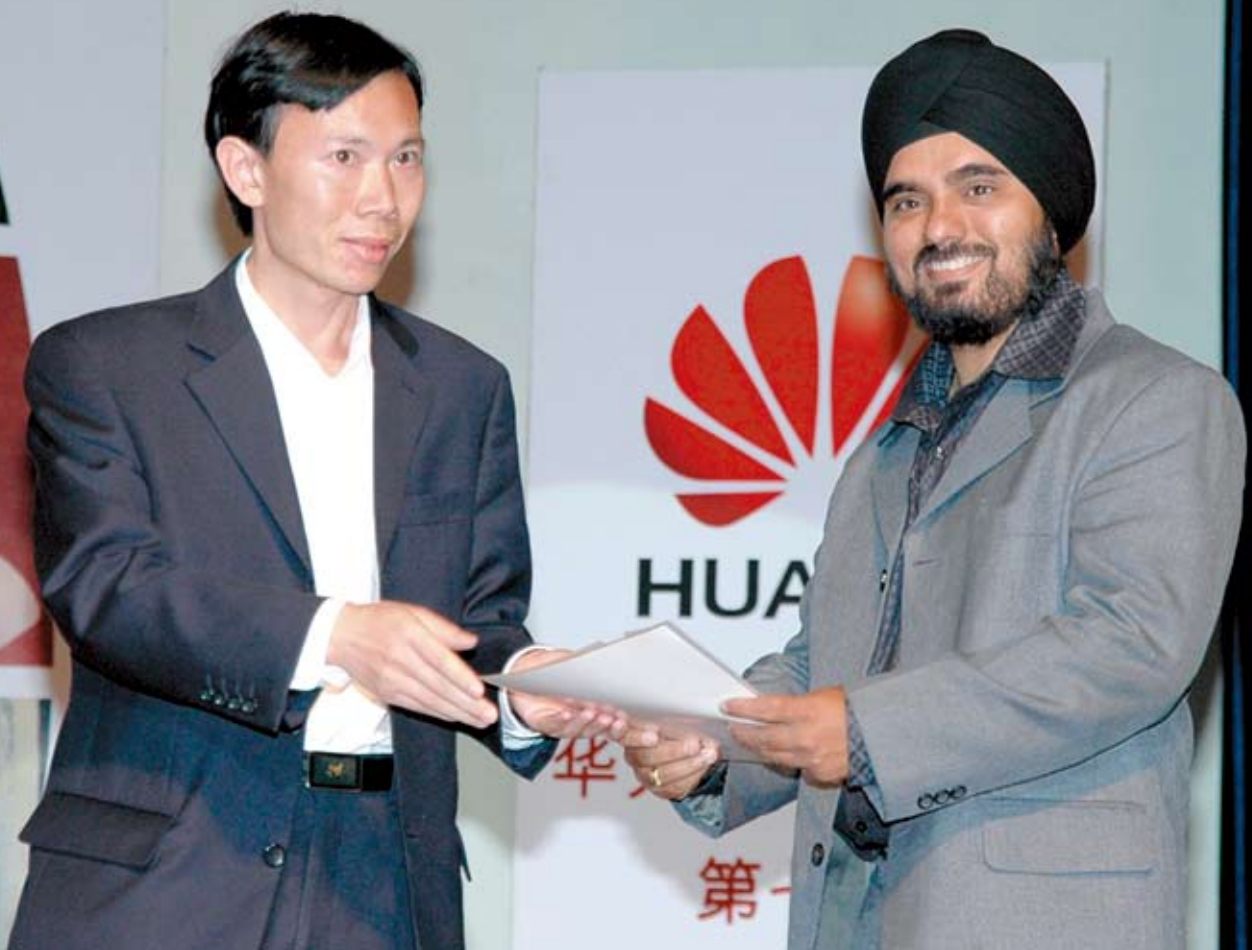


# HUAWEI PEOPLE

July 31, 2007  
Issue 187



- Professionalism and Fun Packed in One
- Vodafone Awards Huawei 3G Expansion Contract in Spain
- Huawei to Deploy CDMA2000 Infrastructure for Cricket Communications

[www.huawei.com](http://www.huawei.com)



## PHOTO NEWS



MOU signing between Huawei and UET

The “HUTIC MOU Signing Ceremony Between Huawei and UET” was held at Punjab Government House, Lahore, Pakistan on June 16, 2007.

As per the MOU, Huawei shall supply state-of-the-art wireless, mobile and telecom equipment worth 5.2 million dollars to UET (University of Engineering and Technology) within two months for research and training purposes.



Chief of Huawei Pakistan Mr. Yi Xiang (left) and VC UET, Lt. Gen (retd) Muhammad Akram Khan (middle) welcoming Governor Punjab Lt. Gen (retd) Khalid Maqbool to the signing ceremony.

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My Years in Africa



The Birth of Huawei GSM

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选择决定命运



迎接挑战 认真做好每一天



炒米粉

# Huawei Wins USD700 Million GSM Contract with China Mobile

**Shenzhen, China, June 21** – Huawei today announced that it has won a GSM expansion contract with China Mobile, the largest mobile services provider in China. Valued at approximately USD700 million, the contract represents 23.6 percent of China Mobile's GSM group purchase project and is the second largest share. Huawei also doubled its share of this year's GSM group purchase project as compared to 2006.

Under the agreement, Huawei will expand China Mobile's GSM coverage in 30 provinces in China, including Guangdong, Zhejiang, Fujian, Jiangsu, and Shandong with the deployment of thousands of GSM core and radio products and services. China Mobile selected Huawei's innovative EnerG GSM solution that includes a new generation BSC (Base Station Controller) based on an all-IP PARC (Platform of Advanced Radio Controller) platform and IP-based BTS (Base Transceiver Station) family. The BTS family supports a unified 2G/3G platform that can help operators replace old equipment and form a future-oriented network so as to protect their long-term investments.

With a long lifecycle, GSM technologies continue to present significant market opportunities and Huawei remains committed to investing resources in this field with the worldwide introduction of numerous unified 2G/3G IP-based solutions. In 2004, Huawei successfully deployed the world's largest mobile softswitch core network for China Mobile, which was the first step in transforming its mobile infrastructure into an all-IP based network.

"Huawei adopts a holistic approach to GSM and UMTS technologies to help operators migrate their mobile networks toward an all-IP FMC environment. With the EnerG GSM solution, Huawei offers operators a wide range of capabilities that not only enhance their ability to compete, but also provides a robust platform from which to seamlessly evolve existing GSM networks into next-generation IP-based UMTS/HSPA/LTE networks," stated Mr. Yu Chengdong, President of Huawei Wireless Networks.

## About China Mobile

China Mobile is the leading mobile services provider in China, with the world's largest mobile subscriber base and unified, contiguous all-digital mobile network. China Mobile Ltd was listed on the New York Stock Exchange and The Stock Exchange of Hong Kong Ltd on October 22, 1997 and October 23, 1997, respectively. As of December 31, 2006, the Group had an aggregate staff of 111,998 and a mobile subscriber base of more than 301.2 million. The Group's GSM global roaming services cover 219 countries and regions, and its GPRS roaming services cover 138 countries and regions. For more information, visit [www.chinamobile.com/](http://www.chinamobile.com/).

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# Vodafone Awards Huawei 3G Expansion Contract in Spain

## About Vodafone

Vodafone is the world's leading international mobile communications group with operations in 25 countries across five continents and over 200 million proportionate customers by the end of January 2007, of which 100 million are in Europe, as well as 38 partner networks. For further information, please visit [www.vodafone.com](http://www.vodafone.com)

**Madrid, Spain, June 27** – Huawei announced today that it has been awarded a High Speed Packet Access (HSPA) network expansion contract by Vodafone that will serve all the seven major cities in Spain, including Barcelona and Madrid.

This HSPA expansion contract follows the successful deployment of Huawei's first contract with Vodafone Spain, signed in August 2006. With this contract, Huawei has greatly increased its market share with Vodafone Spain as well as become its major HSPA mobile network partner. Under the HSPA agreement, Huawei has supplied Vodafone Spain with innovative Distributed NodeBs. The NodeBs' Remote Radio Unit (RRU), with an output power of 40W, can be installed directly on masts, decreasing power loss and increasing network coverage and performance. These features boost the performance of HSPA networks. Since the deployment the first phase of the HSPA project, a subscriber survey by Vodafone has indicated improved network performance.

"Huawei's dedication and commitment to expanding the network ensured Huawei achieved an excellent deployment pace that helped fulfill Vodafone's business objectives last year," said Jaime Bustillo, CTO of Vodafone Spain. "I'm sure that the expansion project will enable us to achieve further successes together and we look forward to continuing this partnership with Huawei."

"We are delighted to have efficiently deployed a quality HSPA network for Vodafone Spain and to have been awarded the expansion contract," said Mr. William Xu, President of Huawei Europe. "Huawei is committed to customer-oriented innovation, creating solutions and technologies that provide long-term value for our customers to help them realize their potential. We look forward to further cooperating with Vodafone in the future."



### About Roland Berger Strategy Consultants

Roland Berger Strategy Consultants is one of the top consulting companies in the world, serving its clients with more than 1,700 employees in 32 offices located in 23 countries. At present, the consultancy firm has three offices in Shanghai, Beijing and Hong Kong, with around 100 consultants in mainland China. The practice in China includes Automotive, Consumer Goods & Retail, Telecom, Transportation, Financial Services, etc. Roland Berger has supported from strategy to implementation via numerous projects both for Chinese and international clients.

### About Global Entrepreneurs Journal

The Global Entrepreneurs Journal was established in July 1993 and is the only business journal in China focusing on globalization. It also covers broadly about world-famous enterprises and entrepreneurs. As globalization becomes a buzz word in today's business circle, and China becomes a strategic market for multi-national enterprises, the Global Entrepreneurs Journal is now one of the mainstream business journals in China.

## Huawei's International Achievements Recognized

**Shenzhen, China, July 4** – Huawei was named the “Most Globally Competitive Chinese Company” out of 20 companies in a competition launched by Roland Berger Strategy Consultants and Global Entrepreneurs Journal. In addition, Huawei was awarded the “Best Chinese Company in Europe” prize in the same competition.

The “2007 Most Globally Competitive Chinese Companies” Award is one that recognizes the survivability and competitive strengths of Chinese companies in this era of globalization. Evaluation was made on the overseas achievements, sustainable competitiveness, and multi-cultural management capability of candidate companies.

Huawei offers total network solutions based on its experience in technology and applications. In fixed network, mobile network and IP value-added service fields, Huawei has made industry-leading achievements. In 2006, Huawei generated US\$11 billion in global contract sales, up 34 percent from the previous year with 65 percent from international markets outside China. Huawei has established long-term, stable partnerships with many world-leading carriers. By the end of 2006, 31 out of the 50 top global carriers in the world, including Vodafone, BT, Telefonica and FT/Orange, had selected Huawei as their partner.

The regional headquarters of Huawei Europe was established in 2000 and now has a staff of over 2,000, 70 percent of whom are locally recruited. Huawei's products and solutions have been widely accepted by many tier-one carriers in Europe, and deployed in many European countries including the UK, France, Germany, Spain, Holland.

At the award ceremony, Huawei won high praises from the jury. According to Long Yongtu, Secretary-General of Boao Forum for Asia, “Huawei attaches great importance to technical innovations and has core competitiveness. Huawei is an international enterprise with first-class corporate culture and first-class management skills.”

Wolfgang Hirm, a renowned reporter from Manager magazine, said that Huawei's achievements in overseas markets could be attributed to the company's “powerful R&D capability, focus on expanding into international markets, and its clear and definite internationalization strategies.”

