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#### Mr. Wang Xiaochu

Chairman & CEO

### Mr. Chen Zhongyue

Executive Director & President

#### Mr. Liang Baojun

Senior Vice President



## **Overall results**

## **Operating & Financial performance**





Revenue & profit growth accelerated, backed by determined innovative transformation & indepth mixed-ownership reform



Accelerated increase in shareholder returns & strived to unlock the potential investment value of the Company



5G-led mobile business transformation & innovative development delivered remarkable success



Digital transformation empowered continuous robust growth in innovative businesses



Deepened network "co-build co-share" and effectively enhanced edges & returns



To seize new opportunities of the industry & endeavour to achieve high-quality development



### Focus · Innovation · Cooperation

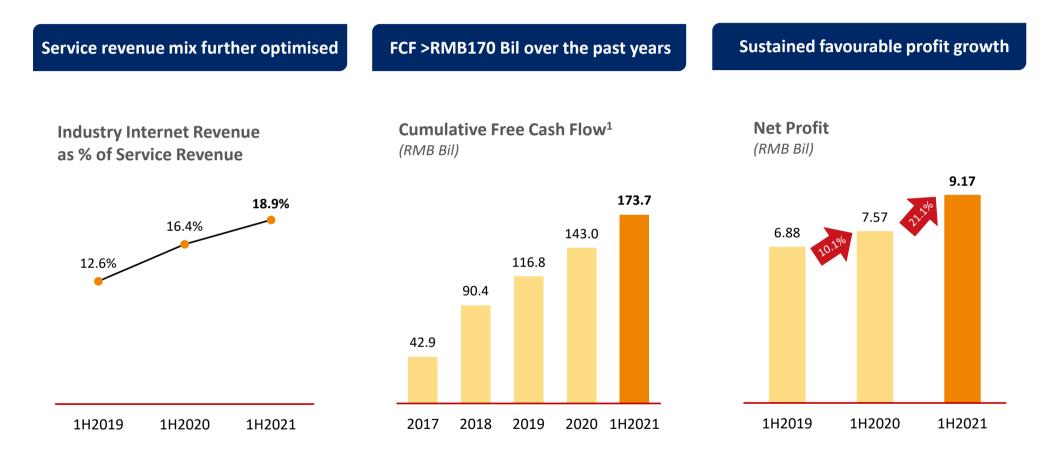
### **Comprehensive Digital Transformation**

(RMB Mil)	1H2020	1H2021	Change YoY
Operating Revenue	150,397	164,174	9.2%
Service Revenue <sup>1</sup>	138,335	148,674	7.5%
Industry Internet Revenue	22,673	28,030	23.6%
EBITDA <sup>2</sup>	49,452	49,489	0.1%
As % of Service Revenue	35.7%	33.3%	-2.4pp
Net Profit <sup>3</sup>	7,569	9,167	21.1%
Basic EPS (RMB)	0.247	0.300	21.1%
Interim Dividend per Share (RMB)	-	0.120	N/A

Note: Unless otherwise stated in this presentation,

- 1. Service revenue = operating revenue sales of telecommunications products.
- 2. EBITDA = profit for the period before finance costs, interest income, share of net profit of associates, share of net profit of joint ventures, other income net, income tax, depreciation & amortisation.
- 3. Net profit represented profit attributable to equity shareholders of the Company.





Note:

1. Calculated the cumulative free cash flow generated since 2017, and excluded the impact of the adoption of IFRS 16 on free cash flow in 2019, 2020 & 1H2021, i.e. free cash flow = operating cash flow – CAPEX – capital element of lease rentals paid

