

## BUSINESS REVIEW



### OVERVIEW

We are the leading provider of wireline telephone, data, Internet and leased line services in Shanghai Municipality, Guangdong Province, Jiangsu Province and Zhejiang Province. As is consistent with our philosophy of placing “customer first, service foremost”, we seek to develop a business model that is market-oriented, customer-centered and return-driven. We achieved an outstanding performance in 2002.

In 2002, our revenue grew by 10.1% to RMB75,496 million and net income increased to RMB16,864 million with a net profit margin of 22.3%. We have expanded our wireline subscriber base by 17.3%, adding 8.38 million access lines in service, bringing

our total to 56.86 million. We grew our broadband subscriber base by 247.4%, signing up 0.98 million new customers to attain a year-end subscriber base of 1.38 million. We built up demand momentum for value-added wireline services through the successful market debuts of V-net, information telephone, 17901 direct dial VoIP, 4008 quasi toll-free and wireline prepaid services.

In 2002, we further consolidated our market leadership position with the full implementation of our market segmentation plan and of our growth strategies geared toward wireline voice, broadband and Internet, and value-added services.

We enhanced customer satisfaction through differentiated product provisioning, and the establishment of four clearly positioned servicing and distribution channels, consisting of our key account managers, community managers, rural contract personnel and “1000” service hotline. Customer complaints filed with the Ministry of Information Industry against us declined 87% in 2002, falling to one of the lowest levels in the industry.

We pushed ahead with our internal restructuring and business re-engineering initiatives aimed at instilling greater market responsiveness, more effective cost control, higher efficiency and competitiveness into our operations.

China’s regulatory environment has become more transparent, and the competition more orderly. The structural adjustment in wireline tariffs has been fully reflected in the company’s financial performance of 2002. Tariff policy regarding wireline telecom services is basically stable. In the mean time, the Ministry of Information Industry will increase regulatory scrutiny, and actively facilitate orderly competition in the market.

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The following table illustrates some major indicators of our business development in the last 3 years:

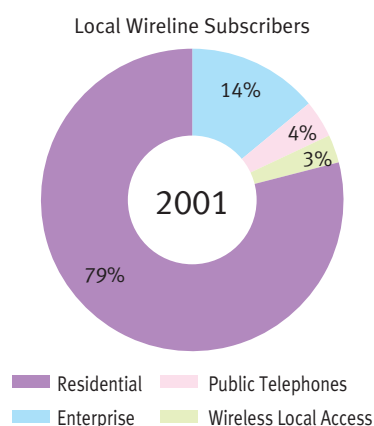
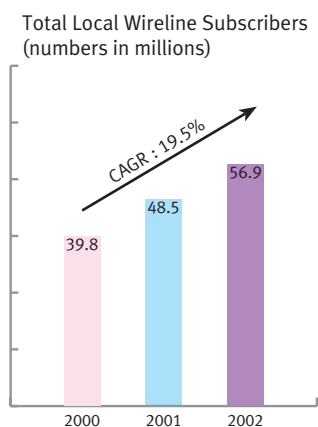
	2000	2001	2002	Change 2002 over 2001
Local wireline access lines in service (in thousands)	39,822	48,478	56,859	17.3%
Penetration rate of wireline service (%)	18.3%	22.1%	25.7%	3.6 pp
Local voice usage (pulses in billions)	156.6	158.8	174.1	9.6%
Domestic long distance usage (minutes in millions)	26,967	30,630	33,624	9.8%
International, Hong Kong, Macau and Taiwan long distance usage (minutes in millions)	1,417	1,406	1,325	-5.8%
DDN ports (in thousands) [in 64K equivalents]	103.1	158.6	207.7	31.0%
FR ports (in thousands) [in 128K equivalents]	11.2	20.4	24.3	19.1%
ATM ports (in thousands) [in 2M equivalents]	1.3	7.8	10.8	38.5%
Broadband subscribers (in thousands)	10	397	1,379	247.4%
Dial-up subscribers (in thousands)	5,171	9,627	11,623	20.7%
Dial-up usage (minutes in billions)	22.2	45.5	40.2	-11.6%
2M digital circuits leased (lines in thousands)	65.1	84.3	94.4	12.0%
Penetration rate of caller ID display (% of lines in service)	—	27.9%	41.9%	14.0 pp

