OPTIMISING SERVICES AND CREATING A BETTER LIFE TOGETHER
Insisting on the “customer-oriented” principle, China Telecom facilitated the development of digital life, empowered the digital transformation of the economy and society, pressed on the effective connection between consolidating and expanding the achievements of poverty alleviation and rural revitalisation, served customers with heart and enthusiastically participated in social welfare activities, so as to create a better life together.
ENJOYING DIGITAL LIFE

Riding on the advantages of cloud-network integration capabilities, China Telecom upgraded digital entertainment business to provide whole-home intelligent customised service, and to serve the community intelligent management with applications such as intelligent access control and property management platform, and promoted the construction of digital villages based on applications such as rural governance.

Digital entertainment

Relying on the advantages of 5G technology, the Company aggregated high-quality content to create applications such as e-Surfing Ultra HD, e-Surfing Cloud Games and e-Surfing Cloud VR, enabling 4K/8K Ultra HD, 360° live streaming, VR video, VR games and other cross-terminal experience scenarios, and bringing users new digital entertainment audio-visual experience.

**e-Surfing Ultra HD**

- Relying on China Telecom’s 5G technology advantage, aggregating high-quality content to create an integrated video platform that integrates 4K, ultra-high-definition screen projection and 360° live streaming scenarios, the “new 5G view” brings a brand new audio-visual experience to users.

**e-Surfing Cloud Games**

- Relying on China Telecom’s 5G network with large bandwidth, low latency, edge computing and other cloud-network integration technology advantages, the well-established service platform provides high-quality content and cross-terminal experience for 5G users, allowing gamers to experience the fun of gaming quickly and conveniently through an instant click-to-play approach.

**e-Surfing Cloud VR**

- Relying on China Telecom’s 5G network and VR technology integration capabilities, the super entertainment artifact created for users in the 5G era provides VR video, VR games and other entertainment services, allowing users to better enjoy the immersive VR entertainment experience through the powerful 5G network.

Guangxi branch’s “5G Cloud Tour in Guangxi” slow live streaming attracted 8 million viewers

In March 2021, coinciding with the ethnic festival “3 March of Zhuang” in Guangxi, Guangxi branch launched a slow live streaming service of scenic spots based on new media forms such as “cloud live streaming, short video and VR live streaming”.

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**Digital family**

**Whole-home WiFi**
- Committed to providing users with high-speed, full-coverage and a scene-based home WiFi networking solutions, it solves the users’ pain points in using WiFi such as slow speed, poor coverage, difficult networking and difficulty in connecting smart devices.

**e-Surfing HD**
- Based on China Telecom’s ultra-fast broadband network, with set-top boxes and TV sets as receiving terminals, it provides users with audio-visual products including video, education, games, reading, informatisation services and other content services.

**e-Surfing Webcam**
- Based on China Telecom’s efficiently-centralised video operation platform and e-Surfing cloud storage capability, it provides users with home security monitoring products that allow them to view live and cloud-stored historical footage of their homes anytime and anywhere, enabling them to look after the elderly and children in a remote way.

**Whole-home intelligence**
- Based on China Telecom’s cloud-network integration advantages, it integrates various types of pan-intelligent terminals for household, integrates the product resources of ecological partners, realises the interconnection of digital home and smart community, digital village and other platforms, and provides customers with whole-home integrated informatisation solutions.

**China Telecom’s whole-home intelligence “lighting up” digital life**

With the help of WiFi, Internet of Things, 4G, 5G and other terminals and communications methods, whole-home intelligence realises seamless coverage of users’ networks, remote network control by smart devices, security monitoring, home entertainment and other diversified and intelligent application scenes.
Smart community

Through intelligent network connection and device management, the Company realised real-time automatic communications between residents, home smart devices and public facilities in the community, enhancing the scientific, intelligent and refined level of community management and services.

Guiyang branch actively built a smart community platform

The intelligent community platform built by Guiyang branch is based on intelligent front-end devices and Big Data, by which the intelligent analysis effectively curbs uncivilised behaviour of throwing objects from height and enhances the sense of safety and satisfaction of residents in the community.

