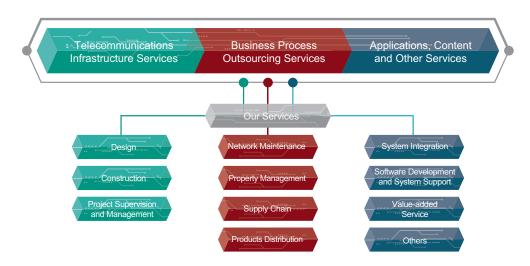


The Group is a leading service provider in the informatization sector in the PRC that positions itself as a "New Generation Integrated Smart Service Provider" and commits to "making our society smarter, making our life better, and making our employees happier". The Group provides integrated comprehensive smart solutions for the informatization and digitalization sectors, including telecommunications infrastructure services, business process outsourcing services as well as applications, content and other services, and its customers include domestic telecommunications operator customers, domestic nontelecom operator customers ("domestic non-operator customers"), represented by government, transportation, electricity, park, Internet & IT, as well as overseas customers.

The Group's business spans across China and dozens of countries and regions globally, with overseas customers mainly located in Africa, the Middle East and Southeast Asia.

WE PROVIDE INTEGRATED COMPREHENSIVE SMART SOLUTIONS FOR THE INFORMATIZATION AND DIGITALIZATION SECTORS



(In RMB million, except percentages)	Revenue in 2019	Revenue in 2018	Change
Domestic telecommunications operator customers	72,420	69,705	3.9%
Of which: China Telecom	40,633	41,279	-1.6%
China Mobile, China Unicom, China Tower	31,787	28,426	11.8%
Domestic non-operator customers	41,727	33,317	25.2%
Overseas customers	3,266	3,155	3.6%
Total	117,413	106,177	10.6%





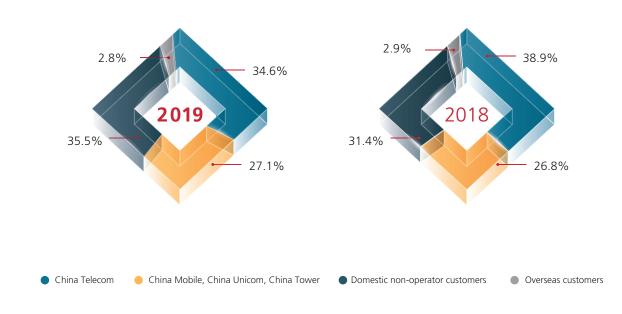
MARKET EXPANSION

In 2019, the Group adhered to the overall roadmap of "value-driven, seeking steady yet progressive growth and high-quality development" and focused on the three key missions of "Bolstering Cyberpower Strategy, Building First-class Enterprise, Serving a Good Life". While seeking further development of the CAPEX1 business of the domestic telecommunications operator market, the Group transformed its growth momentum and increased its efforts in exploiting the OPEX² business of the domestic telecommunications operator market, thereby maintaining the stable fundamentals of its businesses. Besides, the Group pinpointed the new position as a "New Generation Integrated Smart Service Provider" and further expanded the scale of domestic non-operator market by accelerating its ecological deployment, making dedicated development in key industries and elevating the brand influence of "Smart Comservice", and also focused on the development of overseas largescale turnkey projects, thus realizing high-quality development.

In 2019, the Group continued to promote business structure optimization by proactively containing the products distribution business with lower efficiency. Total revenues of the Group for the year amounted to RMB117,413 million, representing a year-on-year growth of 10.6%, in which, revenue from the Core Businesses³ (i.e. excluded the products distribution business) achieved a relatively fast growth and reached RMB113,091 million, representing a year-on-year growth of 11.6%. The scales of the Group's overall revenue and revenue from Core Businesses both continued to embark on a journey of high-quality development on a hundred-billion basis.

In 2019, the Group continued to reinforce its market expansion and transform the growth drivers. Revenue from the Core Businesses achieved double-digit growth and its contribution to the total revenues reached 96.3%. During the year, revenue from domestic telecommunications operator customers (including China Tower) amounted to RMB72,420 million, representing a year-on-year increase of 3.9%. Revenue from domestic non-operator customers amounted to RMB41,727 million, representing a year-on-year increase of 25.2%, in which the Core Businesses revenue increased by 29.8%. Revenue from overseas customers amounted to RMB3,266 million, representing a year-on-year increase of 3.6%.