### **Accelerated Increase in Shareholder Returns**





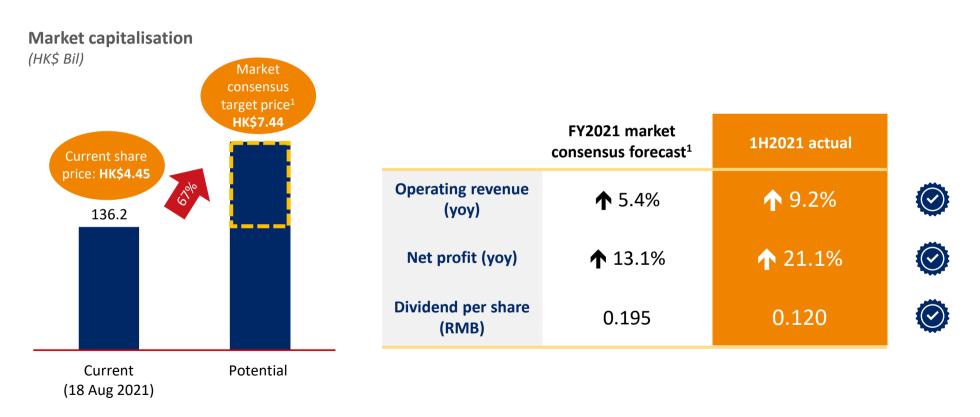
- High regard for shareholder returns
- With due regard to the Company's robust business development & strong free cash flow, the Board decided to distribute an inaugural interim dividend of RMB 0.120 per share in 2021
- Will raise 2021 full-year dividend payout ratio, with the magnitude to be decided by the Board in March next year taking into account such factors as the Company's profitability, cash flow, future capital requirements & dividend payout in the industry, etc.

2021: DPS growth > EPS growth

### Strived to Unlock Potential Investment Value of the Company



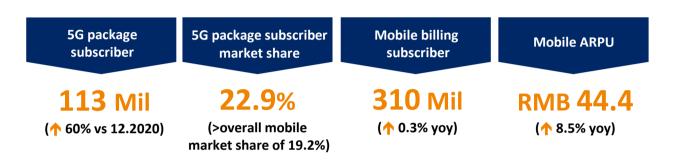
Endeavor to drive favourable growth in revenue, profit & dividend



Note:

1. Source: Bloomberg consensus data on 18 Aug 2021. There are more than 20 sell-side analysts in Bloomberg's coverage. The Company will not accept any responsibility for the market consensus data above. Investors are cautioned not to unduly rely on the data above. Delivered Remarkable Success in Transformation & Innovative Development of Mobile Business

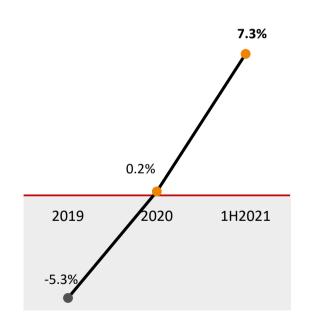




1H 2021

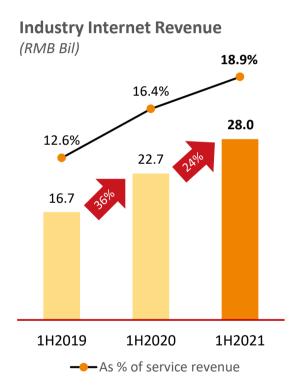
- 5G led quality & profitable growth in scale
- Insisted on rational & orderly competition to deepen valueoriented operation while promoting high-quality & coordinated industry development
- Continued to strengthen digital transformation & differentiated innovative integrated operation
- Focused on enhancing subscriber quality & value

Mobile service revenue YoY change



### **Continuous Robust Growth in Innovative Businesses**





- Formed Unicom Digital Technology Co., Ltd. (Unicom Digital Technology) to create integrated & differentiated edges of 5G+ABCDE (AI, blockchain, cloud computing, Big Data, edge computing)
- Actively nurtured & promoted innovative 5G + vertical applications
- Promoted the integrated sales model ("cloud computing + smart networks + smart applications"), focusing on key industry application products
- Deepened business cooperation with strategic investors & industry leaders, with a number of JVs established, creating powerful alliance & synergising edges
- To expand margin progressively by enhancing proprietary capabilities in platform development, R&D centralisation, product standardisation, proprietary integration & delivery
- To spin off selected subordinate companies in an orderly manner





### **CUSC** China Unicom Smart Connection Technology Limited



A subsidiary specialised in Internet-of-Vehicles (IoV) operation (69% shareholding)



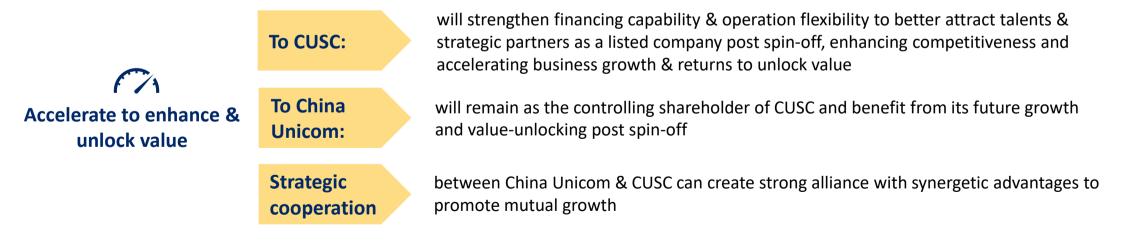
Offers IoV total life cycle management of smart connection products & specialised smart operation services, as well as smart applications such as smart transportation with vehicle & roadside coordination, fleet management & intelligent cockpits based on next-generation technology such as 5G, MEC, C-V2X, etc.