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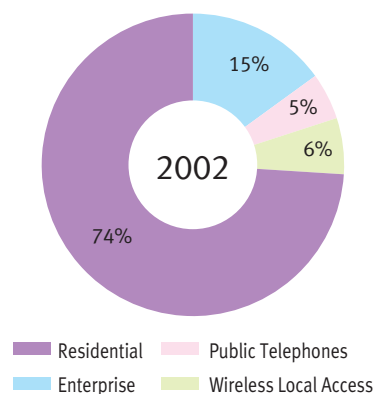
### Business Line Review

#### Local voice business sustained rapid growth

Generating 47.5% of total revenue, local wireline voice service is the pillar of our business and the focus of our development. We enjoy a dominant market position in local services with a subscriber market share of over 99%. Both our subscriber base and traffic volume maintained high growth rates in 2002.



Local Wireline Subscribers



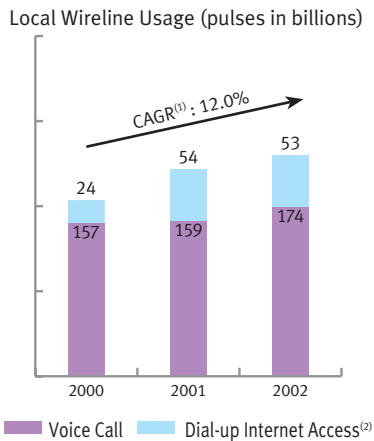
#### Subscriber base swiftly expanded

We continued to rapidly expand our wireline subscriber base in 2002. Adding 8.38 million new access lines in service, we grew our subscriber base by 17.3% to a total of 56.86 million access lines in service at year-end. Such strong wireline subscriber growth provides a solid foundation for the sustained development of our local voice, long distance, Internet and data, and other services. Meanwhile, we also improved the structure of our subscriber base. Through strict emphasis on profitability and high-end subscribers, we grew our high-ARPU business and public telephone subscribers by 21.3% and 58.5%, respectively. Collectively, these valuable customers accounted for 20.3% of our total subscribers at year-end, as compared to 18.5% for 2001. Accelerating wireless local access subscription was driven by strong market demand. Being a natural extension of and supplement to our wireline services, wireless local access played a positive role in boosting local call volume and revenue growth, and in stemming competitive substitution. The year-end wireline penetration rate of 25.7% in our service regions was still significantly lower than the existing rates in mature markets, indicating the great market potential over which we preside.

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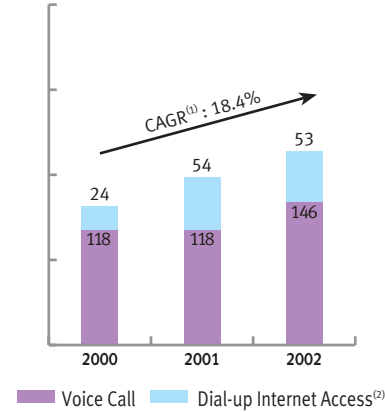
### Local telephone usage made steady headway

Total local usage, including voice and dial-up, grew 6.7% in 2002, totaling 226.6 billion pulses at year-end. This growth was largely attributable to a 9.6% growth in voice calls driven by expansion in our subscriber base, enhancement of our distribution channels and marketing initiatives focused on usage revenue. The upgrade made by some of our subscribers from dial-up Internet access services to broadband services led to a decrease in total dial-up usage.



(1): 2000-2002CAGR of total usage  
 (2): including dial-up usage by our subscribers and users of other dial-up service providers

Local Wireline Usage (minutes in billions)



(1): 2000-2002CAGR of total usage  
 (2): including dial-up usage by our subscribers and users of other dial-up service providers

### Broadband and data business emerged as a major driver of revenue growth

Our Internet and data business experienced explosive growth in 2002. Revenue grew 53.4% from 2001 to RMB5,564 million, constituting 7.4% of total revenue. We magnified our broadband subscriber base by 247.4% from year-end 2001 to serve 1.38 million total broadband users. ADSL subscribers accounted for 81.4% of our total broadband subscribers, numbering 1.12 million at year-end 2002.

