       | \$1.43        |
| 256K – 1M   | ¥5.00          | ¥25.00          | \$0.71       | \$3.57        |

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Source: Company report, Citi Research

Figure 44. Qwen3-Coder-Next (v2026-02-20)

| Token Range | Input (¥/1M) | Output (¥/1M) |
|-------------|--------------|---------------|
| 0 – 32K     | ¥1.00        | ¥4.00         |
| 32K – 128K  | ¥1.50        | ¥6.00         |
| 128K – 256K | ¥2.50        | ¥10.00        |

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Source: Company report Citi Research

Figure 45. Qwen models – Multimodal & Specialized Models

| Model                    | Version    | Region           | Pricing                                                                           | Currency | Free Quota           |
|--------------------------|------------|------------------|-----------------------------------------------------------------------------------|----------|----------------------|
| Qwen-VL-OCR              | —          | Global           | Input 0.04/output 0.07 per 1M tokens                                              | USD      | 1M tokens (90 days)  |
| Qwen-VL-OCR              | —          | Chinese Mainland | Input ¥0.30 / Output ¥0.50 per 1M tokens                                          | RMB      | 1M tokens (90 days)  |
| Qwen-Image-2.0-Pro       | 3/3/2026   | International    | \$0.075 per image                                                                 | USD      | 100 images (90 days) |
| Qwen3-TTS-Flash          | 11/27/2025 | Chinese Mainland | ¥0.80 per 10K characters                                                          | RMB      | 10K characters       |
| Qwen3-TTS-VC-Realtime    | 11/27/2025 | Chinese Mainland | ¥0.80 per 10K characters                                                          | RMB      | 10K characters       |
| Qwen3-ASR-Flash-Realtime | 10/27/2025 | Chinese Mainland | ¥0.00033 per second                                                               | RMB      | 10 hours             |
| Fun-ASR                  | 11/7/2025  | Chinese Mainland | ¥0.00022 per second                                                               | RMB      | 10 hours             |
| Qwen3.5-Omni-Plus        | 3/15/2026  | Chinese Mainland | Text In ¥7 / Audio In ¥53 / Image+Video In ¥40 / Text Out ¥213 per 1M tokens      | RMB      | 1M tokens (90 days)  |
| Qwen3.5-Omni-Flash       | 3/15/2026  | Chinese Mainland | Text In ¥2.20 / Audio In ¥18 / Image+Video In ¥13.30 / Text Out ¥72 per 1M tokens | RMB      | 1M tokens (90 days)  |
| QVQ-Max                  | —          | International    | Input 1.26/ Output 5.03 per 1M tokens                                             | USD      | 1M tokens (90 days)  |
| QVQ-Max                  | —          | Chinese Mainland | Input ¥8.00 / Output ¥32.00 per 1M tokens                                         | RMB      | 1M tokens (90 days)  |
| QVQ-Plus                 | —          | Chinese Mainland | Input ¥2.00 / Output ¥5.00 per 1M tokens                                          | RMB      | 1M tokens (90 days)  |

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Source: Company report, Citi Research

Figure 46. Coding Subscription Plan (Pro)

| Feature            | Detail                                                                                               |
|--------------------|------------------------------------------------------------------------------------------------------|
| Price              | \$50 / month (USD)                                                                                   |
| Request Quota      | 6,000 req / 5 hrs · 45,000 req / week · 90,000 req / month                                           |
| Recommended Models | Qwen3.5-Plus, Kimi-K2.5, GLM-5, MiniMax-M2.5, Qwen3-Max, Qwen3-Coder-Next, Qwen3-Coder-Plus, GLM-4.7 |
| Lite Plan          | ✗ Discontinued (no new subscriptions from March 20, 2026; existing users retain access)              |
| Quota Usage        | Simple tasks: ~5-10 requests · Complex tasks: ~10-30+ requests                                       |

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Source: Company report Citi Research

Figure 47. Knowledge Base (RAG) Resource Packages

RAG Standard Edition

| Package    | Duration | Included                            | Price (¥ RMB) |
|------------|----------|-------------------------------------|---------------|
| Starter    | 1 month  | 1 knowledge base (720 hours)        | ¥20           |
| Enterprise | 1 year   | 100 knowledge bases (876,000 hours) | ¥18,999       |

RAG Flagship Edition

| Package    | Duration | Included                    | Price (¥ RMB) |
|------------|----------|-----------------------------|---------------|
| Starter    | 1 month  | 1 RCU (720 RCU-hours)       | ¥139          |
| Enterprise | 1 year   | 50 RCUs (438,000 RCU-hours) | ¥65,999       |

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Source: Company report Citi Research

## Recent price adjustment by China cloud vendors

Pricing signal: Alibaba Cloud raised AI compute prices 5–34% effective April 18, 2026, suggesting strong demand and improved pricing power.

Figure 48. China cloud vendors' recent price adjustment

| Cloud providers            | Announcement date | Effective date | Product category  | Products                                 | Applied regions | Price adjustment                                                                               |
|----------------------------|-------------------|----------------|-------------------|------------------------------------------|-----------------|------------------------------------------------------------------------------------------------|
| Alibaba Cloud              | 18-Mar-26         | 18-Apr-26      | AI compute        | T-Head Zhenwu 810E and related products  | All regions     | +5-34%                                                                                         |
|                            |                   |                | AI storage        | Cloud Parallel File Storage (CPFS)       | All regions     | +30%                                                                                           |
| Baidu AI Cloud             | 18-Mar-26         | 18-Apr-26      | AI compute        | AI compute related products and services | na              | +5-30%                                                                                         |
|                            |                   |                | AI storage        | Cloud Parallel File Storage (CPFS)       | na              | +30%                                                                                           |
| MiniMax                    | 18-Mar-26         | 18-Mar-26      | AI large model    | MiniMax M2.7                             | na              | Higher effective pricing than M2.5                                                             |
| Volcano Engine (ByteDance) | 16-Mar-26         | 17-Mar-26      | AI coding         | Ark Coding Plan                          | na              | Discount cancellation for first time users                                                     |
| Knowledge Atlas (Zhipu AI) | 15-Mar-26         | 16-Mar-26      | AI large model    | GLM-5-Turbo                              | na              | API +20% vs. GLM-5                                                                             |
|                            | 12-Feb-26         | 12-Feb-26      | AI large model    | GLM-5                                    | na              | Coding Plan and API +50% vs. GLM-4.7                                                           |
| Tencent Cloud              | 9-Apr-26          | 9-May-26       | AI compute        | CVM-GPU, HCC-GPU, HCC-THPC               | All regions     | +5%                                                                                            |
|                            |                   |                | Container service | TKE native node                          | All regions     | +5%                                                                                            |
|                            |                   |                | Elasticity        | Elastic MapReduce                        | All regions     | +5%                                                                                            |
|                            | 11-Mar-26         | 13-Mar-26      | AI large model    | GLM 5, MiniMax 2.5, Kimi 2.5             | na              | Official commercialization from free beta earlier                                              |
|                            |                   |                |                   | HY2.0 Instruct                           | na              | Import: Rmb0.0008 to Rmb 0.004505 per K tokens<br>Export: Rmb0.002 to Rmb 0.01113 per K tokens |
|                            |                   |                |                   | HY2.0 Think                              | na              | Import: Rmb0.001 to Rmb 0.0053 per K tokens<br>Export: Rmb0.004 to Rmb 0.0212 per K tokens     |