Successfully implemented mixed-ownership reform in 2019, introducing FAW, Dongfeng, GAC, etc. as strategic investors



FY2020 operating revenue: ≈RMB 420 mil<sup>1</sup>; net profit: ≈RMB 67 mil<sup>1</sup>



Note:

1. Data was unaudited. Discrepancies may arise with the audited financial data of CUSC upon listing and the audited financial data to be disclosed in the prospectus of CUSC shall prevail. Investors are cautioned about such investment risks.





Maintain focused deployment while saving substantial investments & costs through "co-build co-share"



Dynamic investment with due regard to technology advancement, value chain maturity, market & business demand, etc.



Achieve 5G industry-leading network speed, while network coverage comparable with the leading operator

#### • 2020-2022 expected to be the peak 5G investment period

- 2021 5G CAPEX budget: ≈RMB 35.0 bil, no. of 5G BTS in use by end of 2021: ≈700k, net add of 5G BTS: ≈320k
- Net add of 5G BTS in 1H2021: ≈80k, reaching >460k

#### Coverage

- Sped up in-depth & indoor coverage in city urban areas & coverage of major counties & affluent towns, fully leveraging the hybrid deployment of 2.1GHz & 3.5GHz bands
- 2.1GHz band: mainly used for wide coverage & general indoor coverage to lower TCO

#### Capability

- SA network fully compatible; introduced key technology of R16 to enhanced support for 2B
- Strong push for network slicing, uRLLC, 5G private networks, MEC & VoNR commercialisation



Effectively sharpened edges & returns with win-win



- Built the largest "co-build co-share" 5G network in the world with China Telecom (>460k base stations)
- Cumulative savings in CAPEX: >RMB86.0 Bil for the two operators combined
- Substantial savings in network costs including tower usage fee, network maintenance costs & utility charges for both parties

 Shared a cumulative of 460k 4G BTS (↑ 240k vs 12.2020) with substantial improvement in coverage & network experience; no. of sites ↑ 14%; mobile customer real time satisfaction rate increased by 10% in 1H2021

ᡣ 4G

- Cumulative savings in CAPEX: >RMB24.0 Bil for the two operators combined
- Strengthened network merging adjustment in co-located sites with low utilisation to lower operating costs

**e** Infrastructure

 Continued to promote "co-build, co-share & comaintain" of transmission resources such as fibres, pole lines, pipelines, etc. • Engage in "co-build co-share" cooperation with cable, power, high-speed railway, oil industries, etc. to maximise investment efficiency

**New Model** 



#### Fully expedite digital transformation to empower smart operation & forge new edges

Better satisfy the nationwide service needs of government & enterprise customers Better satisfy the mobility needs of individual customers Better satisfy the information consumption upgrade needs of household customers

#### **Centralised & Unified IT services**

#### Efficiently-Centralised & Integrated Innovation System

- Basically established core capability of 5 middle platforms (consumer, government & enterprise, network, data, management)
- Accumulated 42 centres + 6 platforms + 9 capabilities

Jun 2021

• Implemented in 7 provinces

- To complete establishment of full capability of 5 middle platforms (consumer, government & enterprise, network, data, management)
- To accumulate 48 centres + 6 platforms + 9 capabilities
- To complete implementation across 31 provinces





An Exceptional
 China Unicom







- Firmly implement the strategy of focus, innovation & cooperation
- Accelerate comprehensive digital transformation
- Strengthen intelligent operation & services



- Deepen mixed-ownership reform
- Continuously expand network "co-build, co-share & co-maintain"

#### **Key Targets**

- Continue to step up revenue & profit growth
- Achieve significant enhancement in service quality
- Forge differentiated advantages by digital transformation
- Continue to improve corporate governance efficiency



## **Overall results**

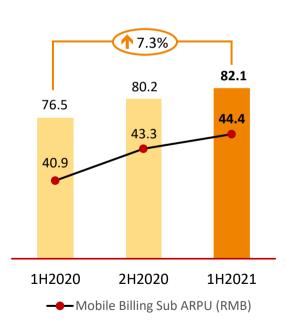
## **Operating & Financial performance**

