

# BUSINESS OVERVIEW

2022 is the starting year for China Unicom to fully implement its new strategic plan. Adhering to the guidance of President Xi Jinping's Thought on Socialism with Chinese Characteristics in the new era, China Unicom resolutely implements the decision and deployment of the State Council. Sticking to its corporate positioning as the "national team in the operation and service of digital information infrastructure, key force in the establishment of Cyber Superpower, Digital China and Smart Society and frontline troop in the integration and innovation of digital technologies" and under the strategic guidance of "Strengthen and Solidify, Preserve and Innovate, Integrate and Open", the Company vigorously developed its five main responsibilities and main businesses, namely "Big Connectivity, Big Computing, Big Data, Big Application and Big Security", and steadily improved the effectiveness of the "1 + 9 + 3" strategic planning system, achieving a good start in the first year of the full implementation of its new strategy.



**CHEN ZHONGYUE**  
Executive Director  
and President

In terms of "Big Connectivity", China Unicom seized the development opportunities of "dual-gigabit" and "IoT connections exceeding human connections", and adhered to coordinated development in terms of quantity, quality, structure, and efficiency. Strategic positioning, policy design, and resource allocation were all working in the same directions to achieve value-based operation based on scale, compliant development based on quality, integrated development based on structure, and effective development based on efficiency. The Company fully promoted the value-based operation with terminal-network-business synergy around the integration development of all subscribers, and focused on increasing the scale and value of connectivity. By December 2022, the subscriber scale reached a new record, with a cumulative total of 860 million "Big Connectivity" subscribers and broadband subscribers crossing the 100 million historical mark. 5G package subscribers reached a cumulative total of 210 million. The Company launched the "Gewu" device management platform, delving into the two major fields of smart cities and industrial internet, providing customers with convenient and professional device management services. China Unicom was the first operator in the industry with IoT connections exceeding human connections, with the cumulative number of IoT terminal connections reaching 386 million.

In terms of "Big Computing", Unicom Cloud has been fully upgraded to version 7.0, with breakthroughs in core technologies. The core performance indicators of computing, storage and network were enhanced. The Company is the only operator that received excellent certification for its cloud-native container platform in financial scenarios. It successfully launched a self-developed operating system, CULinux, and a self-developed database. By deepening its "5 + 4 + 31 + X" cloud resource allocation and promoting further penetration of provincial nodes, the Company is gradually realising its deployment of computing power with one pool for one city. The new Unicom Cloud product system, which consists of industry cloud version, private cloud version and information technology innovation cloud version, comprehensively meets customers' needs for cloudification in all scenarios. The Company also supported the construction of digital government and smart city, provided technical support for pandemic prevention, and actively participated in the digital transformation of central state-owned enterprises.

In terms of "Big Data", the Company continued to upgrade its capabilities in integrated innovation of data, artificial intelligence, blockchain, consolidate its data governance, data security and data visualisation service capabilities, and improve its product system. The Company released the "Zizhi" Government Affairs Big Data Platform. 11 capabilities were included in the Data Governance Industry Map of the China Academy of Information and Communications Technology. In the fields of digital government, digital finance, smart culture and tourism, data security, etc., the Company has realised large-scale replication of provincial and municipal benchmark projects. China Unicom's Big Data business maintained rapid development, continuously led the industry in market share, and had the largest blockchain patent reserve among central state-owned enterprises.

## BUSINESS OVERVIEW

In terms of “Big Applications”, the Company was committed to creating more diverse and user-friendly innovative products, deepening supply-side structural reform of products for individuals and households. China Unicom launched a 5G New Calling product series and constructed the “Unicom Smart Home” product system to bring new quality upgrade of experiences to its customers. China Unicom deeply implemented “one Unicom, integrated capability aggregation, and integrated operation service”. It focused on vertical industries and honed its specialised and innovative abilities. The Company has independently developed more than 200 products in 14 fields including digital government, smart city, industrial Internet and medical and healthcare, with new contract value of more than RMB10 billion for the year, more than the previous 3 years combined. Based on the 5GC 2B three-dimensional network architecture featuring “One cloud with extensive network coverage”, the Company continued its innovation

of 5G private network PLUS, and won the “Enterprise 5G Leadership Award” at the 19th 5G World Summit hosted by Informa Tech. Furthermore, the Company released the 5G Private Network Product System 3.0 and created 50 innovative application products to serve more than 3,800 industry private network customers, with more than 16,000 “commodity flat” projects of large-scale 5G application. Taking the construction of fully 5G-connected factories for industrial enterprises in key industries, including steel, mining and equipment manufacturing as a means, the Company penetrated into the construction of application in 20 scenarios across the industry, creating more than 1,600 fully 5G-connected factory projects. It has preliminarily achieved scale application in auxiliary production processes such as on-site auxiliary assembly and intelligent logistics in the factory, etc. and is penetrating into core application scenarios such as remote equipment control and flexible production and manufacturing.