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Source: Company Reports, Citi Research

## Cloud industry market size and market share

Figure 49. Global public cloud market size

| Segments                              | 2024 Spending (US\$ bn) | 2025E Spending (US\$ bn) | 2026E Spending (US\$ bn) |
|---------------------------------------|-------------------------|--------------------------|--------------------------|
| IaaS (Infrastructure as a Service)    | 182                     | 212                      | 272                      |
| PaaS (Platform as a Service)          | 176                     | 209                      | 259                      |
| SaaS (Software as a Service)          | 244                     | 299                      | 356                      |
| BPaaS (Business Process as a Service) | 73                      | 78                       | 86                       |
| Cloud Management & Security           | na                      | 44                       | 52                       |
| DaaS (Desktop as a Service)           | 3                       | 4                        | 4                        |
| Total Public Cloud Market             | 679                     | 845                      | 1,029                    |

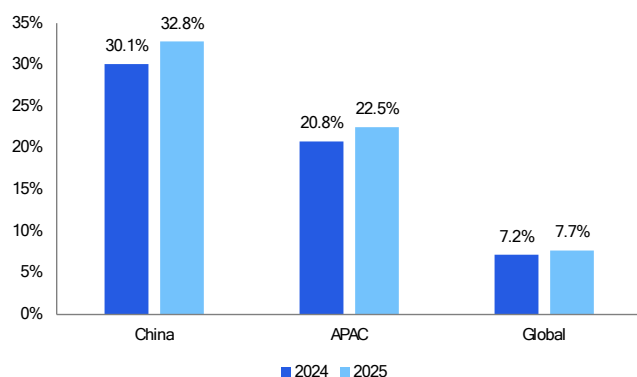
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Source: Gartner, Citi Research Estimates

Alibaba maintains its number 1 position in China IaaS public cloud market with 33% market share in 2025, per Gartner. Against the broader APAC (#1) and global (#4) context, BABA market share was at 22.5% and 7.7% in 2025 respectively.

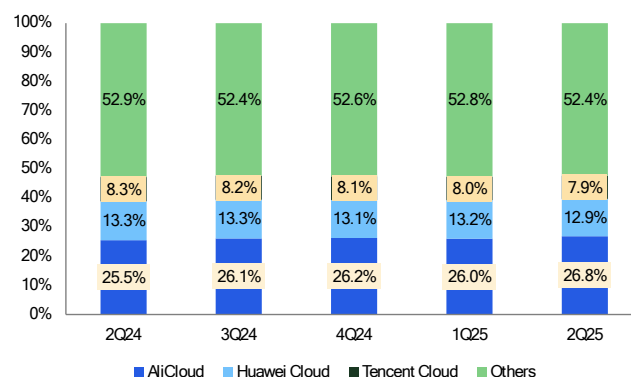
According to IDC, Alibaba Cloud has 27% China public cloud IaaS market share in 2Q25, followed by Huawei at 12.9% while Tencent captured 7.9% share.

Figure 50. AliCloud IaaS public cloud market share



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Source: Gartner (Apr 10, 2026), Citi Research

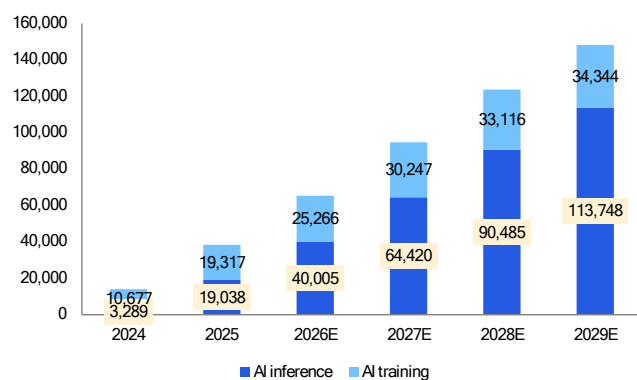
Figure 51. China public cloud IaaS market share by quarter



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Source: IDC (Oct 31, 2025), Citi Research

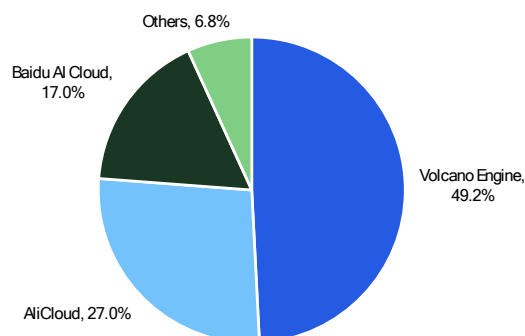
In terms of public cloud LLM service market share, IDC estimate that Alibaba Cloud has 27% share as of 1H25, # 2 behind Bytedance's Volcano Engine at 49.2% while Baidu AI cloud captured 17% market share.