The following charts show the revenue contribution from each customer group:



- CAPEX refers to the capital expenditure of domestic telecommunications operators.
- OPEX refers to the operating expenditure of domestic telecommunications operators.
- Core Businesses include telecommunications infrastructure services, business process outsourcing services (excluding products distribution), as well as applications, content and other services.





DOMESTIC TELECOMMUNICATIONS OPERATOR MARKET

In 2019, the Group persisted in the "Dual Growth Drivers+" (i.e. CAPEX and OPEX + Smart Applications) development strategy in the domestic telecommunications operator market by focusing on the network construction business while stepping up its efforts in the operation and maintenance support businesses.

In 2019, with the issuance of 5G licenses by Ministry of Industry and Information Technology and requirement to accelerate construction of new infrastructure by the government, domestic telecommunications operators expedited their 5G deployment. The Group seized the opportunities of 5G construction by domestic telecommunications operators through enhancing its project management and service quality continuously, and commencing its research on the key technologies such as 5G and Internet of Things. Despite the fact that 5G network investment from operators has yet to come into scale, the Group penetrated into traditional infrastructure business and captured opportunities from the 5G co-build and co-share among operators, thus maintaining a stable market share in the domestic telecommunications operator market. Meanwhile, the Group vigorously expanded the OPEX business of domestic telecommunications operator market and increased the investment in research and development to improve its capabilities, which enabled the Group to make breakthroughs in the applications, contents and other service of the operators.







In 2019, the Group overcame the unfavorable effect from the decrease in unit service price of domestic telecommunications operators and realized a steady year-on-year growth of 3.9% in the revenue from domestic telecommunications operator market. Of such revenue, revenue from China Telecom amounted to RMB40,633 million, representing a year-on-year decrease of 1.6%, while aggregate revenues from domestic telecommunications operator customers other than China Telecom amounted to RMB31,787 million, representing a year-on-year growth of 11.8%, which was the largest contributor to the Group's incremental revenue from domestic telecommunications operators.









The Group supported domestic telecommunications operators in 5G construction





DOMESTIC NON-OPERATOR MARKET

The Group has been paying close attention to the development trend of industrial digitalization. Through innovation and transformation, the Company achieved rapid business growth in domestic non-operator market and sustained optimization of its revenue structure. In 2019, based on its positioning as a "New Generation Integrated Smart Service Provider", the Group accelerated the transformation towards the direction of digital services by focusing on the development opportunities arising from Smart City, IoT, Big Data, Cloud, Artificial Intelligence, Blockchain etc. We continuously improved service level to promote constructive and interactive development between emerging and traditional businesses.

In 2019, the Group ranked 5th in the "100 Most Competitive Software & IT Service Enterprises 2019" organized by China Information Technology Industry Federation and was awarded the title of "Leading Enterprises" in the voting for the Leading Enterprises for Information Technology Industry in 2019, demonstrating the elevated influence and industry position of various specialties and products in the relevant sectors. In 2019, revenue from domestic non-operator market amounted to RMB41,727 million, representing a year-on-year growth of 25.2%. Among that, the revenue from Core Businesses recorded a year-on-year growth of 29.8%, being the main source of incremental revenue of the Group during the period.

The Group has already developed more than 30 different types of smart products, such as Smart City, Cloud, Smart Emergency Management, IoT Platform, CCS Network Information Security Solution, Smart Transportation, etc., which allowed us to provide smart products portfolio that could be disassembled or combined as per customers' needs, as well as integrated comprehensive smart service covering top-level design to product R&D and operation.







The Group undertook the "Smart Expo" project of the Beijing Horticultural Expo

The Group has established over 200 independent business development units across the country and allocated more than 12,000 staff for key industries. During the year, the number of newly signed contracts of RMB ten-million level amounted to nearly 800 with contract amount totaling over RMB20 billion; we also signed over 20 large-scale projects of RMB100 million level. Meanwhile, the Group expedited the establishment of expert teams for its core products which consisted of more than 20,000 consultation experts and software engineers. Leveraging on the "Smart Comservice" platform for capabilities enabling, the Group organized approximately 1,200 trainings for various businesses with more than 37,000 person-times participation for the continuous cultivation of new teams of core professionals.







