CHINA COMMUNICATIONS SERVICES CORPORATION LIMITED
(A joint stock limited company incorporated in the People's Republic of China with limited liability)
Stock Code : 552

2019 Interim Results
27 Aug 2019

新時代 數字化
NEW ERA
OF DIGITALIZATION 千億級 企業
A HUNDRED BILLION

ENTERPRISE

CHAIRMAN   *MR. ZHANG ZHIYONG*

PRESIDENT   *MR. SI FURONG*
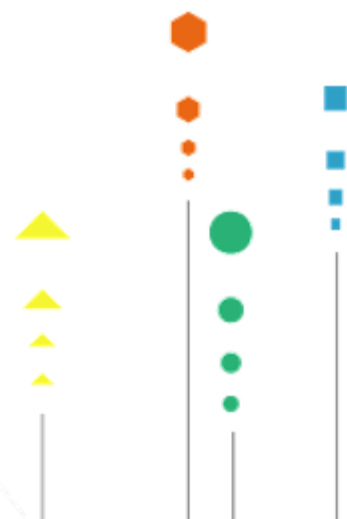
EXECUTIVE VICE PRESIDENT   *MR. LIANG SHIPING*

EXECUTIVE VICE PRESIDENT & CFO   *MS. ZHANG XU*

Overview

Business Review

Financial Results

Overview

Highlights

Overall results maintained steady growth with sound development quality, notwithstanding the slower growth and even decrease in revenue in the telecom industry

Growth momentum noticeably transformed to domestic non-operator market and OPEX-driven business of domestic operator market

Software capabilities and brand influence were further enhanced, and revenue growth of software related services surpassed industry level
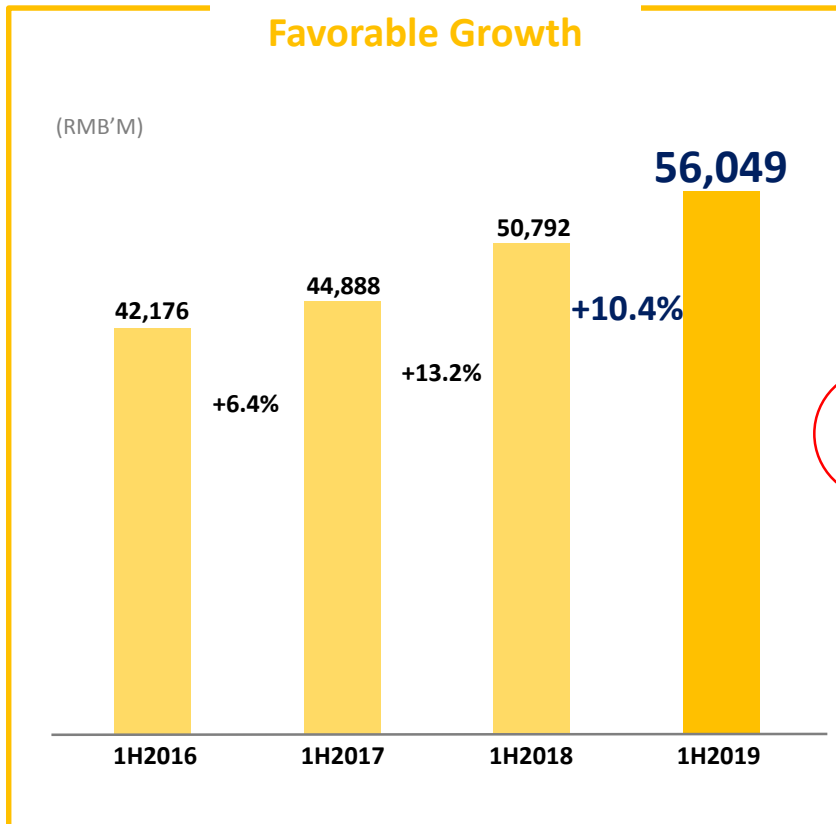
New positioning of "New Generation Integrated Smart Service Provider" steers the Company to capture the new demands arising from the new era of digital transformation

Revenue Maintained Favorable Growth

(RMB'M)

56,049

50,792

44,888

42,176

+6.4%

+13.2%

+10.4%

1H2016 | 1H2017 | 1H2018 | 1H2019

Net Profit Grew Steadily

(RMB'M)

1,712

1,595

1,469

1,386

+5.9%

+8.6%

+7.3%

3.3% | 3.3% | 3.1% | 3.1%

1H2016 | 1H2017 | 1H2018 | 1H2019

Net Profit Margin

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Revenue Growth Drivers

(RMB'M)

Legend: ■ Domestic Operator ■ Domestic Non-operator ■ Overseas Customer

Waterfall chart values:

1H2017: 44,888

- Domestic Non-operator Core Businesses +3,244 (+29.0%)
- Domestic Operator TIS +2,063 (+11.5%)
- Domestic Operator Core BPO +1,343 (+15.6%)
- Domestic Operator ACO +289 (+14.9%)
- Products Distribution & Others -1,035 (-20.0%)

+13.2%

1H2018: 50,792

- Domestic Non-operator Core Businesses +4,817 (+33.3%)
- Domestic Operator Core BPO +1,213 (+12.2%)
- Domestic Operator ACO +594 (+26.6%)
- Domestic Operator TIS -830 (-4.1%)
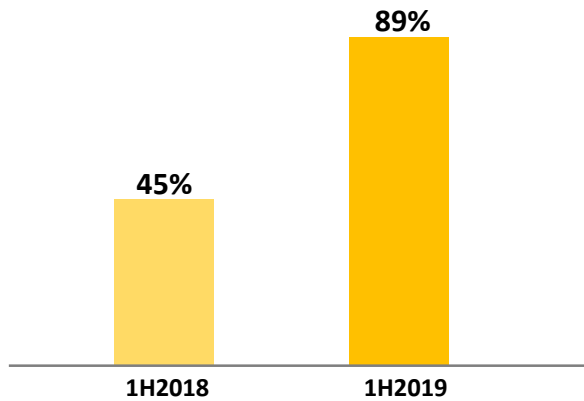- Products Distribution & Others -537 (-12.9%)

+10.4%

1H2019: 56,049

- ➢ By vigorously developing informatization construction and the related businesses, domestic non-operator market became the main growth driver and its contribution to overall incremental revenue surpassed domestic operators

- ➢ Intensely developed OPEX-driven business of domestic operators, and the incremental revenue contributed by Core BPO businesses became the main growth driver of such market

- ➢ Through bolstering the transformation of domestic operators and satisfying relevant ICT service demand, ACO business of domestic operator market experienced accelerated growth and increased revenue contribution

... New Growth Momentum Came to Shape

I. Revenue Contribution from Domestic Non-operator Market Increased Significantly

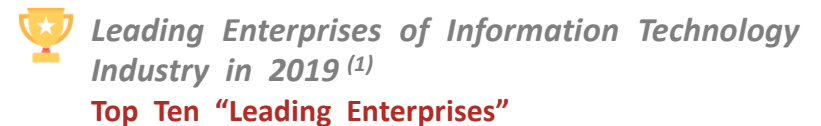➤ **Contribution to overall incremental revenue increased substantially**

- 89% (1H2019)
- 45% (1H2018)

➤ **Became the largest customer for the first time**

37.6% VS **32.7%**

Revenue from Domestic Non-operator Market vs Revenue from China Telecom

II. Enhanced Software and IT Capabilities

➤ **Gradually elevate status in software industry**

🏆 *100 Most Competitive Software & IT Service Enterprises 2019* [1]
1st Huawei Technologies Co., Ltd.
2nd Alibaba (China) Co., Ltd.
3rd Beijing Baidu Netcom Science Technology Co., Ltd.
4th Tencent Technology (Shenzhen) Company Limited
5th China Communications Services Corporation Limited

🏆 *Leading Enterprises of Information Technology Industry in 2019* [1]
Top Ten "Leading Enterprises"