Figure 52. China GenAI IaaS market size forecast (Rmb mn)



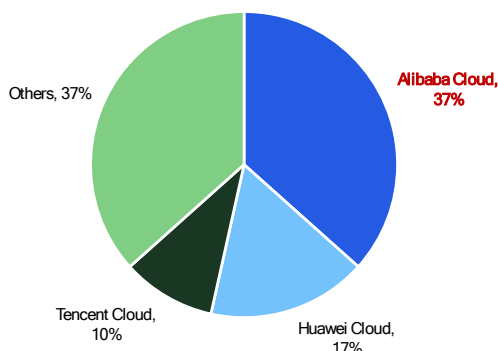
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Source: IDC (Oct 20, 2025), Citi Research

Figure 53. China public cloud LLM service market share in 1H25



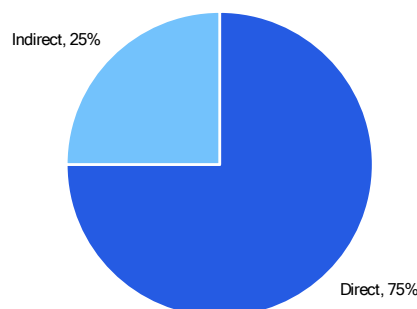
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Source: IDC (Sep 17, 2025), Citi Research

**Figure 54. China cloud infrastructure spending market share in 4Q25**



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Source: Omdia Cloud Channels Analysis, Citi Research

**Figure 55. China cloud infrastructure spending by channel in 4Q25**



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Source: Omdia Cloud Channels Analysis, Citi Research

## Token usage forecast by IDC

As reported by [Sina](#) (dated May 7, 2026) citing latest IDC report that where IDC noted that China's enterprise-level MaaS market share (measured by call volume) reached 114 trillion in 2024 and grew by 16x to reach 1,944 trillion tokens by 2025 which drove the China's public cloud MaaS market reached Rmb3.07bn in 2025. IDC estimates that total token consumption for 2026 will be ~40,000 trillion, suggesting an increase of 20x from 2025 level, driven by accelerated growth and large-scale implementation of Agent-like applications, essentially expanding from "text generation" to "multimodal understanding and automated execution" which led to significant increase in the number of tokens consumed per interaction.

IDC noted that currently main users of public cloud MaaS are concentrated in broader internet industry (gaming, entertainment, education), smart office sector, smart hardware sector (smart cars, mobile phones, smart glasses), and the mass consumer sector. Common application scenarios include role-playing, short drama generation, marketing, search, data processing, data analysis, and document processing. In private deployment projects for traditional government and enterprise clients, the application scenarios are more focused, mainly concentrating on smart office, data processing and analysis, and marketing.

## Players in MaaS market

IDC noted that when measured by call volume in public cloud MaaS market, Bytedance's Volcano Engine captured nearly half of the market share in 2025, followed by Alibaba Cloud, Baidu AI Cloud and Silicon-based Mobility. And when measured by revs, Volcano Engine holds >40% market share with Alibaba Cloud, Baidu AI Cloud and Zhipu AI rounding out the top four.

## Our forecast of China public cloud MaaS size

By forecasting token consumption in China's MaaS market to reach 40,000 trillion in 2026, IDC estimate revs scale will reach Rmb18.6bn. IDC forecast that token consumption will grow at CAGR of 723% from 2024-2030E to reach 35.5 quintillion with revs size to grow at CAGR 1156% from 2024-2030E.

Based on the “actual” 2025 estimated token and revs quoted by IDC, we perform some sensitivity analysis on China MaaS market size with our base, bull and bear assumption for token assumption and token price.

- **Base case:** Our base case forecast that token consumption growth CAGR of 472% from 2024-2030 while unit price will only grow at 2% from 2027-2030 after dropping 71% yoy in 2026 (as estimated by IDC). Our MaaS market size is forecast to grow at 372% CAGR to reach Rmb2 trillion (or US\$286bn) in 2030.

Figure 56. Sensitivity analysis on China public cloud MaaS market size

| Base case (2030E market size at Rmb2trn)                | 2024     | 2025     | 2026  | 2027  | 2028  | 2029  | 2030  | 2024-30 CAGR |
|---------------------------------------------------------|----------|----------|-------|-------|-------|-------|-------|--------------|
| China public cloud MaaS token consumption (quintillion) | 0.000114 | 0.001941 | 0.040 | 0.260 | 0.780 | 1.950 | 3.978 | 472%         |
| yoy growth %                                            |          | 1603%    | 1961% | 550%  | 200%  | 150%  | 104%  |              |
| Unit token price per 1M tokens (Rmb)                    | 1.582    | 1.582    | 0.465 | 0.474 | 0.484 | 0.493 | 0.503 | -17%         |
| yoy growth %                                            |          |          | -71%  | 2%    | 2%    | 2%    | 2%    |              |
| China public cloud MaaS market size (Rmb bn)            | 0.18     | 3.07     | 18.60 | 123   | 377   | 962   | 2,002 | 372%         |
| yoy growth %                                            |          | 1603%    | 506%  | 563%  | 206%  | 155%  | 108%  |              |
| Bull case (more robust MaaS adoption)                   | 2024     | 2025     | 2026  | 2027  | 2028  | 2029  | 2030  | 2024-30 CAGR |
| China public cloud MaaS token consumption (quintillion) | 0.000114 | 0.001941 | 0.048 | 0.317 | 0.982 | 2.553 | 5.490 | 503%         |
| yoy growth %                                            |          | 1603%    | 2373% | 560%  | 210%  | 160%  | 115%  |              |
| Unit token price per 1M tokens (Rmb)                    | 1.582    | 1.582    | 0.484 | 0.509 | 0.534 | 0.561 | 0.589 | -15%         |
| yoy growth %                                            |          |          | -69%  | 5%    | 5%    | 5%    | 5%    |              |
| China public cloud MaaS market size (Rmb bn)            | 0.18     | 3.07     | 23.25 | 161   | 524   | 1,432 | 3,232 | 412%         |
| yoy growth %                                            |          | 1603%    | 657%  | 593%  | 226%  | 173%  | 126%  |              |
| Bear case (potential price war)                         | 2024     | 2025     | 2026  | 2027  | 2028  | 2029  | 2030  | 2024-30 CAGR |
| China public cloud MaaS token consumption (quintillion) | 0.000114 | 0.001941 | 0.036 | 0.230 | 0.668 | 1.604 | 3.127 | 449%         |
| yoy growth %                                            |          | 1603%    | 1755% | 540%  | 190%  | 140%  | 95%   |              |
| Unit token price per 1M tokens (Rmb)                    | 1.582    | 1.582    | 0.439 | 0.430 | 0.422 | 0.413 | 0.405 | -20%         |
| yoy growth %                                            |          |          | -72%  | -2%   | -2%   | -2%   | -2%   |              |
| China public cloud MaaS market size (Rmb bn)            | 0.18     | 3.07     | 15.81 | 99    | 282   | 663   | 1,267 | 338%         |
| yoy growth %                                            |          | 1603%    | 415%  |       |       |       |       |              |

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Source: IDC (May 7, 2026), Citi Research

- **Bull case –** Our bull case assumption forecast token consumption usage to grow at 503% CAGR with token prices increasing 5% per year from 2027-2030 after declining by 69% in 2026. Our MaaS market size is estimated to grow at 412% CAGR to reach Rmb3.23 trillion by 2030.
- **Bear case –** Our bear case assumption forecast token consumption usage to grow slower at 449% CAGR and token price to further decline by 2% each year from 2027-2030 after dropping 72% in 2026 and our market size is forecast to reach Rmb1.27 trillion or 338% CAGR.