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# Huawei Delivers Largest HSPA Network in MENA Region

## About Etisalat



Emirates Telecommunications Corporation – Etisalat has been the telecommunications service provider in the UAE since 1976, it provides wireless, fixed, and integrated service including internet services to the UAE for more than 30 years. Today, Etisalat serves 5.5 million mobile subscribers in the UAE, a penetration of nearly 125% - the highest in the region and among the highest in the world.

Etisalat stood among the Financial Times top 500 corporations in the world in terms of market capitalization in 2005 and 2006, and is ranked by the UK-based The Middle East magazine as the sixth largest company in the Middle East in terms of capitalization and revenues. For more information, please visit: [www.etisalat.co.ae](http://www.etisalat.co.ae)

**Abu Dhabi, the UAE, July 5** – Huawei today announced it has successfully deployed the largest High Speed Packet Access (HSPA) network in the Middle East and North Africa region for Etisalat in the UAE. This network covers 97 percent of the populated areas in the country and Etisalat was able to support more than one million 3G end-users that signed up within the first five months of 2007.

Solely constructed by Huawei in 2003, Etisalat's original 3G network was MENA's first high-speed next-generation mobile network. In 2006, Etisalat again contracted Huawei as its sole partner to expand its 3G infrastructure as well as upgrade the network to HSPA. Huawei's high-performance HSPA solution incorporates the advanced IP-based Radio Access Network (RAN) technology that supports higher data throughput while reducing transmission costs. As a 3.5G mobile technology, HSPA delivers very high-speed data transfer, even faster than alternative fixed-line broadband services.

Customers in the UAE with 3G-enabled handsets can now enjoy smooth web browsing, clear video calling and fluent mobile TV entertainment without the need to change their

SIM cards. In addition, Etisalat is able to offer access to television programs in the English and Arabic languages using Huawei's versatile mobile television solution.

Today, Etisalat's 3G/3.5G network provides the highest quality coverage across the UAE. Huawei has built unified 2G/3G networks and mobile value-added data service platforms, as well as transmission and data communication equipment for Etisalat in Egypt. Huawei also provides 2G/3G solutions for Etisalat's subsidiary Mobily in Saudi Arabia and infrastructure required for a GSM network covering 1,500 cities and towns for Etisalat's subsidiary Ufone in Pakistan.

Mr. Han Junjie, Vice President of Huawei MENA, said, "I feel glad that Huawei has successfully delivered the largest HSPA network in the MENA region and helped one million Etisalat 3G subscribers access the network. Huawei has reinforced the strategic partnership with Etisalat and accumulated another precious experience in large-scale 3G network deployment. With the regional footprint, Huawei will be more experienced to build high-quality networks helping Etisalat to be among the leading operators in the world."



# Huawei to Undertake Telecom Italia HSPA Network Expansion

**Rome, Italy, July 9** – Huawei has been selected by Telecom Italia to expand and upgrade its HSDPA (High-Speed Downlink Packet Access) networks covering southern Italy, including important cities such as Palermo, the capital of Sicily. The expansion will help boost Telecom Italia's network capacity and allow it to deliver new services rapidly and further strengthen its market leadership in Europe. Huawei will supply its new generation NodeB solution to fulfill Telecom Italia's technical requirements. Huawei's new-generation NodeB will support full-performance HSDPA, HSUPA (High-Speed Uplink Packet Access), and IP RAN (IP-based Radio Access Network). The open architecture of Distributed NodeB provides Telecom Italia with more flexible networking to allow it to accelerate the delivery of its HSDPA services and ready for commercial deployment of its HSUPA services.



Upgrading Telecom Italia's existing network with Huawei's advanced HSPA solution will allow the Italian operator to provide the best possible end-user experience and reinforce its leading position in the market.

"We are proud to provide HSPA products and solutions to Telecom Italia," said Mr. Qiao Xiaoping, Managing Director of Huawei Italy. "With our advanced HSPA technologies and fast response we hope to help Telecom Italia extend its lead in the dynamic and fast-growing mobile broadband market."

According to In-Stat Market Research, Huawei is the fastest growing WCDMA/UMTS manufacturer with a 32.9% market share in terms of new contract wins in 2006. The cooperation with Telecom Italia Mobile will further consolidate Huawei's position as a leader in the global WCDMA/HSPA industry.

# Huawei Hosts Global 3GPP2 Event



**Kunming, China, July 10** – Huawei today announced that it successfully hosted the global 3GPP2 super meeting and SC/OP meeting in Kunming, China attended by 200 industrial experts coming from the likes of China Unicom, Verizon Wireless, KDDI, SKT, Qualcomm. Huawei also used the event to propose an Ultra Mobile Broadband (UMB) architecture concept that was adopted by 3GPP2 and can support operator networks achieving a peak rate of 288Mbps, facilitating the evolution of CDMA 2000 technology to UMB.

During the meeting, Huawei and industrial experts focused on topics including the UMB access network, 3GPP2 evolved network and Multimedia Domain (MMD) enhancement. Among them, the 3GPP2 evolution network

proposals, including common access platform and flattened network issues, will pave the way from current network to UMB network for CDMA operators. Fixed-Mobile Convergence (FMC), VoIP and HDTV over wireless broadband, which enables the subscribers to access wireless broadband multimedia service anytime and anywhere were also covered by MMD enhancement proposals as was the issue of large capacity VoIP and Video Telephony services that can be deployed by CDMA operators without further investment.

"3GPP2 devotes itself to CDMA standard evolution, cooperates with the likes of the 3GPP, IETF, and WiMAX forums and promotes CDMA industrial development," said Mr. Wan Yi, Chairman of the 3GPP2 Steering committee (SC).

"Verizon Wireless has strong interest in the standardization  
*(To be continued at P.8)*

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# Huawei to Deploy CDMA2000 Infrastructure for Cricket Communications

**Plano, Texas, July 11** – Huawei today announced that it has signed CDMA2000 infrastructure agreements with Cricket Communications, Inc., a wholly owned subsidiary of Leap Wireless International, Inc. (NASDAQ: LEAP) and Denali Spectrum Operations, LLC for the deployment of Huawei's latest third-generation CDMA technology. According to the agreement, Huawei's 3G CDMA technology will support operations in Leap's and Denali's Advanced Wireless Services (AWS) spectrum recently acquired in FCC Auction 66.

Under the agreement, Huawei will supply CDMA2000 1x, 1x EV-DO Rev A, and IP-based BTS3606; Huawei IP platform softswitch – SoftX3000 (MSCe) and UMG8900 (Media Gateway); and high-capacity Air Bridge. The design will incorporate Huawei's unique dual homing switch solution as well as end-to-end IP backhaul for increased reliability.

Earlier in 2007, Huawei successfully launched a third-generation CDMA system for Cricket® service in the cities of Spokane, Wash., Boise, Idaho and Reno, Nev., a significant milestone in Cricket's first contract with Huawei to deploy its CDMA technology.

"Throughout our in-depth testing and recent commercial launch in the Northwest, Huawei has proven to be a strong business partner sharing our focus on network quality and reliability while also providing an extremely strong technical evolution path," said Glenn Umetsu, Leap's executive vice

president, engineering and technical operations. "Our strategic partnership with Huawei allows us to further enhance our focus on delivering the highest quality networks and consumer services while maintaining our leadership position in cost, especially as we bring Cricket services to new markets."

"We value the close working relationship with Leap Wireless and we appreciate Leap's continuous trust in Huawei to further expand their business," said Ken Hu, Chief Sales and Services Officer of Huawei. "This is another major milestone after the successful network launch with Leap Wireless in three markets. Huawei and Leap share a common focus on providing innovative products and services. Huawei's strength in fast response to customers' requirements and in providing competitive products and solutions will continue to build our customers' confidence in Huawei's commitment to their business growth."

## About Denali Spectrum Operations, LLC

Cricket owns an 82.5% non-controlling interest in Denali Spectrum, LLC

which participated in the FCC's auction for Advanced Wireless Service Licenses as a designated entity through its wholly owned subsidiary, Denali Spectrum License, LLC.



*(Continued from P.7)*

of MMD supplement services and Huawei is very strong in this field," said Mr. Zhao Zheng, a delegate from Verizon Wireless.

"UMB networks open the door for operators to enter the era of FMC where individuals, homes and enterprises are always online achieving our goal of providing wireless broadband and information," said Mr. Cai Liqun, President of Huawei CDMA product line. "Through collaboration with leading operators and

companies including China Unicom, Verizon Wireless, and Qualcomm, Huawei is actively involved in UMB standardization work and is one of the most important contributors to 3GPP2 applying for 14 percent of the UMB related patents."

As of June 2007, Huawei serves more than 100 million CDMA users worldwide, has won 47 commercial EV-DO contracts, and is committed to leading the evolution of CDMA technology to UMB.

**Mumbai, India, July 12** – Reliance Communications Ltd. (Reliance Communications) today announced the award of a network expansion contract, worth over USD 200 million, to Huawei Technologies, a leader in providing next generation telecommunications network solutions for operators around the world.

The current network expansion undertaken by Reliance is the largest wireless network expansion undertaken by any operator across the world.

Under the agreement, Huawei will supply and provide services for CDMA & GSM base stations, including the BSC

Reliance Communications which has contributed immensely to the growth of the telecom sector in India and has always led from the front in expanding the domestic market,” said Ms. Sun Yafang, Chairwoman of Huawei BOD.

“Huawei is dedicated to focusing on its customers’ challenges. To meet Reliance’s requirements in network transformation, Huawei provides innovative all-IP next generation network solutions, which support Reliance’s market competitiveness. We look forward to continuing this partnership with Reliance Communications,” she added.

## Reliance Communications Awards Huawei All-IP NGN Contract

(Base Station Controller) and switches, and help to create first class all-IP NGN infrastructure.

The technology provided by Huawei is expected to bring down Reliance Communications’ total cost of ownership (TCO) by enabling a significantly faster and more cost-effective expansion of existing CDMA & GSM network services. It will also enhance the company’s competitive advantage in attracting new subscribers.

The contract will play a significant role in Reliance Communications’ planned roll out of its pan-India CDMA and GSM network expansion, that seeks to extend its next generation, integrated (wireless and wire-line) convergent (voice, data and video) digital network to over 20,000 towns and 600,000 villages creating India’s largest telecom network.

Reliance Communications’ decision to choose Huawei comes after more than a year’s intense scrutiny and stringent equipment tests.

“We have chosen Huawei based on its established credentials as a global company producing high quality products and solutions. The relationship with Huawei will help us maintain and strengthen our leadership position in India, the world’s fastest growing telecom market,” said Mr. Anil Dhirubhai Ambani, Chairman of Reliance Communications.

“We are extremely proud and happy to partner with



### About Reliance Communications Limited

Reliance Communications Limited founded by the late Shri. Dhirubhai H Ambani (1932-2002) is the flagship company of the Reliance Anil Dhirubhai Ambani Group. It is India’s foremost truly integrated telecommunications service provider. With a customer base of over 36 million including close to one million individual overseas retail customers, Reliance Communications ranks among the top ten Asian Telecom companies. Its corporate clientele includes 600 Indian, 250 multinational corporations and over 200 global carriers and owns and operates the world’s largest next generation, IP enabled connectivity infrastructure, comprising over 150,000 kilometers of fiber optic cable systems in India, the USA, Europe, the Middle East and the Asia Pacific region. For more information, visit: [www.reliancecommunications.co.in](http://www.reliancecommunications.co.in)



Jagdish Singh Babra receiving the Individual Gold Medal Award 2006 from Mr. Zhang Laifa, President of Central Platform Department, Huawei

## Professionalism and Fun Packed in One

He is liked by his colleagues, subordinates, and senior managers for his zestfulness, enthusiasm, and innovation. So what does it take to be Jagga?