The Group provided Smart Parking (ETC system) integrated solution for airport

026 China Communications Services Corporation Limited Annual Report 2019

BUSINESS OVERVIEW

The Group stepped up its efforts in the research and development and business development on innovative application of information technology, Industrial Internet, emergency management and network information security while focusing on the electricity, transportation and other key industries to take up the strategic position of the industry. The Group established the China Comservice Internet of Energy Ecosystem Alliance, with annual new contract value of over RMB5 billion; we also established the Smart Transportation Ecosystem Alliance, with annual new contract value of over RMB6 billion.



The Group undertook the project of Smart Community and was awarded the "Best Prize of Innovative Urban Planning"



The Group undertook the communication planning and design project for Beijing Daxing International Airport



The Group undertook the project of "Easy Check (易安檢)" passenger big data platform for the Guangzhou Baiyun **International Airport**



OVERSEAS MARKET

In 2019, as a result of the continuous optimization of overseas deployment and business structure as well as the adoption of a proactive and steady expansion strategy, the scale of overseas business increased steadily and revenue from overseas customers amounted to RMB3,266 million, representing a year-on-year growth of 3.6%.

By continuously following up with the "Belt and Road" Initiative closely, the Group focused on the expansion of large-scale projects, took the advantage of the integrated comprehensive service, and expedited transformation and upgrade to facilitate the promotion of smart products into the overseas market. In 2019, the Group was awarded the "Excellent Enterprise" for the "Belt and Road" 2019 Information Technology Industry. The 4G Project in Nepal, the Digital Mali Project, the Ground and Submarine Cables Project in Congo-Brazzaville and the Power Communication Project in Saudi Arabia were launched and implemented smoothly and the Niger Broadband Infrastructure Project (phase II) progressed well during the year. In addition, while penetrating into the telecommunications infrastructure services including design, construction and supervision, the Group also focused on the development of key products including Smart City, Smart Education and Intelligent Building and key industries including government, transportation, electricity and information security so as to elevate the proportion of the transformational and emerging businesses, further diversify the overseas business and customer structures, and therefore the results of its overseas business' transformation was manifested.



The Group was awarded "Excellent Enterprise" for the "Belt and Road" 2019 Information Technology Industry and 3 projects were awarded the Top 100 Outstanding "Belt and Road" Cases



The Group undertook the 4G Project in Nepal





The Group undertook communications network construction project

BUSINESS EXPANSION

As the leading service provider in the informatization sector in the PRC that provides integrated comprehensive smart solutions in the informatization and digitalization sectors, we offer telecommunications infrastructure services, including design, construction and supervision; business process outsourcing services, including management of infrastructure for information technology (Network Maintenance), general facilities management (Property Management), supply chain and products distribution; and applications, content and other services, including system integration, software development and system support as well as value-added services.

Telecommunications Infrastructure Services

As the largest telecommunications infrastructure service provider in China, the Group possesses all the highest-grade qualifications in the communications construction industry in China. In 2019, revenue from telecommunications infrastructure services amounted to RMB64,689 million, representing a year-on-year growth of 12.8%.

The Group has the capabilities to provide worldwide telecommunications operators with comprehensive telecommunications infrastructure services including planning, design, construction and project supervision for fixed-line, mobile, broadband networks and supporting systems, as well as the integrated EPC (engineering, procurement and construction) and full-process engineering consultation services. In 2019, the Group fully addressed the needs of customers including the three domestic telecommunications operators and China Tower, and maintained solid market leading position. The Group's revenue of telecommunications infrastructure services from domestic telecommunications operator customers amounted to RMB41,153 million, representing a year-on-year growth of 2.1%.



The Group also provides various integrated smart services, including construction services of ancillary communications networks, integrated solutions for informatization and smart solutions for intelligentization of industries, to domestic nonoperator customers in sectors such as government, construction, transportation, power, financial institutions, broadcasting, as well as overseas customers. The Group continuously deepened the development in the fields of Smart City, Intelligent Building, Smart Park and Smart Game and achieved remarkable results in the expansion of large-scale projects. In addition, the Group rode on the industry trend to accelerate the deployment and development of Industrial Internet, emergency management and network information security. In 2019, revenue of telecommunications infrastructure services from domestic non-operator customers amounted to RMB20,910 million, representing a year-on-year growth of 42.8%, maintaining a strong growth trend continuously.