### Broadband: Explosive growth

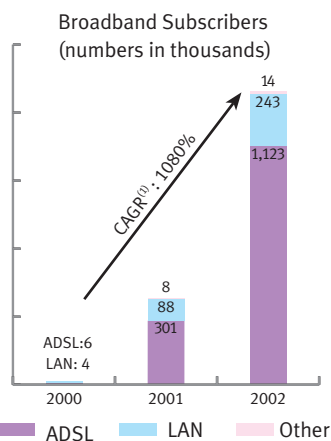
Over the past year, we successfully leveraged our enormous existing subscriber base and dominant control over the “last mile” access network to make broadband access a strategic focus. Strong growth in demand enabled us to position our broadband services as premium products. Meanwhile, we increased our brand name recognition through a series of large-scale promotional campaigns throughout 2002, the most notable of which was the market momentum-pumping “Ultimate Broadband Tour”. Supporting operational efforts,

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advances in technology have consistently brought down equipment costs, further improving the economics of our broadband business. Broadband access is increasingly becoming a high growth, high margin business that contributes significantly to our revenue growth. We expect to quadruple our broadband subscriber base by the end of 2005.

Cooperating with service providers, we have introduced V-net, a new business model aimed at promoting broadband penetration and usage. The interaction between access and applications made possible by V-net will open up a new range of services to our end-users, including on-line gaming, Video-On-Demand, on-line financial services, and distance education, while equipping service providers with easy access to end user payments, and to IDC, bandwidth and customer care services. V-net will effectively promote the rapid proliferation of broadband applications and stimulate growth in our subscriber base and revenue.

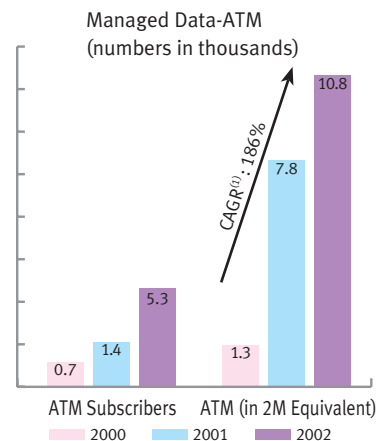
Dial-up Internet access subscribers exceeded 10 million in 2002, an increase of 20.7% from 2001. A well-established and growing narrow-band business acts as a sort of incubator, nurturing demand for our broadband business.



(1): 2000-2002 CAGR of total broadband subscribers

### Managed data: high growth in usage

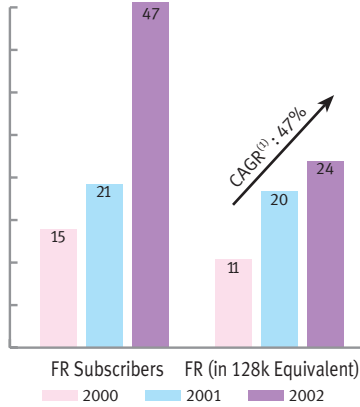
We achieved remarkable development in our managed data business over the past year. The bandwidth volume of our Digital Data Network (DDN), Frame Relay (FR) and Asynchronous Transfer Mode (ATM) services grew by 31.0%, 19.1% and 38.5%, respectively. We continued to focus on this business line strategically, and have been committed to providing large enterprise customers with tailored services and total solutions that deliver real value. As we have become increasingly recognised as one of China's preferred providers of managed data services, our subscriber base has expanded without interruption and most of our existing subscribers have upgraded their bandwidth and increased their usage.



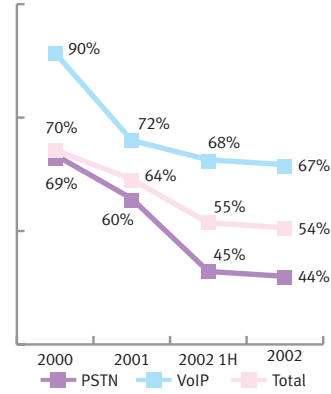
(1): CAGR of ATM (in 2M equivalent)

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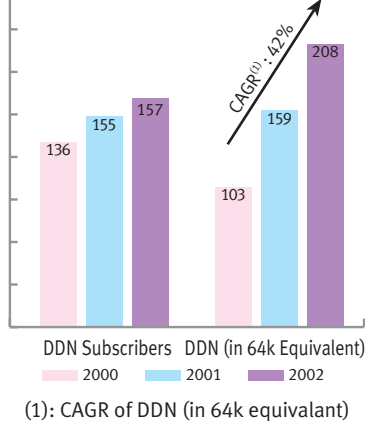
Managed Data-FR (numbers in thousands)