### Rationale on assumption

We tend to agree that with the accelerated demand and proliferation of agentic workflow, token consumption growth will continue to grow at robust speed in China. Nevertheless, given the intense competitive environment in China, we have a more conservative view on token prices. Once supply constraints ease off and if Chinese players no longer face capacity constraints while the demand slowing down, we are cautious if it could trigger massive pricing cut on token price in the outer years to fight for market share gain and industry consolidation could also materialize.

Figure 57. Earnings revisions – detail

| RMB mn                                              | FY2026E          |                  |             | FY2027E          |                  |             | FY2028E          |                  |             |
|-----------------------------------------------------|------------------|------------------|-------------|------------------|------------------|-------------|------------------|------------------|-------------|
|                                                     | Old              | New              | % Chg       | Old              | New              | % Chg       | Old              | New              | % Chg       |
| <b>Alibaba China E-commerce Group</b>               | <b>553,434</b>   | <b>553,434</b>   | <b>0.0%</b> | <b>572,544</b>   | <b>572,544</b>   | <b>0.0%</b> | <b>594,112</b>   | <b>594,112</b>   | <b>0.0%</b> |
| <b>E-commerce</b>                                   | <b>449,637</b>   | <b>449,637</b>   | <b>0.0%</b> | <b>456,612</b>   | <b>456,612</b>   | <b>0.0%</b> | <b>471,783</b>   | <b>471,783</b>   | <b>0.0%</b> |
| -CMR                                                | 342,858          | 342,858          | 0.0%        | 348,232          | 348,232          | 0.0%        | 361,777          | 361,777          | 0.0%        |
| yoy growth                                          | 6.4%             | 6.4%             | 0.0%        | 1.6%             | 1.6%             | 0.0%        | 3.9%             | 3.9%             | 0.0%        |
| <b>Alibaba International Digital Commerce Group</b> | <b>143,380</b>   | <b>143,380</b>   | <b>0.0%</b> | <b>151,845</b>   | <b>151,845</b>   | <b>0.0%</b> | <b>161,530</b>   | <b>161,530</b>   | <b>0.0%</b> |
| yoy growth rate %                                   | 8.4%             | 8.4%             | 0.0%        | 5.9%             | 5.9%             | 0.0%        | 6.4%             | 6.4%             | 0.0%        |
| <b>Cloud Intelligence Group</b>                     | <b>158,985</b>   | <b>158,985</b>   | <b>0.0%</b> | <b>227,110</b>   | <b>227,110</b>   | <b>0.0%</b> | <b>317,090</b>   | <b>319,531</b>   | <b>0.8%</b> |
| yoy growth rate %                                   | 34.7%            | 34.7%            | 0.0%        | 42.9%            | 42.9%            | 0.0%        | 39.6%            | 40.7%            | 1.1%        |
| <b>All others</b>                                   | <b>252,970</b>   | <b>252,970</b>   | <b>0.0%</b> | <b>252,897</b>   | <b>252,897</b>   | <b>0.0%</b> | <b>253,861</b>   | <b>253,861</b>   | <b>0.0%</b> |
| <b>Consolidated revenue</b>                         | <b>1,022,651</b> | <b>1,022,651</b> | <b>0.0%</b> | <b>1,117,143</b> | <b>1,117,143</b> | <b>0.0%</b> | <b>1,247,265</b> | <b>1,249,706</b> | <b>0.2%</b> |
| yoy growth rate %                                   | 2.6%             | 2.6%             | 0.0%        | 9.2%             | 9.2%             | 0.0%        | 11.6%            | 11.9%            | 0.2%        |
| <b>Non-GAAP Operating Income</b>                    | <b>75,434</b>    | <b>75,434</b>    | <b>0.0%</b> | <b>114,461</b>   | <b>114,461</b>   | <b>0.0%</b> | <b>171,624</b>   | <b>171,986</b>   | <b>0.2%</b> |
| Non-GAAP OPM                                        | 7.4%             | 7.4%             | 0.0%        | 10.2%            | 10.2%            | 0.0%        | 13.8%            | 13.8%            | 0.0%        |
| <b>Non-GAAP Adjusted Net Income</b>                 | <b>73,695</b>    | <b>73,695</b>    | <b>0.0%</b> | <b>114,981</b>   | <b>114,981</b>   | <b>0.0%</b> | <b>158,200</b>   | <b>158,489</b>   | <b>0.2%</b> |
| Non-GAAP NM                                         | 7.2%             | 7.2%             | 0.0%        | 10.3%            | 10.3%            | 0.0%        | 12.7%            | 12.7%            | 0.0%        |
| yoy growth rate %                                   | -53.3%           | -53.3%           | 0.0%        | 56.0%            | 56.0%            | 0.0%        | 37.6%            | 37.8%            | 0.3%        |
| <b>Adjusted EBITA</b>                               | <b>75,434</b>    | <b>75,434</b>    | <b>0.0%</b> | <b>114,461</b>   | <b>114,461</b>   | <b>0.0%</b> | <b>171,624</b>   | <b>171,986</b>   | <b>0.2%</b> |
| Adjusted EBITA Margin                               | 7.4%             | 7.4%             | 0.0%        | 10.2%            | 10.2%            | 0.0%        | 13.8%            | 13.8%            | 0.0%        |
| yoy growth rate %                                   | -56.4%           | -56.4%           | 0.0%        | 51.7%            | 51.7%            | 0.0%        | 0.0%             | 0.0%             | 0.0%        |
| <b>Alibaba China E-commerce Group EBITA</b>         | <b>106,572</b>   | <b>106,572</b>   | <b>0.0%</b> | <b>150,229</b>   | <b>150,229</b>   | <b>0.0%</b> | <b>172,291</b>   | <b>172,291</b>   | <b>0.0%</b> |
| Adjusted Taobao and Tmall EBITA Margin              | 19.3%            | 19.3%            | NA          | 26.2%            | 26.2%            | NA          | 29.0%            | 29.0%            | NA          |
| <b>Cloud Intelligence Group EBITA</b>               | <b>14,292</b>    | <b>14,292</b>    | <b>0.0%</b> | <b>20,440</b>    | <b>20,440</b>    | <b>0.0%</b> | <b>28,855</b>    | <b>29,077</b>    | <b>0.8%</b> |
| Adjusted Cloud EBITA Margin                         | 9.0%             | 9.0%             | 0.0%        | 9.0%             | 9.0%             | 0.0%        | 9.1%             | 9.1%             | 0.0%        |
| <b>All Others EBITA</b>                             | <b>-34,757</b>   | <b>-34,757</b>   | <b>NM</b>   | <b>-49,646</b>   | <b>-49,646</b>   | <b>NM</b>   | <b>-23,993</b>   | <b>-23,993</b>   | <b>NM</b>   |

