



# 2024 Interim Results

## China Telecom Corporation Limited

20 August 2024  
[www.chinatelecom-h.com](http://www.chinatelecom-h.com)

# Forward-looking Statements



The development strategies, future business plans, prospects and other forward-looking statements in this document do not constitute commitment by China Telecom Corporation Limited (the “Company”) to investors. Such forward-looking statements are subject to known and unknown risks, uncertainties and other factors, which may cause the actual performance, financial condition or results of operations of the Company to be materially different from any future performance, financial condition or results of operations implied by such forward-looking statements. In addition, we do not intend to update these forward-looking statements. Investors are advised to pay attention to investment risks.

# Overview

Mr. Ke Ruiwen, Executive Director, Chairman & CEO

Business Review & Financial Performance

# Summary of Highlights



- 1 ▶ Operating results grew steadily and high-quality development maintained positive trend
- 2 ▶ Continued to strengthen sci-tech innovation and constructed “Xirang” intelligent computing capabilities
- 3 ▶ Promoted AI+ & Quantum+ and accelerated development of new quality productive forces
- 4 ▶ Fostered infrastructure upgrade with intelligent and green transformation
- 5 ▶ Reform and open-up deepened across the board further uplifting corporate vitality
- 6 ▶ Proactively fulfilled social responsibilities and further enhanced shareholder returns

# Key Operating Results



RMB Mil	1H2023	1H2024	Change
Operating Revenues	260,664	268,011	2.8%
Incl.: Service Revenues	235,977	246,235	4.3%
EBITDA	73,346	76,792	4.7%
Net Profit	20,153	21,812	8.2%
Net Profit Margin	8.5%	8.9%	0.4p.p.
EPS (RMB)	0.22	0.24	8.2%
ROE	4.6%	4.8%	0.2p.p.
Interim DPS (RMB)	0.1432	0.1671	16.7%

Notes:

1. Service Revenues = Operating Revenues – Sales of Mobile Terminals – Sales of Wireline Equipment – Other Non-service Revenues

2. EBITDA = Operating Revenues – Operating Expenses + Depreciation & Amortisation

3. Net Profit represents profit attributable to equity holders of the Company; Net Profit Margin=Net Profit/Service Revenues

4. Unless otherwise specified, all % and percentage point (p.p.) changes in this presentation are either 1H2024 vs 1H2023, or 2024.6.30 vs 2023.6.30; all figures are based on IFRS Accounting Standards

# High-quality Development Maintained Positive Trend

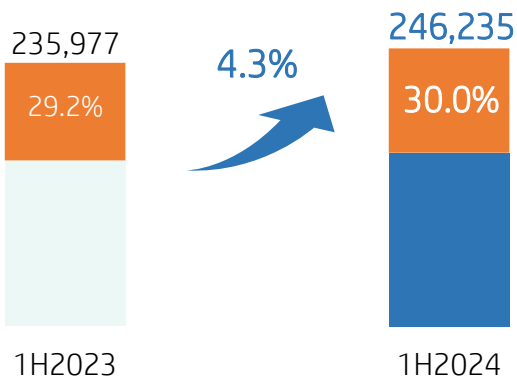


## Revenue maintained favourable growth

Service revenues

RMB Mil

Growth outpaced industry



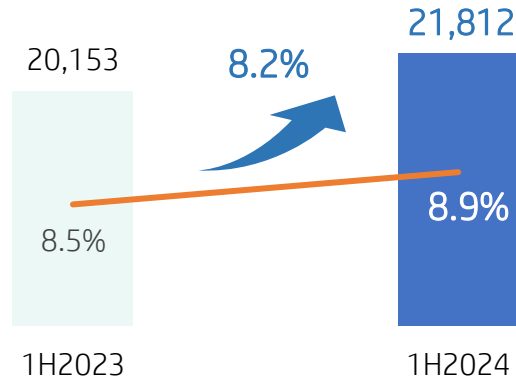
Industrial Digitalisation and % of service revenues

