

BUSINESS OVERVIEW

In 2021, China Unicom upgraded its strategy to “Strengthen and solidify, preserve and innovate, integrate and open”. The Company actively served national strategies and integrated into the new development pattern, with firm progress towards high-quality development. It leveraged its IT centralisation advantages to advance digital transformation and service model innovation in full force. The Company strengthened integrated operation led by 5G services to enhance user acquisition capability.



CHEN ZHONGYUE
Executive Director
and President

MOBILE SERVICE

With the objectives of value first, experience first, and breakthrough in scale, China Unicom made every effort to implement 5G-led integration and cohort-based development, leading quality and scale development with 5G. The Company promoted the development of new 5G users and made breakthroughs in 5G scenarios in key markets and segmented groups. It promoted 5G upgrade of existing users through implementing refined customer segmentation and offering fit and suitable products based on precise Big Data analytics and deep insight from various scenarios. It innovated on multi-metric 5G products to ensure the competitiveness of contracts and products and full 5G package coverage of all customers, strengthening the contract-based and integrated development of 5G users. It improved pricing and contract flexibility to strengthen the differentiation of 5G core applications. It also promoted the innovative development of 5G terminals and pan-terminal industries so as to promote 5G terminal-network-business synergy.

The Company deepened the comprehensive digital transformation and improved its digital marketing service capabilities. With the transformation into the “platform + network + X” product model, it strengthened the overall management of all products as well as its integrated development and operation capabilities. It successfully launched platforms such as China Unicom Digital Village, China Unicom Smart Home and China Unicom Cloud Rhino for the 2C, 2H and 2B2C markets.

The Company accelerated the enhancement of terminal digital operation and supply chain ecosystem. It opened up the terminal operation system, ensured the stability of terminal supply and upgraded its capability in digital supply chain. Consumer financing instruments were widely employed, with more than 100,000 stores providing such financing services.

As of the end of 2021, the Company had approximately 317.12 million mobile billing subscribers, representing a cumulative net increase of 11.30 million subscribers for the year. The number of 5G package subscribers reached 154.93 million, representing a cumulative net increase of 84.10 million subscribers for the year.

FIXED-LINE SERVICE

In 2021, China Unicom adhered to the comprehensive coordination of “terminal + network + business + operation + service + information” in the development of fixed-line service. Led by “Three-Gigabit”, the Company established a market-driven mechanism integrating terminal, network, business and service, thereby comprehensively improving its broadband access and resource management capabilities and achieving the coordinated development of broadband sales and network deployment. The Company accelerated the construction of gigabit networks and strengthened broadband capabilities in Southern China. Focusing on high-value regions, it pushed forward the deployment and upgrade of gigabit communities. It continued to carry out broadband speed measurement and upgrade activities and revitalise resources, comprehensively improving the efficiency of network resources. Leveraging on branding advantage associated with the Winter Olympics,

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the Company strengthened the development of gigabit broadband, laying a foundation for achieving total leadership in Northern China and targeted overtaking in Southern China. With the optimisation of the entire broadband process chain, the Company built a digital operation system of “two networks and one middle platform” for home users, thereby optimising resource allocation and promoting highly-efficient governance. The Company incorporated fixed-line local access into family packages to revitalise fixed-line local access resources, and launched innovative applications such as fixed-line video ringtones and business caller ID. In 2021, fixed-line broadband access revenue reached RMB44.8 billion, representing a year-on-year growth of 5.2%. During the year, the number of broadband subscribers increased by 8.95 million to 95.05 million and the broadband access ARPU was RMB41.3. FTTH subscribers’ penetration reached 88%.

INDUSTRY INTERNET

In cloud computing, as the foundation of digital transformation and integrated innovation, Unicom Cloud provided customers with integrated and innovative solutions including cloud resources, cloud platforms, cloud services, cloud integration, cloud interconnection, cloud security, etc. Computing efficiency was enhanced through the unified technical architecture and the unified PaaS platform. The Company made comprehensive deployment in Big Computing with totally revamped Unicom Cloud featuring upgraded technology, products, services and ecosystem. Open architecture, dual-engine base and multi-scenario deployment were all supported. PaaS products such as Big Data, IoT, AI, blockchain and security were deeply integrated with IaaS products. Basic product offerings continued to be enriched while product performance was significantly enhanced. The Company launched seven scenario-based cloud products to drive the digital transformation of thousands of industries. In 2021, the revenue of Unicom Cloud amounted to RMB16.3 billion.

In Big Data, the Company upgraded its capabilities in data application services, data technology services, data security services, AI and blockchain services. Focusing on industries such as government affairs, finance, cultural and tourism and transportation, etc., it optimised product offerings in government affairs Big Data, financial Big Data, cultural and tourism Big Data, industrial AI products and “industry + blockchain”. The Company also continuously supported pandemic prevention and control and resumption of work and production. Eight blockchain pilot projects were successfully selected as national blockchain innovation application pilot projects. In 2021, Big Data revenue reached RMB2.6 billion, representing a year-on-year growth of 48.7% with a market share ranking first among telecom operators for the third consecutive year.