The Group undertook the project of "Smart Game" for the 7th CISM Military World Games, and provided full-process integrated comprehensive smart services



The Group developed emergency management cloud platform in cooperation with operator, and introduced the Group's risk monitoring and early warning system for safe production



The Group promoted its energy consumption testing cloud platform for the electricity market

In the future, the domestic telecommunications operators are expected to increase their investment in 5G. The Group will further explore market potential and capture the opportunity of 5G construction by making innovation on business models, such as the EPC and full-process engineering consultation service. The Group will further promote the implementation of the "Dual Growth Drivers+" development strategy and integrate itself into the transformation ecology of the operators so as to maintain healthy development for the traditional infrastructure business from the domestic telecommunications operators.





With the further implementation of national strategies of "Cyberpower", "Digital China" and "Smart Society", the government requests to accelerate the construction of New Infrastructure, including 5G, Data Centers, IoT and Industrial Internet. Accordingly, the 5G construction of domestic telecommunications operators, together with the 5G-driven markets of broadcasting and other vertical industry operator market, will expand continuously while demand for New Infrastructure such as AI, IoT and Industrial Internet and industrial digitalization will increase persistently. In addition, the continuous advancement of the government's "Belt and Road" Initiative will lead to greater potential in overseas market. All of the above will create new opportunities for the growth of the Group.



The Group undertook the construction of new infrastructure projects including data center

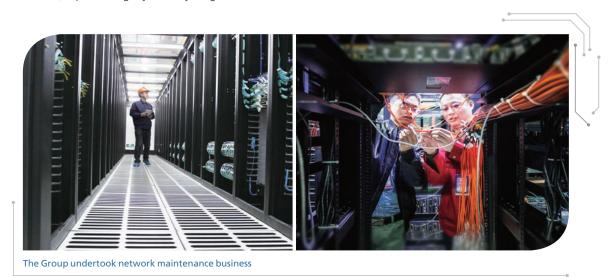


Business Process Outsourcing Services

The Group is the largest integrated provider of business process outsourcing services in the communications industry in China. We keep extending our business scope from core networks to access networks along the communications business value chain, and provide services including management of infrastructure for information technology (Network Maintenance), general facilities management (Property Management), supply chain and products distribution. The target customers of our services include domestic and overseas telecommunications operator customers, government agencies and enterprises customers. In 2019, the Group continued to exploit the OPEX business of domestic telecommunications operators and the revenue from the Core BPO⁴ services amounted to RMB32,315 million, representing a year-on-year growth of 6.9% while the overall revenue from the business process outsourcing services (i.e. including the products distribution business contained by the Group) amounted to RMB36,637 million, representing a year-on-year increase of 4.4%.

The Group provides Network Maintenance services for telecommunications operators covering fiber optic cables, electric cables, mobile base stations, network equipment and terminals. In 2019, the Group proactively undertook on-site integrated maintenance services from the three domestic telecommunications operators and China Tower, and facilitated a relatively fast development of the Group's maintenance services, with a revenue of RMB15,827 million, representing a year-on-year growth of 7.0%.

The Group provides Property Management services to domestic telecommunications operators and domestic non-operator customers for their data centers, cloud computing bases, commercial buildings, high-end residential buildings, high-speed railway stations and airports, etc. During the year, the Group continued to develop the brand-building of "China Comservice Properties", and promoted the construction of IT platform of intelligent building to enhance the synergistic operational capabilities of Property Management services. In 2019, revenue from the Property Management business of the Group was RMB6,168 million, representing a year-on-year growth of 16.9%.



The Group provides logistics and transportation, warehousing and auxiliary services, procurement agent, inspection service and value-added services of supply chain to domestic telecommunications operators and domestic non-operator customers. We possess the industry-recognized AAAAA logistics qualification and is one of the top 50 logistics enterprises in China. In 2019, the Group further implemented the consolidation of supply chain businesses and established a full-process and network-wide integrated operating system for synergistic operation to improve service capability, thus achieving economies of scale and providing customers with nationwide integrated logistics services. The Group intensified the development efforts on the upstream and downstream customers in the information industry, with businesses covering the three domestic

Core BPO services include management of infrastructure for information technology (Network Maintenance), general facilities management (Property Management) and supply chain services.



telecommunications operators. We won again the bid for the annual transportation businesses of Yangtze Optical Fibre and Cable, and FiberHome Telecommunication Technologies. We also established strategic cooperation partnerships with various equipment manufacturers such as Inspur to expand businesses throughout the country. In 2019, development of supply chain business moderated mainly because of a subdued growth in marketing agent and after-sale businesses attributable to the marketing strategy adjustment of the domestic telecommunications operators. The Group's revenue in supply chain service was RMB10,320 million, representing a year-on-year increase of 1.7%. In the future, China Comservice Supply Chain Management Company Ltd. ("Supply Chain Company") will further improve synergistic operation capability and drive the expansion of the Group's supply chain business.