Jagdish Singh Babra, or Jagga as he is popularly known by his iSAP team at HTIPL, was recently awarded the 2006 Individual Gold Medal Award from HQ. To his credit, and adding a feather to the hat of the organization, Jagga has co-designed and prepared the paper titled “NGN” that was presented in the ITUT conference, Geneva. His team has to its credit a total 12 patent applications, of which about 8 are authored by Jagga himself. His magic has a charm about it – there has been almost no failure in the PRS build

since Jagga joined the iSAP test team.

On the professional front, Jagga has spent 6 years in Huawei Technologies India. Before joining Huawei Jagga was working with an IT solutions company in the south Indian city of Chennai. He joined in as a member of the development team, later accepting the offer to move into the testing team as part of the Job Rotation policy of the company. This did not stop the nomadic software engineer in Jagga. He then moved into research for a year and a half



and then back into testing. In all of this Jagga believes that testing is his lucky charm, which has also got him most of his accolades.

**You said that you moved from a service-based company to a product-based company. Tell us about the transition. How was it like to step into Huawei and what has your experience been?**

Let me make an honest confession. When I first mentioned that I have accepted the offer to work with Huawei, quite a few of my near and dear ones thought I was at my wit's end. Their doubts were justified in its own rights considering that Huawei was one of the first Chinese IT companies venturing into the Indian markets, with their brand hardly known locally (remember it was 6 years back). But all those apprehensions have faded since. It is definitely one of the best things that have happened to me. Working in a product-based company has its greatest advantage in the exposure it renders; I've learnt a lot – technology-wise and personally. You have to get your hands into the product and so it is ownership that is called for; it's a great and responsible feeling to know that the reputation of the organization hinges on the delivery of a challenge undertaken by you. This makes you want to go that extra mile because when it is yours, the concerns and care taken are great and the desire to succeed is even greater.

Also when I joined Huawei it was more Chinese and fewer Indian staff. All of it had a fun filled environment in itself; learning the other culture, interacting, communicating. It was all good. As for the processes then and now, I have always appreciated that the company follows a performance-driven career growth, qualifying the best to reach the top.

**Describe your role and the project that you are working on!**

I am Test Project Manager of the iSAP team. The iSAP product serves as a base for all other platforms. Considering that there are not many software professionals in the industry who specialize in this domain, it is a challenge in itself to groom individuals to that level of competency.

As for the tasks involved in the iSAP team, we follow an Agile Process, making the team different from the rest in HTIPL. This process calls for extreme programming, continuous development, testing, and automating. Any release is sieved through this Agile system for defects, automation and test cases. So far, we have successfully achieved our project goals with the highlight being 14,643 test cases automated out of 16,229 (90.23% at TR5).

**Tell us something about the award that you recently bagged at the 2007 Annual awards ceremony; what does it feel like to receive an award to this stature?**

Every award is a moment to cherish and an accomplishment to be treasured. And so it goes without

Jagga's BU head had this to say of him:

“On a professional front, Jagga has always been quality conscious and passionate about his work, constantly upgrading his skills with latest tools and technologies. He has also motivated his team to capability improvements. His adaptability to the business needs of the organization and support in organizational activities for its growth makes him click instantly in every arena. A clear example of these qualities were exhibited when Jagga was a project leader of a development team, and based on the business needs he had to take up the role of a manager in one of the test projects. He volunteered gladly and performed exceptionally. An add-on quality of Jagga's is his willingness to take high standard goals and strives to achieve them diligently. On a technical front, some of Jagga's commendable feats have been implementation of the “Test Driven Development” process using the Agile methodology for the first time in HTIPL, maintaining conducive informal communication with relevant stake holders, and diligently planning the work by practicing ‘Plan the work and work the plan’.”

- Satya Narayana (Head of Test BU 1)

saying that this award too is of great value; it is a proof of the fact that the management has noticed your hard work and capable delivery. But there is one award that moved me the most and I still carry the memory afresh in my heart – when I was nominated for the Huawei Manager award over two years back. Although I did not bag the award, just being nominated gave a great sense of pride – to be considered at par with technical gurus of Huawei.

The Individual Gold Medal Award (received in the 2007 Annual Day function) is very special to me because the people who nominated me for this award are the ones whom I constantly interact with, have constructive arguments with,

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and are also from different business units. This award is a definite validation of the credibility that I have achieved through dedication, hard work and perseverance. And I thank all those people who stood by me and had the confidence in me.

**Could you tell us a little about your best practices to ensure maximum output, and consistent quality delivery?**

I have always believed that given the responsibility, one must always groom a team to the level of competency that you want them to deliver. No work is done just by an individual. It takes a strong team to make the strongest ship. And so I try to enhance my team's competency through direct involvement, responsibility sharing, and freedom to decide so that they take ownership of their actions. This will help them accept the task as challenges and hence deliver. Honestly, micro-level tracking has not worked for me.

I don't believe in differentiation in my work; I have never been stubborn at wanting to just do development, management, or being specific on the domain. This kind of open attitude has done me a great deal of personal good - I have gained greater exposure and wider access.

**What do you look for in a professional?**

The core requirements are basic design skills and a 'never-

give-up' attitude. Like I mentioned earlier, people with expertise in the area of iSAP are not many. And so individuals with basic design skill can be taught and groomed to be competent. However, the attitude is what makes a professional in iSAP. If he/she does not have a positive outlook and attitude, then no amount of trainings in technology will serve well. Enjoying what you do is the core for great personal success and successful delivery of products/solutions to our customers.

**With the hard part over, let us get on to a lighter mood. How do you spend your leisure time?**

Well I used to love playing cricket but times have changed for the Cricketers and for me. Now I have a little baby boy. He takes off most of my waking hours. I also enjoy shopping to make a home. But here - unlike in the office - mine is a supporting role with my wife making most of the decisions.

**What is your drive?**

SUCCESS drives me. Or let me put it elaborately, success is easy to achieve and failure means doing the task over... Success is key to life as such, be it personal or professional.

I would like my team to know that I am here due to everyone's hard work and determination. I owe everything to my team!!



## Forging Close Partnership

*Interview with Gu Tao, Assistant Manager of CNC (China Network Communications) Xinjiang*

**O**n March 29, 2007, Gu Tao, Assistant Manager of CNC Xinjiang, together with the branch office managers, arrived at Huawei University for a three-day management training program. In his spare time, he received an interview with our reporter. Below is a transcript of the interview.

### ■ Stern challenges

Incorporated in September 2002, CNC Xinjiang went into operation in July 2003 and the revenue of that year was around five million yuan. After four to five years of stable development, 2006 saw our annual revenue exceed one hundred million yuan.

We now have over 200 employees, and fifteen local networks covering most of the vast territories of Xinjiang. Our share in the Xinjiang communications market has been increasing annually. Although limited in capability and investment, CNC Xinjiang has managed to reach a higher stage every past year.

From the beginning, we at CNC Xinjiang have been faced with two challenges: how to survive as a new entrant to the market and how to take root in the local communications market and win a certain market share. Most of our senior managers used to work for China Telecom before it was split into the now China Telecom and CNC. They have to forget about their lucrative packages offered by their former employer, and work hard to figure out how to survive. Nevertheless, despite greater pressure, more trouble and greater sacrifice, our staff at different levels never ceased striving to grow business. After many years of painstaking efforts, we finally have gained a firm foothold in the local communications market. Thus, it is our hardworking and loyal team that has turned the opportunity into a reality. The willingness to make sacrifice and the striving spirit are the cultural essence of CNC Xinjiang.

Due to poor conditions and a shortage of personnel, the chiefs of our branch offices have to cope with varied and specific matters, from sales and customer relations to network construction, operation, and maintenance. This leaves them no time to receive systematic training. With the change of the competition landscape and according to the decision made by CNC headquarters, CNC Xinjiang is now focused on streamlining its internal management. Also our employees are required to learn more, change their habitual way of thinking, and review the work we have done from a brand-new angle. This training we are having at Huawei University aims to improve the management skills of the management teams of our branch offices. It is also a must for us to prepare for the change in the competition landscape.

## ■ Customer first and close partnership

Now telecom service subscribers present many new characteristics. With much-improved knowledge of communications, they are making higher requirements. What they concern about is the services that can be fulfilled, other than the network technology. This induces some far-reaching thoughts like transformation. In the past, our transformation focuses on the technical domain, but now the focus shifts to the business model and service management.

With such end users, an operator and a vendor should not be satisfied with their seller/buyer relationship. They

should partner with each other to fulfill customer requirements. They should join hands to study the market so as to decide what equipment should be produced and what services provided.

During these years, Huawei is also in transformation and adopts a “customer-centered” strategy. Besides, a special task unit was set up to study this matter. Competition requires all the links on the supply chain to care about the market. It seems that the supply chain consists of many different functional departments. We are just one of them and we and other departments are partners. The market is the origin of our business life.

From the perspective of the end users, the vendor and the operator play totally different roles. The operator knows more about consumer psychology, so the vendor should take the initiative to learn from the operator the information about market such as market demand, the operator’s plan to fulfill that demand, and optimization of a network and its sustainability, survivability, and scalability.

CNC Xinjiang has been engaged in building its own network all along. Now our network is more advanced with fewer equipment types. When planning and designing the network structure, we show more concern about how to meet service demand and what services to provide. The vendor should put more effort into exploring the optimum scheme and then cooperate with the operator to develop the strategy, determine the network architecture and plan the network properly. These are what we expect the most from the vendor. CNC Xinjiang started its business late and is deficient in staff planning and technology. Thus, there may be a lack of thorough consideration when we plan the network. A large equipment supplier like Huawei has rich experience in these areas both nationally and internationally and should be in close communication with the operator and assist in constructing a better network.

I had business contact with Huawei as early as I entered the communications industry and has learned a lot about its growth. Generally speaking, when Huawei entered the Xinjiang telecommunications market, I was impressed by its morale and corporate culture. However, probably due to strategic adjustment at Huawei, such as the localization of technical support, the local technical support including the after-sales service and care will be affected for a while. Nowadays, many vendors are implementing the localization strategy in order to cut labor cost, but this will hurt the corporate image if the quality of the present technical support is not improved. Huawei had a strong sense of customer service in the past. If we encountered some problems with technology and networking, a group of engineers would be

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sent right away to assist, but in recent years, it has not happened very often.

In a word, what we expect from Huawei is not only the equipment but also the assistance in initial network design. Huawei should move a step further to consider how to help the customer construct the network. This is also our request.

## ■ An enterprise's expectation from its employees

Employees are a valuable treasure to an enterprise. As for the company management, what qualities do they expect of the employees? In my opinion, they include the following.

### 1. Loyalty

Loyalty is of paramount importance, i.e., the staff should be ready to take responsibility and sacrifice for the enterprise, and devoted to it. This quality comes first. Knowledge can be acquired through learning, and the attitude toward the enterprise is the most important.

### 2. Professional skills

As it needs employees specializing in different fields such as technology, management, finance, and service, a company requires them to have the corresponding professional skills.

### 3. Execution capability

An enterprise must strengthen its execution capability, and this we have been emphasized all along. The top management dictates the direction of company development. The staff implement the established plan and organizational objectives. Execution capability is needed the most and yet the most difficult to achieve. To enhance this capability, rules must be laid down first for the staff to follow. Besides, supervision and evaluation is necessary, otherwise the implementation gradually becomes a formality. In a nutshell, the first task is to institute rules, the second is implementation, and the third is supervision and evaluation.

I have broad contact with Huawei employees. We work together. We also play football and do some other sports. From these physical exercises, I understand that they keep us healthy on the one hand; on the other hand, they help deepen mutual understanding and friendship between us. Additionally, such cross-departmental activities help raise team spirit and create a harmonious atmosphere. Through various means, the unity and cohesion within the enterprise is gradually consolidated. Cohesion is a powerful weapon that can overcome all hardships and deserves to be treasured.