### Quality & Profitable Growth in Scale of Mobile Services Led by 5G



#### Sustained mobile ARPU & revenue growth

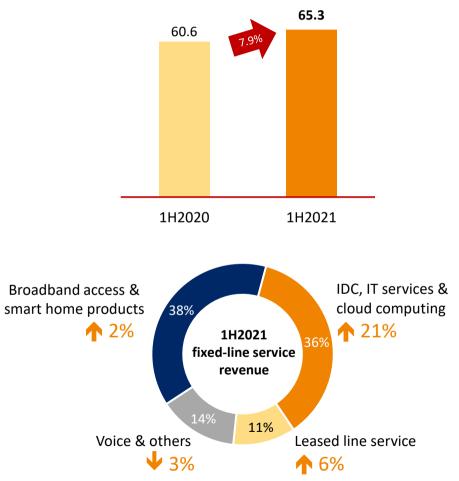
#### Mobile Service Revenue (RMB Bil)



- 1H2021: 42.5 mil net add of 5G package users, with an industry-leading penetration rate of 37%; mobile billing sub net add of 4.65 mil
- Launched innovative China Unicom APP, forming an ecology & drawing traffic through omni-channels & touchpoints, with monthly active users (MAU) >100 mil
- Leveraged privileges, content & financial tools to improve product value while strengthening pan-integration service
- Utilised Big Data analytics to precisely drive existing customers upgrade
- Accelerated scale development of broadband & mobile integration via the "three gigabit-network"
- Unlocking 5G customers' value through coordinated development of terminal, network & business, while enriching 5G innovative applications



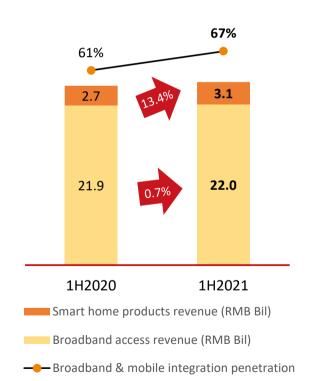
#### Fixed-line Service Revenue (RMB Bil)



- Grasped the boosted demand for digitisation, cyberisation & intelligent transformation of the economy & society
- Pan-integrated development of innovative and fundamental businesses for mutual promotion
- Actively leveraged proprietary resources & edges to empower government & enterprise customers and enhance Smart Family customer experience & value
  - "3 gigabit-network" resources (gigabit 5G, broadband, Wi-Fi 6)
  - "Cloud + networks + applications" integrated servicing capability
  - Differentiated service capabilities underpinned by intelligent network products (premium network, cloud networking, SD-WAN & etc.)
  - Nationwide efficiently-centralised innovative product offerings & localised operation service capabilities
  - Better customer insights brought by the long-term & wellestablished relationship with government & enterprise customers
  - Mixed-ownership reform advantages & synergies

### Integrated Development of Broadband & Mobile Led by Digitalisation





- Northern China: leveraged broadband to expand mobile & promoted mutual growth dynamics; achieved ultimate integration with high-quality services; drove paradigm shift with multi-SIM & full-home smarts under one household
- Southern China: expanded broadband to boost mobile & effective integration; focused on key areas & customers, with an appropriate increase of broadband investment to achieve focused coverage & spot transcendence
- Continued to strengthen core capabilities of smart community & Smart WoHome platforms, fully pushing forward the development of broadband & mobile integration via the "three gigabit-network"
  - Smart Community: Provided the community with property management platform + property information management services and the users with home solutions
  - Smart WoHome: Offered one-stop household information consumption services integrating terminal-network-service-data-cloud to satisfy the information consumption upgrade demand of household customers, while focusing on home network deployment & integrated video services
  - **Digital Village:** Promoted digital village service cloud platform, offering rural market development solutions of "platform + network + X", hence driving the development of mobile, broadband & innovative services

### **5G Industry Applications Well Positioned for Growth**



Actively push froward the integrated & innovative development of 5G+ industry vertical applications to capture the huge revenue growth potential



Innovated 5G application product system leveraging 5 major components, network (5G industry private network), MEC, industry platform, customised service & terminal, to support 15+ industry applications

Successfully commercialised a number of 5G lighthouse projects in key areas e.g. industrial Internet, smart medical, smart mining, smart cities, etc. 1H2021: Cumulative contract value of 5G industry applications **>RMB1.3 bil** 

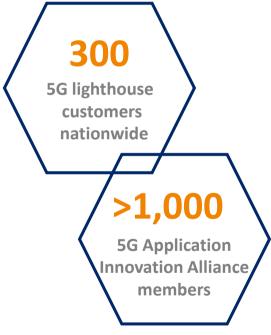


Industry-leading 5G private network products (hybrid private network, virtual private network, etc.) with edges in product capabilities, collaborative capabilities, delivery & operating services, etc.