In terms of the Internet of Things (“IoT”), the Company accelerated the promotion of a new pattern of IoT connectivity led by 5G. The number of connections reached over 300 million. The Company accelerated platform-based independent innovation. The Yanfei Zhilian connection management platform (CMP) carried over 160 million connections, becoming the main carrying platform. The Yanfei Gewu device management platform (DMP) has connected near a million of devices, over 200 object models and over 180 Open APIs since its commercial launch in April 2021, making it the central platform underlying China Unicom’s transition to integrated IoT “connectivity + non-connectivity” applications. The Company released the first low-cost lightweight Yanfei 5G module in China and cooperated with UNISOC to complete the world’s first R16-based eMBB + uRLLC + IIoT end-to-end verification, actively promoting the innovative development of the 5G IoT industry. In 2021, China Unicom’s IoT revenue reached RMB6.0 billion, representing a year-on-year growth of 43%.

In IT services, the Company strengthened internal innovation and achieved platform-based product capabilities, standardisation of self-developed products and R&D centralisation. It promoted the scale development of 5G applications to enhance gross margins. In Big Application, it developed over 200 proprietary application products, including signature products such as smart city base, central management console, industrial Internet platform, government affair Big Data platform, smart river chief, etc. in the fields of smart city, industrial Internet, digital government, environment, etc. The Company implemented over 8,000 industry application projects with proprietary capabilities, driving RMB6.0 billion in industry application revenue. It has formed differentiated competitive advantages comprising proprietary capabilities, self-developed products, proprietary integration and fulfilment and continuous operating services, fully empowering customers’ digital transformation.

NETWORK CAPABILITIES

In 2021, the Company conscientiously implemented the strategic deployment of “Cyber Superpower” and “New Infrastructure”. In order to build a differentiated network competitive advantage through digital transformation, the Company deepened network co-build co-share in the industry, strengthened network-business collaboration and service support, and continued to improve network competitiveness. It took multiple measures to effectively alleviate the investment cost pressure brought by the large-scale 5G network construction and rapid business development. It deepened the digital, network-based and intelligent reform of the operation system and pushed forward the network digital transformation.

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As at the end of 2021, the number of 5G base stations used reached 690,000. The number of 4G base stations reached 1.56 million with 4G population coverage reaching 95% and administrative village coverage reaching 91%. In the fixed-line network, the Company continued to expand network coverage in new regions and stepped up the network upgrade in areas with PON+LAN. The total number of broadband access ports reached 239 million, of which FTTH ports accounted for 91%. The Company continued to optimise its international network deployment. As at the end of 2021, the international submarine cable capacity, international Internet outbound capacity and inbound bandwidth reached 57.8T, 5.31T and 3.93T, respectively. The Company's international roaming services covered 627 operators in 260 countries and regions.

MARKETING

Branding

In 2021, focusing on digital transformation, the Company's brand promotion was conducted around intelligence, guided by 5G and endorsed by the Winter Olympics, with a view to continuously advocating the creation of smart experience and building a smart brand with warmth. The promotion emphasised on key business advantages such as 5G, three-gigabit offerings, innovative applications, industry applications, gigabit network and high-quality services, etc. and was targeted towards on sub-markets and key industries such as households, rural villages, youth and government and corporate customers, etc. The Company's promotion took advantage of trending events and key festivals, while closely integrating the differentiated advantages of the Winter Olympics with branding and 5G to strengthen

the Company's identity as a Winter Olympics partner and demonstrate the brand's strength. In terms of publicity, the Company continuously innovated on the means and forms of promotion, created a three-dimensional communication matrix to effectively convey a good corporate story. It continuously optimised its publicity content and diversified communication means, leading to greater user attention and improved brand value. The overall brand building was on a good momentum with improvement in both reputation and awareness.

Marketing strategies

In line with the trend of rural digital consumption upgrade, the Company implemented "Rural Revitalisation" strategy and continued to leverage 5G to upgrade rural market products and services such as Smart Home, Safe Villages and Digital Villages. In the youth market, targeting multimedia entertainment segments, the Company carried out cooperation with leading touchpoints to achieve scale development, grasped the back-to-school opportunities to carry out frontend-loaded marketing such as college broadband, college informatisation, 5G private network and K12 smart campus, etc.

The Company implemented programmes to "promote handset upgrade" and "promote network access", driving the coordinated development of 5G terminal, network, business and service. With

schemes like “terminal-business alignment” and “network-business alignment”, the Company continued to strengthen the alignment of broadband terminals, networks and businesses and improve the capability of gigabit network and user perception.

The Company consolidated its fundamental capabilities in existing business operation through integration, value enhancement, loss control and downgrade control, stabilising the scales of both existing revenue and subscribers and driving steady growth of service revenue.

Marketing channels

In 2021, the Company built a “platform-based, digital, smart and ecology-oriented” customer-centric marketing model based on new OMO channels. First, the Company accelerated the comprehensive transformation of offline channels towards targeted markets, kept close to targeted markets, optimised deployment, and comprehensively improved the coverage across

communities and towns. It strengthened the construction of the “1 + N + n” business alliance and actively built a new ecosystem of offline channels. Second, it accelerated the improvement of centralised online operation capabilities to tap into potential traffic, sped up the upgrade of 2I2C products and marketing models, stabilised cooperation with leading companies, and actively expanded local innovative lead generation. It accelerated the differentiation of China Unicom APP, expanded user connections, and enhanced user activity, building an ecological cooperation platform. Third, the Company accelerated the online and offline integration, unified the public platform and business operation platform and connected the whole process and production scheduling. It deepened the construction of digital business outlets to expand mutual lead generation and improve channel capabilities.