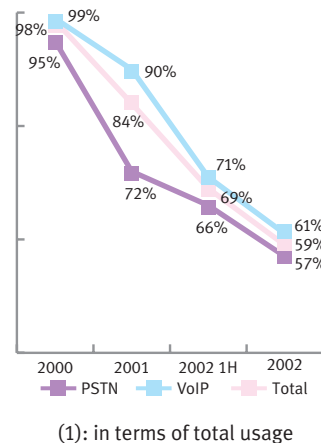
Domestic long distance market share <sup>(1)</sup>



Managed Data-DDN (numbers in thousands)



IDD market share <sup>(1)</sup>



### *Risk in long distance voice business moderated*

Domestic and international, Hong Kong, Macau and Taiwan long distance services accounted for 23.3% of our total revenue in 2002, falling 3 percentage points from 2001. Due to the shift to a fully competitive market, tariff levels are set to a large extent on a competitive basis. Our long distance business therefore faces markedly reduced risk on the tariff front.

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### Domestic long distance: Traffic growth steady

(minutes in millions)	2000	2001	2002
PSTN	24,780	19,133	15,915
VoIP	2,187	11,497	17,709
TOTAL	26,967	30,630	33,624

Domestic long distance telephone services accounted for 19.0% of our total revenue in 2002. Our strategy for this business, which we successfully enacted in 2002, has involved the discretionary use of VoIP as a competitive tool to maximise revenue. While the tariff premium for PSTN services remained constant, we fine-tuned the percentage of market-priced VoIP in total long distance traffic to respond to competitive pressures and best achieve our revenue target. In 2002, VoIP services contributed 52.7% of total long distance usage. As a result of the increase in usage of our market-priced VoIP services, we believe that tariff-related risks facing domestic long distance are markedly reduced. Results for the second half of 2002 were even more encouraging. Revenue rose 1.0% over the first half of the year, and our market share in terms of traffic volume was maintained above 50%.

### International, Hong Kong, Macau and Taiwan long distance: slight decline in traffic

Revenue from international, Hong Kong, Macau and Taiwan long distance telephone services contributed 4.3% of our total revenue in 2002. At year-end 2002 we held a market share of 59.2% in terms of traffic volume. Total traffic declined by 5.8% from the previous year to 1.33 billion minutes. The opening of international gateways by other telecom operators in our service regions diverted a

portion of the international traffic that was previously transmitted by us. Also, intensified competition translated into higher VoIP usage.

### Value added services exhibited exceptional growth

Value added services signify the striking combination of limited incremental investment and attractive returns. We leveraged our network and customer resources to promote value-added services, including caller ID display, call-up information services and information telephone. By the end of 2002, our caller ID display service had 23.84 million subscribers with a penetration rate of 41.9%, up from a penetration rate of 27.9% in 2001. We partnered with government agencies, news media and businesses to provide diversified call-up information services and call center out-sourcing to our customers, which also greatly boosted our voice traffic.

In addition, we attempted to combine information services with e-commerce applications. Utilising our existing telephone billing and collection systems as a payment platform, we provided wireline telephone subscribers with such new services as telephone lottery and telephone stock trading. We also introduced 17901 direct dial VoIP, 4008 quasi toll-free and wireline pre-paid services.

### Interconnection and leased line businesses

Interconnection and leased line services accounted for 9.9% of our total revenue in 2002. For local interconnection, we charge a termination fee of RMB0.06 per minute for inbound traffic, but, by regulation, we are exempt from any interconnection payment for outbound local traffic to mobile operators. Inbound local calls grew 10.8% in 2002. Long distance interconnection was influenced by a

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significant structural change in traffic pattern in 2002. The traffic routing deregulation enacted in 2002 stimulated long distance operators, including ourselves, to carry on their own networks the long distance traffic generated by their own subscribers. The net impact of this change on us was limited, as we experienced reductions on both the revenue and the expense sides of the equation.

The total amount of local and long distance 2 Mbit digital leased circuits grew 12.0% in 2002. Our marketing efforts focused on providing global one-stop shopping and total solution packages to government, financial and large enterprise customers. We are capable of providing consulting, service provisioning, trouble-shooting, billing and collection, and technical support, all at one single point of contact. We have established an excellent brand image among our major customers through our outstanding SLA service provision.

### Business Strategies

*Continue to expand our wireline subscriber base in a profitable manner.* We intend to continue to expand our subscriber base, focusing on high-return regions and high-value segments, through the integration and re-allocation of existing resources combined with appropriate additional



investments. For example, we intend to capture potential traffic generated by people on the move by deploying more full-function public phone outlets in competitive areas, and increasing the number of IN-based public phone terminals in highly populated locations, such as schools and hospitals.