Actively explored business models: charging based on different metrics, e.g. data usage, bandwidth, network slicing; private network & MEC platform charging based on resources & capabilities deployment; charging on the system integration & maintenance service for 5G network & applications



Strengthen "China Unicom 5G Application Innovation Alliance" & power up customers by open cooperation, ecology expansion, integrated innovation





Accelerated the building of proprietary innovation platform capabilities & key products to enhance competitiveness & business value

### IT Services

- Focusing on smart cities, digital government, industrial Internet, healthcare, etc. with proprietary research capabilities progressively improved & scale expanded rapidly
- Launched hundred-million-RMB level products like smart city foundation, government hotlines, integrated governance platforms, smart river & lake managers, and scenic integrated management platforms

#### 뿂 IoT

- Connections reached 270 mil, 
   <sup>1</sup> 29 mil; Yanfei Smart platform share reached 46% (
   <sup>1</sup> 12pp vs 12.2020)
- Equipment management platform: support 40+ products, 100+ object models & Open API
- Proprietary Yanfei 5G module priced at RMB499

### Big Data

- Industry-leading market share
- Added 6 new components including R&D data quality management platform & large-scale mission scheduling platform
- Launched more than 20 proprietary products such as public affairs Big Data platform, digital intelligence industry & finance platform, and smart travel-cultural tourism Big Data platform

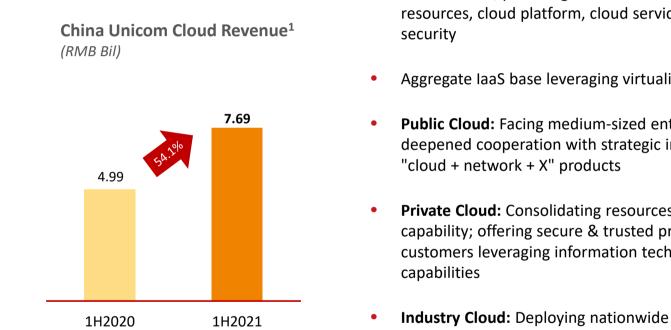
RMB10.0 Bil (↑ 33% yoy) Revenue

RMB3.0 Bil (↑ 38% yoy) Revenue



### **China Unicom Cloud Poised to Thrive**



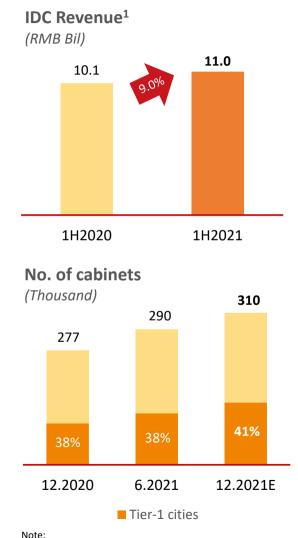


- China Unicom Cloud is the base for digital transformation & integrated innovation; focusing . on security & reliability, cloud-network integration, dedicated customisation & multi-cloud collaboration; providing customers with integrated innovative solutions including cloud resources, cloud platform, cloud service, cloud integration, cloud interconnection, cloud
- Aggregate IaaS base leveraging virtualization and cloud native dual stack
- Public Cloud: Facing medium-sized enterprises and small & micro enterprises with deepened cooperation with strategic investors, while exceling in the packaged marketing of
- Private Cloud: Consolidating resources to focus on building PaaS with fully integrated capability; offering secure & trusted private cloud services to government and enterprise customers leveraging information technology innovation cloud & multi-cloud management
- **Industry Cloud:** Deploying nationwide backbone cloud pools, aggregating innovation capabilities such as Big Data & AI, with the focus on the development of key industries such as government affairs, medical, education & industrial

Note:

1. China Unicom Cloud revenue included revenue of cloud resources, cloud platforms, cloud services, cloud integration, cloud integration, cloud security, etc., generated from integrated innovative solutions.