The Supply Chain Company of the Group entered into strategic cooperation agreement with its business partners



Partner" by customers for its supply chain business

Products distribution business mainly refers to the distribution of communication products. The Group provides terminals distribution and device distribution services to domestic telecommunications operator customers and provides distribution and procurement services of IT devices, auxiliary machinery and equipment to domestic non-operator customers. In 2019, the Group proactively contained the products distribution business with lower efficiency and realized revenue of RMB4,322 million, representing a year-on-year decrease of 11.5%.

The Group believes that the OPEX market of domestic telecommunications operators have enormous room and potential to grow, and the domestic non-operator market also have strong demands for business process outsourcing. Particularly, the continuous acceleration in the construction of new infrastructure such as 5G, Data Centers by the government is expected to bring broader market potential for the Group. The business process outsourcing services have the features of possessing high customer loyalty, low accounts receivable turnover days and good cash flow. The Group will further allocate its advantageous resources to carry out professional operation in certain high value business sectors to pursue a more efficient and larger scale development in such market.





Applications, Content and Other Services

The Group provides system design and construction, software development and system support as well as value-added services to customers including domestic telecommunications operators, government agencies and enterprises customers. In 2019, the Group optimized the ecological deployment of smart industry and positioned itself as a "New Generation Integrated Smart Service Provider". By leveraging on more than 20 research centers across the nation and focusing on customers' needs, the Group promoted the research and development of the core platforms, further enriched the smart product portfolio, built leading capabilities and solutions to drive the convergence of our products and businesses on the foundation platforms. In 2019, the Group's "CCSYUN" (cloud service) Platform obtained the Trusted Cloud Services Certification (TRUCS) and was awarded the "2019 Innovative Cloud Service Platform" by China Software Industry Association. The Company was included in "2019 IoT Panoramic Map Report" and the "CCS Open IoT Platform" won the Bronze Medal of "2019 GIOTC IoT Award" and "OFweek 2019 Most Popular Development Platform in China IoT Industry". The Group's software development and application solutions have been widely recognized by the society. The revenue of applications, content and other services amounted to RMB16,087 million, representing a year-on-year increase of 17.3%.







The Group's "CCSYUN" (cloud service) Platform obtained Trusted Cloud Services Certification (TRUCS) and was awarded the "2019 Innovative Cloud Service Platform"





The Group's "CCS Open IoT Platform" won the Bronze Medal of "2019 GIOTC IoT Award" and "OFweek 2019 Most Popular Development Platform in China IoT Industry"



In 2019, the Group leveraged on the strength of its integrated service, system design and construction, software iterative development and system operation and maintenance support capabilities to further improve the dispersed research and development system and expand ecosystem through external collaboration. Currently, the Group has more than 70 research and development teams consisting of more than 500 research and development specialists. During the year, the Group has established and started the operation of Ecosystem Alliances on Cloud Computing, IoT, Smart City, Internet of Energy and Smart Transportation, converging both internal and external technologies, products and industrial resources of the Group to build up leading integration capabilities. The Group has established adaptive research and development teams for Smart Airport and Industrial Internet (Big Data) to build up leading industrial solutions and customization capabilities. In the field of network information security, the Group strengthened the building of brand, product and service capabilities and was included in the 2019 Cyber Security Top 100 Report: Leader Matrix in China by AQNIU. In respect of emergency management, the Group launched the Emergency Management Integrated Solution, aiming to support the modernization of national governance system. Besides, the Group continuously upgraded its existing group-level products and some has reached an industry-leading level. For example, the "Smart Transportation" was granted the Excellent Solution of the Smart Transportation Award and "Smart Court" was awarded as one of the Top 10 Smart Court Innovative Products in China. Currently, the Group owns more than 30 smart products and could satisfy the needs of the government and enterprise customers effectively. Meanwhile, the Group participated in a series of important expos, including the Big Data Expo in Guizhou, the World IoT Expo in Wuxi, the National Governance Intelligentization Expo, the Security Protection Expo in Xi'an and the Industrial Internet Summit in Chongging, which further improved the industry status and influence.