Huawei employees are young, hard-working and vigorous. I wish everyone can work with full attention, live a happy life, and strive for our common goal.

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*(Continued from P.27)*

I forgot the inherent feature of our data communications equipment – remote access. Why not develop a comprehensive remote inspection tool based on this feature so we can discover potential problems without being on site? Now the tool was developed and in trial use in some regions. It inspected several hundred devices in one month, and drew our attention to quite a lot of hidden trouble and some existing problems that we thought we had solved. The tool greatly enhanced our work efficiency and brought me a strong sense of achievement.

## Value of experts and the way to becoming experts

Some say customers are the boss, for our salaries come from them, in the final analysis. Other say customers are partners, for they grow with us. The most important question is how we create value for our customers. The experts should

think about this question ahead of the other people. From my point of view, being a technical service expert, the value lies not only in the expertise of providing technical services, but also in passing the expertise on to others and creating more value through the technical support services. For customers, the expert should be a network solution provider, as well as an advisor on network operation and maintenance.

Given the necessary environment, how can one become an expert? The answer may vary from person to person. I would like to answer it with a story. If you ask the age of an Eskimo, he would say “I don’t know and I don’t care.” Because they believe that every evening when they go to sleep, they die; and every morning when they wake up, they are born again. That’s why in the harsh environment of the Arctic Circle, you can find little trace of anxiety on the face of any Eskimo. So taking on the challenge and doing your job as well as you can every day is the way to becoming an expert, and to a brighter future.





Main hall of Huawei Training Center

# A Close **Look** at Huawei

*By Gao Li*

In this last spring, five of us from China Mobile Zibo paid a visit to Huawei's headquarters in Shenzhen. We had learned about Huawei through some articles and news stories. Yet we were deeply touched by what we saw and knew when walking through its magnificent and elegant headquarters campus or strolling in the beautiful and cozy Baicao Garden Dormitory Complex, and coming close to passionate and committed Huaweiens.

## 1. A look at Huawei's service in detail

Service consciousness in Huawei is reflected in its workflows and in the detail with which people of Huawei serve their customers or each other.

**Detail 1: teamwork in customer reception on a smooth workflow.** When we were led to the company's exhibition hall, we were greeted with "Welcome to Huawei" on the big LCD display, and the hearty smiles on the receptionists. No sooner had we stood in the hall than one of them politely

took a group photo for us with a digital camera. Then, the presenter showed us around the hall, presenting the products and technologies in great detail and patience. We were in a world of hi-tech products, experiencing the coziness and modernity of digital families and wondering if we were in a fictional hi-tech world. When we entered the simple but elegant conference room, everyone of us found on his own position the photo that had just been taken and framed. There we watched a short video "To Enrich People's Lives through Communications", enjoyed the tea just made, and

smelled the aroma from the flowers in the floral basket. From the bottom of our hearts we appreciated their meticulousness, considerateness and professionalism.

**Detail 2: perfectionist attitude toward customer service.** When we arrived in Shenzhen by plane, it was already about 10 p.m., but we found the people from Huawei still waiting for us patiently. It was midnight when we checked into the hotel after a late supper. But the people from Huawei did not leave until they ensured that everything was fine with us. In my hotel room, I was pleasantly surprised to see a basket of fruits and a greeting card put there earlier by Huawei. Our meals, arranged by Huawei, represented the local flavor and also took our culinary tastes into account. Every meal was so delicious that it always reminded us of our host's hospitality and considerateness...

**Detail 3: care shown in service exceeding our expectation.** During the visit, De Jun, one of my colleagues, had bloodshot eyes because of working overtime for two nights on a row. Mr. Ma, a young man in charge of receiving us, noticed this right away. Then he not only reminded De Jun to have more rest, but also bought him some eye-drop. That was what we, as De Jun's colleagues, had never thought of before. On many other occasions I saw such heart-warming considerateness coming out of Huawei people naturally and purely.

To us who provide mobile communications services, service quality is our lifeline. We are trying our best to improve our customer service level by overcoming our weaknesses in service and streamlining our service workflow to ensure continuous improvement of customer satisfaction. Today when the Chinese mobile market is being opened up, our competitiveness lies in building a solid relationship with our customers. That is, the magic weapons for us to remain competitive include building a unique service culture and service experiences, streamlining and consolidating our service profit chain. At China Mobile, we advocate such service philosophies as "Customer first" and "Customer satisfaction as standard". But do they become part of our thinking that guides our activities? Service is never a cost

to a company; it is value being added to our products.

## 2. Improvement of Huawei teams seen in detail

Miss Zhang, also in charge of receiving us, left us with a deep impression. She had worked for one year and nine months after graduation from university. Before joining Huawei, she said, she knew nothing about the work world. It was at Huawei that she grew through training, sharing, bearing work responsibilities and being trusted. It is said that young people born after the 1980's in China are mostly pampered and emotional. In her, however, I saw none of these traits but traits of a typical Huaweiian instead.

**Detail 1: learning for self-improvement.** Huawei is a learning organization. Huawei president Ren Zhengfei reads two new books at least every week, it is said. Most of the awards for activities at Huawei are books, as I am told. Even the waiters at its VIP restaurant or chauffeurs are required to receive professional training – not only for the skills needed for their work, but also for the corporate culture, etiquette, communication techniques, etc. To be specific, the waiters need to learn how to appreciate and expound every famous painting on the VIP restaurant wall and the characteristics of every major Chinese culinary style, while the chauffeurs need to learn spoken English. Their excellent service in every detail comes from such training and self-improvement.

**Detail 2:** During our visit to Huawei University, it was



the weekend, so not many trainees were attending classes. Still we were impressed by the spacious classrooms, quiet corridors, blackboard newspaper with passionate essays, and students so engaged in study. Huawei University has a full-time faculty and teachers from outside, which is outnumbered by its in-house part-time teachers, though. The school is also noted for its team learning. This model of learning has the following characteristics. First, veterans are encouraged to be lecturers so that they can improve while teaching. Second, with its mentoring system, every new recruit has his/her own mentor; if the student excels, the mentor will be rewarded with an Excellent Mentor award. Third, the growth of a Huawei team will affect the performance assessment of the team leader so that the leader will make efforts for the training and development of his team members. Fourth, Huawei advocates discussions in learning, and even invites its business partners to share or discuss a certain training course. Its team climate, where sharing and collective growth as a team is emphasized, is a great booster of the whole team.

**Detail 3: openness of Huawei.** Huawei is always open. It welcomes new recruits. If someone who left the company wants to rejoin the company, he/she is welcome back. There are plenty of employees who have rejoined the company for a first or second time, which serves as a good evidence for its openness. Even those who left for good remain as committed, simple and ready to learn as they used to be at Huawei. Evidently Huawei's standardized management and charming culture has made Huawei what it is. Meanwhile, the comings and goings of people keep it vital and innovative. New recruits, in particular, facilitate Huawei's team learning by sparking new ideas.

A team good at learning is an effective, winning team. At China Mobile, we also emphasize learning what is practical – learning is a most important part of our corporate culture. However, I am overwhelmed to see how effectively the teams at Huawei work and improve.

### 3. A close look at Huawei through detail

A close look at Huawei reveals that the corporate culture of Huawei not merely exists on paper; it is incorporated into the behavior of its staff and business management.

**Detail 1: corporate culture training at Huawei:** Huawei is patient with training for its staff. As the soul, corporate culture training runs through the whole training process. New recruit orientation training, for example, lasts for one week, after which every new recruit is required to write down what he/she has learned. At Huawei University, I came across

a whiteboard pasted with such writings evidencing the effectiveness of the training. During the training, the University usually arranges a communication meeting between new recruits and veterans as a channel for them to exchange their experience of work and life at Huawei and as a means for the newcomers to adapt to the new environment.

#### **Detail 2: teamwork spirit and customer orientation.**

To make a request for customer reception, a Huawei staffer submits his application through an electronic process, and he will smoothly receive the cooperation and assistance from the relevant departments. In the beginning, a newcomer may not be sure if this will work. After several attempts, however, he will find that it works. This kind of teamwork spirit encourages him for sure, and he will go all out to help others whenever his cooperation or assistance is needed. Huawei has a work-hour analysis system, for example, for its employees to fill out their daily work logs. The company will, by sampling these work logs and talking to their owners, investigate their satisfaction with the cooperation they received, as a way to enhance teamwork and the quality of service provided by their work partners.

**Detail 3: all about Huawei.** Most of the time I was with the people of Huawei, I found that their topics would turn around Huawei. Even we also talked about Huawei as if we were bewitched. I heard an interesting thing about Huawei and doubted its truth, but now I believe that it is true. As the story goes, several co-workers from Huawei were drinking after work, agreeing that Huawei would never be mentioned during the drinking. But their topics gradually and unknowingly shifted to Huawei. Someone gave the reminder, and they stopped mentioning Huawei for a while. Before long, however, Huawei was mentioned again!

What kind of culture does the company have to make them so loyal and committed? Better still, many former Huawei people behave as they did at Huawei: what kind of culture has such a lasting impact on them?

In my attempts to answer these questions, I think that corporate culture is a summary of all non-material factors that affect the survival and development of a business. The cultivation of corporate culture involves controlling and intervening in these factors on purpose. By promoting corporate culture, we can integrate it with every part of a business – management, the workflows and rules, business strategy and operation. This is what makes Huawei so attractive, and also what we at China Mobile pursue relentlessly.

*(Gao Li is from Marketing Department, China Mobile Zibo, Shandong Province, China)*

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Editor's note: In early 1990's when fixed communications were prospering, mobile communications were catching up secretly. That was a time seeing mobile communications transforming from analog to digital (GSM). When there were only tens of thousands of mobile subscribers, no one expected GSM subscribers to increase exponentially. To create a new growth area, the company decided that GSM would be one of the year's R&D focuses, hoping to attain substantial development on the basis of our R&D experience in such wireless products as CT2 and ETS and thereby making a foray into the mobile market.

# The Birth of Huawei GSM

*By Yang Ganghua and Jiang Tao*





## 1. Determination and relentless efforts

At the end of 1995, people at Huawei Wireless were determined to develop our own GSM products. Based on their experience in the development of ETS, 20-odd R&D people including Yuan Jianhao and Hou Jinlong embarked on GSM research and development – a journey to be full of hardships and fun. It was a modest team as compared with its counterparts in major Western telecom vendors. Worse, we had no experience in digital cellular communications, nor did we have RF experts or architecture engineers; we were even short of ordinary software and hardware engineers. But we believed that a single spark could start a prairie fire, and resolved not to let go of this golden opportunity available once every two decades.

In May 1996, we entered the stage of design for our GSM system. Our switching, wireless and other experts locked themselves for three days at Xilihu Resort in western Shenzhen. After discussing, they decided to adopt the C&C08-B platform for our MSC and BSC. As no platform was available for our BTS, we had to develop it on our own. At that time we set a very challenging goal for us: to make calls successfully with our GSM equipment by mid-1997 and to commercialize it by the end of the same year. That was a mission impossible to us, given that the GSM protocols were in tens of volumes and piled up a high as several meters when printed. They involved the BTS, BSC, MSC, HLR, OMC, etc., where we were extremely lacking in the much-needed experience and expertise.

Not daunted by difficulties, the GSM team was working hard to figure out how to solve them. All the relevant people from our Shenzhen headquarters and Huawei Shanghai R&D Center were gathered in Shenzhen. In May 1996 we started the system design and finished it in August. From September 1996 to May 1997 was a period for product design, development and testing. Joint debugging was expected to start in June 1997.