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Source: Citi Research

Figure 58. Income statement of Alibaba

|                                                                        | 1Q26           | 2Q26           | 3Q26           | 4Q26E          | FY2026E          | FY2027E          | FY2028E          |
|------------------------------------------------------------------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|
| <b>Alibaba China E-commerce Group</b>                                  | <b>140,072</b> | <b>132,578</b> | <b>159,347</b> | <b>121,437</b> | <b>553,434</b>   | <b>572,544</b>   | <b>594,112</b>   |
| E-commerce                                                             | 118,577        | 102,933        | 131,583        | 96,544         | 449,637          | 456,612          | 471,783          |
| -CMR                                                                   | 89,252         | 78,927         | 102,664        | 72,015         | 342,858          | 348,232          | 361,777          |
| -Direct sales, logistics and others                                    | 29,325         | 24,006         | 28,919         | 24,529         | 106,779          | 108,380          | 110,006          |
| Quick commerce                                                         | 14,784         | 22,906         | 20,842         | 18,758         | 77,290           | 87,976           | 93,255           |
| China commerce wholesale                                               | 6,711          | 6,739          | 6,922          | 6,135          | 26,507           | 27,956           | 29,074           |
| <b>Alibaba International Digital Commerce Group</b>                    | <b>34,741</b>  | <b>34,799</b>  | <b>39,201</b>  | <b>34,639</b>  | <b>143,380</b>   | <b>151,845</b>   | <b>161,530</b>   |
| -commerce retail                                                       | 28,395         | 28,068         | 32,351         | 28,155         | 116,969          | 123,136          | 130,524          |
| -commerce wholesale                                                    | 6,346          | 6,731          | 6,850          | 6,484          | 26,411           | 28,709           | 31,006           |
| <b>Cloud Intelligence Group</b>                                        | <b>33,398</b>  | <b>39,824</b>  | <b>43,284</b>  | <b>42,479</b>  | <b>158,985</b>   | <b>227,110</b>   | <b>319,531</b>   |
| All others                                                             | 58,599         | 62,969         | 67,340         | 64,062         | 252,970          | 252,897          | 253,861          |
| Unallocated                                                            | 519            | 577            | 603            | 600            | 2,299            | 2,000            | 2,000            |
| Inter-segment elimination                                              | (19,677)       | (22,952)       | (24,932)       | (20,855)       | (88,416)         | (89,254)         | (81,328)         |
| <b>Consolidated revenue</b>                                            | <b>247,652</b> | <b>247,795</b> | <b>284,843</b> | <b>242,361</b> | <b>1,022,651</b> | <b>1,117,143</b> | <b>1,249,706</b> |
| yoy%                                                                   | 1.8%           | 4.8%           | 1.7%           | 2.5%           | 2.6%             | 9.2%             | 11.9%            |
| Cost of revenue                                                        | 136,429        | 150,781        | 169,534        | 147,598        | 604,342          | 640,953          | 707,473          |
| <b>Gross profit</b>                                                    | <b>111,223</b> | <b>97,014</b>  | <b>115,309</b> | <b>94,763</b>  | <b>418,309</b>   | <b>476,190</b>   | <b>542,233</b>   |
| Gross margin %                                                         | 44.9%          | 39.2%          | 40.5%          | 39.1%          | 40.9%            | 42.6%            | 43.4%            |
| Product development expenses                                           | 15,001         | 17,095         | 15,480         | 16,965         | 64,541           | 81,831           | 89,599           |
| Sales and marketing expenses                                           | 53,178         | 66,496         | 71,934         | 69,073         | 260,681          | 261,339          | 259,163          |
| General and administrative expenses                                    | 7,398          | 7,380          | 8,355          | 7,756          | 30,889           | 32,770           | 36,133           |
| Amortization of intangible assets                                      | 807            | 826            | 841            | 841            | 3,315            | 3,364            | 3,364            |
| Impairment of goodwill and intangible assets                           | 0              | 0              | 8,054          | 0              | 8,054            | 0                | 0                |
| <b>Total costs and expenses</b>                                        | <b>76,235</b>  | <b>91,649</b>  | <b>104,664</b> | <b>94,635</b>  | <b>367,183</b>   | <b>379,304</b>   | <b>388,259</b>   |
| <b>Operating income (GAAP)</b>                                         | <b>34,988</b>  | <b>5,365</b>   | <b>10,645</b>  | <b>128</b>     | <b>51,126</b>    | <b>96,886</b>    | <b>153,974</b>   |
| GAAP Op margin                                                         | 14.1%          | 2.2%           | 3.7%           | 0.1%           | 5.0%             | 8.7%             | 12.3%            |
| <b>Net income (loss) - GAAP</b>                                        | <b>42,382</b>  | <b>20,612</b>  | <b>15,631</b>  | <b>6,059</b>   | <b>84,684</b>    | <b>93,742</b>    | <b>136,413</b>   |
| Net income (loss) attributable to noncontrolling interests             | (1,733)        | 407            | 752            | 852            | 278              | 3,908            | 4,308            |
| <b>Net income (loss) attributable to Alibaba Group Holding Limited</b> | <b>40,649</b>  | <b>21,019</b>  | <b>16,383</b>  | <b>6,911</b>   | <b>84,962</b>    | <b>97,650</b>    | <b>140,721</b>   |
| <b>Non-GAAP adjusted net income</b>                                    | <b>33,510</b>  | <b>10,352</b>  | <b>21,569</b>  | <b>10,051</b>  | <b>75,482</b>    | <b>111,317</b>   | <b>154,425</b>   |
| Non-GAAP Net margin                                                    | 13.5%          | 4.2%           | 7.6%           | 4.1%           | 7.4%             | 10.0%            | 12.4%            |
| <b>Non-GAAP adjusted net income attributable to shareholders</b>       | <b>35,291</b>  | <b>10,450</b>  | <b>17,112</b>  | <b>10,842</b>  | <b>73,695</b>    | <b>114,981</b>   | <b>158,489</b>   |
| Non-GAAP Net margin (shareholder level)                                | 14.3%          | 4.2%           | 6.0%           | 4.5%           | 7.2%             | 10.3%            | 12.7%            |
| <b>Non-GAAP EPADS—Diluted</b>                                          | <b>14.75</b>   | <b>4.36</b>    | <b>7.09</b>    | <b>4.51</b>    | <b>30.69</b>     | <b>48.24</b>     | <b>67.29</b>     |
| <b>Consolidated adjusted EBITA</b>                                     | <b>38,844</b>  | <b>9,073</b>   | <b>23,397</b>  | <b>4,120</b>   | <b>75,434</b>    | <b>114,461</b>   | <b>171,986</b>   |
| Adj. EBITA margin                                                      | 16%            | 4%             | 8%             | 2%             | 7%               | 10%              | 14%              |
| <b>Alibaba China E-commerce Group</b>                                  | <b>38,389</b>  | <b>10,497</b>  | <b>34,613</b>  | <b>23,073</b>  | <b>106,572</b>   | <b>150,229</b>   | <b>172,291</b>   |
| Adj. EBITA margin                                                      | 27%            | 8%             | 22%            | 19%            | 19%              | 26%              | 29%              |
| <b>Cloud Intelligence Group</b>                                        | <b>2,954</b>   | <b>3,604</b>   | <b>3,911</b>   | <b>3,823</b>   | <b>14,292</b>    | <b>20,440</b>    | <b>29,077</b>    |
| Adj. EBITA margin                                                      | 8.8%           | 9.0%           | 9.0%           | 9.0%           | 9.0%             | 9.0%             | 9.1%             |