➤ **Revenue growth of ACO major businesses [2] surpassed industry level**

	2015	2016	2017	2018	1H2019
ACO major businesses revenue growth rate	9.5%	18.0%	15.4%	25.5%	25.8%
National software business revenue growth rate [3]	16.6%	14.9%	13.9%	14.2%	15.0%
Revenue	6,908	8,150	9,409	11,809	6,244
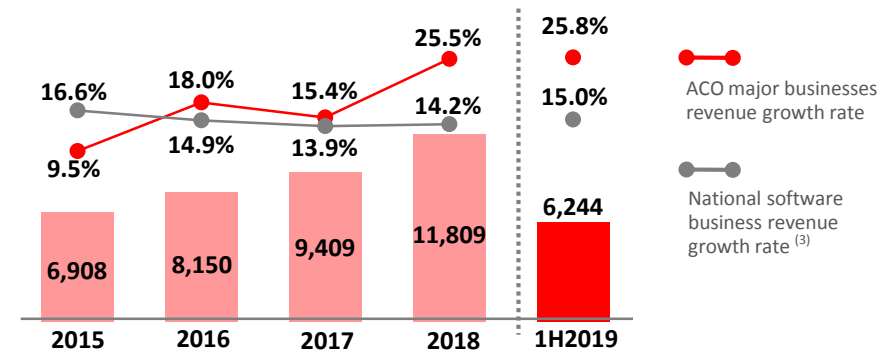
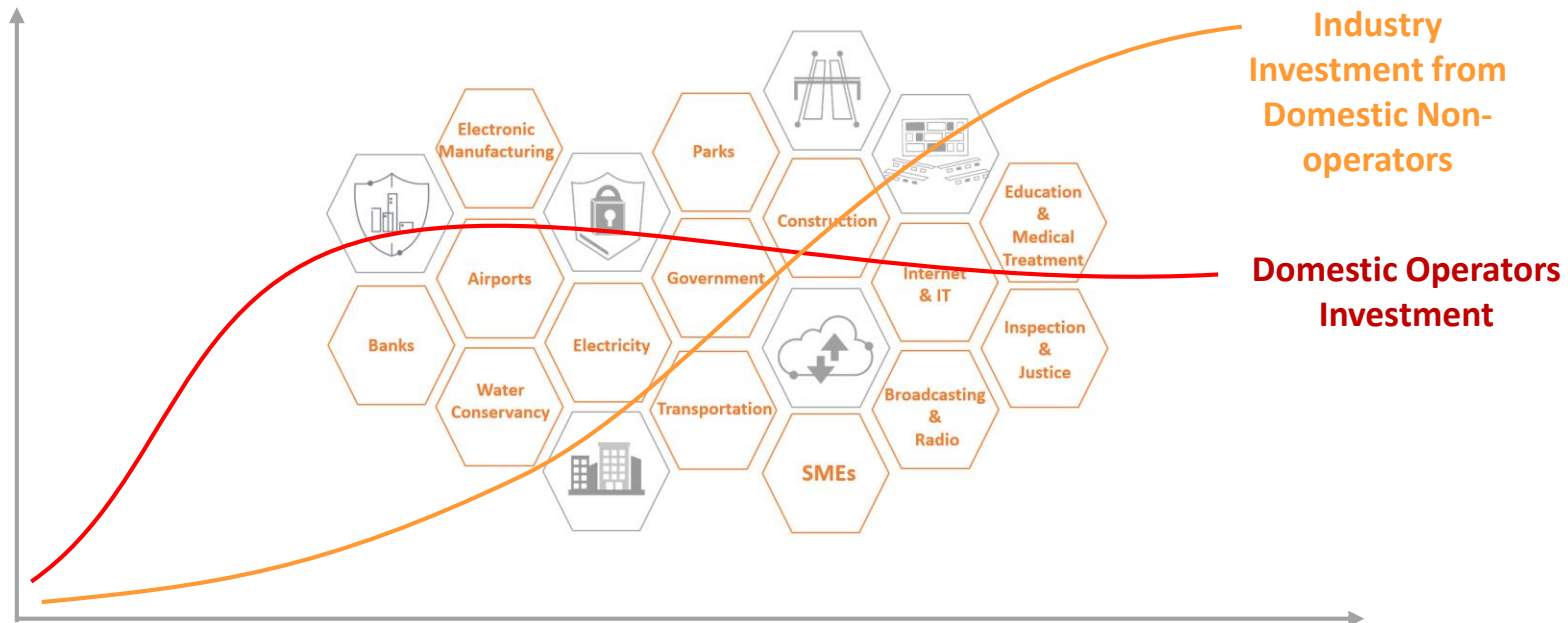(1) Coordinated by China Information Technology Industry Federation
(2) ACO major businesses include System Integration, Software Development & System Support and Value-added Services
(3) Source: Software business revenue announced by Ministry of Industry and Information Technology of the People's Republic of China (MIIT)

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5G network construction, and the deep integration between new technologies such as Big Data, Cloud Computing and IoT with various industries will greatly stimulate the demand for and investment on smart applications

Industry Investment from Domestic Non-operators

Domestic Operators Investment

Electronic Manufacturing

Parks

Education & Medical Treatment

Construction

Airports

Government

Internet & IT

Banks

Electricity

Inspection & Justice

Water Conservancy

Transportation

Broadcasting & Radio

SMEs

5G will bring continuous and significant development opportunities to the Company in various stages

Digital Transformation, Industrial Internet

Infrastructure Construction

Maintenance, Operational Support

中国通信服务 CHINA COMSERVICE

Grasp Opportunities in New Era:
Demand arising from Digital Transformation and Industrial Internet

New Positioning

New Generation Integrated Smart Service Provider

Service Provider in the Informatization Sector

Service Provider for Tele-communications Operators

Mission
Building Smart Society,
Promoting Digital Economy,
Serving a Good Life

Leverage on **Core Competencies**	Continuously Enhance **Service Capabilities**	Unleash Power from **Platforms and Ecosystems**
➢ **Hundred-billion** listed SOE	➢ **Ranked 5th** in software industry in China	➢ **Smart City** Ecosystem Alliance
➢ **Decades** of experience and capabilities in telecommunications and informatization industry	➢ **20,000+** consultants and R&D experts	➢ **Cloud Computing** Ecosystem Alliance
➢ **"Consultant + Staff" business model**, comprehensive implementation capabilities	➢ **20+** product centers, **>30** Smart Products	➢ **IoT** Ecosystem Alliance
➢ Cross-region and cross-industry **collaboration capabilities**	➢ Annual R&D expenditure approximately **RMB3 billion**	➢ **Network Security** Ecosystem Alliance
	➢ **1,500+** patents, **4,000+** software copyrights	➢ …

Focus on Three Main Tracks of Development
Rise to Challenges and Capture Opportunities

中国通信服务 CHINA COMSERVICE

Opportunities

➢ China GDP growth stayed at reasonable range, among which, information transmission, software and IT services recorded rapid growth, at over 20% [1]

➢ Scale of Digital Economy accounts for over 30% [1] of GDP and has become a core economic growth driver

➢ New technologies such as Big Data, Cloud Computing, IoT, and 5G expedite evolution, especially deep integration with economy

➢ SOE Reform and "Belt and Road" Initiative bring new opportunities…

Challenges

➢ Changes in macro environment bring uncertainties to economic growth and industry development

➢ Market competition intensifies, service value in telecom industry remains on a downward trend, labour costs increase continuously

➢ Transitional impacts on profitability due to the strategic deployment of resources during the Company's transformation …

Value Driven, Seeking Steady yet Progressive Growth and High-quality Development

Domestic Non-operators

➢ Accelerate deployment in smart products and markets, deepen market penetration in key industries

➢ Through capabilities accumulation, enabling and expansion, cultivate platforms and ecosystems, collaborate internal and external resources to expedite development

➢ Bolster promotion on "New Generation Integrated Smart Service Provider"

Domestic Operators

➢ Strengthen CAPEX and OPEX as dual drivers, fully support 5G network construction and maintenance service demand

➢ Capture new opportunities from transformation, enhance cooperation in new areas such as smart solutions, Cloud Computing, IoT

Overseas

➢ Focus on major projects, execute "EPC+" new model

➢ Facilitate the promotion of smart products in overseas market

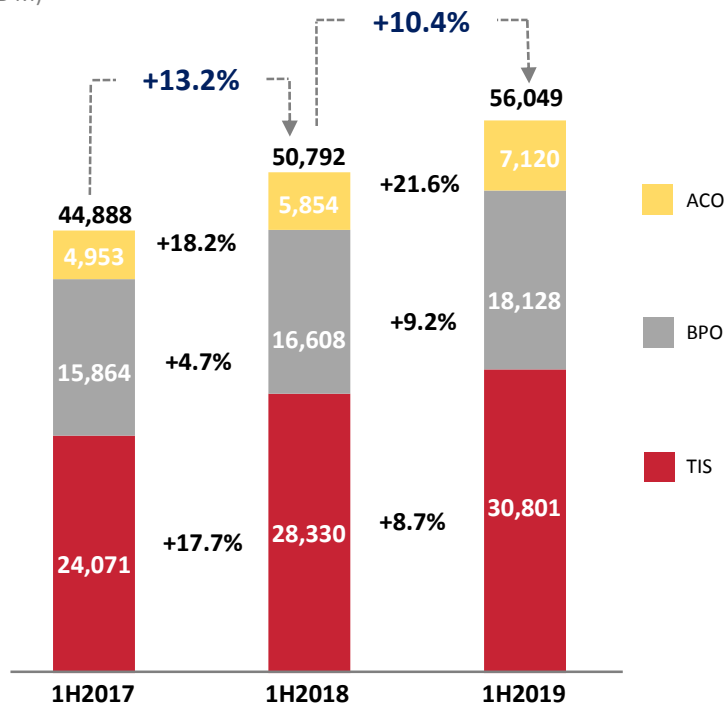➢ Develop businesses synergistically with other enterprises, including domestic operators

[1] Sources: National Bureau of Statistics of China and CAICT

Business Review

Business Revenue Breakdown

(RMB'M)	1H2018	1H2019	Change %	% of Revenue
TIS (Telecommunications Infrastructure Services)				
Design	5,355	5,145	-3.9%	9.2%
Construction	20,942	23,875	14.0%	42.6%
Supervision	2,033	1,781	-12.4%	3.2%
Subtotal	**28,330**	**30,801**	**8.7%**	**55.0%**
BPO (Business Process Outsourcing Services)				
Maintenance	6,604	7,349	11.3%	13.1%
Facilities Management	2,353	2,711	15.2%	4.8%
Supply Chain	4,937	5,788	17.2%	10.3%
Core BPO Businesses Subtotal	**13,894**	**15,848**	**14.1%**	**28.2%**
Products Distribution	2,714	2,280	-16.0%	4.1%
Subtotal	**16,608**	**18,128**	**9.2%**	**32.3%**
ACO (Applications, Content and Other Services)				
System Integration	3,198	4,232	32.3%	7.5%
Software Development & System Support	950	1,055	11.0%	1.9%
Value-added Services	813	957	17.8%	1.7%
Others	893	876	-1.9%	1.6%
Subtotal	**5,854**	**7,120**	**21.6%**	**12.7%**
Total	**50,792**	**56,049**	**10.4%**	**100%**

Revenue Growth Trend by Businesses and Markets

Revenue Growth by Businesses

(RMB'M)

+13.2%   **+10.4%**

1H2017	1H2018	1H2019	
44,888	**50,792**	**56,049**	
ACO 4,953	5,854	7,120	+21.6%
BPO 15,864	16,608	18,128	+9.2%
TIS 24,071	28,330	30,801	+8.7%

+18.2%   +4.7%   +17.7%

Legend: ACO, BPO, TIS

Revenue Growth by Markets

(RMB'M)

+13.2%   **+10.4%**

1H2017	1H2018	1H2019	
44,888	**50,792**	**56,049**	
Overseas Customer 1,382	1,446	1,339	-7.4%
Domestic Non-operator 13,748	16,396	21,065	+28.5%
Domestic Operator 29,758	32,950	33,645	+2.1%