## 2. An expanding team always ready to learn

In the early days of the GSM R&D project in 1996, the GSM team was always ready to ask for help whenever they had difficulty. There was no strict R&D documentation management, and the design documentation for the system was very simple by today's standards. Then Jiang Tao handwrote an article about clock interruption, resource allocation and database management in the system, which

would serve as guidance for the programming in the GSM team.

Through the mentoring system, generation after generation of our GSM people grew up. Liu Jiangfeng (former president of Global GTS and now president of Huawei Asia Pacific) was mentor of Xia Ning and Cheng Lin, who would, day after day, argue about technical issues with MAP signaling and ASN.1 coding. Some of their problems even their mentor could not solve. However, the more they argued, the clearer the problems became, and the more they knew how to deal with them. In this way they became MAP signaling experts. Later the MAP signaling group was joined by Chen Guorong and Che Haiping. Wang Weijun also became one of them, and was one of our best GSM guys and did nearly all the programming for the BSC by himself.

New blood kept pumping into the GSM team. In the outset, the GSM team had their office on the third floor of Building No. 1 at our then headquarters in Shenzhen Science-based Industrial Park. With the team growing, we relocated several times, and finally settled down in Building No. 3, which was totally occupied by the Wireless R&D Unit in 1998.

## 3. Harvest time

At that time everyone at the GSM team was often in charge of multiple tasks, so he was very familiar with the whole system and cooperated well with his teammates. According to the numbers coming and going at the A interface, he could tell what kind of signaling it was and what went wrong. Or even at the office, he could, through the LAN, monitor the testing in the laboratory, and point out the problems and trouble likely to surface. As the first CMO for GSM, Jiang Tao knew better than anyone else the pains in version consolidation. As we had no tools for version consolidation, we kept five backup versions in two machines. We needed to modify these five backup versions simultaneously during version consolidation. But it could come to pass that they were not modified in time and an earlier version was provided for the laboratory.

We experienced hardships and fun during the R&D process. We entered the stage of joint debugging in September 1997. However, the time schedule was tight for the initial stage of R&D where coordination and consultation were insufficient, and a lot of problems surfaced. But through joint efforts, we solved them all. September 5, 1997 was a historical date, when we successfully made the first call via our GSM system. Jiang Tao clearly remembers that day. "That day Pu Gang came to my office and said a certain GSM process didn't go through, and asked me to go over and



**Huawei's booth at PT/Wireless and Networks Comm China 1997**

check if there was anything wrong with the data configuration. I arrived at the laboratory at the eastern corner of the fourth floor. There I found a blackboard with lines written indicating the process testing, like ‘The RR process went through on XX date.’ After taking a check I found there was a problem with the configuration of the office direction data and phone number data. After modifying and reloading it, we made a call successfully. And we immediately asked Hou Jinlong, wireless development leader, to come over. Though the call came with noise and the voice quality was poor, it was the first call made on our own GSM equipment! Everyone of us was too excited to sleep well that night. The following morning, senior company executives came to the laboratory on the fourth floor, congratulating us for our success.

#### **4. A surprise visit to PT/Wireless and Networks Comm China 1997**

In December 1997, Huawei attended PT/Wireless and Networks Comm China in Beijing with its whole set of GSM equipment. Under the Chinese national flag there was an eye-catching banner reading “Chinese-made GSM”. Representatives from various ministries of the Central Government and operators thronged to congratulate Huawei. Our competitors would not believe that we made it until our GSM equipment passed the test on the spot. The GSM equipment Huawei exhibited made a stir, receiving acclaim from industry experts home and abroad. And the first effect of Huawei making its GSM equipment? – foreign telecom vendors began to cut the prices of their GSM equipment in

1998 and adjust their market strategy in China.

We were hugely successful in this Beijing exhibition, no doubt, but there was indescribable hardship behind the success. It was only one month since the equipment had been successfully debugged. In order to let the customers have a real experience, at the exhibition we connected our GSM system to the public telecom network so that customer people could make phone calls to their friends through our GSM system. We kept on debugging but calls could not be put through until the opening of the exhibition. Our people participating in the event were working so furiously that they had no time to eat the food bought from a MacDonald’s outlet. They were totally engaged in locating the cause of the problem. Our efforts paid off. At the final moment of the debugging, our GSM equipment successfully connected to the public telecom network. After dialing 114 (the directory inquiry number in China) for a trial, we found that the voice was clear, to everyone’s relief. Those colleagues of ours at the exhibition still remember that, after debugging our GSM equipment and making the first call that day, Jiang Tao uttered something like “I’m a little bit tired,” and then began to vomit uncontrollably and violently. He was rushed to hospital immediately. He was diagnosed as gastric disorder due to excessively hard work, and then hospitalized for several days.

#### **Epilogue**

Independence, creativity. This is the spirit that has been sustaining us over the years. It has been a decade since our GSM equipment was successfully developed. Now it is deployed all over the world, serving myriad users.

*It's been three years since I landed in Africa, but I still vividly remember the day when I first arrived here as if it were yesterday...*

*When arriving at our representative office in the country that day, I found it to be a small one – the dormitories, office, and dining room were all in the same house. The staff were less than 20, some of whom were temporary support personnel like me. Two or three persons shared a room, and we were short of mosquito nets. But the colleagues were very friendly and eager to help. After spending a little time settling down, I plunged into the project I was here to support.*

# Africa

## My Years in Africa

*By Guo Xiubin*

### 1. Difficulties and setbacks

The project of operator S was the first CDMA project in West Africa. It involved only ten BTSs that were to be distributed in two cities – five in Lagos and the other five in Kano. As those in Lagos involved the relocation of the equipment of an earlier supplier, our support was focused on the Lagos region.

Though small, the operator S project was of strategic importance for marketing, so we had a large number of support people for it. The representative office had a few vehicles, quite some of which were decades-old Mercedes. Every time we were on a visit to operator S, five or six of us would be packed into one of those old cars. The earlier sites were rather far from downtown, and it would take an hour or longer to get there if there was no traffic jam. But no traffic congestion was impossible in Lagos, so it usually took some two hours to reach the BTS site.

The Alabadu site was the farthest among operator S's BTS sites, and it was also the first site we had deployed in Lagos. Every trip to it took four hours at least. During each visit, we had nowhere to get any food for lunch. That was a time when we worked without lunch. One day, we were on our way to Alabadu in the customer's car in the hottest

season (January and February) in Nigeria. The car was not air-conditioned, the traffic jam was bad, and there was plenty of tail exhaust. When we arrived at our destination four hours later and got out of the car, we were so exhausted that we could barely stand firm.

### Unforgettable experience of spending the night at the BTS site

With some difficulties we got the Alabadu site up and running. After two days of running, however, it issued a lot of transmission alarms. To solve the problem, we needed to locate the transmission problem first, but locating it would lead to service disruption. According to the industry practices, such disruption was allowed after midnight. That meant that we had to spend the night at the site. In Nigeria, no one, including our local colleagues, dared to go out at night after 10 p.m. New in the country, I was a little bit scared to stay at the site for the night, to be honest. At this moment Mr. Tian Hetao the wireless product manager said to me, reassuringly, "You can go there with me to locate the problem tonight." Other supervisors of the representative office were highly concerned, requiring me to fulfill the task on the condition that safety came before anything else. At 8 p.m. we set out.

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On the way we were stopped by fully-armed policemen, and my heart was going boom, boom, boom!

Fortunately we arrived there at about 10 p.m. We locked ourselves in the container where the BTS was installed, and did not dare to go out. We were successful in locating the problem that night, and this success served as guidance to our company's microwave transmission applications (at 120ohm) at later stages.

That was a night that I won't forget all my life. And I was grateful to the company of Mr. He Tiantao – the camaraderie I will always cherish.

## Adventurous experience in drive test

There was a marketplace some three or four kilometers from the Alabadu site. The signal was found to be weak at its gate. To test the coverage, we planned a drive test at the marketplace.

Before we went there as planned, our driver warned us not to go because it was dangerous there. It was broad daylight, and there couldn't be danger, we thought. So we drove there. After going some 200 meters into the marketplace, however, we were stopped by a mob of gangsters. Our driver went out and talked to them, but ended up beaten badly. Luckily the car door was locked from inside, otherwise we would have been robbed or beaten.

After the driver went back to the car, two gangsters squatted in front of our car and would not go away. With new-found courage from nowhere, our driver started the engine and was just driving forward. We were worried what if our car would run over them, when they dodged quickly. Seizing the moment we sped away. As our driver told us later, those bad guys had wanted to shoot us. Though we didn't know if it was true, that was a really scary experience.

## The Ogba BTS site

In the deployment of those five sites, the Ogba BTS site proved to be the most difficult. All the people at the representative office, including the drivers and security guards, all knew that the site was well known for its many problems. So did the leaders of various levels. It was rare that a BTS site drew so much attention.

One of the characteristics of this BTS site was that it couldn't be put into service when the operator's environment was all ready. Or, to be more specific, if the BTS site were put into service, it would immediately result in complaints mainly about difficulty in access and poor quality of cell signals. To

locate the problems with this site, we lived – sleeping and eating – mainly at the site. Since I first spent the night at the Alabadu site, I had had numerous occasions of doing so later on.

An operation and maintenance chief from operator S worked with us in identifying the problems with the BTS. Every noon, with us he would eat bananas, which remained our staple food for more than a month. When we met each other, we would address each other with “Mr. Monkey” jokingly. This kind of friendship fostered in work helped us a lot in later operation and maintenance work for operator S.

To locate the sources of interference, we would, with interference detection devices in hand, get down from the car carefully, and move around identifying the sources. People around us would look at us strangely, but we took it as an opportunity to make us more courageous and brave. One night, we were looking for the sources of interference with our network optimization colleagues at the backyard of the BTS site, where it was pitch dark, and I thought, “Who would imagine that we are still busy locating the problems with the BTS site at this time in Africa?” Yes, it was an unforgettable experience in my life. For three months in a row, when we left for work in the evening, everyone was watching TV; when we came back in the morning, it was time for breakfast. By and by, we became the stars of the representative office. We were not addressed with our own names, but with “Ogba”. Finally all the problems were solved, making a major contribution to the improvement of our BTS equipment.

Busy with business trips, my first eight months in Africa slipped by fast. During this period of time, I knew the grind







of work and experienced so many things that I never had experienced or even imagined before, and the pressure that went with them.

## 2. To stay or not to stay?

In the sixth month of working in Nigeria, I had a rather comprehensive understanding of Nigeria.

Nigeria was experiencing a period of rapid development on various fronts, especially the communications front. Communications, wireless communications in particular, would see high-speed development, which would present unprecedented opportunity. On the other hand, the representative office was short of resources and had difficulty supporting the relevant business. So an idea dawned on me that I should stay in Nigeria to be a part of this huge development.

That was the first time I had ever thought of this, and I myself was surprised at it. For me, staying in Nigeria meant that I would have to be here for several years, but I had so many things to worry about: my age, my old parents, my newly-wed wife... If I stayed and worked permanently here, for quite some years I wouldn't be able to live together with my parents and my wife, and the raising of my child would be a problem. I thought and thought about this, and couldn't make up my mind after long. Two or three months later, I decided to stay to support our business development in Nigeria, knowing that it was also an opportunity of development for myself.

## 3. Rooted in Africa

In July 2004, I was officially transferred from R&D to GTS

and began to work with Wireless Technical Support Section, Huawei Nigeria. I was senior CBSS supervisor for the whole West Africa. In addition to engineering and maintenance, I was responsible for team building, training and development of our local staff and the staff from our cooperators.

Our Nigerian colleagues were generally poor technically. In their initial days at Huawei, many of them even didn't know how to use computers – they would type on the keyboard with a single finger! It was no easy job training them into telecom engineers capable of operating the complex communications system. For their training we set down a series of rules and came up with training methods – recruits training, mentoring, weekly report, monthly performance assessment, testing from time to time, hands-on practice in a real project, etc. We did our utmost to avoid estrangement between the local and the Chinese due to cultural differences, and ensure that they worked and lived together as much as possible.