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Source: Company Reports and Citi Research Estimates

**Companies Mentioned:**

Alibaba Group Holding (BABA.N; US\$140.06; 1; 08 May 26; 16:00)  
Alibaba (9988.HK; HK\$139.0; 1; 08 May 26; 16:10)  
Advanced Micro Devices (AMD.O; US\$455.19; 2; 08 May 26; 16:00)  
Airbnb Inc (ABNB.O; US\$141.49; 1; 08 May 26; 16:00)  
Amazon.com, Inc. (AMZN.O; US\$272.68; 1; 08 May 26; 16:00)  
Arm Holdings PLC (ARM.O; US\$213.27; 1; 08 May 26; 16:00)  
Baidu.com (BIDU.O; US\$141.05; 1; 08 May 26; 16:00)  
Broadcom Inc (AVGO.O; US\$430.0; 1; 08 May 26; 16:00)  
FinVolution (FINV.N; US\$5.17; 1H; 08 May 26; 16:00)  
GoTo Gojek Tokopedia (GOTO.JK; Rp50.0; 1H; 08 May 26; 16:00)  
Hello Group Inc (MOMO.O; US\$6.23; 2H; 08 May 26; 16:00)  
Iflytek (002230.SZ; Rmb49.91; 2; 08 May 26; 15:00)  
Intel Corp (INTC.O; US\$124.92; 1; 08 May 26; 16:00)  
Kuaishou (1024.HK; HK\$52.95; 1; 08 May 26; 16:10)  
Marvell Technology Inc (MRVL.O; US\$170.13; 1; 08 May 26; 16:00)  
Meituan (3690.HK; HK\$84.05; 1H; 08 May 26; 16:10)  
Meta Platforms Inc (META.O; US\$609.63; 1; 08 May 26; 16:00)  
Microsoft Corp. (MSFT.O; US\$415.12; 1; 08 May 26; 16:00)  
MiniMax (0100.HK; HK\$742.5; 1H; 08 May 26; 16:10)  
Nokia OYJ (NOKIA.HE; €10.95; 3; 08 May 26; 18:30)  
NVIDIA Corp (NVDA.O; US\$215.2; 1; 08 May 26; 16:00)  
NXP Semiconductors NV (NXPI.O; US\$294.75; 1; 08 May 26; 16:00)  
Salesforce Inc (CRM.N; US\$181.82; 2; 08 May 26; 16:00)  
Samsung Electronics (005930.KS; W268500.0; 1; 08 May 26; 15:45)  
Tencent Holdings (0700.HK; HK\$471.4; 1; 08 May 26; 16:10)  
Vodafone Group PLC (VOD.L; £1.19; 2; 08 May 26; 16:30)  
Xiaomi (1810.HK; HK\$31.68; 1; 08 May 26; 16:10)  
XPeng (XPEV.N; US\$15.62; 1; 08 May 26; 16:00)  
XPeng (9868.HK; HK\$61.3; 1; 08 May 26; 16:10)  
Yuanbao (YB.O; US\$15.64; 2; 08 May 26; 16:00)

## Bull/Bear: Alibaba (9988.HK)

HK\$ **224.00**  
▲61% Upside

HK\$ **204.00**  
▲47% Upside

HK\$ **109.00**  
▼22% Downside



Spread 83pp  
Current Price and expected returns (upside/downside) as of 08 May 2026



### BULL Assumptions

- 12x P/E on FY2027E Ecommerce Group net profit, 7x P/S multiple on FY2027E Cloud Intelligence Group revenue



### BASE Assumptions

- 10x P/E on FY2027E Ecommerce Group net profit, 6.5x P/S multiple on FY2027E Cloud Intelligence Group revenue



### BEAR Assumptions

- 5x P/E on FY2027E Ecommerce net profit, 2x P/S multiple on FY2027E Cloud Intelligence Group revenue

## Bull/Bear: Alibaba Group Holding (BABA.N)

US\$ **225.00**  
▲61% Upside

US\$ **205.00**  
▲46% Upside

US\$ **110.00**  
▼21% Downside



Spread 82pp  
Current Price and expected returns (upside/downside) as of 08 May 2026



### BULL Assumptions

- 12x P/E on FY2027E Ecommerce Group net profit, 7x P/S on FY2027E Cloud Intelligence Group revenue



### BASE Assumptions

- 10x P/E on FY2027E Ecommerce Group net profit, 6.5x P/S on FY2027E Cloud Intelligence Group revenue



### BEAR Assumptions

- 5x P/E on FY2027E Ecommerce Group net profit, 2x P/S on FY2027E Cloud Intelligence Group revenue

## Alibaba

### Company description

Alibaba was founded in 1999. In the years since, Alibaba has created one of the world's leading internet e-commerce companies with an online ecosystem for buyers, sellers, third-party service providers, third-party payments, and strategic partners. The company was listed on the NYSE in September 2014 and completed its secondary listing in Hong Kong in November 2019.