+4.6%   +19.3%   +10.7%

Legend: Overseas Customer, Domestic Non-operator, Domestic Operator
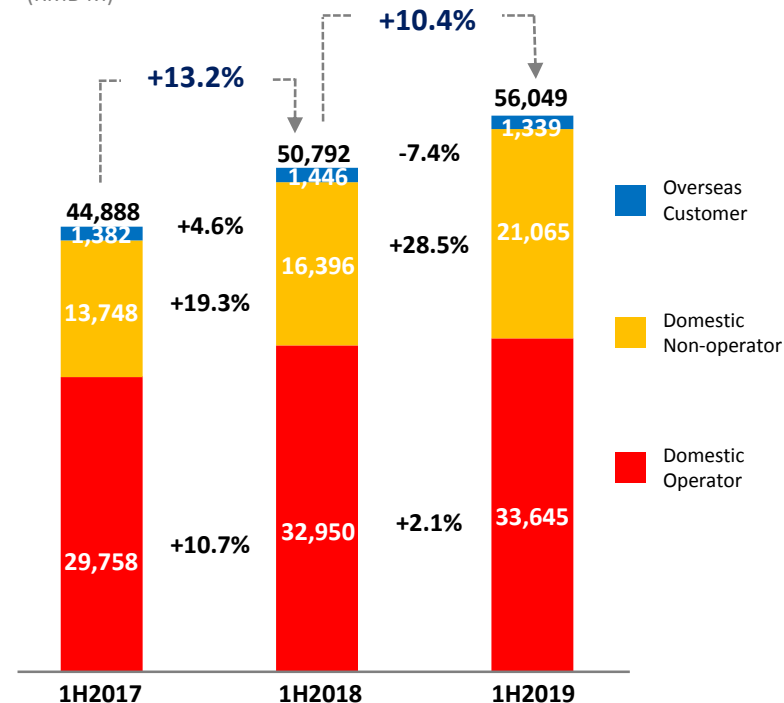
➤ Effectively captured the informatization and intelligentization demand of various industries, ACO business continued to be the fastest growing business

➤ Capitalized on ACO core products, the provision of integrated solutions drove TIS and BPO businesses

➤ Continued to vigorously develop OPEX market of domestic operators to drive BPO business, while fulfilling the increasing demand for ACO business brought by transformation of domestic operators
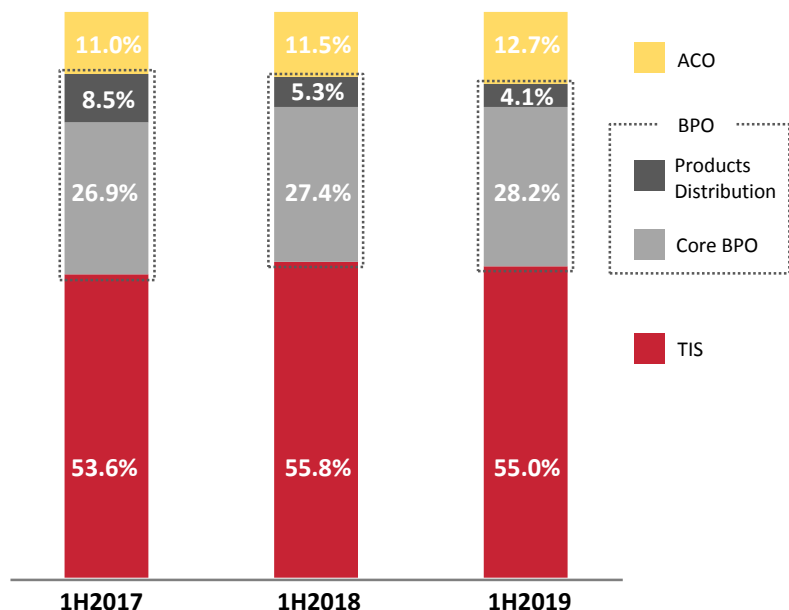
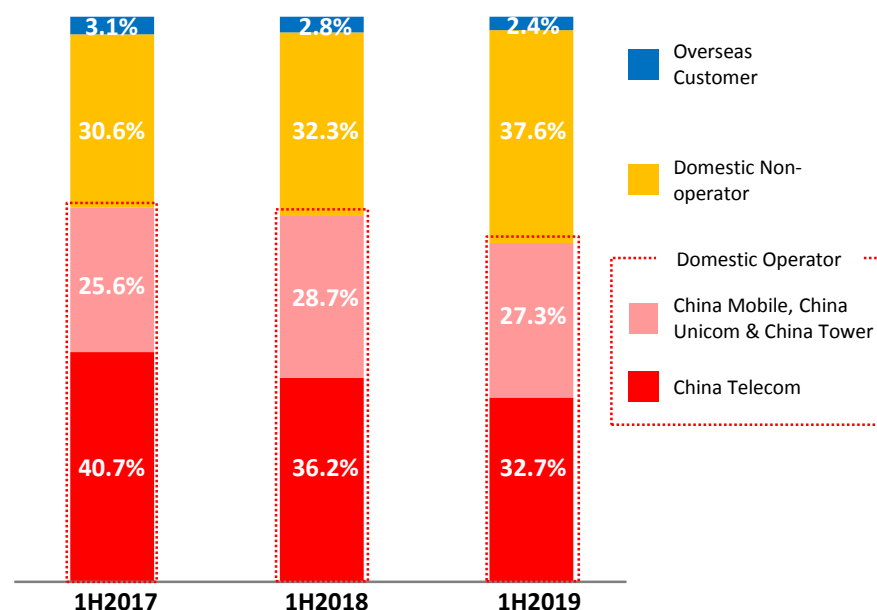››› **Domestic non-operator market** sustained robust growth

››› **Domestic operator market** maintained steady growth

Revenue Composition by Businesses and Markets
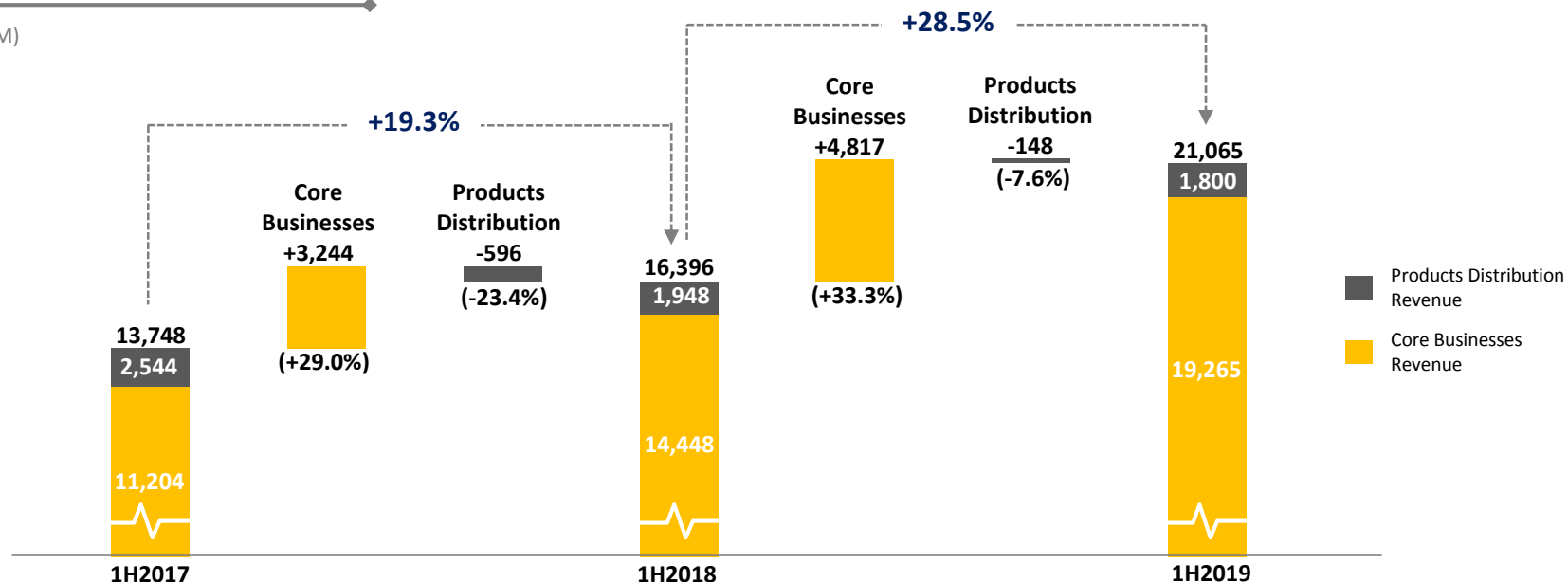
Revenue Composition by Businesses

	1H2017	1H2018	1H2019
ACO	11.0%	11.5%	12.7%
Products Distribution	8.5%	5.3%	4.1%
Core BPO	26.9%	27.4%	28.2%
TIS	53.6%	55.8%	55.0%

BPO

Revenue Composition by Markets

	1H2017	1H2018	1H2019
Overseas Customer	3.1%	2.8%	2.4%
Domestic Non-operator	30.6%	32.3%	37.6%
China Mobile, China Unicom & China Tower	25.6%	28.7%	27.3%
China Telecom	40.7%	36.2%	32.7%

Domestic Operator

➢ **Business Structure Continued to Optimize:** portion of revenue from ACO business and Core BPO businesses continued to rise while portion of revenue from products distribution business kept decreasing

➢ **Market Structure Further Diversified:** Domestic non-operator became the largest customer group for the first time

China Comservice 中国通信服务

Revenue Growth Drivers

(RMB'M)

+28.5%

+19.3%

	Core Businesses +3,244 (+29.0%)	Products Distribution -596 (-23.4%)		Core Businesses +4,817 (+33.3%)	Products Distribution -148 (-7.6%)	

1H2017
- 13,748
- 2,544
- 11,204

1H2018
- 16,396
- 1,948
- 14,448

1H2019
- 21,065
- 1,800
- 19,265

Legend:
- Products Distribution Revenue
- Core Businesses Revenue

➢ Seizing the opportunities from Digital Economy and Smart Society and focusing on the construction opportunities from the informatization and intelligentization of key industries, we are dedicated to providing integrated comprehensive solutions

➢ Consistently enhanced integrated service capabilities and industry influence

- Enhance internal software R&D capabilities and strengthen internal collaboration through capabilities accumulation, enabling and expansion, while raising key capabilities and producing industry-leading comprehensive solutions by building ecosystems