Probably in half a year, we made impressive progress in our business in Nigeria, and at the same time, our business was getting prosperous in the neighboring countries. Now the local staff we had trained were able to play their roles. On their own they undertook the project of operator R, the expansion project of operator S, and projects from neighboring countries such as Cameroon, Sierra Leone, and Cote d'Ivoire. The project of operator S, in particular, was a CDMA project with the highest traffic per BTS and BSC globally, and involved tremendous maintenance work. At the same time, new networks were being built. Very good capability in technology and coordination was required for such networks. To our relief, these trained local colleagues could undertake a considerable portion of the work.

With the expansion of business and staff, the whole work of my team began to proceed normally, and meanwhile, I found myself in love with this land of hope.

## 4. Let your dream fly

In my three years in Nigeria, I've witnessed our business expand from zero to an important source of the company revenue. I myself have turned from one of the temporary technical support personnel into a product manager responsible for our wireless business in the whole West Africa. These years have formed part of my memory that is indelible.

Nigeria is just at the preliminary stage of its development. Its huge market potential presents an enormous opportunity for us. Seize it, and let our dream fly in this dreamland!

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**D**estiny is not a matter of chance, it is a matter of choice; it is not a thing to be awaited, it is a thing to be achieved. Meet Jyoti Joshi, who with an experience of eleven years in the telecom industry, has made critical choices leading to worthy achievements. She has dialed 'T' for Telecom as her career choice and as the days go by her career line is only getting busier.

### **At Huawei**

Currently Jyoti, Senior Manager, Telecom Service, Huawei India, is heading the Unified Access Platform (UAP). She was responsible for initiating this platform development in Huawei India and has led the team in both managerial and technical capacities ever since, for over two and a half years. She is responsible for the complete project delivery of UAP including the version planning, handling customers' expectations and people management. An important aspect of people management that she practices is to trust her team and to ensure effective communication at all

## **Comfort to Choose over Comfort**

*By Priya Pradeep*



times.

The UAP platform is an integral part of the “Colour ring back tone” solution of Huawei, popularly known as “Hello Tunes”. This platform supports mobile & fixed networks and next generation VoIP solutions. In India, Reliance and Tata Indicom are some of the major customers of this solution.

Prior to leading the UAP platform, Jyoti was with NGN – VoIP Softswitch product at Huawei India for four years. This was Huawei’s first product in India. “VoIP Softswitch, as a domain in the telecommunications industry, was still in its nascent stages then and hence the team had several challenges in terms of the new technologies and demanding schedules to surmount. In fact, we broke new ground in our Softswitch solution somewhere at three in the night, by making our first VoIP call,” recalls Jyoti gleefully. Having worked on the basic services in the Softswitch product, she moved on to the other important part of the solution – the value added services - in the UAP platform.

One key facet of Jyoti’s career that stands out is the fact that she has led teams in both management and technical capacities. Jyoti joined Huawei as a Project Leader and then went on to become a Project Manager for the Call Control project, which was the heart of the Softswitch solution. The challenges were many and exciting; these included deploying the solution at the customer site and customizing different versions to meet the varied customer needs. Later in the UAP, she chose to lead the team technically and after successfully delivering the first version of the platform from Huawei India, she moved to the management ladder and continues to lead the team as a project manager. “It helps tremendously to view the various facets of a product from both management and technical paradigms. This enlarges the individual’s perspective.”

In the industry, where such horizontal moves between the technical and management ladders are quite uncommon, her decision to do just that may surprise many. However, in Jyoti’s words, “I am very fortunate to be with a product company like Huawei where the technical and management realms are so intertwined that they must not be construed to be mutually exclusive and hence my switch between them was encouraged by the management. In fact, Huawei values and recognizes managers who are technically competent.”

## Sound Advice

Jyoti has been working in the telecom domain and is keen on continuing in the same. “At the bottom of the career pyramid for techies, the understanding of the big picture is limited to languages like C++ or Java. However, as one grows,

the domain dominates and its vastness is experienced. For me personally every day is a new learning experience,” she says.

She started her career at ITI in the switching R&D division and has worked in various telecom solutions, ever since. “During the initial years, an individual normally tends to pay more attention to the technologies and the languages and thereby gains relatively lesser exposure on the domain front; it is better though, to concentrate equally on the domain as well, as this can help him decide on the domain of his liking early enough in his career and help him build further on it,” she states as a piece of advice to a youngster joining the industry.

Inquisitiveness was a key characteristic of Jyoti during her early days at ITI when she was involved with developing switches. It was this feature of hers that enabled her to obtain a sufficient exposure to product deployment and customer support. This also helped her gain good knowledge of all the components involved in the making of the system – In fact it taught her to look at the trees while not missing out the forest. In her next stint, at Robert Bosch for three years, she worked on the supplementary services. Here, she worked on the PABX system wherein new features such as call forwarding and conferencing for mobile handsets were developed.

Fast forwarding the reels of her telecom journey to Huawei,

Jyoti has not given up her urge to experience the unusual. It explains her involvement in the bidding process for various tenders – a journey that techies don’t often get to take in their careers. “As a techie I cannot just rest in my techno comfort zone. I need to know the business side of cost and value creation for the customer, as well as exhibit leadership traits pertaining to gauging the big picture for the company. I feel this is manna for career growth,” voices Jyoti.



### Quote:

I am very fortunate to be with a product company like Huawei where the technical and management realms are so intertwined that they must not be construed to be mutually exclusive and hence my switch between them was encouraged by the management. In fact, Huawei values and recognizes managers who are technically competent.

*Originally published in The Smart Techie*



# Taking On the Challenge

*By Shen Gang*

Since the year 2000 when I joined Huawei, I have witnessed the dramatic development of our data communications products – from our successful development of the A8010 to our full range of data communications products like routers and switches being sold to the major operators in the world. During these seven years, I have held different positions, and each change has brought me into a new field. When I was asked how I grew into an expert in less than seven years' time, my answer was “by taking on the challenge and doing my job as well as I can.”

## **Beginner: learning, experimenting, and practicing**

In June 2006, I was at Shiyan Lake Resort in western Shenzhen undertaking a training program. I experienced the hot weather of Shenzhen for the first time and also the “hot” passion for improvement of my fellow trainees. I still remember asking a guy “what do you want to be in the future?” “Excellent,” he answered unmistakably. I felt both excited and pressured, and I knew that it was the choice and pursuit of all Huawei people.

When the training ended, I was assigned to the A8010 team. My work was closely related with various signaling protocols, which disappointed me since I had learned about routers in the training. However I worked hard to master new knowledge for my job as fast as possible, as I knew that would be the best for my career development. On the effective learning platform of our company, I started from basic technical terms and messages. One month later, the basic principles began to make sense to me, but still I missed the key points in technical discussions with those experienced colleagues. Obviously, I still had a long way to go.

Reflecting on my way of learning led me to realize that I read too much and did too little – I should practice more to turn what I read into real knowledge for me. So I began to spend more time doing experiments. It was not uncommon that I worked till later than 10 p.m. and once I stayed up until 2 a.m. when I finally succeeded in my experiment. Though tired, I had a light heart. At that time I had only one goal: to really understand what I learned.

In October 2000, finally came the opportunity I had been looking forward to. The A8010 was to be deployed in a key project in southern China. I was the supervisor of this project. Before leaving, my mentor told me, “This pilot office is the



kindling of our product and it is our hope.” I determined to make this project the beginning of many successes for our A8010. Passing a series of strict interoperability tests, the pilot project went out with flying colors. After that I began a series of business trips to support projects in the cities of Guangzhou, Shanghai, Chongqing, and Huludao.

### **Overseas testing: taking on the challenge**

Going through hardship is the best way to make faster progress. As the data communications products underwent fast growth, I was transferred from the A8010 to other products such as CAMS, firewall, switch, router and NMS. Every change brought with it a new challenge and I chose to take on the challenge and turn it into a success.

In April 2005, a Mexican operator asked to test our data products (with the condition that our NMS must pass the test before our other high-end products were permitted the entry to the network). The test involves not only the common functions, but also many new service features such as QoS and MPLS VPN. This operator had been using products of company C for a long time and this opportunity was hard-earned by our sales colleagues. So this test was very important, catching much attention of the supervisors in our company. I was to support the test on my first trip overseas.

To be prepared before I went, I did a lot of homework carefully, finding answers to questions the operator might be concerned with, reading documents of company C’s products, and comparing our products with theirs. The preparations were not made for nothing. The technicians of the operator, though as open and passionate as Latin-Americans were, worked in earnest. They would get to the root of a single detail, or ignore the test case and ask us to do it another way. During the test, the technicians were also comparing our products with those of company C. They had doubts about our products at first, but as the testing went on they understood our products better and their attitude changed, and before long they began to say “very nice, very nice.” Then I was sure my mission was accomplished.

### **China Mobile HQ contact: way of focusing on customer requirements**

In 2005 I began to serve as technical support representative. The position required end-to-end product service support and solution delivery. When following up the T project of China Mobile, I was aware that its

headquarters raised many requirements and questions about our products, but our routine support failed to respond promptly. As this was a major customer and its network important, we must improve our service to their satisfaction. I thought over this issue and came up with a solution, which was to set up a contact for China Mobile HQ. This idea was readily accepted by the PDT at Huawei Beijing, and a team consisting of persons from both the PDT and the TSD was designated to communicate with the customer, and follow up and respond quickly to the customer’s requirements.

With our work going on, we gained more and more recognition from China Mobile HQ for what we did. On the other hand, the experts in mobile communications from China Mobile HQ helped improve the competitiveness of our products through their ideas and suggestions.

### **Leader of technical support team: remote equipment inspection**

In 2004, I was leader of a technical support team of six. Our team provided technical support for five types of equipment and everyone was kept very busy troubleshooting. We often worked on weekends. As a result, we met the requirements of the customers and the team members made great progress in their ability to handle problems. However, my quarterly performance appraisal was neither “Excellent” nor “Good”. I felt puzzled until my supervisor pointed out: “Your responsibility has changed. It’s no longer about how you can handle problems by yourself. You must think about how to reduce problems by digging deep into the causes of them”.

From then on, I often pondered whether I lived up to the requirements of my position, and whether I stood in the boots of our frontline people and customers. We should not respond passively; we should take the initiative instead.

In 2006 when the amount of equipment running on the network increased, problems also increased. Every problem involving the core routers had serious effect. We could not afford to do nothing but wait for the problem to occur. We must figure out a way to spot the potential problems and remove them in advance. The first idea came into my mind was on-site inspection, but on a second thought I knew it was impractical since the huge number of sites and devices would require too much manpower. Besides, the on-site inspection was inefficient since on each tour the number of potential problems discovered was quite limited.

While racking my brains on this, I suddenly realized that

*(To be continued at P.14)*

# How Huawei CDMA2000 All-IP BTSs Are Helping To Sharpen Your Operational Edge

## Satisfying Evolving Operational Requirements in Low ARPU Space

Increased market competition in the communications industry and the development of ever more sophisticated web phones has resulted in a steady decline in the value of user ARPU for traditional operators. Such low profit situations mean you must operate at reduced costs to stay competitive.

Equipment costs currently account for around 20% to 40% of network construction costs. You also make significant outlays on fixed costs, such as salaries for maintenance staff, transmission line expenses, leasing of equipment rooms, electricity for daily operation and ongoing maintenance. If you are to make savings, the first one must be high recurring costs. In the area of BTSs, major primary expenditures include not only initial investment in hardware and long-term depreciation, but also engineering, installation, transmission and daily network maintenance. The right choice of BTS thus becomes critical in helping you to realise potential savings in the areas of network installation and equipment room construction, leasing of transmission lines and daily maintenance.