### Investment strategy

We rate Alibaba H-shares as Buy. We are positive on Alibaba given: i) it has the leading online commerce ecosystem in China (combined 80% market share in C2C and B2C segments); ii) its monetization rate has upside potential; iii) synergies can be harvested across marketplaces, leveraging big data analysis, and AliCloud infrastructure; and iv) growth opportunities beckon in China's rural cities and globally.

### Valuation

Our target price for Alibaba H-shares of HK\$204 is based on 10x P/E on FY2027E Ecommerce Group net profit, 6.5x P/S on FY2027E Cloud Intelligence Group revenue, 2.0x P/S on AIDC Group revenue, and 1.0x P/S on all other businesses. Our target multiples are benchmarked against comps. We also assign a 30% discount to net cash position, in-line with our SOTP for other internet peers. Our SOTP fair value comes to HK\$204 per H-share.

### Risks

Key downside risks that could prevent the shares from reaching our target price include: (i) failure in executing its new retail strategy; ii) investment spend and margins pressure become worse than expected; iii) slowdown of user traffic and online GMV and losing appeal to brands & merchants; iv) integration risks for newly acquired entities; v) slowdown of the Chinese and global economies and overhang of US-China or other trade disputes; and vi) regulatory risks on poor product quality and integrity of merchants.

## Alibaba Group Holding

### Company description

Alibaba was founded in 1999. In the years since, Alibaba has created one of the world's leading internet e-commerce companies with an online ecosystem for buyers, sellers, third-party service providers, third-party payments, and strategic partners. The company was listed on the NYSE in September 2014 and completed its secondary listing in Hong Kong in November 2019.

### Investment strategy

We rate Alibaba N-shares as Buy. We are positive on Alibaba given: i) it has the leading online commerce ecosystem in China (combined 80% market share in C2C and B2C segments); ii) its monetization rate has upside potential; iii)

synergies can be harvested across marketplaces, leveraging big data analysis, and AliCloud infrastructure; and iv) growth opportunities beckon in China's rural cities and globally.

## Valuation

Our target price for Alibaba N-shares of US\$205 is based on 10x P/E on FY2027E Ecommerce group net profit, 6.5x P/S on FY2027E Cloud Intelligence Group revenue, 2.0x P/S on AIDC Group revenue, and 1.0x P/S on all other businesses. Our target multiples are benchmarked against comps. We also assign a 30% discount to net cash position, in-line with our SOTP for other internet peers. Our SOTP fair value comes to US\$205 per share.

## Risks

Key downside risks that could prevent the shares from reaching our target price include: (i) failure in executing its new retail strategy; ii) investment spend and margins pressure become worse than expected; iii) slowdown of user traffic and online GMV and losing appeal to brands & merchants; iv) integration risks for newly acquired entities; v) slowdown of the Chinese and global economies and overhang of US-China or other trade disputes; and vi) regulatory risks on poor product quality and integrity of merchants.

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# Appendix A-1

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## IMPORTANT DISCLOSURES

### Alibaba Group Holding (BABA)

Ratings and Target Price History  
Fundamental Research

Analyst: Alicia Yap, CFA



| Date               | Rating | Target Price | Closing Price |
|--------------------|--------|--------------|---------------|
| 18-May-23 19:50:00 | 1      | *144.00      | 84.37         |
| 09-Jul-23 17:07:52 | 1      | *149.00      | 89.08         |
| 10-Aug-23 20:47:07 | 1      | *151.00      | 97.59         |
| 08-Oct-23 17:09:43 | 1      | *147.00      | 84.66         |
| 16-Nov-23 18:13:37 | 1      | *142.00      | 77.82         |
| 09-Jan-24 13:40:44 | 1      | *125.00      | 70.85         |
| 07-Feb-24 18:37:09 | 1      | *126.00      | 72.44         |
| 09-Apr-24 18:25:26 | 1      | *124.00      | 71.80         |

| Date               | Rating | Target Price | Closing Price |
|--------------------|--------|--------------|---------------|
| 15-May-24 04:34:45 | 1      | *122.00      | 79.67         |
| 15-Aug-24 16:50:03 | 1      | *116.00      | 78.91         |
| 29-Sep-24 22:45:36 | 1      | *136.00      | 106.48        |
| 09-Oct-24 09:54:52 | 1      | *135.00      | 107.04        |
| 17-Nov-24 16:15:27 | 1      | *133.00      | 87.89         |
| 09-Jan-25 17:58:55 | 1      | *138.00      | 83.03         |
| 20-Feb-25 16:33:13 | 1      | *170.00      | 134.90        |
| 08-Apr-25 05:01:59 | 1      | *169.00      | 98.59         |

| Date               | Rating | Target Price | Closing Price |
|--------------------|--------|--------------|---------------|
| 10-Jul-25 07:57:24 | 1      | *148.00      | 106.64        |
| 31-Aug-25 17:30:14 | 1      | *187.00      | 135.00        |
| 24-Sep-25 15:11:51 | 1      | *217.00      | 176.44        |
| 08-Oct-25 07:59:47 | 1      | *218.00      | 181.12        |
| 25-Nov-25 16:54:34 | 1      | *225.00      | 157.01        |
| 08-Jan-26 09:37:26 | 1      | *197.00      | 154.47        |
| 19-Mar-26 16:25:38 | 1      | *200.00      | 124.90        |
| 08-Apr-26 06:24:46 | 1      | *205.00      | 125.32        |