*Intensify development in broadband services.* We intend to quadruple our broadband subscriber base over the next three years by continuing to leverage our rich copper wire access resources and making reasonable incremental investments. Given strong market demand, we intend to maintain broadband's premium product positioning and to continue to promote the proliferation of broadband application services.

*Mitigate long distance business risks and maintain traffic growth.* Our strategy for long distance services is centered on revenue stability, which we can achieve by offering flexible pricing packages, promoting the use of prepaid cards and continuing our defensive strategy for VoIP service. We will not promote lower tariffed VoIP services to a particular customer segment unless there is a competing VoIP product. This strategy has worked well in preventing competitive substitution and achieving steady growth in domestic and international, Hong Kong, Macau and Taiwan long distance traffic.

*Emphasise business innovation.* We intend to further capitalise on existing resources through exploring new earnings models and promoting the development of value added services. Major efforts will also be made to create new revenue streams by selling new products to our huge subscriber base, as we did in 2002 with new services like 17901 direct dial VoIP, 4008 quasi toll-free and wireline prepaid services. We believe these efforts will help enhance our market leadership position.



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*Boost customer satisfaction: Distributing differentiated products and tailored services via four channels.* We will continue to implement our three-pronged general strategy of delivering individually tailored total solutions and global one stop shopping services to large enterprise customers to increase customer stickiness, providing specialised services to small- and medium-sized enterprise customers to boost profit growth, and affording standardised services to residential customers to reduce operating costs. We will continue to allocate more personnel to “front-end” operations where these experienced workers, equipped with adequate training, will enhance our direct customer service capability. Since the compensation of “front-end” employees can be more closely linked to revenue, we will be able to convert formerly fixed costs into variable costs.

### Network development and IT systems

#### *Network development*

Our wireline network boasts unparalleled coverage and scale in our service regions. At the end of 2002, our fiber-optic network had a total cable length of 250,000 kilometers. Local and long distance switching capacity totaled 74.76 million lines and 1.67 million ports, respectively. The bandwidth of our international gateway totaled 8.12 Gbps.

Our network infrastructure is 100% digitalised, high speed, reliable and multi-dimensional in terms of servicing capability. SDH+DWDM technology is broadly employed in our transmission infrastructure, and Gigabit routers are widely deployed in our broadband Internet network. Strong reliability and high quality characterised our network operations in 2002, as demonstrated by our connection rate of over 96%. Our broad implementation of advanced technology has allowed us to optimise fiber optic capacity deployment on a real-time basis while maintaining

smooth service on the user end. We are the first telecom operator in China to achieve this, ensuring superior service for our large enterprise customers.

Our broadband access network was a key focus of our network development in 2002. While ADSL was our mainstream technology, we offered even higher bandwidth products such as VDSL. We also developed WLAN presence in high mobility business areas in major cities, including hotels, airports, cafes and office buildings. For example, at the end of 2002, we obtained authorisation to deploy WLAN in 206 hot spots in Shanghai.

Throughout, utilisation of existing resources has been a major focus. We managed to improve network efficiency and increase utilisation through resource re-allocation and deployment optimisation. At the end of 2002, the utilisation of local and long distance switches rose 5.0 and 3.2 percentage points, respectively, as compared with 2001.

We continued to utilise existing network resources, including our Intelligent Network platform, to roll out value-added and new services. The year 2002 witnessed the market debut of such new services as MPLS-VPN, 17901 direct dial VoIP and 4008 quasi toll-free services.

#### *IT systems*

As a consistent corporate focus, we have always sought to improve operational and management efficiency through establishing strong IT systems. Our IT systems (CTG-MBOSS) include the Business Support System (BSS), Operation Support System (OSS) and Management Support System (MSS). Implementation of our IT design heralds the technological and organisational restructuring of our IT systems. Adoption of the Enterprise Application Integration (EAI) technology has allowed for smooth interconnection between all