## Profitability continued to enhance

Net profit

RMB Mil

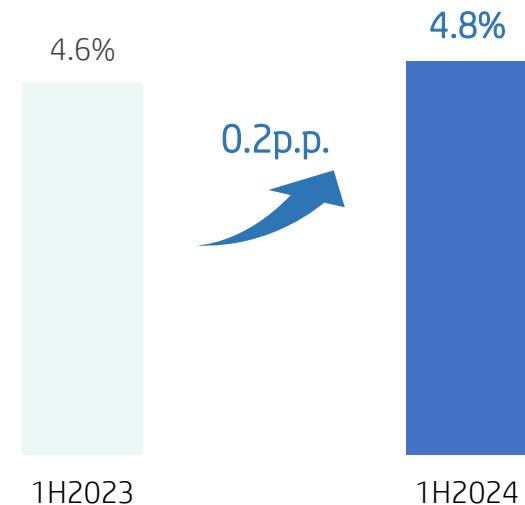
Profit growth above revenue growth



Net profit margin

## Shareholder returns continued to increase

ROE



## China Telecom Cloud maintained rapid growth

Revenue RMB **55.2** Bil **22.4%** of service revenues

Gov't admin. public cloud infrastructure **No. 1**

Dedicated cloud service **No. 1 five times in a row**

IaaS/IaaS+PaaS **Top 3** in PRC

Desktop-as-a-Service (DaaS) **No.1** in PRC

## Expedited uplift of intelligent service capability

User satisfaction and service reputation

Edge continued to consolidate and enhance

Smart service **>75Mil times/mo average** **↑13.4%**

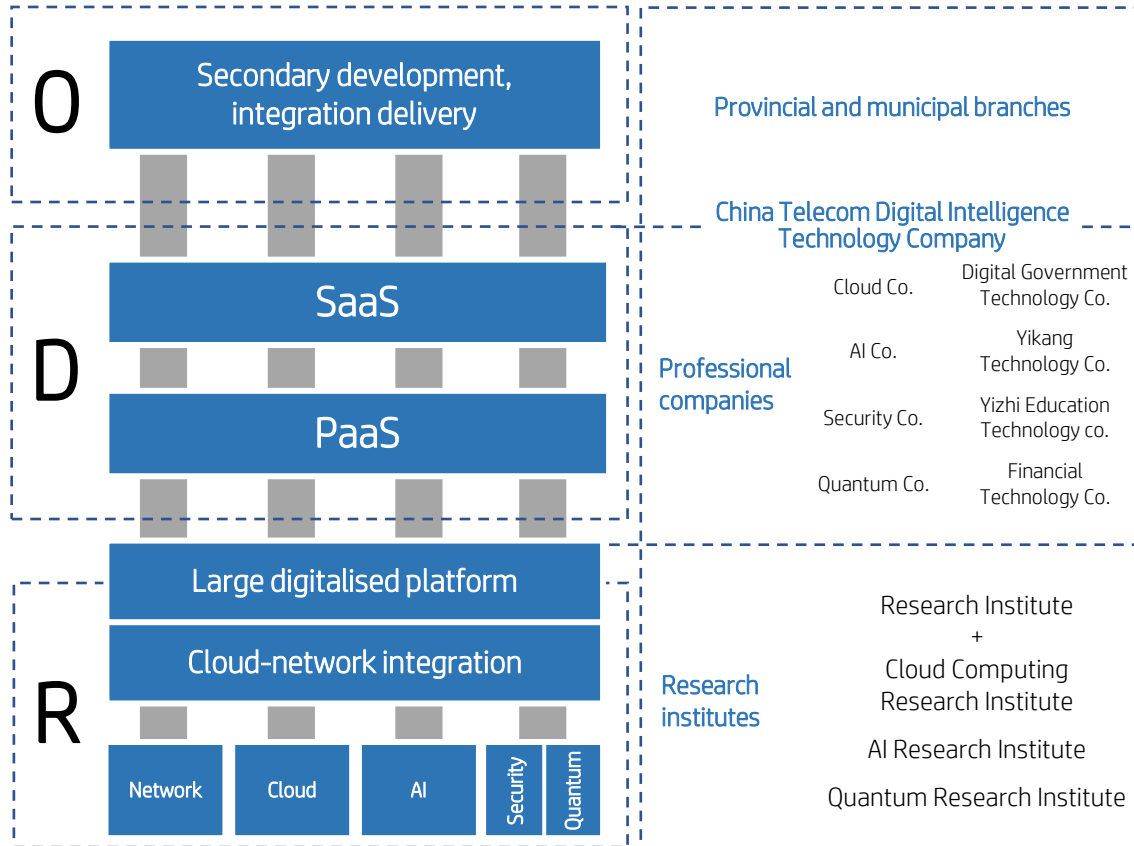
Upgrade of "Good Service as You Wish" by launching convenience service measures

Note: MIIT announced that telecommunications revenue grew by 3% year-on-year in the first half of the year

# Sci-tech Innovation Advanced to a New Level



## Named Central Enterprises with Outstanding Sci-tech Innovation in 2023



### Achievements in key core technology breakthroughs

Two projects won **First Prize of National Science and Technology Progress Award**

Approved **source of original technologies** of several cutting-edge technologies; leading the **innovation consortium** for cloud computing, quantum communications, and next-generation fibre network

### Fundamental breakthroughs achieved in four root technical directions

<b>Network</b> Led <b>NTN int'l standards</b> and built a series of satellite-ground application demonstrations; launched 6G distributed, intelligent and simple network architecture, as well as 6G sci-tech innovation experimental apparatus	<b>Cloud and cloud-network integration</b> Xirang platform achieved breakthroughs in managing and scheduling of 10,000-GPUs; completed <b>industry's 1st verification using existing network</b> of >100km distributed lossless intelligent computing interconnection
<b>AI</b> Comprehensively planned for large <b>speech, language, visual and multimodal</b> foundation models <b>1st among central enterprises to open source</b> various parameter-grade (1B, 10B, 1T) models	<b>Quantum and security</b> PRC's <b>1st</b> carrier-grade <b>managed</b> security service platform; Leading "Tianyan" quantum computing cloud platform

### Continued to invest in strengthening R&D team

R&D expense RMB4.66Bil **↑12.5%**

No. of sci-tech experts and talents under "flying geese paradigm" exceeded **10k**

**≈38,000** R&D personnel **↑15.3%** vs. end-2023

Notes:

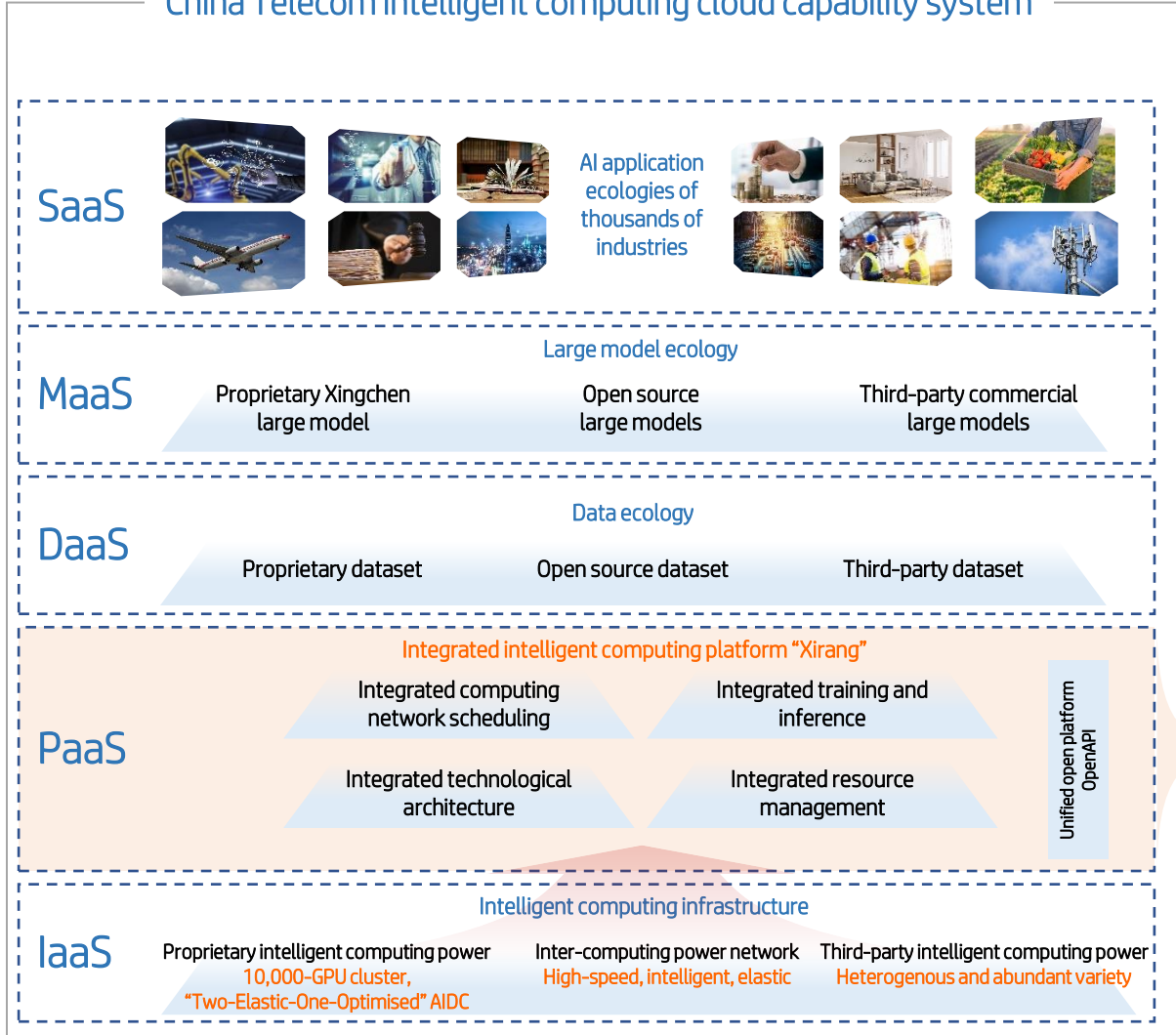
1. RDO: Fundamental research (R), applied technological research and development (D) and operational development (O)
2. The "Key Technology and Large-scale Application of the Next Generation Internet Source Address Verification Architecture SAVA" and "Key Technology and Engineering Application of the Fifth Generation Mobile Communications System (5G)" of China Telecom received the first prize of the National Science and Technology Progress Award 2023
3. R&D expense growth is calculated from R&D expense figures based on Chinese Accounting Standards ("CASs")