\*Indicates Change

Rating/target price changes above reflect Eastern Time

## Alibaba (9988.HK)

### Ratings and Target Price History Fundamental Research

Analyst: Alicia Yap, CFA



|   | Date               | Rating | Target Price | Closing Price |
|---|--------------------|--------|--------------|---------------|
| 1 | 18-May-23 19:50:00 | 1      | *140.00      | 86.97         |
| 2 | 09-Jul-23 17:07:52 | 1      | *145.00      | 83.55         |
| 3 | 10-Aug-23 20:47:07 | 1      | *148.00      | 93.46         |
| 4 | 08-Oct-23 17:09:43 | 1      | *144.00      | 82.16         |
| 5 | 16-Nov-23 18:13:37 | 1      | *140.00      | 80.62         |
| 6 | 09-Jan-24 13:40:44 | 1      | *122.00      | 69.13         |
| 7 | 07-Feb-24 18:37:09 | 1      | *124.00      | 74.23         |
| 8 | 09-Apr-24 18:25:26 | 1      | *122.00      | 69.87         |

\*Indicates Change

|    | Date               | Rating | Target Price | Closing Price |
|----|--------------------|--------|--------------|---------------|
| 9  | 15-May-24 04:34:45 | 1      | *120.00      | 81.91         |
| 10 | 15-Aug-24 16:50:03 | 1      | *115.00      | 75.80         |
| 11 | 29-Sep-24 22:45:36 | 1      | *135.00      | 101.70        |
| 12 | 09-Oct-24 09:54:52 | 1      | *133.00      | 102.09        |
| 13 | 17-Nov-24 16:15:27 | 1      | *132.00      | 86.52         |
| 14 | 09-Jan-25 17:58:55 | 1      | *137.00      | 79.97         |
| 15 | 20-Feb-25 16:33:13 | 1      | *166.00      | 119.95        |
| 16 | 08-Apr-25 05:01:59 | 1      | *165.00      | 101.70        |

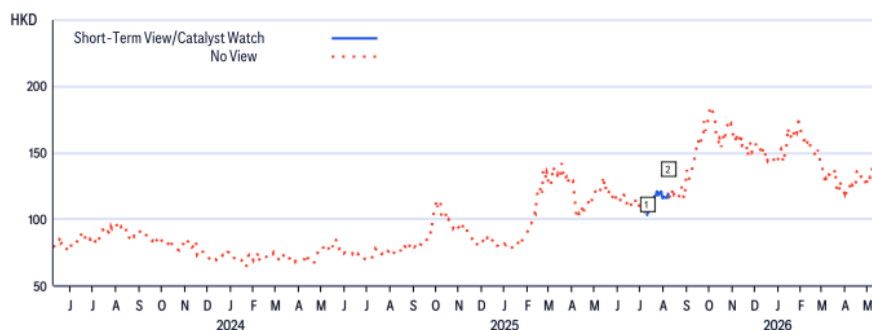
|    | Date               | Rating | Target Price | Closing Price |
|----|--------------------|--------|--------------|---------------|
| 17 | 10-Jul-25 07:57:24 | 1      | *144.00      | 103.20        |
| 18 | 31-Aug-25 17:30:14 | 1      | *183.00      | 115.70        |
| 19 | 24-Sep-25 15:11:51 | 1      | *215.00      | 174.00        |
| 20 | 08-Oct-25 07:59:47 | 1      | *216.00      | 177.60        |
| 21 | 25-Nov-25 16:54:34 | 1      | *223.00      | 157.80        |
| 22 | 08-Jan-26 09:37:26 | 1      | *195.00      | 142.60        |
| 23 | 19-Mar-26 16:25:38 | 1      | *199.00      | 132.00        |
| 24 | 08-Apr-26 06:24:46 | 1      | *204.00      | 126.50        |

Rating/target price changes above reflect Eastern Time

## Alibaba (9988.HK)

### Short-Term View/Catalyst Watch Research

Analyst: Alicia Yap, CFA



|   | Date               | Action  | Expected Direction | Duration | Closing Price |
|---|--------------------|---------|--------------------|----------|---------------|
| 1 | 10-Jul-25 03:57:24 | Add STV | Downside           | 30 Days  | 103.20        |

CW - Catalyst Watch, STV - Short-Term View

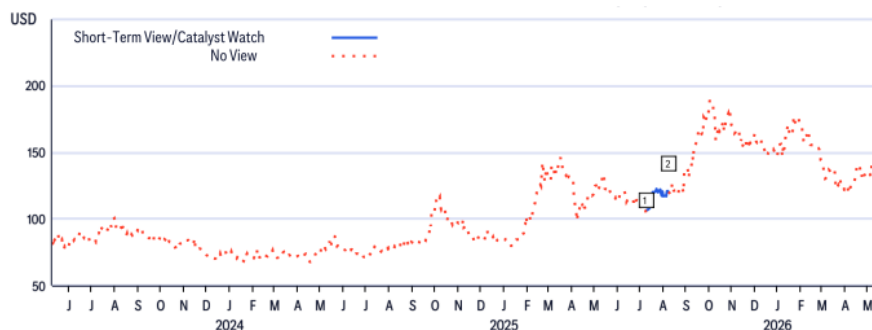
|   | Date               | Action     | Expected Direction | Duration | Closing Price |
|---|--------------------|------------|--------------------|----------|---------------|
| 2 | 08-Aug-25 14:18:01 | Remove STV | Downside           | 30 Days  | 116.30        |

Rating/target price changes above reflect Eastern Time

## Alibaba Group Holding (BABA)

### Short-Term View/Catalyst Watch Research

Analyst: Alicia Yap, CFA



|   | Date               | Action  | Expected Direction | Duration | Closing Price |
|---|--------------------|---------|--------------------|----------|---------------|
| 1 | 10-Jul-25 03:57:24 | Add STV | Downside           | 30 Days  | 106.64        |

CW - Catalyst Watch, STV - Short-Term View

|   | Date               | Action     | Expected Direction | Duration | Closing Price |
|---|--------------------|------------|--------------------|----------|---------------|
| 2 | 08-Aug-25 14:17:52 | Remove STV | Downside           | 30 Days  | 120.36        |

Rating/target price changes above reflect Eastern Time

The Firm has made a market in the publicly traded equity securities of Meituan on at least one occasion since 1 Jan 2025.

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| Data current as of 01 Apr 2026                                             | 12 Month Rating |      |      | Catalyst Watch |      |      |
|----------------------------------------------------------------------------|-----------------|------|------|----------------|------|------|
|                                                                            | Buy             | Hold | Sell | Buy            | Hold | Sell |
| Citi Research Global Fundamental Coverage (Neutral=Hold)                   | 61%             | 32%  | 8%   | 37%            | 47%  | 16%  |
| % of companies in each rating category that are investment banking clients | 38%             | 41%  | 28%  | 42%            | 37%  | 36%  |

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