- Deeply penetrate into key industries, accelerate deployment in products and markets

- Continue brand building and further promote the brand of "New Generation Integrated Smart Service Provider"

- Ranked as top 10 enterprises in the major rankings of the domestic software & IT service, information technology industry
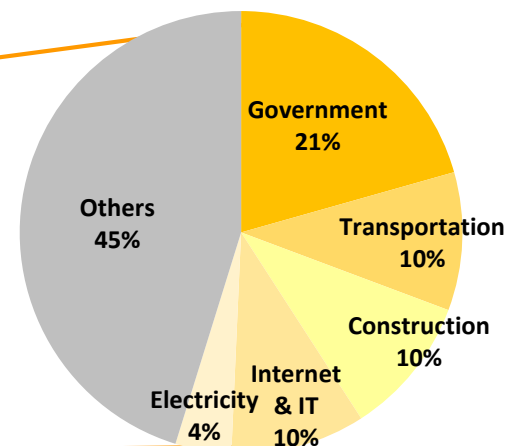
Domestic Non-operator Market II – Deeply Penetrate into Key Industries and Enhance Industry Influence

Total Amount for Newly Signed Contracts

(RMB'M)

>36%

	1H2018	1H2019
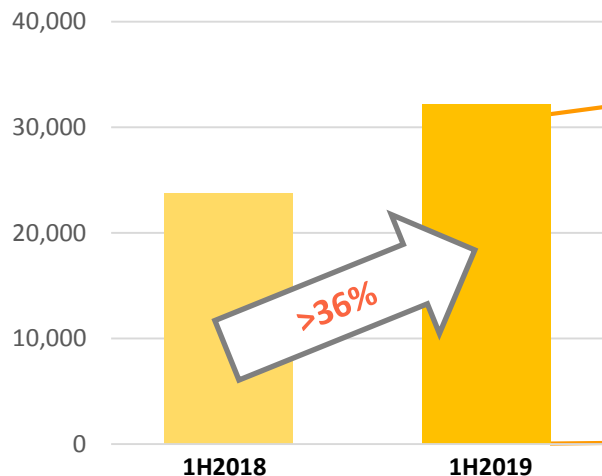
Sector Breakdown of Newly Signed Contracts in 1H2019

- Government 21%
- Transportation 10%
- Construction 10%
- Internet & IT 10%
- Electricity 4%
- Others 45%

Focus on Key Industries and Opportunities

➢ **Government:** Focus on applications such as Smart City, Smart Government Services, and Smart Justice; and also provide intelligentization construction, system integration services etc.

➢ **Transportation:** Focus on applications such as Smart Highway, Smart Airport, Smart Waterborne Transportation and Smart High Speed Rail; and also provide pipeline relocation, system integration services etc.

➢ **Electricity:** Focus on applications such as Smart Grid, Ubiquitous Power Internet of Things; and also provide design, construction, integration and maintenance services for power wireless private network and weak current system

➢ …

Facilitate the Operation of Our Ecosystem Alliances, Cultivate Leading Comprehensive Solutions for Key Industries

➢ Smart Justice and Smart Inspection garnered Top 10 Innovative Products awards

➢ Smart Airport awarded "Best Solution Provider"

➢ Awarded "Outstanding National Standard Research Contributor" in China International Software Expo - Software Engineering and Quality Forum

➢ …

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Domestic Non-operator Market III – Accelerate Deployment in Products and Markets

> **One of the enterprises with the most comprehensive coverage of smart products in China, provides over 30 solutions**
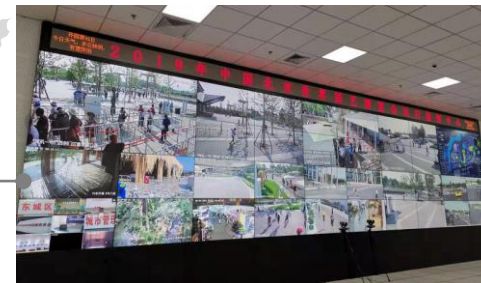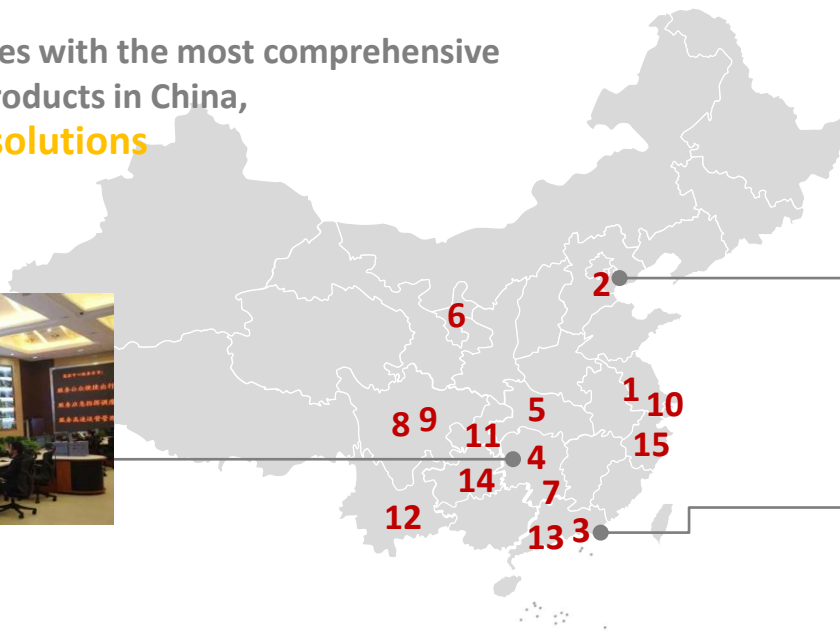
Signature Projects

1. Jiangsu – Smart City
Smart Nanjing Operation and Management Platform

2.Beijing – Smart Park
International Horticultural Exhibition "Smart Expo" Project (Beijing Expo 2019)

3.Shenzhen – Intelligent Building
Intelligentization Project of Shenzhen World Exhibition & Convention Center

4.Hunan – Smart Highway
Highway Informatization Project

5.Hubei – Smart Airport
Integrated Consultation & Design Project for Tianhe Airport

6.Ningxia – Smart Emergency
Safety, Risk Alert , Management & Monitoring Cloud Service Platform

7.Hunan – Smart Justice
"rufa.gov.cn" Integrated Law Service Platform

8.Sichuan – Smart Gov. Services
Integrated Government Services Platform Project

9.Sichuan – Smart Inspection
People's Procuratorate Smart Inspection Service

10.Shanghai – Smart Education
China Maritime Safety Administration Online Learning Platform

11. Chongqing – Smart Community
Smart Community Prevention and Control Project

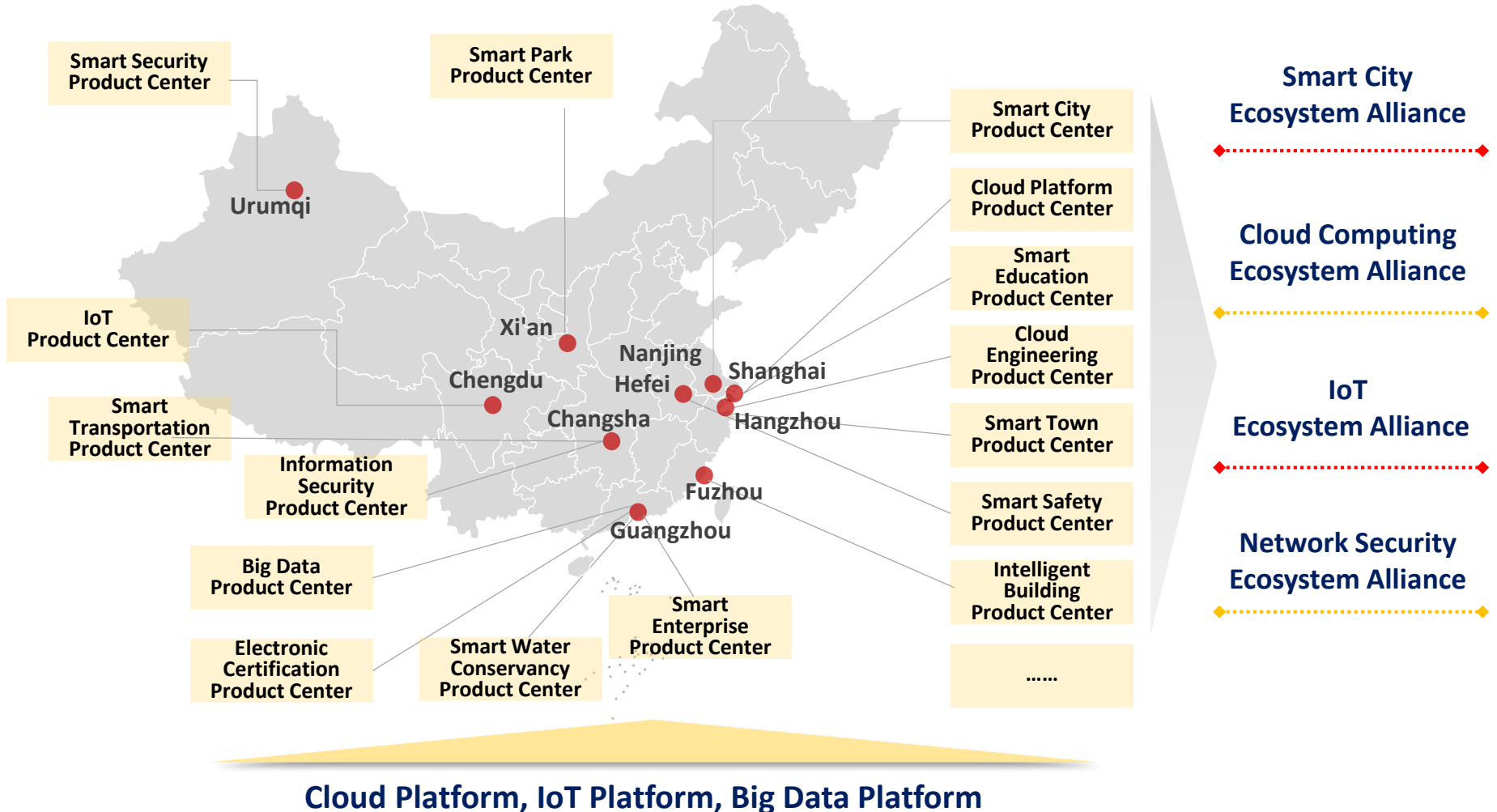**12.Yunnan – Smart Scenic Area**
Informatization and Management System Construction Project in the Colorful Sand Forest Scenic Area