# Construct Leading Integrated Intelligent Computing Service Capability of "Xirang"



## China Telecom intelligent computing cloud capability system



## Capabilities of integrated intelligent computing platform "Xirang"

### Compelling computing power-network scheduling capability

- Computing power gateway, computing power plug-in, computing power and data coordination
- 22EFLOPS of computing power from 39 partners
- 21EFLOPS of proprietary intelligent computing power



### High efficiency heterogenous computing power

- Managing and scheduling of a single cluster with ten-thousand GPUs
- Heterogenous resource management
- Topology aware scheduling



### One-stop training and inference service capability

- 3 steps to achieve training and inference of large models
- Full-chain observable and checkpointing
- Introduced 20 open-source and 4 closed-source large models



### Abundant application cases

- Public computing service: An AI lab in Shanghai
- Urban computing Internet: Applied in multiple cities in PRC
- Industrial computing Internet: State-owned assets system, college computing power alliance
- Heterogenous computing: Provide service to 34 industrial customers





# Promoted “Xingchen” Large Foundation Model to Achieve Further Breakthroughs in Innovation and Capabilities



## Strengthen technological breakthroughs of “Xingchen” large foundation model

Xingchen large language, speech and multimodal models completed “dual recordation” of algorithms and services; in which large speech model was PRC’s 1st independent recordation

### Large language model

- Xingchen Software Factory: PRC’s 1st large model tool enabling end-to-end generation of IT system, enhancing software R&D efficiency by >50%
- To promote R&D of 1T parameter model with MOE architecture based on domestic 10,000-GPU cluster

### Large speech model

- Industry’s 1st large model to support code switching of Chinese & English as well as 40 dialects
- Accurate reproduction of a speaker’s timbre with just 5-10s of the speaker’s voice

### Large visual model

- Supports >200k object tags to realise natural language-driven video retrieval of everything
- Support zero-shot cold-start rapid deployment and online of >1,000 scenes in urban governance, industrial, security, etc.

### Large multimodal model

- Multimodal text-to-image capability fully benchmarked with industry’s first-tier models
- Broke through key technologies of multimodal agent to achieve interactive comprehension and generation of text, image and voices

## To construct “Data Chain AI Network (DCAN)” data element capability system

### Datasets

- Create high-quality data sets by gathering data from public, industry, Internet and other fields, with large model corpus data exceeding 350TB
- Corporate data pool gathers 1.6PB daily, ↑33%

### Xinghai data intelligent core platform

- Fully integrate AI capabilities and broke through technologies such as large-scale parallel computing, multi-centre regional collaboration, and high-performance privacy computing capabilities
- Listed in *Handbook of Sci-tech Innovation Achievements and Products of Central Enterprises*

### “Lingze” 2.0 data element platform

- Develop four key capabilities, namely data rights registration, data fusion computation, trusted data circulation, and high-speed data transmission network
- Serves the public data operation and data infrastructure construction of 22 provinces; supported “Data Element X” competitions of 10 provinces

Note: MOE: Mixture-of-Expert, integration of multiple expert models to enable substantial enhancement of professional capabilities in various specific areas comparing with other model architectures

# Thoroughly Commence AI+ to Empower Intelligentised Development



## Xingchen large models for industries

32 large models for industries with 20 newly added, serving >7,600 customers

### Digital governance

Covers gov't admin, emergency, etc.

4 industries, 12 scenes

Large model for emergency  
Identify >180 hidden risks and disaster scenes with an accuracy of 95%



Example:  
Video aggregation platform of the emergency department of a province

### Digital livelihood

Covers education, healthcare, culture, etc.

5 industries, 12 scenes

Large model for precision education  
No. of students awarded excellent grade in writing ↑60%, time spent on marking Chinese/English writing ↓70%



Example: Writing marking of a fundamental education group of a province

### Digital economy

Covers industrial, automaker, SMEs, etc.

5 industries, 8 scenes

Large model for industrial quality inspection  
Supports ≈1,000 types of template matching inspection with >99% accuracy



Example: Quality inspection of a screen printing of an enterprise in a province

Systematic insight into industry scenes, large model of engineering construction industry

AI fully integrates into digital platform and customer solutions

Business model innovation in ways such as standard SaaS products, customer platform customisation, MaaS ecological aggregated platform

## AI standardised products

Cloud-side applications serving >68Mil customers

AI cloud drive

AI colour ringback tone with video

AI communications assistant

...

Device-side applications serving >8Mil customers

AI cloud computer

AI security terminals

AI smart speaker

AI handset  
(Launched in July)

...

Xingchen large foundation model base

# AI Empowers Internal Digital Transformation and Upgrade



AI empowers cost reduction and efficiency enhancement focusing on key resource areas, to carry forward source governance and promote the application of large models for internal use

10 large models for internal use to enhance quality and efficiency

**Large model for network**  
Network failure handling efficiency **↑30%**

**Large model for CRM**  
Explore **5Mil** potential value enhancement touchpoints

**Large model for customer service**  
Raw information editing efficiency **↑30%**

**Large model for R&D**  
Code writing efficiency **↑20%**

**Large model for operation**  
Decision-making analysis efficiency **↑20%**

**Large model for knowledge base**  
Efficiency of plan drafting **↑30%**



## Full coverage

Expand the breadth and depth of efficiency enhancement coverage and carry out efficiency enhancement work for all employees, all factors, and all processes



## Incentives and constraints

Enhance the dual driver of assessment and incentives, strengthen the traction of assessment targets, and implement rigid link with performance assessments

## Costs↓

Selling expense as a % of service revenues

**↓0.8** p.p.

10000 Hotline cost

**↓18%**

AI empowered network electricity savings

**≈500** Mil kWh

## Quality↑

% of AI smart customer service

**↑9.1** p.p.

AI-assisted cloud-network maintenance automatic processing rate

**↑12** p.p.

% of fundamental businesses subs developed online

**↑7.1** p.p.

## Efficiency↑

AI-assisted reduction of low efficiency BTSs

**>8,000**

Reduction of no. of low-efficiency outlets

**≈1,000**

FTTH port utilisation rate

**↑0.9** p.p.

# Quantum+ to Forge Carrier-grade Security Capabilities



Enriching quantum industry ecosystem and building quantum security infrastructure to form differentiated edges of “Quantum+” application

## Product

### Call + Quantum

Quantum-encrypted messaging, quantum-encrypted calls, encrypted intercom...

### Network + Quantum

Quantum OTN dedicated lines, quantum SD-WAN dedicated lines...

### Cloud + Quantum

Quantum security cloud, data security in/between/on the cloud...

### Platform + Quantum

IT system, quantum encryption of business systems...