In striving to reduce day-to-day costs, the cross-checking of volume, cost, performance and stability ratings all remain key issues. Using smaller BTSs can reduce costs by enabling you to take advantage of lower procurement prices and smaller footprints in equipment rooms. Ultimately, excessive shrinking of cabinet volumes may negatively impact system stability by reducing back-up boards or devices. Smaller cabinets can also reduce your transmission power because increased heat will shrink power amplifiers. Viewed in the long term, the performance and stability of BTSs in either crowded urban or sparsely populated rural areas simply cannot be ignored.

The RF performance and stability of BTSs is also likely to have a significant impact on your running costs. Ultimately, signal transmission power directly affects the number of BTSs which are required to cover a specific area. As a result, switching to smaller, lower-powered BTSs will need more BTSs to cover the same area as before. This will result in a steady, year-on-year increase in expenditure on installation, daily maintenance and transmission. The decline of system stability and reliability this causes will result in a further increase in daily maintenance costs and also directly impact service quality and customer satisfaction. While the coverage and call drop-out rates of networks will vary by several percentage points, just one or two call failures or interruptions may result in the loss of individual customers. This will in turn cause huge loss of customer goodwill. Consequently, improving

network quality while reducing construction and maintenance costs has until now been something of an 'impossible dream' for your worriers.

## Huawei Introduces a New Generation of Future-Proof CDMA2000 All-IP BTSs

Leveraging its unrivalled understanding of the telecom market and extensive customer demand analysis research, Huawei has now rolled out the next generation of its hugely successful CDMA2000 all-IP range of BTSs. Specific options on offer include the 3606AE macro station, the 3606E indoor macro station, the 3606C compact macro station and the ODU3601E soft BTS. Designed to meet highly specific networking needs, all BTSs provide an optimum balance of performance, capacity and stability in their different classes. The new CDMA2000 all-IP range also offers full compatibility for the eventual migration to and deployment of full band CDMA2000 1x EV-DO Rev. A and its associated applications.

## Broadband Data-Oriented Structure Evolves to EV-DO Rev. A and UMB

Stringent worldwide EV-DO wireless performance and other evaluation testing of working commercial networks have repeatedly demonstrated the superior performance of Huawei's EV-DO wireless network. Specific examples include Huawei's demonstration of its uplink/downlink 3.1/1.8Mbps data transmission capabilities at the Beijing International Communication Exhibition in 2005. Achieving results approaching theoretic values, Huawei's successful completion of an EV-DO Rev. A video-monitoring services test on high speed subways in Shanghai in 2005 attracted a similarly high level of acclaim from within the electronics industry.

To ensure you are able to satisfy end-users's rapidly growing appetite for broadband data, Huawei's range of stations enable the deployment of the CDMA2000 1xEV-DO Rev. A network. As a result, you can not only provide VoIP, videophone, mobile broadband access services, but also be fully prepared for likely rises in demand following the future evolution of the CDMA system. Huawei has now also incorporated UMB<sup>a</sup> in its BTS design. You can also offer multimedia services and support the future scalability and flexibility of their networks.

## How All-IP Technology Improves Transmission Quality while Cutting Operating Costs

With its telecom-grade IP universal broadband platform and modular design, Huawei's Industry-leading CDMA2000 BTSs will further reduce opex. Significantly improving network efficiency, the



all-IP technologies will also save between 40% and 80% on transmission costs. Leveraging Huawei patented enhancement technology, each E1 link in the system can carry at least 240 speech channels & a massive 33% increase on the 180-line current industry standard. Best of all, the system does so without affecting voice quality, thus also further increasing transmission efficiency by more than 30%. In a series of stringent tests organised by some operators in India, one Huawei E1 system supported a remarkable 253 speech channels simultaneously.

Because they support IP transmission and E1+FE hybrid networking, Huawei's CDMA2000 BTSs represent a very attractive alternative for you with different levels of resources. The use of such a highly powerful and flexible IP transmission network for different scenarios will enable you to make further savings on transmission overheads.

### **How DPD and Doherty Improve Power Amplification and Reduce Power Consumption**

Through adoption of DPD and Doherty technologies, Huawei's CDMA2000 BTSs guarantee a power output of 20W on each carrier sector. This not only increases power amplification and the output linearity level of power amplifiers, but also reduces demand for input linearity. Substantially cutting down each BTS's power consumption, this greatly simplifies the manufacturing process and lowers the risk of heat shrinkage. Tests have shown that the power amplification of Huawei's Industry-leading base stations stands at just 33%. This figure represents a reduction of between 48% and 58% for each unit. Such extraordinarily low power needs and heat output levels will both significantly reduce electricity charges for BTSs and the need for air conditioning in the equipment rooms that house them.

### **Huawei Offers Optimum Design Flexibility for Different Scenarios**

Huawei's highly reliable BTS3606E BTS has been custom-designed for use in dense urban areas and offers high capacity, high integration and low power consumption. The system supports 1+1 back-up for critical boards and 3+1, 6+2 back-up for RF modules. As such, it is ideally suited for major commercial and residential areas with heavy communications traffic.

Huawei's BTS3606AE, meanwhile, is an enhanced outdoor BTS which supports a full range of BTS3606E functions. Integrating back-up batteries that eliminate the need for equipment room with transmission system, this split-type installation enables speedy deployment in outdoor settings.

With BTS3606C, Huawei has created a compact indoor BTS whose small volume, light weight and low power consumption are perfectly suited for areas with a large number of widely-spaced

BTSs. Traditionally, high transportation and installation costs, poor road conditions and small equipment rooms have all been major problems for this type of BTS. The BTS3606C eliminates these problems by optimising volume, weight and impact resistance. This station's innovative upper ventilation duct also enables three-wall mounting of its cabinet. A simplified modular design and easy cable connectivity, meanwhile, ensures the unit's simple and speedy installation by hand. The ultra-compact BTS3606C also offers users the added benefit of full 1+1 back-up of key modules such as clock control and Abis interface links. When using this system, you can set up city-based maintenance centers from which maintenance staff are dispatched to BTSs located in the suburbs and satellite towns. Providing outstanding back-up of key modules, the BTS3606C will play a vital role in ensuring uninterrupted network service and sustaining customer satisfaction levels when used in such conditions. BTS3606C single stations also offer you

an additional advantage in that they support dual-frequency hybrid networking and can thus meet networking requirements across both frequency bands.



Huawei's ODU3601CE is an outdoor RRH (Remote Radio Head) module which is light in weight and small in size. The compact design supports rod and wall bracket mounting and offers excellent resistance against theft, water and damp damage and noise from the IP55. As such, it is ideally suited for low-volume outdoor installation in areas such as highways and railways. Satisfying your needs for underground outdoor coverage, this station is also an ideal supplementary source of coverage for BTS3606E/AE and BTS3606C networks, and can even be coupled with BTS3606C stations in DO overlay networks.

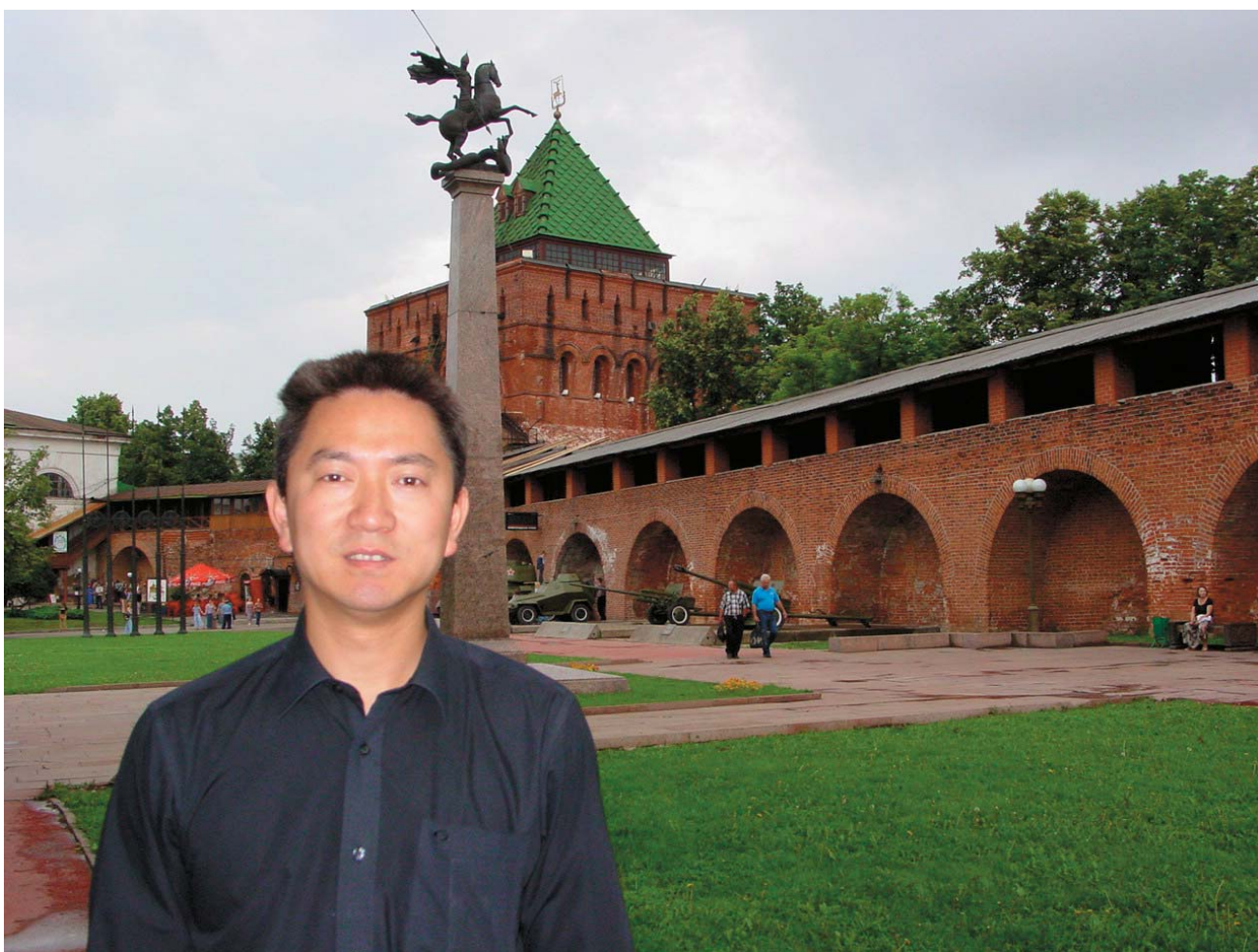
### **Commercialisation on a Scale Global Operators Trust**

Huawei's BTS3606E and BTS3606AE BTSs are now widely used in major markets across North, Central and

Latin America, Asia and Africa. A mainstay of renowned US operator Leap's first global all-IP structured EV-DO Rev. A network, Huawei's CDMA2000 BTSs help you to save over 30% in network construction and operation costs. You can also provide end-users with videophone, VoIP, broadcast and multicast, wireless broadband access, while ensuring outstanding video transmission performance and quality. In choosing Huawei's integrated BTS3606AE, Digicel, the largest mobile operator in the Caribbean, enjoys multiple back-up of vital boards, and is able to offer world-class applications in both densely populated urban areas and more isolated rural areas. How long before their superior environmental adaptability, reliability and performance quality is talked of all over the world?