13.Guangdong – Smart Water Conservancy
Smart Water Conservancy Cloud Platform Project

14.Guizhou – Smart Agriculture
Agricultural IoT Platform

15.Zhejiang – Cloud Engineering
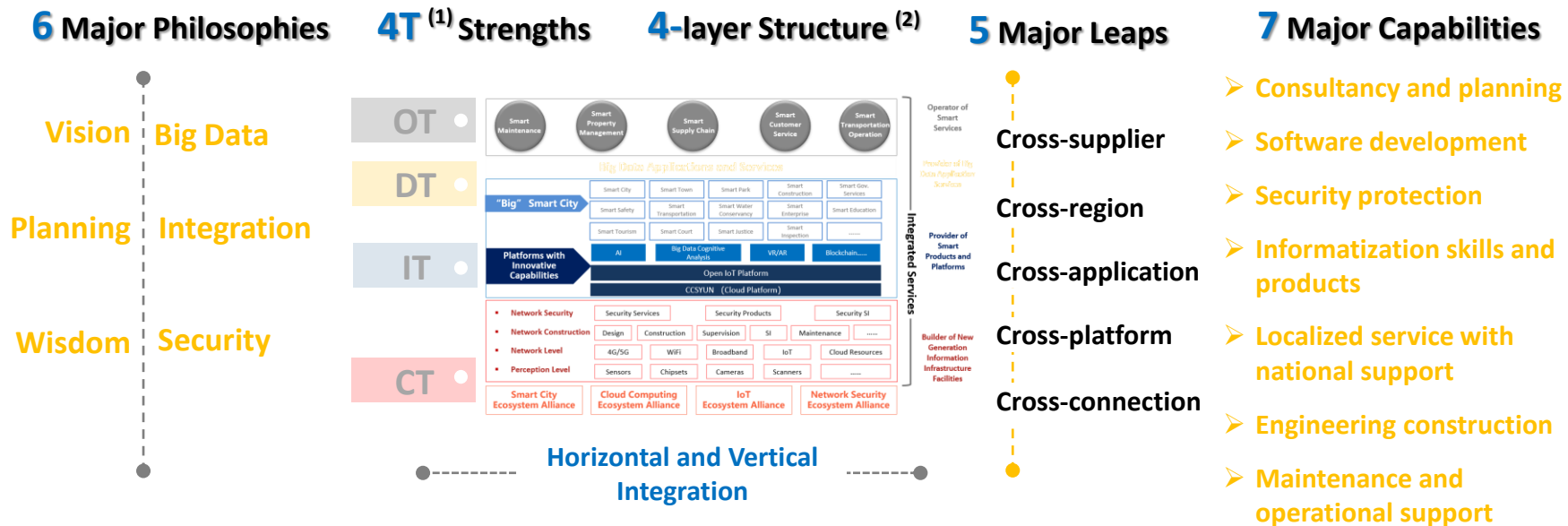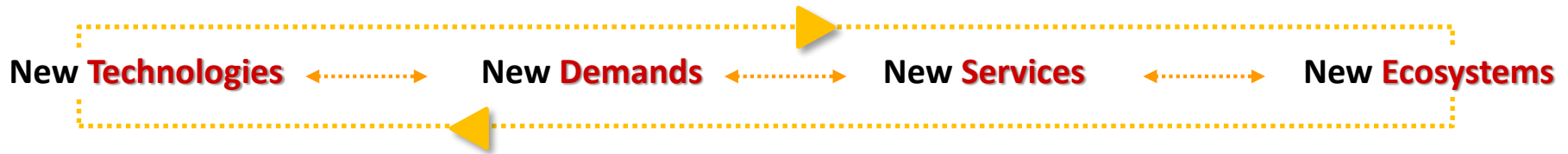China Telecom Cloud Computing Center in Inner Mongolia

Others………..

Domestic Non-operator Market IV –
Enhance R&D and Continuously Upgrade Core Capabilities

> Possess **over 20 R&D centers** across the country and promote **"product-oriented projects, platform-oriented products"** through widely dispersed R&D; facilitate the formation of ecosystem alliances and accelerate **capabilities accumulation**, **enabling** and **expansion** to support national services and upgrade core capabilities

Smart Security Product Center

Smart Park Product Center

Urumqi

IoT Product Center

Xi'an

Chengdu

Smart Transportation Product Center

Nanjing
Hefei

Shanghai

Changsha

Hangzhou

Information Security Product Center

Fuzhou

Guangzhou

Big Data Product Center

Electronic Certification Product Center

Smart Water Conservancy Product Center

Smart Enterprise Product Center

Smart City Product Center

Cloud Platform Product Center

Smart Education Product Center

Cloud Engineering Product Center

Smart Town Product Center

Smart Safety Product Center

Intelligent Building Product Center

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Smart City Ecosystem Alliance

Cloud Computing Ecosystem Alliance

IoT Ecosystem Alliance

Network Security Ecosystem Alliance

Cloud Platform, IoT Platform, Big Data Platform

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New **Technologies** ⟷ New **Demands** ⟷ New **Services** ⟷ New **Ecosystems**

New Philosophies ✚ New Structure ✚ New Capabilities

6 Major Philosophies

4T [1] Strengths

4-layer Structure [2]

5 Major Leaps

7 Major Capabilities

6 Major Philosophies

Vision	Big Data
Planning	Integration
Wisdom	Security

4T Strengths

OT
DT
IT
CT

Horizontal and Vertical Integration

5 Major Leaps

Cross-supplier

Cross-region

Cross-application

Cross-platform

Cross-connection

7 Major Capabilities

➢ Consultancy and planning

➢ Software development

➢ Security protection

➢ Informatization skills and products

➢ Localized service with national support

➢ Engineering construction

➢ Maintenance and operational support
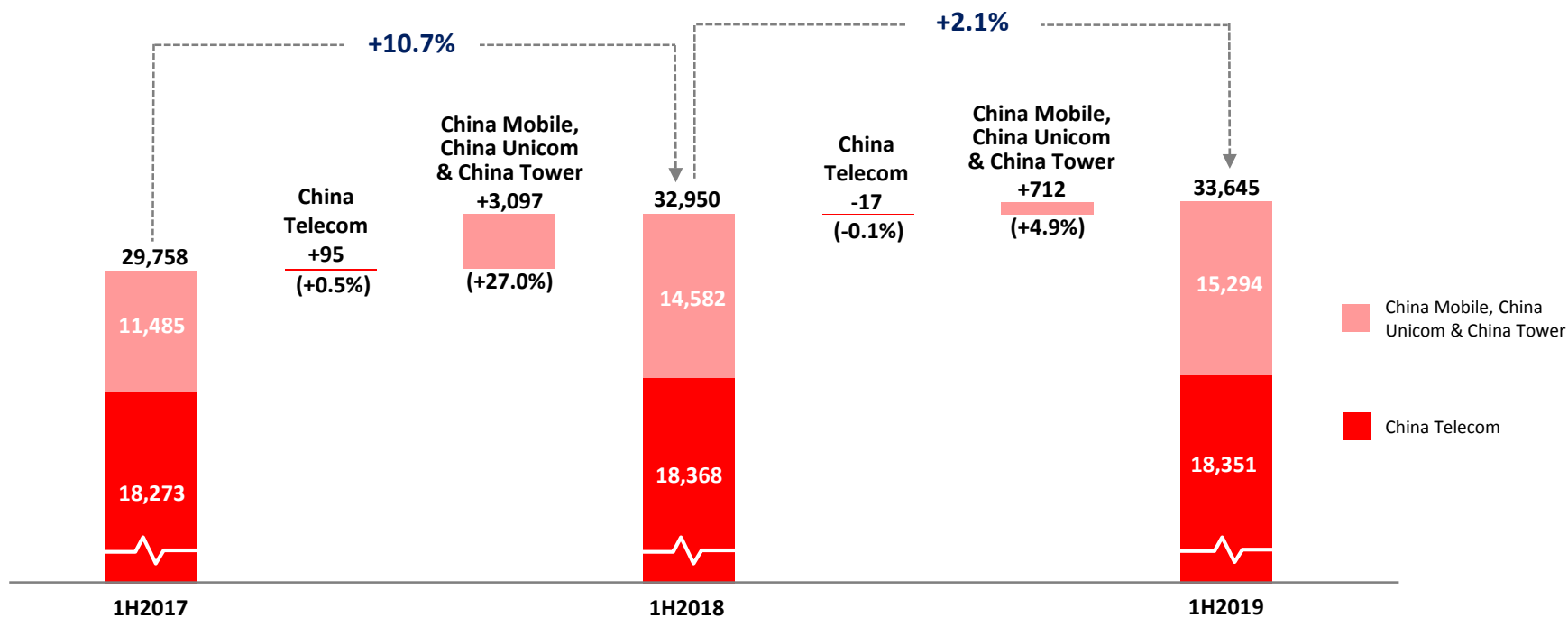
End-to-End Service Capabilities

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[1] 4T includes: Operational Technology, Data Technology, Information Technology, and Communications Technology

[2] Please refer to slide 33 for 4-layer Structure - Smart Society Products of China Comservice

Revenue Growth Drivers

(RMB'M)

- Despite the high base in 1H2018 and 5G network construction of domestic operators being yet at scale, revenue from domestic operator market still achieved steady growth