- Develop a product portfolio integrating quantum and fundamental/strategic emerging businesses
- Series of quantum security products achieve scale development

## Capability

### Quantum Security Infrastructure

Technical system integrating QKD, PQC and classic cryptography

Quantum Key Distribution Network + Quantum Password Resource Pool + Quantum Password Management Platform

- Completed quantum metropolitan network construction in key cities such as Hefei, Xiongan, and Shanghai
- Form a quantum security infrastructure construction plan of “one network, one pool, one platform”

## Ecosystem

Research-type universities and high-level sci-tech research institutions



Industry leading enterprises



Industrial Chain Up/downstream enterprises

- Strengthen cooperation among industry-academia-research, build joint laboratories
- Cooperate in product R&D with industry leading enterprises

### Notes:

1. QKD: Quantum Key Distribution, which refers to the remote key distribution leveraging the physical properties of quantum such as indivisibility, non-replication, and uncertainty
2. PQC: Post-quantum cryptography, a research field in cryptography that specialises in encryption algorithms that can withstand quantum computers

# Accelerate the Transformation and Upgrade of Digital Information Infrastructure

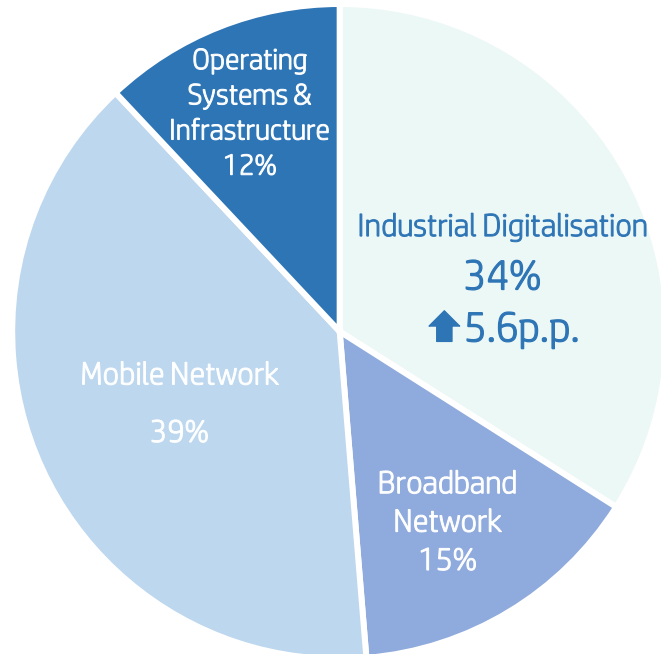


## CAPEX structure continuously optimised

### CAPEX structure

1H2024: RMB47.2Bil

2024E: CAPEX to service revenues to decrease to <20%



## Consolidated digital information infrastructure capability edges

### Computing power continued to strengthen

Intelligent computing  
 ↑10EFLOPS  
 ↑90.9%

### Fully upgrade to AIDC

Agile delivery of cabinets,  
 flexible cooling & power supply,  
 efficient use of energy

### Computing power interconnection

Continued to optimise latency circles with  
 1ms within cities/  
 intra-region 5ms/inter-regions 20ms

Construct 400Gbps all-fibre high-speed network supporting elastic bandwidth and time slicing  
 Industry-exclusive of quantum-encrypted dedicated line capability

Completed construction of PRC-leading all liquid-cooling pools with 10,000-GPUs in Beijing-Tianjin-Hebei and Yangtze River Delta; deployed inferencing pools in 31 provinces

### 5G/4G

5G co-build co-share base stations added >100k, reaching >1.31Mil  
 All-out promotion of 5G-A capability upgrade  
 Co-shared 4G base stations reached >2Mil  
 Low band base stations reached 790k

### Gbps

>9Mil 10G PON ports;  
 residential Gbps coverage in cities/towns reached 94%  
 Deploy 50G PON to support 10Gbps access demand in key scenes



# All-round Promotion of Green Transformation and Development



Guided by the “1248” green development model, greenhouse gas emissions per unit of total volume of telecommunications services maintained double-digit decline yoy

## Green cloud-network infrastructure

### Coordinated green computing power and electricity to empower network greenness by AI

#### Green datacentre

12 newly added national green datacentres, the largest number in the industry



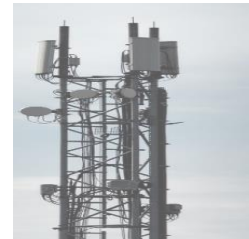
#### Green electricity

Externally purchased green electricity with “integration of trading of permit and electricity” reached 960Mil kWh, ↑>200% yoy



#### AI empowered network greenness

AI managed 4.95Mil (>96%) sectors in 5G network, ≈1,800 facility rooms  
14k BTSs undergone green modification, 280 facility buildings undergone green upgrade  
Electricity savings ≈500Mil kWh in 1H2024, expected annualised electricity savings >1Bil kWh



## Green products & services

Create diversified green products and services focusing on areas such as clean production, pollution control, and environmental protection

Government carbon regulation

Enterprise carbon management

Smart factory

Air pollution control

Solid waste management

Pollution source management

### Benchmark cases widely applied

**Green lighting:** Industry’s 1st proprietary energy-saving brain using AI to predict traffic patterns based on AIoT platform, developed >150k users in 165 cities of 31 provinces, saved >6Mil kWh of electricity and reduce >1,700 tons of greenhouse gas emission

Note: “1248”: “1” strategic focus, namely green and low-carbon development is an integral part of the company’s “Cloudification and Digital Transformation” strategy; “2” two directions of improvement, namely to accelerate green transformation for development internally and to form green production and lifestyle externally; “4” basic strategies, namely high-quality development, coordinated development, sustainable development, and innovative development; “8” major green initiatives, namely construct new green cloud-network, create new green operations, build a new green ecology, strengthen new green empowerment, promote new green technologies, consolidate new green support, develop new green energy, and creating new green value

# Comprehensively Deepen Reform to Continuously Enhance Corporate Vitality



Comprehensively deepen reform and promote high-quality development, to facilitate the development of service-oriented, technology-oriented and secured enterprise

## Deepen the reform of systems and mechanisms of sci-tech innovation

- Establish national-grade sci-tech innovation platform
- Optimise the RDO R&D system, establish professional research institutes for cloud computing, AI, and quantum and others, and strengthen research on cutting-edge technologies
- Deepen the reform of sci-tech achievements transformation mechanism and enhance the efficiency of sci-tech achievements transformation

## Deepen the reform of systems and mechanisms of strategic emerging businesses

- Continue to deepen market-oriented reform of vertical companies/vertical BGs to create high-quality industrial products and platforms
- Deepen reform of cloud, AI, quantum, satellite, IoT and other companies with “one policy for one company” to enhance supporting systems and mechanisms
- Comprehensively promote the optimisation of the main process with the cloud core platform as the hub, strengthen development of secondary development team

## Deepen the reform of systems and mechanisms of talent development

- Strengthen layout of “flying geese paradigm” comprising scientists, chief experts, senior experts and experts
- Improve the authorization and delegation mechanism for expert talents, strengthen talent service guarantee, and stimulate talent vitality
- Fully implement “1136” strategy of promoting corporate strength through talents