The Group established the China Comservice Industrial Internet (Big Data) Research Institute



The Group entered into strategic cooperation with its business partners on Industrial Internet



The Group presented its CCS Network Information Security Solution in the 2019 Network Security Expo



The Group participated in the China International Big Data Industry Expo 2019 and entered into strategic cooperation with its business partners on Smart City





The domestic non-operator customers are the major customer group of our applications, content and other services, which contribute more than 50% of the overall revenue from such services. In 2019, the revenue from domestic non-operator customers for applications, content and other services increased by 20.6% year-on-year, which was a major driver for the growth of this segment.

With the further implementation of "Digital China", "Cyberpower", and "Smart Society", the central government's initiatives to accelerate 5G development, together with the expedition on the construction of New Infrastructure including 5G, Artificial Intelligence, Data Centers, IoT and Industrial Internet, a broad market for the telecommunications infrastructures services and business process outsourcing services of the Group emerges. In addition, the deepened integration of new technologies, including 5G, with various industries will boost the demand for smart applications and the increase of investment from various industry. The applications, content and other services will also face significant opportunities. The Group will capture the development opportunities of the new era, focus on customer needs and speed up value transformation and ecosystem construction. And by leveraging on our own advantages and utilizing new technologies such as 5G, the Group will improve capabilities and intensify the construction of middle platform for capabilities accumulation. Leveraging on the industry alliances as its base and our platforms such as CCSYUN (cloud platform) and IoT platform, we will build general competence and industry solutions to expedite business development.



The Group participated in the World IoT Expo 2019



Ten Big Data Enterprises in Hainan Province"







CONTENTS OF CERTAIN GROUP-LEVEL (SMART) PRODUCTS OF THE GROUP

1



Based on industry-leading private/hybrid cloud integrated solution, the Group provides integrated cloud services covering cloud construction, cloud migration and cloud management, as well as cloud platform products to our customers. On the downstream, the Group effectively manages and utilizes cloud computing infrastructure, while on the PaaS Cloud Platform upstream, the Group provides a variety of components and integration services for software (CCSYUN Platform) applications.

2



Open IoT Platform supports smart applications and is connectable with intelligent devices. It allows data sharing within the platform and enables establishment of an open, cooperative and win-win ecological chain. The platform opens up to terminals and application vendors, and provides comprehensive, standardized support services through smart services.

3



Network Information Security (CCS Network Information Security)

It possesses the most complete and highest-level information security profession qualifications across the industry, with integrated security service capabilities and a team of security experts providing customized services for customers. Such services cover security demand for informatization construction throughout the life cycle, including consultation, evaluation, design, implementation, supervision and training. It provides a full range of services including data security, security management, application security and system security.

4



The Smart Emergency Management helps enterprises and the regulatory authorities with effective accident warning and regional regulatory decision making upon collecting data in relation to daily work, security monitoring and emergency management.

5



Leveraging on the Group's unique capabilities matrix, including 4T (i.e. CT (Communications Technology, with over 60 years' experience in network design, construction and maintenance), IT (Information Technology, including Cloud Construction, Cloud Management, Cloud Migration and innovative development), DT (Data Technology, with experience in massive data management and mining), and OT (Operational Technology, with nationwide entities at provincial, city and county level)), 4P (CCS Open IoT Platform, CCSYUN(cloud service) Platform, data middle platform and network information security platform) and 4S (design and consultation, software development, project implementation and project supervision), the Industrial Internet provides integrated Industrial Internet service system to customers from government and industrial enterprises to address the four difficulties, namely the "connection, platform, data and security".





6



To bolster precise city management and urban services, as well as modernization of urban governance through effective integration and resource sharing of city information, the Group uses Smart City top-level design as the entry point to build up Smart City Big Data platform, city operation management platform and smart applications that allow for flexible disassembly and reorganization.