- Excluding products distribution business, revenue from China Telecom increased by 1.1% yoy in 1H2019
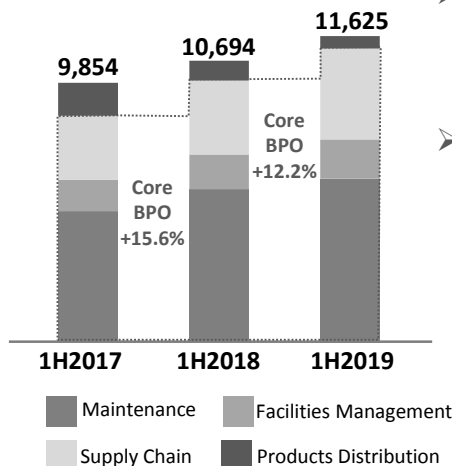
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TIS Business [1]

(RMB'M)

17,967 (1H2017)
20,030 (1H2018)
19,200 (1H2019)

+11.5%   -4.1%

1H2017   1H2018   1H2019
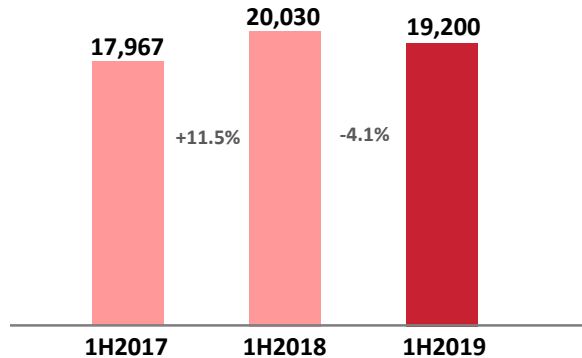
- Domestic operators will gradually increase 5G network construction investment in the coming 1 - 2 years

- Fully support the 5G network construction of domestic operators and strive to maintain stable market share

- Continue to uphold leading industry position in telecommunications infrastructure services, and enhance scale and quality through building up industry standards, strengthening subcontracting management etc.

BPO Business [1]

(RMB'M)

9,854 (1H2017)
10,694 (1H2018)
11,625 (1H2019)

Core BPO +15.6%
Core BPO +12.2%

1H2017   1H2018   1H2019

Maintenance   Facilities Management
Supply Chain   Products Distribution

- Generally sustainable, steady and generates relatively stable cash flow

- Core BPO businesses (including maintenance, supply chain and facilities management) maintained a relatively steady and double-digit growth in past 2 years
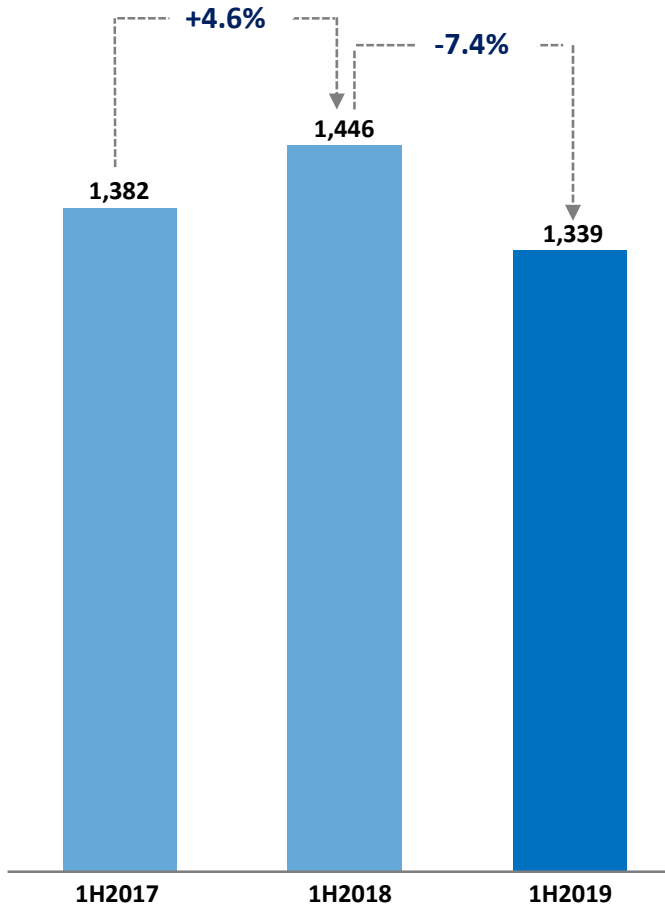
ACO Business [1]

(RMB'M)

1,937 (1H2017)
2,226 (1H2018)
2,820 (1H2019)

+14.9%   +26.6%

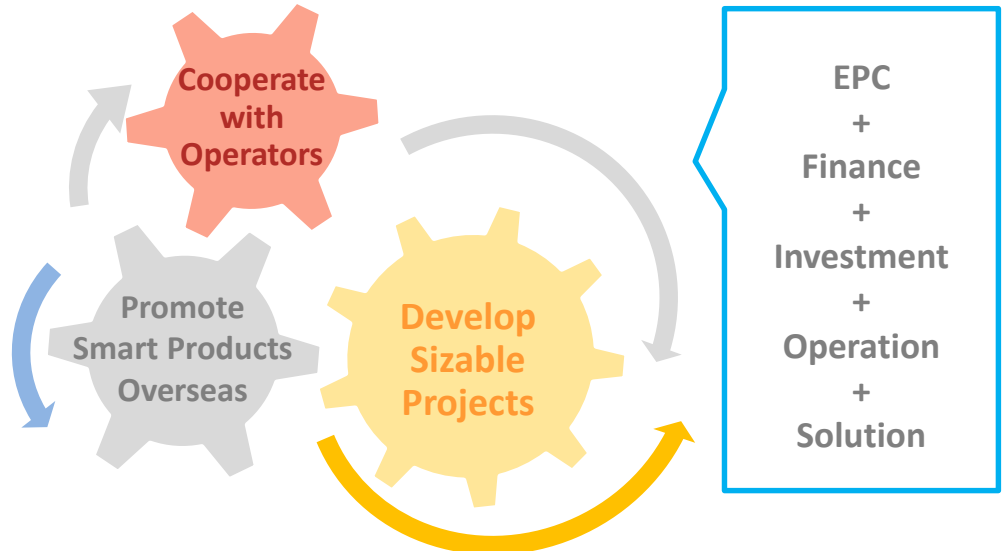1H2017   1H2018   1H2019
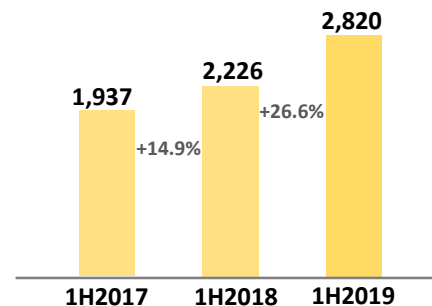
- Closely follow new technology services demand brought by 5G; support transformation of domestic operators and enhance cooperation in the field of smart services, IoT etc.

- Enhance collaboration with domestic operators and jointly develop the informatization market of government and enterprise customers

[1] Such data only represents revenues from domestic operator market

Revenue from Overseas Market

(RMB'M)

+4.6%

-7.4%

1,382

1,446

1,339

1H2017

1H2018

1H2019

➢ Overseas business experienced cyclical fluctuation as existing major projects nearly completed while the new major projects have not started generating meaningful revenue

➢ Actively promote the new "EPC+" expansion model and pursue the transformation and upgrade of overseas business

➢ Closely follow the digital transformation opportunities arising from overseas customers and extend the domestic smart society products overseas

➢ Deepen the collaboration with domestic operators to further develop businesses in overseas market

Cooperate with Operators
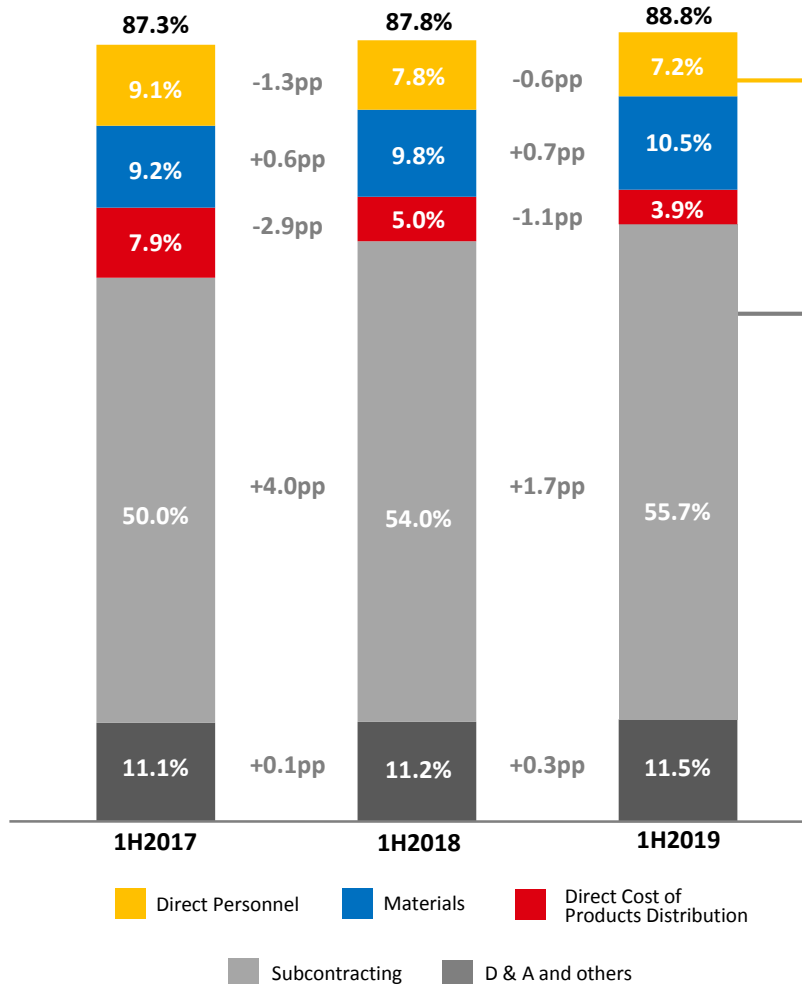
Promote Smart Products Overseas