## Deepen reform of market-oriented operating mechanism

- Equilibrate responsibilities, power and interests, equally emphasise on incentives and constraints, and build a new operation responsibility system
- Improve corporate governance capability of managers, promote innovative allocation of production factors, and optimise assessment and incentive mechanisms
- Improve the coordination mechanism between provincial branches and professional companies, as well as that among professional companies, and form synergy for development

## Promote all-round high-quality open-up

- Deepen open-up in sci-tech innovation, business, talent, capital and other fields, and build a mutually beneficial ecosystem; strengthen “integrating” and “being integrated” to further strengthen the role as the service platform for digital transformation
- Strengthen “integrating” and “being integrated” to further strengthen the role as the service platform for digital transformation
- Promote international cooperation and optimise international industrial cooperation layout

Rated **Grade A** in the assessment on key reform tasks performance by state-owned central enterprises for three consecutive years

Note: “1136” strategy of promoting corporate strength through talents: 1 talent principle, 1 talent plan, construction of 3 key talent teams, and 6 talent work mechanisms



# Proactively Fulfill Social Responsibilities



Accredited with “Asia’s Best CSR” by *Corporate Governance Asia* for 5 consecutive years

## Key communications assurance



Successfully completed communications assurance tasks for multiple key events



Satellite communications and drones efficiently assisted flood fighting and disaster relief

## Rural revitalisation and universal services



AI empowers rural revitalisation and promote deep integration of agriculture and rural areas



Continued to fulfill universal service missions

## Support social welfare and care for employees



>90,000 “Caring Stations” benefiting 8.42Mil person-times

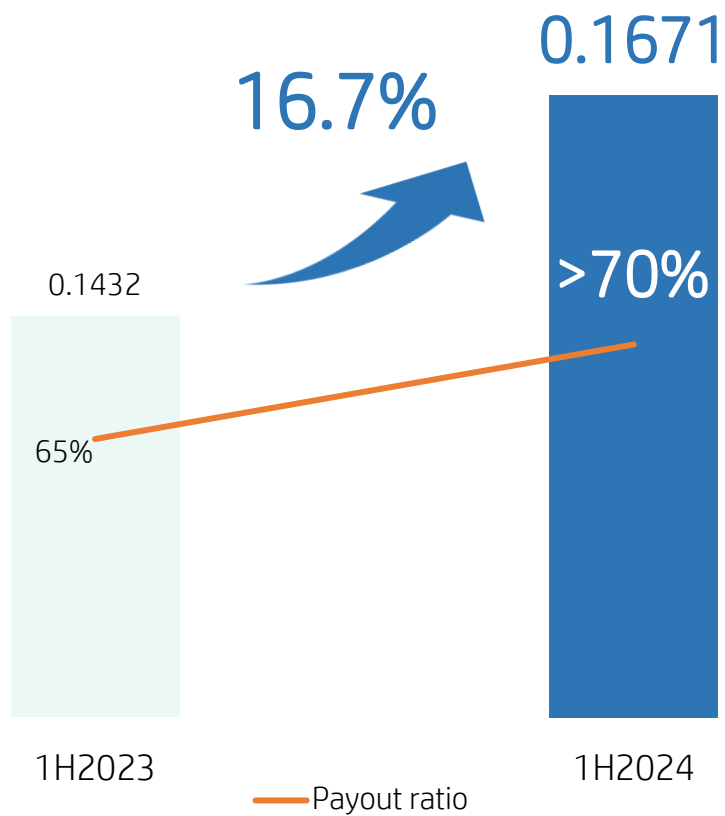


Protect employee rights, create professional development paths, enhance incentive mechanism

# Continued to Increase Shareholder Returns



DPS and payout ratio  
RMB



The Company attaches great importance to shareholders' returns, and strives to enhance profitability and cash flow generation capabilities

The Board decided to continue interim dividend payout in 2024

Within 3 years from 2024, the profit to be distributed in cash will gradually increase to

>75%

of the profit attributable to equity holders of the Company for that year

# Seize Opportunities to Create Value



## Expedite the building of a world-class enterprise

Continue to deeply implement the Cloudification and Digital Transformation strategy

Further deepen comprehensive reforms

Thoroughly promote high-quality development

## Continue to enhance corporate value

Strive to achieve in 2024

Full-year revenues  
maintain favourable growth

EBITDA  
maintain favourable growth

Net profit growth  
higher than revenue growth

### Technological innovation

Large scale application of new generation information technologies such as 5G and AI drives and leads industrial innovation and development

### New business models, new industries, new patterns

Industry open-up and cross-sector integration shape new businesses and prompt deep integration of large models and cloud

### Digital life demand

Rich application scenes such as livelihood services, new industrialisation, social governance, etc.

### Favourable policies

AI+ Action, construction of smart cities, etc.

Overview

# Business Review & Financial Performance

Mr. Liang Baojun, President and COO

# Summary of Operation and Revenues

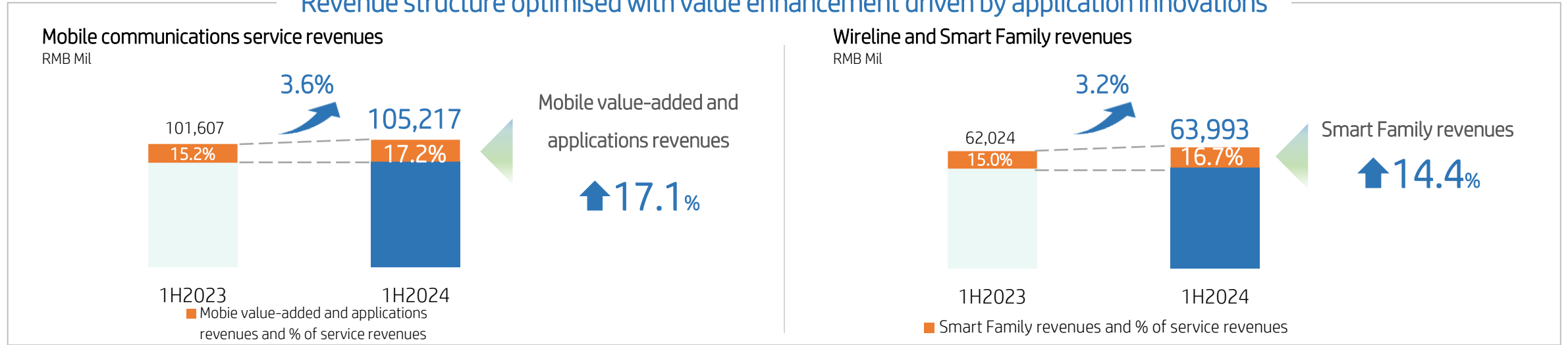


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Service Revenues	235,977	246,235	4.3%
Mobile Communications Service	101,607	105,217	3.6%
Mobile Value-added and Applications	15,440	18,087	17.1%
Wireline and Smart Family Service	62,024	63,993	3.2%
Broadband Access	43,768	44,943	2.7%
Smart Family	9,315	10,659	14.4%
Industrial Digitalisation	68,802	73,750	7.2%
Revenues from Sales of Goods and Others	24,687	21,776	(11.8%)
<b>Operating Expenses</b>	<b>(235,156)</b>	<b>(240,751)</b>	<b>2.4%</b>
<b>Operating Profit</b>	<b>25,508</b>	<b>27,260</b>	<b>6.9%</b>
<b>Net Profit</b>	<b>20,153</b>	<b>21,812</b>	<b>8.2%</b>