Digital village

Based on safe village, the Company integrated Village Sharing app, Internet of Things and other capabilities to build a “digital village platform” to enable the digitalisation of rural governance and smart life.

Zhejiang branch’s “Digital Village Cloud Platform” lighting up the dream of “beautiful villages”

Based on the video capabilities of e-Surfing Webcam, and leveraging the advantages of 5G, AI, Internet of Things, video and cloud-network integration, Zhejiang branch established a “Digital Village Cloud Platform” to build villages featured with strong organisation, thriving economy and rural beauty.
EMPOWERING DIGITAL TRANSFORMATION

China Telecom strengthened the innovative application of digital information technology, launched a series of cloud-network integration digital capability platforms, opened more than 2,000 “fundamental capabilities” such as communications, cloud and security to the industry, introduced 50 AI core capability algorithms and over 300 scenario algorithms, and joined forces in the industry to build a digital capability ecology to inject intelligence into and empower the transformation and upgrade of the economy and society.

In 2021, the Company took the lead in establishing the e-Surfing IoT Industry Alliance and the 5G Industry Innovation Alliance, jointly explored 5G empowerment for thousands of industries, and formed 5G application solutions covering more than 200 scenarios in 20 industries. The 5G customised network commercial projects covered all 15 key industries under the 5G application “Rising the Sail” Action Plan, with more than 1,200 projects implemented throughout the year.

China Telecom’s 5G empowerment for thousands of industries

- **5G+smart cities**: 21
- **5G+smart manufacturing**: 71
- **5G+smart mines**: 14
- **5G+smart agriculture**: 3
- **5G+smart healthcare**: 10
- **5G+smart cultural tourism**: 7
- **5G+smart power**: 13
- **5G+smart ports**: 11
- **5G+smart steel**: 8
- **5G+smart chemicals**: 13
- **5G+smart education**: 2
- **5G+smart finance**: 2
- ......
5G+ smart cities

The Company utilises the Internet of Things, cloud computing, Big Data, blockchain, artificial intelligence, 5G and other new information technology tools, and promotes the deep integration of informatisation, industrialisation and urbanisation to build smart cities.

China Telecom building “Smart Shenzhen”

Leveraging “5G+AIoT digital twin capabilities”, Shenzhen branch, CT Wing together with the Shenzhen Municipal Government jointly built “Smart Shenzhen”, which can coordinate the construction of a city-level smart city and digital government, and help Shenzhen become a benchmark for new digital twin city.

5G+ smart manufacturing

The Company is committed to promoting the digital transformation of industrial enterprises, relying on “5G + cloud-network integration + AI” to empower the manufacturing industry, continuously promote the level of industrial digitalisation, networking and intelligentisation, and actively build an industrial powerhouse.

Yunnan branch helped Yuxi Xinxing Steel to build a digital twin transparent factory

Yunnan branch used 5G, Big Data, Internet of Things and other technologies to build a digital twin transparent factory. Based on the twin body, the information not flowed between IT, CT and OT domains can now be exchanged in the twin space, allowing data to be circulated in the entire factory area, and successfully realising the remote visibility, control and management of the production in the factory.
5G+ smart mines

The Company leverages its technological advantages to build digital and informatised mines, realise active perception, automatic analysis and rapid processing of mine production, occupational health and safety, technical support and logistical assurance, to build smart mines.

Shaanxi branch built 5G smart mines for Shendong Coal Group

Shaanxi branch made full use of new technologies such as the Internet of Things, Big Data, cloud computing, artificial intelligence and digital twins to integrate the various systems of smart coal mines, and to achieve intelligent access of massive coal mine equipment, circulation and integration of system data, and unification of the network system, promoting man-free and less-manpower production in the coal mines, and improving the overall safety level of the mines.

5G+ smart agriculture

The Company makes use of new information technologies such as cloud computing, Big Data and the Internet of Things to provide real-time monitoring data, transaction data, planting guidance, agricultural product management and intelligent equipment management to promote the modernisation of agriculture and rural villages.