Develop Sizable Projects

EPC + Finance + Investment + Operation + Solution

Financial Results

Financial Performance

(RMB'M)	1H2018	1H2019	Change %	% of Revenue
Revenue	**50,792**	**56,049**	**10.4%**	**100%**
Cost of Revenue	**44,616**	**49,749**	**11.5%**	**88.8%**
Direct Personnel	3,959	4,040	2.1%	7.2%
Materials	5,008	5,904	17.9%	10.5%
Direct Cost of Products Distribution	2,529	2,175	-14.0%	3.9%
Subcontracting	27,414	31,188	13.8%	55.7%
D & A	239	351	47.1%	0.6%
Others	5,468	6,091	11.4%	10.9%
Gross Profit	**6,176**	**6,300**	**2.0%**	**11.2%**
SG & A	**4,661**	**4,985**	**7.0%**	**8.9%**
Net Profit	**1,595**	**1,712**	**7.3%**	**3.1%**
EPS (RMB)	**0.230**	**0.247**	**7.3%**	-

Cost of Revenue as a % of Revenue

1H2017: 87.3%
- Direct Personnel: 9.1% — -1.3pp
- Materials: 9.2% — +0.6pp
- Direct Cost of Products Distribution: 7.9% — -2.9pp
- Subcontracting: 50.0% — +4.0pp
- D & A and others: 11.1% — +0.1pp

1H2018: 87.8%
- Direct Personnel: 7.8% — -0.6pp
- Materials: 9.8% — +0.7pp
- Direct Cost of Products Distribution: 5.0% — -1.1pp
- Subcontracting: 54.0% — +1.7pp
- D & A and others: 11.2% — +0.3pp

1H2019: 88.8%
- Direct Personnel: 7.2%
- Materials: 10.5%
- Direct Cost of Products Distribution: 3.9%
- Subcontracting: 55.7%
- D & A and others: 11.5%

Legend:
- Direct Personnel
- Materials
- Direct Cost of Products Distribution
- Subcontracting
- D & A and others
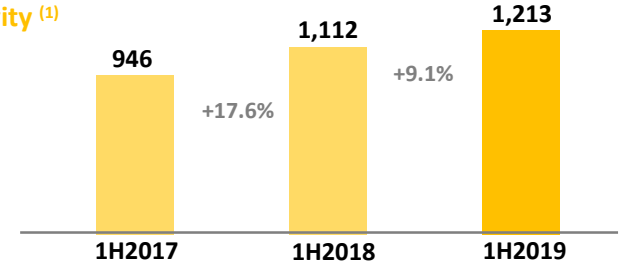
■ By utilizing subcontracting resources adaptively and controlling total staff number, direct personnel cost as a % of revenue kept declining while labour productivity kept increasing

Labour Productivity [1]
(RMB'000/staff)

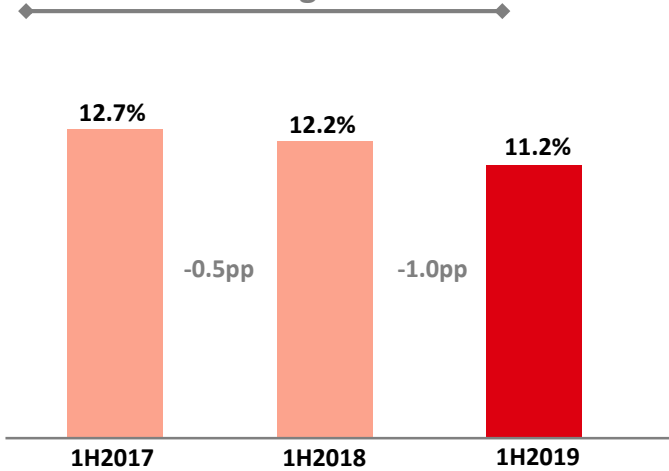|	1H2017	1H2018	1H2019
	946	1,112	1,213
		+17.6%	+9.1%

■ By strengthening subcontracting management, growth of subcontracting cost as a % of revenue noticeably eased
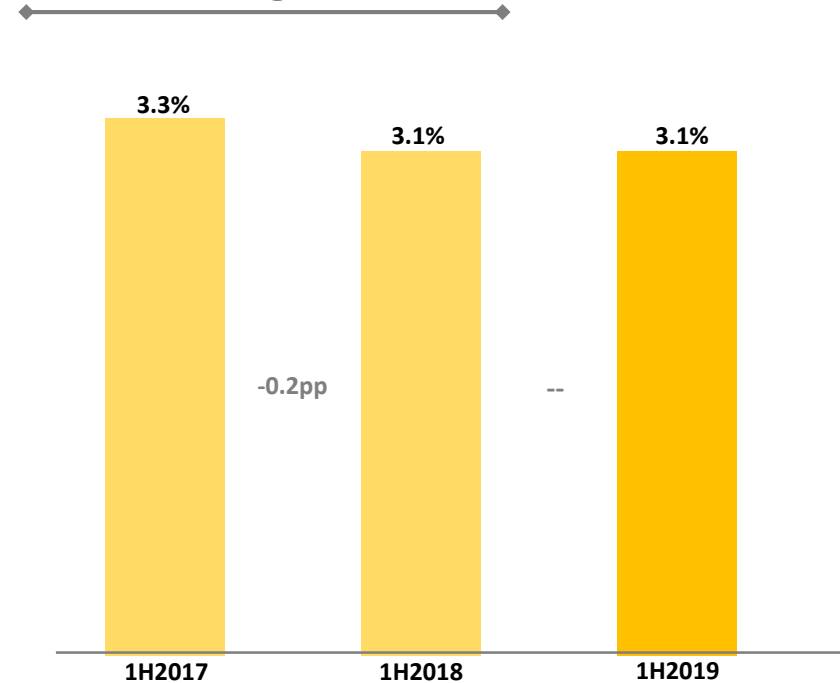
■ Rapid growth of construction business in domestic non-operator market and system integration business drove the relatively fast increase in materials cost

■ By proactively controlling the products distribution business, direct cost of products distribution as a % of revenue fell by 1.1pp
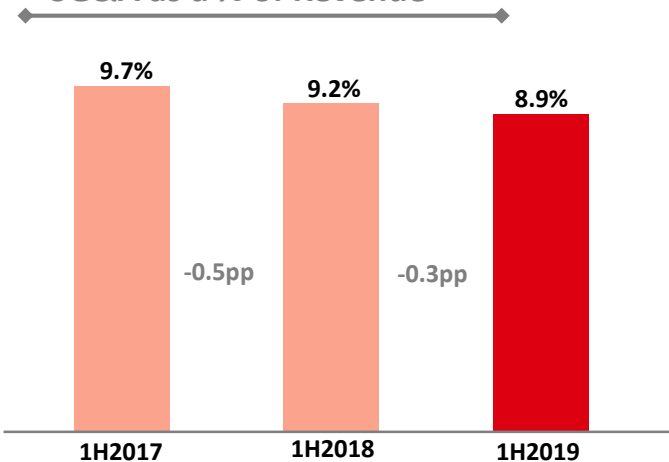
[1] Labour Productivity = revenue (annualized basis) / staff number

Operating Efficiency

Gross Profit Margin

12.7%	**12.2%**	**11.2%**
1H2017	1H2018	1H2019

-0.5pp   -1.0pp

SG&A as a % of Revenue

9.7%	**9.2%**	**8.9%**
1H2017	1H2018	1H2019

-0.5pp   -0.3pp

Net Profit Margin

3.3%	**3.1%**	**3.1%**
1H2017	1H2018	1H2019

-0.2pp   --

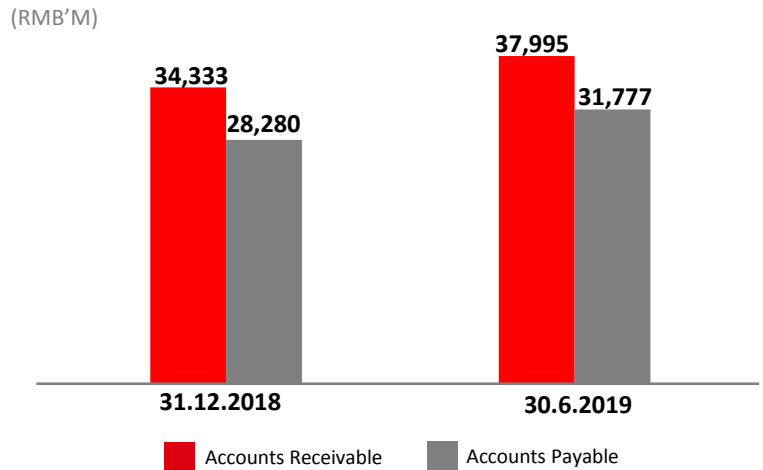➢ Gross profit margin decreased due to various factors including the decreasing service value in telecom industry，the development in the domestic non-operator market still being in the preliminary introductory phase and increased labour related costs

➢ SG&A grew as R&D expenditure increased to forge smart solutions and enhance software capabilities, but SG&A as a % of revenue continued to decrease due to scale benefit
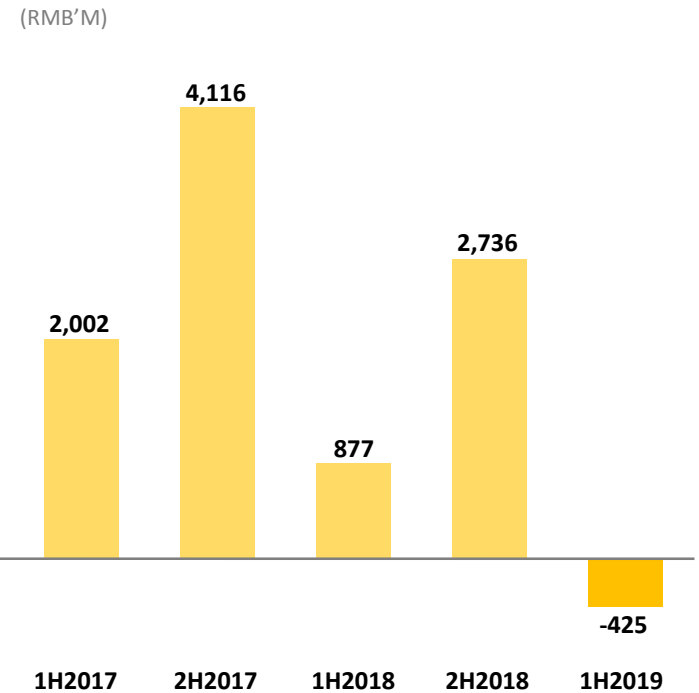
Working Capital