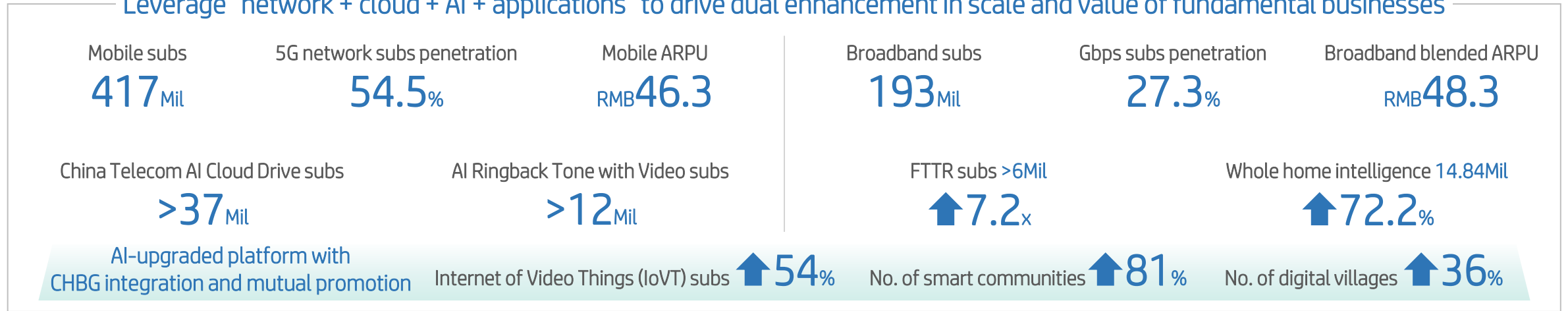
# Fundamental Businesses Innovation and Upgrade to Enhance value



## Revenue structure optimised with value enhancement driven by application innovations



## Leverage “network + cloud + AI + applications” to drive dual enhancement in scale and value of fundamental businesses



Note: CHBG: Customer, Home, Business, Government



# Industrial Digitalisation Achieved Deep Integration and Extensive Empowerment



## Construct Industrial Digitalisation Capability System

Industrial Digitalisation revenue  
as a % to service revenues

30.0% ↑0.8p.p.

No. of enterprise customers

↑11.9%

## Build new quality digital platforms

No. of platforms built

>110 platforms covering 15 industries

>40 platforms

reconstituted by AI

### City smart hub platform “YiZhi”

Leveraging China Telecom Cloud “Xirang” computing power scheduling platform, Xinghe AI platform, IoT sensing platform and etc., to build “YiZhi”, a city smart hub IOC, and form a new foundation of smart city with unified standard and open interface

## Scalable promotion of digital platforms

### Municipal grassroots governance platform

Covers 31 provinces, >240 cities,  
>1,700 regions & counties

Large model for grassroots governance,  
video AI algorithm application, etc.

Example: Social governance modernisation platform project of a city, connecting dispute resolution processes across different systems and handling efficiency ↑20%



### All-domain tourism platform

Covers 90 cities in 24 provinces

Virtual tour guide, large model for smart customer service,  
cultural and tourism big data, etc.

Example: Smart tourism project of a city providing tourist traffic forecast, management, diversion and guided tour; tourists' satisfaction rate increased to 90%



### All-people health information platform

Covers >120 cities in 14 provinces

AI large model for health consultation, healthcare big data,  
data lake-data warehouse-integrated data storage

Example: “Smart & Connected Information to Benefit the Public” healthcare project of a city, consolidating the medical data of the >3,800 institutions of the whole city



### Industrial operating technology (OT) platform

Covers 23 cities in 18 provinces

Industrial corporate digitalised diagnosis service, digital  
factory applications, collaborative operations of multiple  
systems and production lines in a factory, received “Best 10  
Solution Award” in Digital China Summit 2024

Example: Maintenance cost of a crystal factory  
decreased by 20%





# China Telecom Cloud's Leading Intelligent Computing Services Development Gained Momentum



## Market leadership position further strengthened

No. of China Telecom Cloud 2B customers

4.55 Mil ↑ 29.2%

Public cloud revenue

↑ 26%

Market share

IaaS+PaaS ↑ 1.5 p.p. IaaS ↑ 1.4 p.p.

## Diversified use cases



### Computing power management

Consolidated the general, intelligent and super computing resources inside and outside **an industrial park** with the Xirang platform, and coordinated, scheduled, monitored, and operated the heterogeneous computing power resources of >1,000 PFLOPS from different cloud vendors



### Intelligent computing project

Built a distributed computing power infrastructure integrating cloud and AI, as well as training and inference, with cloud-network-edge-terminal coordination for a **healthcare big data and AI technology company**, achieving the application of large models for healthcare industry



### Cloud hosting and other public cloud products

Built "X-Phama Cloud" digital foundation for a **pharmaceutical group** to migrate its relevant business systems to cloud, serving 230k employees and completing digital transformation

Note: Source of market share: IDC

# AI+ Market Promotion Achieved Prominent Results



## AI

No. of 2B customers empowered in 1H2024

7,600



Xingchen •“Diting”, the AI agent for customer service project of a province: 2024 China “Large Model + Smart Customer Service” TOP 10 Best Practise Cases

AI fabric inspection machine: Production efficiency doubled, achieving scale breakthrough in promotion in industrial quality inspection area, with contracts secured with 18 textile enterprises in Fujian, Zhejiang, Guangdong, Shandong and other provinces



No. of 2C/2H customers empowered

>77Mil



Large model for gov't admin hotline: Created a national benchmark demonstration case from the inside out covering 15 business scenes based on the edge from actual experience of 10000 hotline, resulting the customer's smart gov't admin services efficiency to ↑30%

## Big data

Lingze data element platform  
Served public data operation of 22 provinces and municipals



Data product supermarket: Capabilities of Lingze 2.0 platform upgraded with scale promotion of SaaS version; >2,000 data products available integrating privacy computing, blockchain and other trusted and secure circulation technologies

Xinghai data intelligence core platform  
>150 projects



Big data project of a highway group: Based on the integrated PaaS foundation of multimodal data (Telecom Data Platform, TDP) + integrated intelligent computing core platform, assisting customers to build a data resource management platform, with development efficiency ↑20%

Ecological collaboration on data  
>50 alliance members



Data Elements Industry Alliance CTDIA 2024: Comprises local data bureaus and enterprises to commence ecological cooperation in data products, services, and corpora; aggregates data sets from 8 industries including education, healthcare, transportation, housing and construction, agriculture, and gov't admin.