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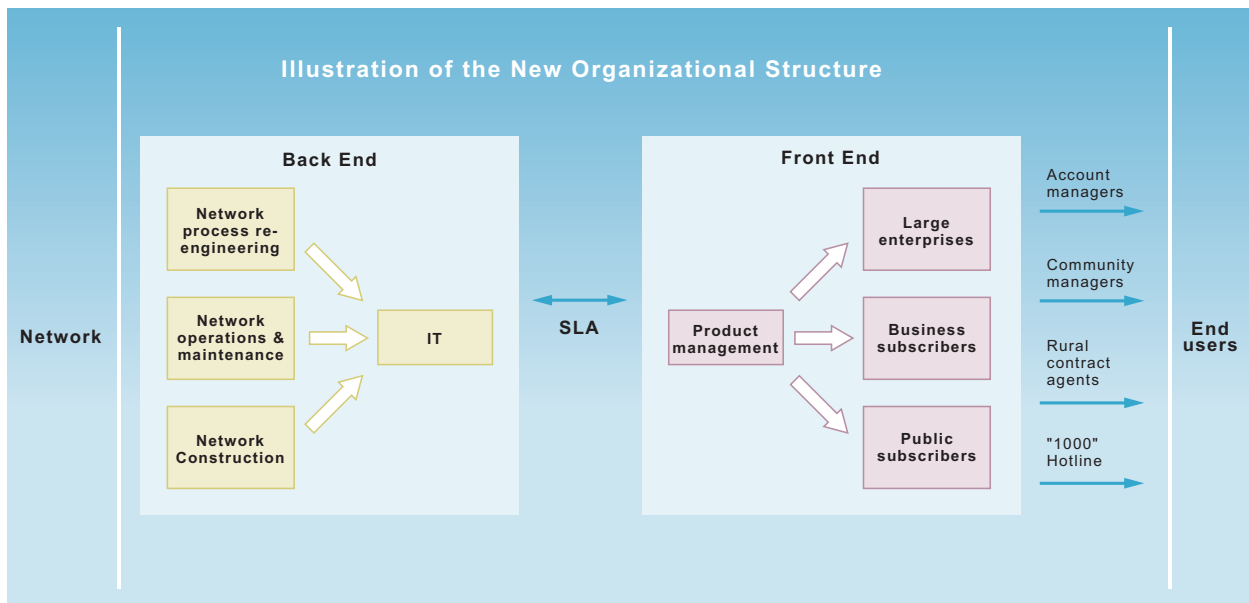
major systems, enabling full information sharing within the company. The planned future development of our IT system is expected to further enhance market responsiveness and improve customer service, significantly raise operation and management levels and strengthen our competitiveness.

### Organisational restructuring and business re-engineering

Determined to maintain market leadership and improve our competitiveness, we continued to implement internal restructuring and business re-engineering measures aimed at further gearing our company toward a “market-oriented, customer-centered and return-driven” business model.

### *Market-oriented, stream-lined operational structure*

In 2002 we launched an organisational restructuring that involved all levels of our operations, from the headquarters to the provincial subsidiaries and local branches. A new “front-end-back-end” structure has been established at each level to enhance market responsiveness. The front-end is composed of “customer interface units” with related marketing functions, while at the back-end, all network resources have been consolidated to provide the front-end with service provisioning, quality control, billing and operation support services. An internal Service Level Agreement (SLA) system has been set up between the front-end and the back-end to ensure more concerted and high quality end-to-end service delivery.



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### *Business process re-engineering*

Drawing from international best practices and from our own experiences with a number of pilot programs, we are in the process of implementing business process re-engineering in all 47 of our Basic Business Units, or local network operations.

Our efforts are centered on large corporate account service, network resource utilisation, capital expenditure and performance evaluation. We implemented the Key Account Management Process, which is based upon dedicated account managers with industry specific training. We are also working to control costs and enhance operational efficiency with the Network Resource Allocation Process. As part of this effort, we have implemented a computerised order processing system that creates an updated information link running throughout our entire internal service provisioning chain. This system allows us to fill customer orders more quickly, and to monitor the provisioning process in a systematic manner. Efforts to improve capital expenditure control and investment returns are centered on the Recurring Capital Expenditure Process, which utilises an investment priority system that ranks investment needs according to return prospects. Finally, we have established a KPI-linked compensation system to motivate our work force. Our dedicated efforts to put these processes into effect have instilled in our employees a belief in creating value for shareholders, and have strengthened our competitiveness.

### **Human resource development and the re-shaping of our corporate culture**

Over the past year, we have adopted a series of measures to enhance our human resource capabilities and re-shape the corporate culture of China Telecom. We have implemented a new evaluation system based on clearly defined Key Performance Indicators that links compensation to performance evaluation results. In addition, competition has been introduced in the designation and resignation of job posts. Both measures have helped establish a human resource management system that provides adequate motivation to our employees. We are excited to witness our energised team shaping new corporate values of innovation, execution, integrity and value creation.



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