Accounts Receivable [1] and Accounts Payable Turnover Days

	30.6.2017	30.6.2018	30.6.2019
Accounts Receivable Turnover Days	127	119	118
Accounts Payable Turnover Days	135	139	140

● Accounts Receivable Turnover Days
● Accounts Payable Turnover Days

Accounts Receivable [1] and Accounts Payable

(RMB'M)

	31.12.2018	30.6.2019
Accounts Receivable	34,333	37,995
Accounts Payable	28,280	31,777
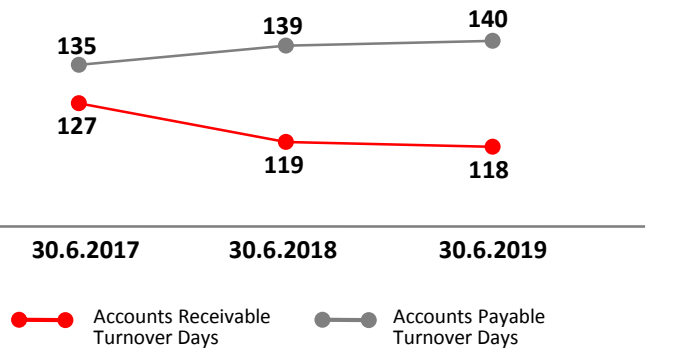
■ Accounts Receivable   ■ Accounts Payable

Free Cash Flow [2]

(RMB'M)

1H2017	2H2017	1H2018	2H2018	1H2019
2,002	4,116	877	2,736	-425

[1] Disclosures on certain items of financial statements have been adjusted following the adoption of new accounting standards from 2018. To maintain the comparability with past year figures, the amount of accounts receivable as at 30 June 2019 and 31 December 2018 is the sum of "Accounts and bills receivable, net" and "Contract assets, net" in financial statements. For details, please refer to financial statements.

[2] Free cash flow = profit for the year + depreciation & amortization – changes in working capital – CAPEX. The Company has adopted a new accounting standard on leases since 2019. Excluding the impact of the new standard, free cash flow in 1H2019 was RMB-572 million.

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Financial Position

> Robust financial condition offers financial flexibility to support the Company's development, and also supports further innovation and transformation of the Company

(RMB'M)	30.6.2018	31.12.2018	30.6.2019
Total Assets [1]	79,108	80,926	85,734
Total Liabilities	47,604	48,097	51,921
Equity Attributable to Equity Shareholders	31,022	32,331	33,327
Total Liabilities / Total Assets (%)	60.2%	59.4%	60.6%
Debt-to-Capitalization Ratio (%)	1.3%	1.4%	1.4%
Cash and Deposits	14,747	18,235	15,795
Interest-bearing Liabilities	408	471	476

[1] Total assets as of 30.6.2019 included principal-protected wealth management products of approximately RMB6.25 billion (31.12.2018: approximately RMB5 billion)

Thank you!

- • **Platinum Award - Excellence in Environmental, Social and Governance**

- • **Best Investor Relations Team Award**

--------by *The Asset*

- • **The Best of Asia - Icon on Corporate Governance**

- • **Asian Corporate Director**

--------by *Corporate Governance Asia*

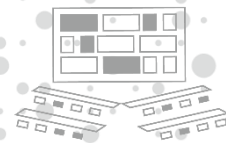- • **Best CEO**

- • **Best Investor Relations Company**

--------by *Corporate Governance Asia*

Appendix

Business Revenue Breakdown – By Customer

(RMB'M)	1H2018	1H2019	Change	Change %
TIS (Telecommunications Infrastructure Services)				
Domestic Operator	20,030	19,200	-830	-4.1%
Domestic Non-operator	7,273	10,665	3,392	46.6%
Overseas Customer	1,027	936	-91	-8.9%
TIS total	**28,330**	**30,801**	**2,471**	**8.7%**
BPO (Business Process Outsourcing Services)				
Domestic Operator	9,943	11,156	1,213	12.2%
Domestic Non-operator	3,793	4,568	775	20.4%
Overseas Customer	158	124	-34	-21.3%
Subtotal (Core BPO)	**13,894**	**15,848**	**1,954**	**14.1%**
Products Distribution	2,714	2,280	-434	-16.0%
BPO Total	**16,608**	**18,128**	**1,520**	**9.2%**
ACO (Applications, Content and Other Services)				
Domestic Operator	2,226	2,820	594	26.6%
Domestic Non-operator	3,382	4,032	650	19.2%
Overseas Customer	246	268	22	9.1%
ACO total	**5,854**	**7,120**	**1,266**	**21.6%**
Total	**50,792**	**56,049**	**5,257**	**10.4%**

Smart Society Products of China Comservice

中国通信服务
CHINA COMSERVICE

Smart Maintenance	Smart Property Management	Smart Supply Chain	Smart Customer Service	Smart Transportation Operation

Operator of Smart Services

Big Data Applications and Services

Provider of Big Data Application Services

"Big" Smart City

Smart City	Smart Town	Smart Park	Smart Construction	Smart Gov. Services
Smart Safety	Smart Transportation	Smart Water Conservancy	Smart Enterprise	Smart Education
Smart Tourism	Smart Court	Smart Justice	Smart Inspection	......

Platforms with Innovative Capabilities

AI	Big Data Cognitive Analysis	VR/AR	Blockchain......

Open IoT Platform

CCSYUN（Cloud Platform）

Provider of Smart Products and Platforms

Integrated Services

- **Network Security**

Security Services	Security Products	Security SI

- **Network Construction**

Design	Construction	Supervision	SI	Maintenance	......

- **Network Level**

4G/5G	WiFi	Broadband	IoT	Cloud Resources

- **Perception Level**

Sensors	Chipsets	Cameras	Scanners	......

Builder of New Generation Information Infrastructure Facilities

Smart City Ecosystem Alliance	**Cloud Computing Ecosystem Alliance**	**IoT Ecosystem Alliance**	**Network Security Ecosystem Alliance**

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Construct a power wireless private network and facilitate the construction of Ubiquitous Power Internet of Things

Terminal Communication Access Network in Jiaxing, Zhejiang

CCS participated in the design, construction and supervision of the project and assisted State Grid to construct the first full coverage power wireless private network at prefecture-level in Jiaxing, Zhejiang

5G Power Slicing Test in Nanjing

CCS cooperated with China Telecom to finish the first slicing test for 5G power control and management business based on actual power network environment in the electricity industry

- Participate in the **top-level planning and design** for the power wireless private network of State Grid

- Participate in the **research and edition work for enterprise standard** of power wireless private network of State Grid

- Assist in the **construction of power wireless private network** for various provincial power companies across the country

Case Introduction – Smart Electricity

Provide various smart applications and management systems that raise the intelligentization level in power

Communication Resource Management System for Main Power Network

- Professional physical resources management
- Mode arrangement and management
- Malfunction analysis and management
- Migration management

Integrated Smart Control and Management System for Communication of Electricity Distribution Network

- Resource management
- Integrated network management
- Operation and control

Smart Application System for Video and Image in Power Network

- Scenarios for the operation, transmission and transform for power network
- Integrated management for video resources
- Facial recognition
- Systematic analysis for massive amount of videos

110kV Smart Transformer Station in Dujiangyan, Chengdu

- Standardized intelligent design for indoor transformer station
- Distribution mode structure
- Smaller size
- Fast construction speed
- Energy saving and environmental-friendly

Technological Consultation	Framework & Development	Construction & Implementation	Data Collection & Record	Operation & Maintenance	Decision-making & Analysis

**CCS Intelligent Building Management System (CCS-iBMS) –
the "Brain" of building management which provides comprehensive solutions**

Centralized Equipment Monitoring	Centralized Warning Management	Event Interconnection	Smart Equipment Dispatch	Integrated Property Management	Integrated Maintenance & Operation Management	Energy Consumption Smart Analysis

- Government Building
- Medical Institution
- Medical Campus Building
- Public Facilities
- Tourist Area Building
- Transport Terminal
- Business Complex
- Commercial Building
- High-end Hotel
- Financial Institution Building
- Educational Institution Building
- Electricity Administrative Building
- Various Stadiums
- High-end Office Building

Case Introduction – Intelligent Building

Construction Scope

- Construction of 21 systems including structured cabling system, computer network system, program-controlled exchange system, equipment automation system, energy billing system, smart lighting system, cable TV and satellite inception system, video surveillance system, invasion alert system, one-card management system, wireless intercom system, chiller plants multiple control system, property management system, intelligent building management system etc.

Project Detail

- A 43-storey commercial building located at the CBD with 110,000 m² of total gross floor area, which is also one of the new landmark buildings in Fuzhou

Benefits to Customer

- Establish a 5A intelligent commercial building of international standard that is the new landmark building of Fuzhou
- Adopt the **"Smart Management + Smart Operation + Smart Service"** model and leverage on a wide variety of intelligent applications in CCS-iBMS to showcase various management, operation and service data of the building and achieve visualized management
- Project construction and quality are highly recognized by the NDRC and key development department of Fujian Province and awarded as the **Outstanding Project for Key Project Assessment of Fujian Province in 2018**

Haixi Commercial Building

Guangdong Foshan 110 Command Center

Shandong Yangxin People's Hospital

Jiangxi Guangfeng Cigarette Factory

Chongqing Jiangbei Doctorate Entrepreneurship Building

The Company would like to caution readers about the forward-looking nature of certain statements herein. These forward-looking statements are subject to risks, uncertainties and assumptions, which are beyond its control. Potential risks and uncertainties include those concerning the growth of the telecommunications industry in china, the development of the regulatory environment, and our ability to successfully execute our business strategies. In addition, these forward-looking statements reflect the Company' current views with respect to future events and are not a guarantee of future performance. The Company does not intend to update these forward-looking statements. Actual result may differ materially from the information contained in the forward-looking statements as a result of a number of factors.