# Security Products and Services Serving Extensively

## Bestsellers continued to gain traction

1 Bil revenue-grade product  
Cloud Dam anti-DDoS  
No. of customers

↑36%

Gartner  
Top Service Providers Selection

100Mil revenue-grade product  
e-Surfing Security Brain  
No. of customers

↑41%

100Mil revenue-grade product  
Website Security Expert  
No. of customers

↑32%

Enhance the effectiveness of threat detection and  
timeliness of attack protection



## Example cases widely replicated

- **Yunmai Zero Trust (SASE):** Deployed for a large enterprise with >10,000 employees, enabling highly efficient and secure work anytime, anywhere
- **Cloud Dam Graded Protection Assistant:** Leveraged the cloud-network integrated security foundation capability of security capability pools covering 157 cities and reaching 65% of customers of the entire network, serving >3,000 customers
- **e-Surfing Security Brain:** Used by >10,000 medical insurance institutions of a city, enabling secure access to provincial medical insurance information platform

# New Generation Information and Communication Accelerated Popularisation and Application



## 5G 2B

Fully propel 5G penetration into thousands of industries

No. of industry application projects

Cumulative **>36k**

Cumulative contract amount

RMB **≈34Bil**



**5G dedicated network for an energy enterprise**

One 5G dedicated network  
5 scenes: Data collection, mobile office, video backhaul transmission, voice calls, cluster scheduling

Industry dedicated networks widely replicated

No. of customers

Cumulative **>12k**

Industrial Internet

**>4,000**

General gov't admin.

**>3,000**



**Cross-region 5G backup networking for an informatisation company**

AI scheduling, autonomous networking; large-scale deployment at **40 airports in 13 provinces**

## Satellite communications

Revenue **↑110%**

Handset direct-to-satellite subs

**↑67%** vs end-2023



Jointly launched with a automaker the world's first flagship car model equipped with Tiantong satellite communications function

## Low altitude economy

Projects implemented in Shenzhen, Jiangsu and other cities

Focus on scenes such as patrol & inspection, logistics & transportation, passenger tourism, etc.

- **Network:** Carry out low-altitude intelligent network verification and deployed in provinces and municipals
- **Platform:** Create low-altitude flight service and low-altitude regulation platform
- **Cooperation:** Continue to promote cooperation in technological innovations with laboratories

## IoT

Revenue **↑46.4%**

Subs **>88Mil**

**IoT+ fire alert:** Focus on community and park management, providing video aggregation, smart alert of electric vehicles, fire exit obstruction identification, and debris accumulation identification capabilities; electric vehicle management projects secured with 58 communities in a city

## IoT

Subs **>600Mil**

**1 Bil.-grade** IoT network connectivity, online sensing and control

**Passenger and cargo coordination of the world's largest single-building airport:** Proprietary IoT sensing cloud platform and digital foundation enable >20 applications such as real-time coordination and decision-making, operation situation prediction, passenger flow guidance, etc., intelligently empowering operating efficiency



# International Business Achieved Scale Development



International business grew rapidly

International business revenue

↑10%

China Telecom Cloud overseas revenue

↑172%

No. of international roaming users

↑136%

Strategic emerging businesses made inroads

Handset direct-to-satellite service

Successfully launched in  
Hong Kong

Overseas IoT connections

↑79%

Construction of international cloud-network infrastructure strengthened

Granted with full-service international communications accesses

Kunming, Haikou

No. of overseas POPs

254

No. of overseas IDC

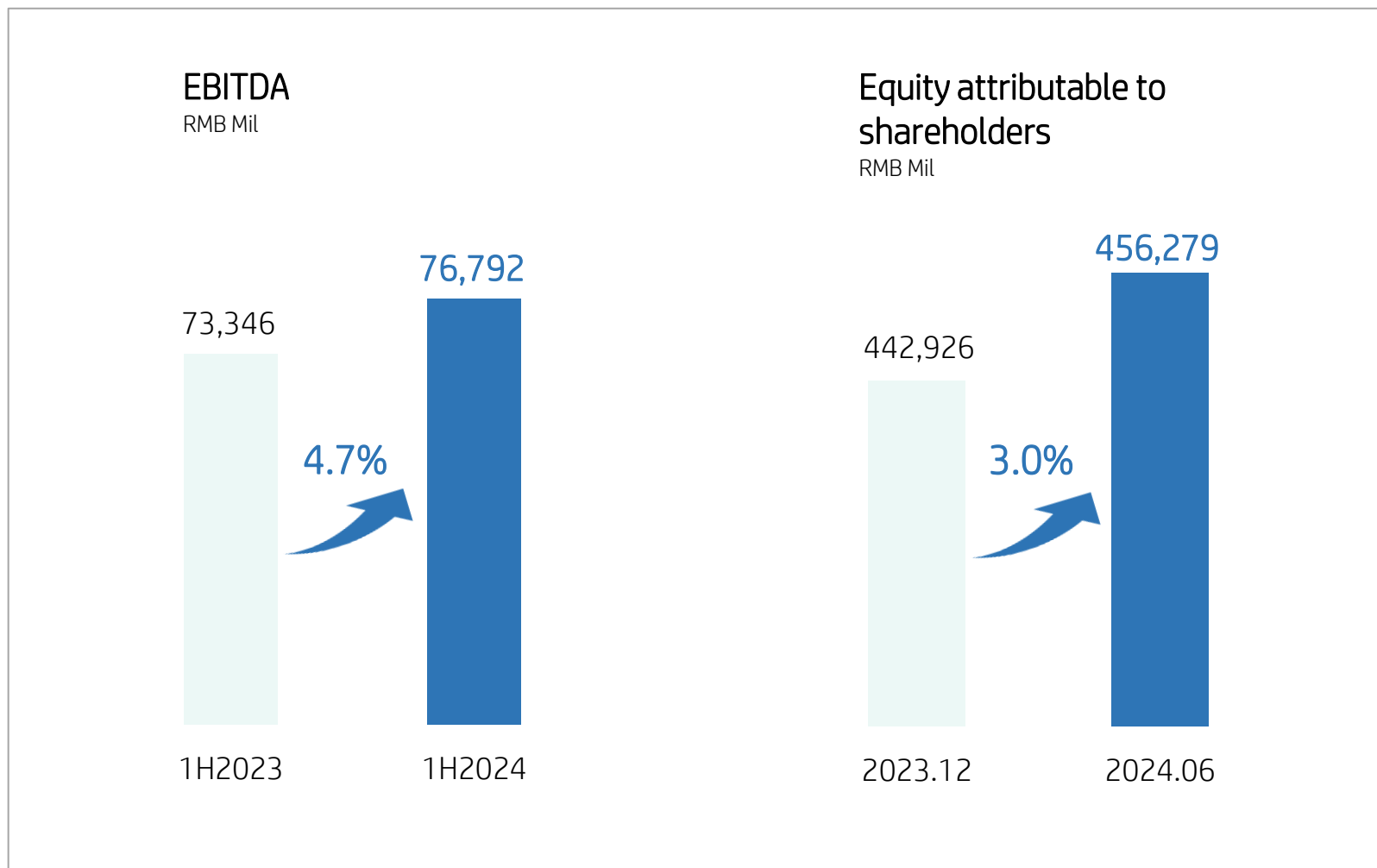
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# Precise Cost Allocation to Promote High-quality Development