#### **Competitive advantages**

- Layout of "5+2+31+X" & 583 IDCs nationwide coverage; average utilisation rate >60% in 1H2021
- Focus investment on high-demand & high-value areas such as Beijing-٠ Tianjin-Hebei region, Yangtze River Delta & Greater Bay Area, while actively engaging in private capital cooperation. 2021E CAPEX: ≈RMB2.7 bil
- Adhere to green & sustainable development, IDC & cloud resource pool are ٠ deployed in a unified fashion, building a multi-cloud intelligent network to provide customers with superior experience, high-speed interconnection & all-round integrated solutions
- Leverage efficiently-centralised operation & the Group's extensive resources ٠ and capabilities to capture Internet sector customers, while optimising customer mix by actively expanding customers in financial & government sectors



### **Strive for enhancing both return & scale**



#### Raise vibrancy, promote growth & enhance efficiency

Smart living "New Ecology"	Digital intelligence "New Operation"	In-depth Reform "New Vitality"	
<ul> <li>China Unicom APP integrated communications, lifestyle, entertainment &amp; financial services, with MAU &gt;100 mil, as well as 100% coverage on fundamental services</li> </ul>	<ul> <li>Systemically promoted reform of six professional functions (marketing, government &amp; enterprise business, network, IT, technology innovation &amp; capital management)</li> </ul>	<ul> <li>Continued to deepen mixed-ownership reform; formed Union Digital Technology; CUSC, China Information Technology Design &amp; Consulting Institute Co. Ltd. and China Unicom Yunnan Branch further reformed</li> </ul>	
<ul> <li>"One Family" product enabled cross- region integrated services delivery</li> <li>Continued to strengthen Internet-</li> </ul>	<ul> <li>Whole network SDN-enabled, the only operator that supported automatic activation of multi-cloud networks</li> </ul>	<ul> <li>Effectively stimulated the vitality of frontline staff, as they were empowered with strengthened IT tools/ data</li> </ul>	
oriented operations & 212C marketing model innovation (Tencent King card, Alibaba Xiaobo card, Mi fans King card)	<ul> <li>Leading in Big Data monetisation, revenue market share ranking 1<sup>st</sup> in the industry</li> <li>Cloudified IT resources with new</li> </ul>	<ul> <li>Special zone for innovative talents; digital talents continued to contribute increasing mix</li> </ul>	
	systems 100% on cloud; 84% resource cloudified nationwide	<ul> <li>Aligned high growth with high incentives to unleash business vitality</li> </ul>	



(RMB Mil)	1H2020	1H2021	Change YoY
Operating Revenue	150,397	164,174	9.2%
Operating Expenses	(142,257)	(156,061)	9.7%
Operating Profit	8,140	8,113	-0.3%
Finance Costs	(859)	(645)	-24.9%
Interest Income	682	471	-30.9%
Share of Net Profit of Associates <sup>1</sup>	732	1,101	50.4%
Share of Net Profit of Joint Ventures <sup>2</sup>	257	720	180.2%
Other Income - Net	784	1,529	95.0%
Income Tax	(2,138)	(2,081)	-2.7%
Net Profit	7,569	9,167	21.1%

Note:

1. Share of net profit of associates mainly included share of net profit of China Tower Corporation Limited.

2. Share of net profit of joint ventures mainly included share of net profit of Merchants Union Consumer Finance.



(RMB Mil)	1H2019	1H2020	Change YoY	
Operating Expenses	(142,257)	(156,061)	9.7%	• Slightly higher than the operating revenue growth, mainly due to the higher initiatives in resources & talents for 5G & innovative businesses, driving sustainable future growth
Interconnection Charges	(5,094)	(5,247)	3.0%	
Depreciation & Amortisation	(41,312)	(41,376)	0.2%	<ul> <li>Mainly benefited from good control of CAPEX in recent years &amp; network "co-build co-share"</li> </ul>
Network, Operation & Support <sup>1</sup>	(22,220)	(25,107)	13.0%	<ul> <li>Mainly due to growth in charges for the use of equipment &amp; premises, and energy cost</li> </ul>
Employee Benefit	(27,503)	(30,991)	12.7%	<ul> <li>Mainly due to the ongoing effort in incentive mechanism reform to strengthen performance-based compensation &amp; drawing of innovative talents</li> </ul>
Costs of Telecommunications Products Sold	(11,603)	(14,808)	27.6%	In line with 29% increase in sales of telecommunications products
Selling & Marketing	(14,879)	(15,565)	4.6%	
G&A & Others	(19,646)	(22,967)	16.9%	See next slide for details