In terms of “Big Security”, the Company leveraged the advantages of its basic network resources and four-level operation system to create a “cloud, network, data and service” integrated security product and operation service system. The Company launched “Mogong” security operation service platform and continuously upgraded Unicom Cloud Shield Anti-DDoS Pioneer, Large Network Situational Awareness and other advantageous products. The Company jointly created an industrial ecology and launched a security cloud market, thereby continuously meeting the diversified and scenario-based security needs of the government and large enterprises. China Unicom has provided services to more than 200 leading customers. In the provision of network security support services for major events such as the Beijing Winter Olympics, the National People’s Congress, and the 20th National Congress of the Communist Party of China, the Company achieved zero accident, zero mistake and zero complaint.

In terms of marketing strategies, the Company pursued coordinated development of quantity, quality, structure and efficiency, with an aim to realise scale-based value management, compliant development based on quality, integrated

development based on structure, and effective development based on efficiency. Firstly, the Company accelerated the development of “dual gigabit” in terms of scale, application and integration. It promoted 5G digital smart living to drive mobile business’s new advancement in scale and value, and promoted 1000M smart home to drive broadband business to achieve new heights in terms of scale and value. It revamped brand operations, enhanced the scale and value of connectivity, so as to secure a leading position in customer perception. Secondly, the Company accelerated the innovation of products and modes of computing-network integration, focused on the new supply of large-scale integration products for key businesses and markets, and strengthened the operation of Unicom APP. It drove the new upgrade of 2I2C products and marketing models supported by three gigabit, deepened the transformation of “platform + cloud network + X” model, and accelerated the iteration of platform functions. It accelerated the construction of key market products, touchpoint systems, marketing organizations and responsibility systems, leading and promoting innovative transformation of marketing models in segmented markets. Thirdly, the Company accelerated total integration based on fixed-line and mobile integration as well as

## BUSINESS OVERVIEW

high-quality structural upgrade of subscribers, realising the deep integration of all factors including fixed-line and mobile, cloud network, terminal, application, finance and account. With the integration and mutual promotion of all professions and integrated development of online and offline touchpoints, the Company achieved new value through the in-depth operation of all customers.

In terms of marketing channels, the Company further constructed the OMO digital marketing service system and strived to promote the transformation to the all-factor integrated operation system for targeted market segments. Firstly, a marketing service organisation for segmented markets has been initially established: focusing on the targeted market segments, the Company restructured its marketing service organisational structure, upgrading the channel

management-oriented sales model to a new model of BU-based coordination involving multiple professions, so as to keep close to customers, integrate into the scenarios and drive the “platform + cloud network + X” marketing transformation. Secondly, physical channel deployment has been optimized by the dual revitalisation of channels and terminals: the Company actively implemented the plan for dual revitalisation of channels and terminals, focused on the construction of channel and terminal integration capabilities, enhanced the retail capabilities of terminal channels, and strengthened the cooperation with terminal manufacturers and outlets, so as to enable wider access of physical channels, keep close to customers and optimise channel deployment and structure. Thirdly, the Company made outstanding achievements in online and offline integration of five capabilities: it unified production tools to enable “one-screen handling”, unified order





scheduling to efficiently support front-line production, unified production delivery to significantly improve production efficiency, unified traffic aggregation to maximise the value of big data, and unified resource visualisation to realise the digital display of “3+2” grids.

In terms of network capabilities, with a focus on its five main responsibilities and main businesses, while pursuing moderate advancement, promoting use through construction and combining construction with use, the Company unwaveringly increased its investment to facilitate the construction of digital information infrastructure and accelerate the building of four premium networks of 5G, broadband, government and enterprise, and computing power. The Company made great efforts to enhance its core competitiveness, sustainable development capabilities and value creation capabilities, thereby promoting network quality to a new level and further laying a solid network foundation for the Company’s high-quality development.

As at the end of 2022, the Company had 1 million mid-band 5G base stations, 170,000 newly built 900M low-band base stations, and 2,276,000 4G base stations in operation, including 1,696,000 self-built 4G base stations and sharing 580,000 of China Telecom’s 4G base stations. 5/4G coverage in administrative villages reached 96%. As for the fixed-line network, the Company continued to expand network coverage in new regions and stepped up the network upgrade in PON + LAN areas. The total number of broadband access ports reached 250 million, of which FTTH ports accounted for 93.2%. The Company continued to optimise its international network deployment. As at the end of 2022, the international submarine cable capacity, international Internet outbound capacity and inbound bandwidth reached 79.5T, 5.96T and 4.83T, respectively. The Company’s international roaming services covered 626 operators in 260 countries and regions.