5G+MEC of Shanghai branch helped fully intelligent digital rice growing

Shanghai branch, Shanghai Tramy Group and Wuhan University jointly set up an industry-academia-research team to build a 5G+MEC fully intelligent digital rice growing showcase area for real-time monitoring of crop growth, data analysis and decision-making, which enabled water-saving by 10%-35%, usage reduction of nitrogen fertiliser by 10%-30%, and yield increase by 5%-20%.
5G+ smart healthcare

The Company takes advantage of cloud-network integration to drive the intelligent transformation of traditional health management and elderly care industries through the integration and innovation of 5G, cloud computing, Big Data and health and medical industries.

Sichuan branch built the province’s first 5G + medical robot + VR visitation system

On 8 February 2021, the first 5G+ medical robot + VR visitation system in Sichuan Province was officially launched in the SICU ward of West China Hospital of Sichuan University, enabling remote visitation.

5G+ smart cultural tourism

Relying on the unique cultural tourism resources, the Company uses a variety of advanced technologies such as cloud computing, Internet of Things and mobile communications to launch smart cultural tourism solutions to enhance the quality of tourism services.

Wuxi branch launched “VR Cherry Blossom Viewing”

In March 2021, Wuxi branch launched the “5G Cherry Blossom Viewing” activity through VR technology, allowing citizens and tourists to experience “VR Cherry Blossom Viewing” anytime and anywhere.
SUPPORTING RURAL REVITALISATION

China Telecom is committed to the effective connection between consolidating and expanding the achievements of poverty alleviation and rural revitalisation, so as to achieve stable and continuous resource investment, assistance efforts and work initiatives. In 2021, the Company won four national honors such as the National Poverty Alleviation Summary and Commendation Outstanding Individuals and Advanced Groups.

Stable and continuous support efforts

- The management of the Company went to “4 + 2” poverty alleviation counties of China Telecommunications Corporation for investigation and research, introduced the free assistance funds of RMB17.26 million, provided training for 16,100 cadres and talents, and carried out poverty alleviation through consumption, helping the “4 + 2” poverty alleviation counties and more than 1,400 poverty alleviation sites of enterprises at all levels to consolidate and expand the achievements of poverty alleviation, and achieving effective connection with rural revitalisation. It has achieved remarkable results.

Vigorously providing special assistance

- The Company is dedicated to the rice public welfare project and education assistance project for Kaschin-Beck disease patients in Banbar County. The Company organises its staff to donate 200 tons of rice every year, directly benefiting 24,000 people. Nearly all of young people under the age of 15 in Banbar County no longer suffer from Kaschin-Beck disease.
- The Company renewed the Education Assistance and Donation Agreement for a term of three years with the “4 + 2” poverty alleviation counties, and would organise its staff to donate RMB2.0 million of education assistance funds to the “4 + 2” poverty alleviation counties every year to support the students and teachers.
- The Company established 10 group-level digital rural showcase sites in the “4 + 2” poverty alleviation counties, which created a telecommunications model for digital empowerment to facilitate “five revitalisations” in rural areas.
- The Company continued to promote the task of universal service construction, and completed the construction of the sixth batch of approximately 4,900 4G base stations, providing solid network support for rural revitalisation.

Making efforts in effective connection between consolidating the achievements of poverty alleviation and rural revitalisation

In October 2021, Mr. Ke Ruiwen, the Chairman of China Telecom, went to Yanyuan in Sichuan to investigate the rural revitalisation work. In September 2021, Mr. Li Zhengmao, the President of China Telecom, went to Banbar in Tibet to visit and express greetings to the people who got rid of poverty.
Network revitalisation

Improving network quality and supporting rural revitalisation

China Telecom took the lead in network poverty alleviation. It opened up the “information expressway” for poverty alleviation in poverty-stricken areas, provided a solid network foundation for better implementation of poverty alleviation by industries, employment and consumption.