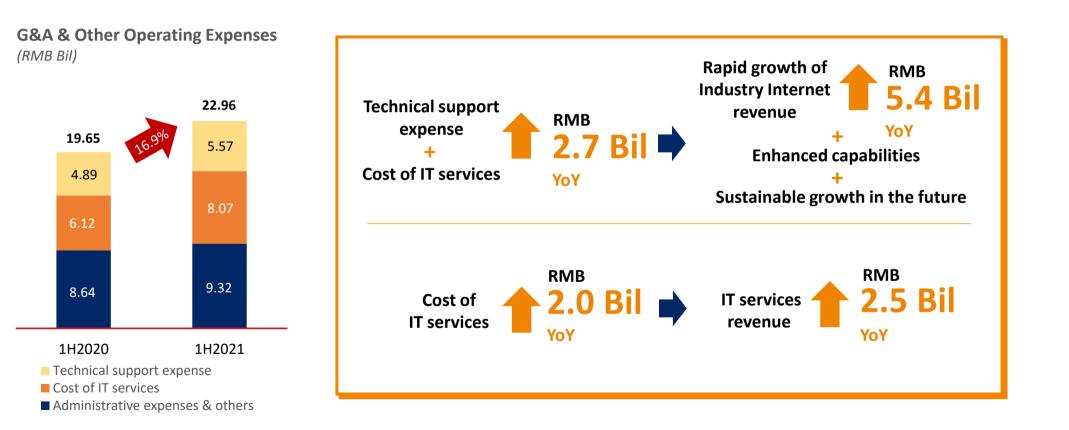
Note:

1. 1H2021 tower usage fee was RMB 5,429 mil, relatively flat yoy. Excluding the impact of the adoption of IFRS 16, 1H2021 tower usage fee was RMB 9.5 bil, up 2% yoy. The data is for illustration purpose only and investors are cautioned not to rely on the data.

Appropriately Stepped up Initiatives to Fuel Rapid Development of Innovative Businesses



Capitalise on the opportunities of digital transformation to enhance capabilities & promote scale development



#### 2021 Interim Results 28



Mounting pressure on network operation & support expenses as business & network scale continue to grow

### **Co-share & cooperation**

- Continued to expand network "cobuild, co-share & co-maintain" with China Telecom
- Further private capital cooperation in broadband deployment

#### Insourcing operation

- Insourced network maintenance, optimisation & repair, saving RMB490 mil
- Improved the core competence of network personnel

### Al application

- Promoted AI to push systematic smart operation
- Intelligent operation & maintenance robots were introduced nationwide & achieved a cumulative economic benefit of RMB150 mil

### Streamlining network

- Streamlined 2G base stations
- 3G base station of single carrier frequency >99%

#### Meticulous management

- A P&L for each tower & online energy consumption management for the entire network, enabling data comparison & auditing
- Better leveraged the favourable new infrastructure policies for 5G & IDC in different regions

### Energy conservation & emission reduction

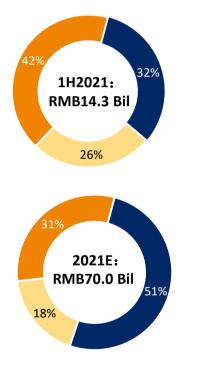
- Announced "China Unicom's 14<sup>th</sup> Five-Year Plan on Peak Carbon-emission & Carbon-neutrality"
- Actively promoted 4G/5G collaborative intelligent energy-saving management with proprietary R&D



### **Focus & Cooperation Fostered High Investment Efficiency**



#### **CAPEX Structure**



Mobile network

- Fixed-line broadband & data
- Infrastructure, transmission & others

#### Enhancing network edges to drive profitable & fast business growth

- Focus on the deployment of premium 5G, gigabit fibre network & innovative business investments, e.g. IDC, cloud computing, Big Data & IoT, etc.
- Focus on enhancing the coverage of commercial buildings and government & enterprise premium network
- Focus on key city clusters, such as Beijing-Tianjin-Hebei, Yangtze River Delta & Greater Bay Area, key cities & major venues
- Strengthen & extend "co-build, co-share & co-maintain" as well as private capital cooperation to accelerate growth
- Overall customer satisfaction & the rate of complaints improved remarkably; scored 79.4<sup>1</sup> on 5G customer satisfaction, ranking No.1 in the industry

Note:

1. Source: MIIT 5G Satisfaction Analysis 2021 Q1-Q2

### **Strong Cash Flow & Financial Strengths**

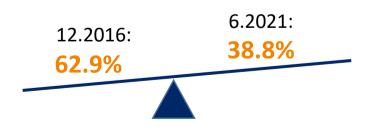


#### Accumulated strong free cash flow<sup>1</sup>

#### 2017-1H2021: **>RMB170 Bil**



#### Liabilities-to-Assets Ratio<sup>1</sup>



- Well positioned to support new opportunities such as 5G to create new values
- Boost long-term sustainable development
- > Accelerate increase in shareholder returns
- > Enhance ability to counter risks

Note 1. The data above excluded the impact of the adoption of IFRS 16



Holistically shaping differentiated new development edges to strive for leapfrog in high-quality development

To drive high-quality development with high goals

To promote high-quality services through innovation capability improvement

To boost high-efficiency collaboration by fostering integration and synergy

To strengthen high-tech engines to empower smart operation

To fuel high-vitality operation through persistence in deepening reform

To create a high-quality open ecology by adhering to win-win co-operation

Further improve marketoriented operation

Further enhance systemic innovation abilities

Further accelerate digital transformation





Institutional Investor 2021 ASIA EXECUTIVE TEAM

# Thank You !







(RMB Mil)	1H2020	1H2021	Change YoY
Mobile Service Revenue	76,516	82,092	7.3%
Voice	12,839	12,952	0.9%
Data Traffic	52,057	54,654	5.0%
Others	11,620	14,486	24.7%
Fixed-line Service Revenue	60,566	65,330	7.9%
Voice	4,410	4,561	3.4%
Broadband Access	21,874	22,025	0.7%
Others <sup>1</sup>	34,282	38,744	13.0%
Other Service Revenue	1,253	1,252	-0.1%
Sales of Telecommunications Products	12,062	15,500	28.5%
Total	150,397	164,174	9.2%

Note:

1. Mainly included revenue from IDC, IT services, cloud computing & leased line services & others.



(RMB Mil)	As at 2020.12.31	As at 2021.6.30
Current Assets	108,636	120,861
Non-current Assets	471,980	450,406
Total Assets	580,616	571,267
Current Liabilities	222,028	214,915
Non-current Liabilities	31,068	24,312
Total Liabilities	253,096	239,227
Total Equity	327,520	332,040



		Unit	1H2020	1H2021
	Billing Subscribers	Mil	309.528	310.456
	Billing Subscriber ARPU	RMB	40.9	44.4
Mobile Business	Total Handset Data Traffic	Bil MB	18,025.6	22,984.3
Niobile Business	Handset User DOU	GB	9.4	12.2
	Handset User MOU	Mins	166.4	180.7
	5G Package Subscribers	Mil	Nil	113.330
Fixed-line Broadband	Subscribers	Mil	85.878	90.123
Business	Access ARPU	RMB	43.0	41.8
Fixed-line Local Access	Subscribers	Mil	52.119	47.188
Business	ARPU	RMB	10.9	10.9



(RMB Bil)	1H2020	1H2021	Change YoY
IDC	10.07	10.98	9.0%
IT Services	7.55	10.00	32.5%
Internet of Things	2.17	3.00	38.4%
Cloud Computing	2.00	2.78	38.9%
Big Data	0.89	1.27	43.0%
Total	22.67	28.03	23.6%



Synergetic & powerful alliance to strengthen innovative development capability

	Tencent 腾讯	Baider百度	「 「 D. 京东 COM	Alibaba Group 阿里巴巴集団
Cloud computing	Wo Cloud T			Wo Cloud A, DingTalk products, co- build co-operate cloud resource pool
ΙοΤ	Mobile payment, travel service, Smart wearable	IoV, travel service	Digital supply chain, mobile payment	Mobile payment, travel service, Smart wearable
5G	5G e-sports joint laboratory, 5G slicing	5G+AI joint laboratory, autonomous driving	5G logistics, 5G slicing	5G HD video
Touchpoint cooperation	2I2C, Cloud connected network	2I2C, Cloud connected network	2I2C	2I2C, Cloud connected network
Payment & finance	Credit guarantee, mobile charge withholding		WO wallet	Credit installment, WO wallet
Content aggregation	IPTV, mobile video	IPTV, mobile video		IPTV, mobile video
Smart home	Integrated home application	Integrated home application		Integrated home application
Telecom services	Enhanced cooperation	Enhanced cooperation	Enhanced cooperation	Enhanced cooperation
Joint Venture	Yunjingwenlv (Smart culture & tourism)		Smart Steps (Big Data)	Yunlizhihui (Industry application solution)