7



Leveraging on IoT, Big Data and other technologies, the Group constructs the Smart Town Comprehensive Big Data Management Platform and realizes five applications, namely landscape protection, hazard warning, "River Chief System" river and water quality protection and monitoring, pipe and grid network and resource management in towns. Through a combination of platform+application+services, the Group provides Smart Town comprehensive solution.

8



The Group provides integrated turnkey solutions for construction of parks, including consultation, planning, construction, operation and maintenance. Based on a co-sharing platform, the Group provides unified management and differentiated services for the parks with marketing, management and services as the three major integrated application systems.

9



Leveraging on the Intelligent Building Management System (CCS-iBMS) as the core, the Group realizes integration and interconnection among self-control system of building equipment, and also automation systems of office, security, fire protection and communications etc, so as to provide visualized management, operation and service.

10



Smart Procuratorial Services is a comprehensive intelligent service platform based on electronic inspection and a consolidation of "Information Perception, Network Transmission, Knowledge Services, Procuratorial Applications and Operation Management". It provides smart public prosecution, smart civil and administrative prosecution and smart appeal service for inspection.

11



Smart Government Services utilizes integrated government services platform as the core and is supported by Big Data and data co-sharing platforms, together with the government service hotline ("12345") and the hall of Smart Government Services, act as the extension and window of government service.

12



Taking the construction of public law service systems as pivot and leveraging on government services cloud platform, the Group builds the integrated administration and management platform that consists of law consultation, law services, administration services, data monitoring via multiple channels such as physical, online and phone.



13



By integrating advanced technologies such as Big Data, Al and IoT, the Group provides court system with full-service and full-cycle integrated ICT solutions.

14



Focusing on safety and defense, the Smart Prison establishes a monitoring system combining "human defense, physical defense, technological defense and joint defense" in order to maintain the prison being managed, monitored and controlled in all aspects.

15



By integrating frontier technologies, the Group develops the new generation Smart Highway operation and management platform which possesses full capabilities in three major highway informatization areas — surveillance, toll, as well as maintenance and operation. Meanwhile, through massive real-time data collection and intelligent analysis, the Group assists the highway operators to enhance the capabilities of emergency command and dispatch, operation surveillance management and public travel services.

16



The Group consolidates the research and development capabilities of each key product centers to establish an integrated smart airport service system and assist each airline group in the civil aviation industry of China to establish a "safe, green, smart and humanistic" airport and realizing the goal to be a world-class airport with "high technologies, high standards and high quality".

17



Based on informatization platforms, such as the game results platform, stadium operation platform, game management platform and game command platform, the Group provides full-process and integrated services to various sport games from preparation, construction to operation.

18



Adopting a B2B2C model, the Smart Finance provides full-process, modularized integrated fintech solutions, including financial information system, financial products operation and financial data services, to enterprise customers and financial institutions.





19



Targeting at government departments and related enterprises that are relevant with water conservation, marine protection and environmental protection, the Group constructs an comprehensive water conservancy information platform that provides analysis of data collected from water level measurement, hydraulic engineering, video recognition and automatic control. The platform provides effective support for the enforcement and monitoring of water law, water resources management, flood-alarming and river/lake management.

20



The Smart Agriculture is a comprehensive production management platform giving a full view of information about agricultural production, providing smart management of agricultural production based on expertise and realizing a new agricultural production management concept of "precise perception, all-around control, interactive farming and smart decision". It provides professional assistance to refined management of agriculture in large scale.

21



The Smart Exhibition provides an integrated exhibition showcase service from design and planning to professional implementation for exhibition halls, expos and enterprises of various scale.

22



Based on traditional call centers, the Group provides customized one touch access and number recognition customer service platform with all channels by integrating different functions such as multimedia CS centers, sales service centers and customer management centers, thus enhancing enterprise efficiency, service quality and assisting customers to develop market.

23



The Smart Enterprise provides multiple leading public cloud (SaaS) products to enterprises, helping them to realize integrated digital transformation in respect of human resources, events and devices, including talent management, enterprise resource management, fullchannel marketing management, cloud procurement management, expense management, business intelligent analysis and other functions.

24



The Group changes the traditional learning mode by utilizing informatization technologies to realize the integration of online learning and offline training for the adoption of mixed learning mode. Leveraging on mobile internet, cloud computing, live broadcast, AR/VR and other technologies, the Group provides enterprises with one-stop training solutions to help them build learning organizations.