Consumption revitalisation

“Wings” up through consumption assistance of TYFO.COM

Chongqing branch and BestPay have jointly developed and established the “Rural Pavilion”, an e-commerce platform to help the sales of rural agricultural products, which effectively promoted the establishment of a sound three-party cooperation ecological cycle among the government, telco and enterprises.

Cultural revitalisation

Anhui branch revitalised rural education

Anhui branch actively integrated IPTV ecological chain resources, and joined forces with various partners such as Best Tone and Doushen Education to build a standardised basketball court and a plastic runway for the Yanghe Village Banqiao Primary School.
PROVIDING HEARTFELT SERVICES TO CUSTOMERS

China Telecom adheres to the philosophy of “Customer First, Service Foremost” and strengthens service awareness to protect customers’ rights in accordance with the law, enhances customer experience, and comprehensively fosters a brand image of “China Telecom is trustworthy”.

Protecting the rights of customers in accordance with laws

The Company conscientiously implements the national laws and regulations on protecting customers’ rights and interests and data security, and solidly carries out the comprehensive governance of communications fraud, harassing phone calls and spam short messages.

Strictly conform to the Law of the People’s Republic of China on Protection of Consumer Rights and Interests and the Advertising Law of the People’s Republic of China

- Dedicate to provide products and services in compliance with laws and regulations, perform strict compliance checks on advertisement campaigns and continuously standardise business tariff management.
- Revise the Administrative Measures for China Telecom on Brand Publicity to further strengthen the standardised management of advertising and publicity, prevent advertising and publicity management risks, and clearly stipulate that false publicity, exaggerated publicity, and comparative publicity are strictly prohibited, thus maintaining a good reputation in the industry.

Actively conform to the Data Security Law and the Personal Information Protection Law

- Implement internal systems such as the Administrative Measures of China Telecom on Data Security and the Administrative Measures of China Telecom on Personal Information of Users.
- Enhance the data security management system, further enhance data security management rules, promote data classification and grading, important data identification, and the implementation of standards for data security compliance assessment; conduct data security compliance assessments for key businesses and core systems to identify and remedy risks in a timely manner.
- Deepen the protection of personal information of users based on different scenarios, promote the establishment of a risk monitoring platform for protection of personal information of users, and enhance the ability to independently discover risks.

Solidly carry out comprehensive control

- Strengthen the prevention and control of phone numbers involved in crimes and frauds.
- Continue further with the control of harassing calls and spam text messages, and extensively promote the harassing call interception service that can be set up by individual users. The reported number of harassing calls and spam text messages decreased by 31.7% and 19.7% respectively compared with 2020, maintaining a low level in the industry.
Ningxia branch fully cooperated with the public security department in anti-GOIP programs

On 26 September 2021, the Ningxia branch cooperated with the Anti-Fraud Centre of Yinchuan Public Security Bureau, which successfully destroyed a group of criminal gangs that provided overseas online fraudsters with tools to commit crimes, and arrested 5 suspects involved in the case, involving an amount of approximately RMB830,000.

Shandong branch carried out anti-fraud live broadcast activities

Shandong branch and the Public Security Department of Shandong Province jointly carried out the special live broadcast activity of “joint action between police and enterprises for fraud alert by the whole public”. The total number of viewers of the live broadcast reached 190,000, with 12,000 clicks of “like” and reviews and nearly 50,000 online sharing.

China Telecom launched “e-Surfing Anti-harassment” service

China Telecom’s “e-Surfing Anti-harassment” adopts Big Data and cloud-based intelligent interception protection technology to provide users with self-help interception management services. In 2021, the cumulative number of registered users reached 200 million, 71.6 billion calls were secured, and 560 million harassing calls were intercepted.
Improving customer experience

The Company adheres to the customer-oriented principle. In response to customers’ feedback on services, the Company makes serious analysis and research, regards each complaint as a valuable opportunity for service enhancement, and actively promotes problem solving, so as to promote the digital transformation of services and continue to enhance smart service capability and service quality.