RMB Mil	1H2024	Change	
<b>Operating Expenses</b>	<b>240,751</b>	2.4%	<ul style="list-style-type: none"> <li>Strengthened AI empowerment in cost reduction and efficiency enhancement, continued to enhance resource efficiency, growth rate was lower than that of operating revenues by <b>0.4p.p.</b></li> </ul>
Incl. Depreciation & Amortisation	49,532	3.5%	<ul style="list-style-type: none"> <li>Insisted in profitable investment, deepened co-building and co-sharing, D&amp;A as a % of service revenues <b>↓0.2p.p.</b> yoy</li> </ul>
Network Operations & Support	80,131	5.4%	<ul style="list-style-type: none"> <li>Continued to enhance network quality and capability, promoted scale expansion of strategic emerging businesses, strengthened precision management with digital AI measures, increased resource utilisation efficiency</li> </ul>
Personnel	50,566	3.2%	<ul style="list-style-type: none"> <li>Continued recruitment of sci-tech and innovation talents, and to incentivise high-performance teams, key operating units, lower-ranked and front-line employees</li> </ul>
SG&A	33,090	0.8%	<ul style="list-style-type: none"> <li>Data + AI to drive marketing digitalisation and resource efficiency enhancement, SG&amp;A as a % of service revenues <b>↓0.5p.p.</b> yoy</li> </ul>
Other operating expenses	27,432	(6.8%)	<ul style="list-style-type: none"> <li>Cost of mobile handset sales decreased</li> </ul>

# Financial Strength Enhanced



Sound capital structure supports healthy corporate development

Debt-to-asset ratio

47.1%

Corporate credit rating maintained the highest

AAA

Note: Credit rating was provided by China Chengxin International Credit Rating Co., Ltd. on the Company's credit rating of related debts in duration in May 2022





Most Outstanding Company  
in China – Communication  
Services Sector



Most Honored Companies



Asia's Best CSR



Best Social  
Responsibility Initiative



Best Corporate ESG  
Strategy in China

# Thank You!

For further information & enquiries,  
please contact our  
Investor Relations Department at  
[ir@chinatelecom-h.com](mailto:ir@chinatelecom-h.com) or visit [www.chinatelecom-h.com](http://www.chinatelecom-h.com)



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# Appendices

# Appendix 1: Extracted from Unaudited Condensed Consolidated Statement of Comprehensive Income for the Six-month Period Ended 30 June 2024 (IFRS Accounting Standards)



RMB Mil	1H2023	1H2024	Change
<b>Operating Revenues</b>	260,664	268,011	2.8%
Service Revenues	235,977	246,235	4.3%
Revenues from Sales of Goods and Others	24,687	21,776	(11.8%)
<b>Operating Expenses</b>	(235,156)	(240,751)	2.4%
<b>Operating Profit</b>	25,508	27,260	6.9%
Net Finance Costs	(483)	(250)	(48.2%)
Investment Income and Others, Share of Profits of Associates and Joint Ventures	1,155	1,229	6.4%
<b>Profit Before Taxation</b>	26,180	28,239	7.9%
Income Tax	(6,006)	(6,273)	4.4%
<b>Profit for the Period</b>	20,174	21,966	8.9%
Equity Holders of the Company	20,153	21,812	8.2%

	1H2023	1H2024	Change
<b>Free Cash Flow</b>	17,641	15,462	(12.4%)

Notes:

1. Mobile service revenues in 1H2024 amounted to RMB114,574Mil, representing an increase of 4.3% year-on-year, wireline service revenues amounted to RMB131,661Mil, representing an increase of 4.4% year-on-year
2. Excluding the impact resulting from the application of IFRS 16, the tower usage fee in 1H2024 was RMB9,950Mil
3. Free Cash Flow = EBITDA – CAPEX – Income Tax Expenses – Depreciation Charge for Right-of-Use Assets Other than Land-Use-Rights (1H2024: RMB7,835Mil)

## Appendix 2: Extracted from Unaudited Consolidated Income Statement for the Six-month Period Ended 30 June 2024 (CASs)



RMB Mil	1H2023	1H2024	Change
<b>Operating Revenues</b>	<b>258,679</b>	<b>265,973</b>	<b>2.8%</b>
<b>Operating Costs</b>	<b>179,122</b>	<b>183,957</b>	<b>2.7%</b>
Taxes and Surcharges	847	918	8.4%
Selling Expenses	27,933	27,568	(1.3%)
General and Administrative Expenses	17,967	17,844	(0.7%)
Research and Development Expenses	4,140	4,659	12.5%
Finance Expenses	483	250	(48.2%)
Asset and Credit Impairment Losses	(2,689)	(3,895)	44.8%
Investment Income	1,129	1,237	9.6%
Gains on Disposal of Assets, Other Income and Losses from Changes in Fair Value	567	1,277	125.2%
<b>Operating Profit</b>	<b>27,194</b>	<b>29,396</b>	<b>8.1%</b>
Net Non-operating Income and Expenses	(1,014)	(1,157)	14.1%
<b>Profit before Taxation</b>	<b>26,180</b>	<b>28,239</b>	<b>7.9%</b>
Income Tax Expenses	6,006	6,273	4.4%
<b>Net Profit</b>	<b>20,174</b>	<b>21,966</b>	<b>8.9%</b>
Equity Holders of the Company	20,153	21,812	8.2%
<b>Net Profit Attributable to Equity Holders of the Company excluding Extraordinary Gains and Losses</b>	<b>20,446</b>	<b>21,681</b>	<b>6.0%</b>

# Appendix 3: Extracted from Unaudited Condensed Consolidated Statement of Financial Position as at 30 June 2024 (IFRS Accounting Standards)



RMB Mil	2023.12.31	2024.6.30
Current Assets	167,863	199,920
Non-current Assets	667,951	671,071
<b>Total Assets</b>	<b>835,814</b>	<b>870,991</b>
Current Liabilities	303,436	327,974
Non-current Liabilities	85,211	82,343
<b>Total Liabilities</b>	<b>388,647</b>	<b>410,317</b>
<b>Total Equity</b>	<b>447,167</b>	<b>460,674</b>
Equity Attributable to Equity Holders of the Company	442,926	456,279

# Appendix 4: Operating Figures



## Selected Operating Metrics for the Period Ended 30 June 2024

Subscriber (Mil)	2023.12	2024.6	Change
<b>Mobile</b>	407.77	416.85	9.08
5G package	318.66	336.63	17.97
<b>Wireline Broadband</b>	190.16	193.35	3.19
Access Lines in Service	101.02	99.16	(1.86)
<b>IPTV</b>	127.81	128.49	0.68
<b>IoT Connected Devices</b>	526.74	601.43	74.69

	1H2023	1H2024	Change
<b>Mobile ARPU (RMB)</b>	46.2	46.3	0.2%
<b>Handset Data Traffic (kTB)</b>	33,499	42,951	28.2%
<b>Wireline Broadband Blended ARPU (RMB)</b>	48.2	48.3	0.2%