Carrying out dedicated programs for increasing customer satisfaction

- Promote solutions to repeatedly reported problems by users, such as insufficient mobile network coverage in certain areas, long queues and processing times for services, and difficulty in speaking with human representatives in customer service hotlines, etc.
- Implement efficiently-centralised operation of government and enterprise service hotlines, with government and enterprise service hotlines for 31 provinces in place.
- Carry out key capacity building of Hotline 10000, and 65-year-old customers can access manual customer service with one click, so as to strengthen the service commitment of "if you need anything, please call Hotline 10000".
- Continue to enhance the elder-friendly adaption to provide convenient communications services for the elderly.

Regulating product publicity

- Continuously optimise the service registration displayed to customers.
- Standardise product names, remarks and reminders, and unify the order in which the contents of service registration are displayed.

Promoting digital transformation of services

- In-depth exploration of intelligent voice services, expand digital service methods such as remote counter and video customer service, allowing customers to enjoy warm services of “watching the screen as if meeting in person” without leaving home.

“Elder-friendly experience” to provide convenient services for the public

Lanzhou branch delivered the “timely rain” of sci-tech services to the elderly through the innovative parallel delivery of traditional services and intelligent and informatisation services, as well as the combination of online services and offline channels, so as to solve the “digital divide” issue in communications for the elderly.
“Watching the screen as if meeting in person and conducting formalities online”

Hubei branch’s “Hotline 10000 Remote Counter” has enabled 30 service functions in 6 categories, including replacing of SIM cards for customers who ported in their mobile phone numbers in other places, the reporting and dismissing of mobile phone loss, mobile phone shutdown and resumption, PUK code query, call transfer, remote tutoring of broadband setting, providing the majority of users with one-stop and efficiently-centralised customer service of “Going through Formalities without Leaving Home”.

PROMOTING SOCIAL WELFARE

China Telecom enthusiastically participates in social welfare activities. We implement the Welfare Donations Law of the People’s Republic of China and other laws and regulations and the Administrative Measures for Donation of China Telecommunications Corporation under the principles of “voluntariness, clear responsibility, action within capabilities, honesty and trustworthiness”, support the development of technology, education, culture, sports and healthcare through various ways, and actively help the vulnerable, disabled and disadvantaged. The Company encourages its employees to carry forward the spirit of volunteerism, and actively participates in volunteering activities of different kinds.

The Company, together with the All-China Federation of Trade Unions, held the opening ceremony of the “Caring Stations” program, becoming the first co-build brand enterprise in the industry to receive its recognition. The “Caring Stations” provide the elderly, the disabled, sanitation workers, couriers and other groups of people with smart technology popularisation and resting/supply places, demonstrating the social responsibility and mission of a telecommunications enterprise. In 2021, we built more than 6,000 “Caring Stations”, and 83 of them were rated by the All-China Federation of Trade Unions as the “2021 Most Beautiful Trade Union Service Station for Outdoor Workers “, ranking first among all enterprises in terms of the number of awards received.

“Caring Stations” warming hearts in winter

On 26 December 2021, 16 “Caring Stations” of Yili branch simultaneously carried out the thematic activity of “Warm Winter Solstice at Caring Stations – A Tribute to City Beauticians” in the whole region, inviting sanitation workers, police and empty nesters, etc., to spend a warm time in this cold winter.
Jingdezhen branch’s “Caring Stations” built a civilised city

Jingdezhen branch provided sanitation workers, couriers and other outdoor workers with free resting places, drinks and free charging equipment at “Caring Stations”, which were also equipped with emergency medical-grade gauze and band-aids for the public in case of emergency, contributing to the construction of national civilised city in Jingdezhen through warm-hearted services.

Voluntary blood donation for the people, warming the old city through mutual assistance

On 9 November 2021, Baoding branch called on more than 300 cadres and employees to take the initiative to participate in voluntary blood donation activities to show their love to society and demonstrate the great love of the enterprise and the selfless dedication of employees.

Warming the lonely with love

For five consecutive years, the customer service department of Hainan branch has actively organised actions to care for disabled children with autism before and after the Autism Day.