For further information, visit us at [huawei.com](http://huawei.com)





# Learning Management from a Story

*By Lai Hong*

*Herbert A. Simon, a contemporary American master of management, tells a story in his The Sciences of the Artificial. This story, interesting and pregnant with meaning, is worth our pondering.*



There are two watchmakers, as the story goes, one called Hora, and the other Tempus. Both are well respected for their craftsmanship in their community. The telephones in their workshops are ringing all the time for new customers keep calling to place orders. However, not long after, Hora becomes richer and richer, but Tempus, poorer and poorer. The latter has to close down in the end. What is behind all this? Each watch they make is composed of 1,000 parts. When Tempus goes to answer a phone call, he has to lay down an unfinished watch, the parts of which then will break apart. Later, he has to start all over again. The more people like his watches, the more phone calls he will get. Consequently, he has not sufficient time to finish a watch without being interrupted. Hora's watches are no less complicated than Tempus's. However, after careful designing, he combines ten parts into a sub-assembly, then ten assemblies into an even larger sub-assembly, ten of which make a complete watch. So when he has to put down his work for the calls, Hora loses just a little. The time he uses to assemble a watch is only a fraction of the time Tempus needs.

In fact, it will be convincing to make a quantitative analysis of the degree of difficulty of Tempus's and Hora's work. Assuming that the probability of interruption of a part adding to an unfinished sub-assembly is 0.01; that is, the chance of any watchmaker adding a new part being interrupted is 1%. Then calculation shows that Tempus uses 4000 times as much as the time Hora needs.

In my opinion, we can learn at least two things from the story.

First, managers at different levels should learn Hora's way of thinking in assembling a watch. It is necessary to build units or teams of corresponding levels strong enough to support each higher level until the top. Only by so doing can a complex organization like Huawei be robust all the time. Through observation, analysis and summary, we can see that a multi-level structure is the commonest phenomenon in the evolution of the forms of organization in Nature and in human society, and the most fundamental and general reflection of the laws of Nature and society.

Second, like Hora the watchmaker, who pays close attention to the sub-assembly, from the perspective of an individual unit or team, managers at different levels should, apart from being concerned about the positioning of department functions and business objectives, highly concentrate on the organization as a whole according to the place, time and human resources. That is, the systemized construction of function designing, division and cooperation of posts, rules and workflows and IT support. And special attention should be directed to the building of teams in key departments. In this way we can build a well-structured organization with efficient horizontal and vertical communication and cooperation, satisfactory operation and better team performance.

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*(Continued from P.35)*

with your chopsticks and nip it with two fingers. If it can be broken, it is well done. Hearing this, I felt a pain in my heart. Mother was clear that she could no longer take care of her children as before. It was time for them to stand on their own legs. It hurt me even more that I had to work far away from home, which made her worried about me. As predicted, mother was unable to make fried rice noodles afterward.

One day in November 1999, I just returned to Shenzhen from a business trip when I got news that my mother had passed away. The giant tree that had sheltered the whole family for so many years suddenly collapsed. Mother had gone through the ten chaotic years of the Cultural Revolution, and endured the torture of diseases for twenty years. She brought up us six children in spite of all the difficulties. She never gave up. At one time she definitely refused a well-to-do family's offer to adopt her fourth son, who was smart and clever, though we were in dire poverty. Hard as life was, she

insisted that the five of us younger kids have proper education. She endured all pains, physical and mental, but never showed her suffering before her children. Mother had bravely bore ten years' torment by her illness. Past events came vividly into view. For some time, I simply couldn't accept my bereavement. I wouldn't break down until an old friend came to pay condolence. I held his hands tightly and burst out crying. For quite a long time I kept blaming myself for my inability to keep her company in her last days.

At last, I, too, learned how to stir-fry rice noodles. I often prepared them for my wife and my child. Every time I put noodles into the pot of hot water, my mother's words would ring in my ears: take one of the noodles you are cooking and nip it with two fingers to see if it can be broken completely. And then tears would well in my eyes; maybe it was because of the steam rising from the pot....



Confucian Temple

# Confucianism

Confucianism is a Chinese ethical and philosophical system originally developed from the teachings of the early Chinese sage Confucius, the founder of the teachings of Confucianism. It is a complex system of moral, social, political, and religious thought that has had tremendous influence on the culture and history of East Asia up to the 21st century. Some people in Europe have considered it to have been the “state religion” in East Asian countries because of governmental promotion of Confucian values and needs.

## History

Debated during the Warring States Period and forbidden during the short-lived Qin Dynasty, Confucianism was chosen by Emperor Wu of the Han Dynasty for use as a political system to govern the Chinese state. Despite its loss of influence during the Tang Dynasty, Confucian doctrine remained a mainstream Chinese orthodoxy for two millennia until the 20th century, when it was attacked by radical Chinese thinkers as a vanguard of a pre-modern system and an obstacle to China’s modernization, eventually culminating in its repression during the Cultural Revolution in the People’s Republic of

China. After the end of the Cultural Revolution, Confucianism has been revived in mainland China, with both interest in and debate about it surging.

The cultures most strongly influenced by Confucianism include those of China (including Hong Kong, Taiwan, and Macau), Japan, Korea, and Vietnam as well as various territories (including Singapore) settled predominantly by Chinese people.

Confucianism as passed down to the 19th and 20th centuries derives primarily from the school of the Neo-Confucians, led by Zhu Xi, who gave Confucianism renewed vigor in the Song and later dynasties. Neo-Confucianism combined Taoist and Buddhist ideas with existing Confucian ideas to create a more complete metaphysics than had ever existed before. At the same time, many forms of Confucianism have historically declared themselves opposed to the Buddhist and Taoist belief systems.

Confucius (551–479 BCE), the founder of Confucianism, was a famous sage and social philosopher of China whose teachings have deeply influenced East Asia for twenty centuries. The relationship between Confucianism and Confucius himself, however, is tenuous. Confucius' ideas were not accepted during his lifetime and he frequently bemoaned the fact that he remained unemployed by any of the feudal lords.

Confucius was a man of letters who worried about the troubled times in which he lived. He went from place to place trying to spread his political ideas and influence to the many kings contending for supremacy in China.

In the Eastern Zhou Dynasty (772–221 BC), its reigning emperor gradually became a mere figurehead. In this power vacuum, the rulers of small states began to vie with one another for military and political dominance. Deeply persuaded of the need for his mission – “If right principles prevailed through the empire, there would be no need for me to change its state” – Confucius tirelessly promoted the virtues of ancient illustrious sages such as the Duke of Zhou. As the common saying goes that Confucius was a “king without a crown” indicates, however, he never gained the opportunity to apply his ideas. He was expelled from states many times and eventually returned to his homeland to spend the last part of his life teaching. The *Analects* of Confucius, the closest primary source we have for his thoughts, relates his sayings and discussions with rulers and disciples in short passages. There is considerable debate over how to interpret the *Analects*.

Unlike most European and American philosophers, Confucius did not rely on deductive reasoning to convince his listeners. Instead, he used figures of rhetoric such as

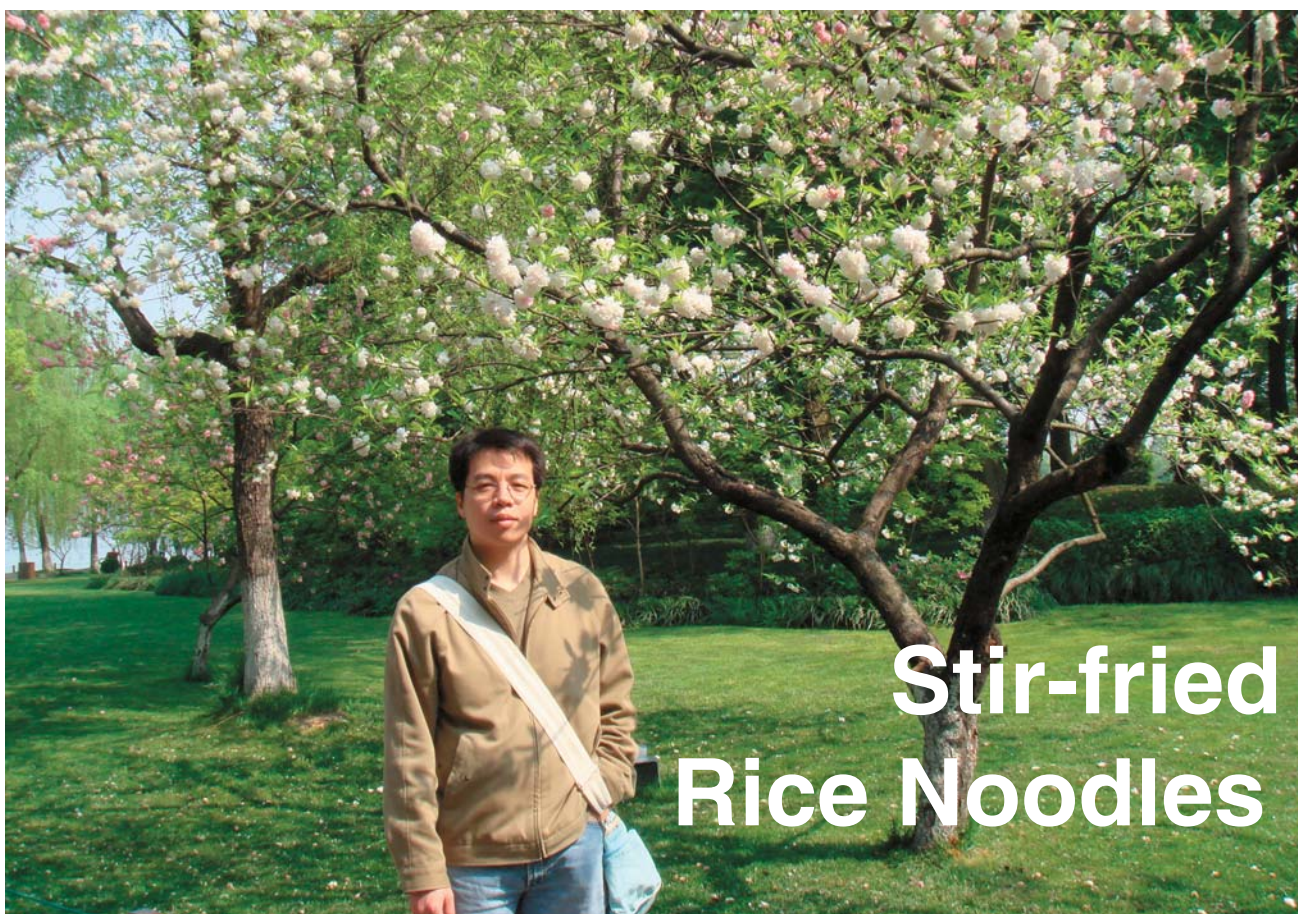
analogy and aphorism to explain his ideas. Most of the time these techniques were highly contextualized. For these reasons, European and American readers might find his philosophy muddled or unclear. However, Confucius claimed that he sought “a unity all pervading” and that there was “one single thread binding my way together.” The first occurrences of a real Confucian system may have been created by his disciples or by their disciples. During the philosophically fertile period of the Hundred Schools of Thought, great early figures of Confucianism such as Mencius and Xun Zi (not to be confused with Sun Zi) developed Confucianism into an ethical and political doctrine. Both had to fight contemporary ideas and gain the ruler's confidence through argumentation and reasoning. Mencius gave Confucianism a fuller explanation of human nature, of what is needed for good government, of what morality is, and founded his idealist doctrine on the claim that human nature is good. Xun Zi opposed many of Mencius' ideas, and built a structured system upon the idea that human nature is bad and had to be educated and exposed to the rites, before being able to express their goodness for the people. Some of Xun Zi's disciples, such as Han Feizi and Li Si, became Legalists (a kind of law-based early totalitarianism, quite distant from virtue-based Confucianism) and conceived the state system that allowed Qin Shi Huang to unify China under the strong state control of every human activity. The culmination of Confucius' dream of unification and peace in China can therefore be argued to have come from Legalism, a school of thought almost diametrically opposed to his reliance on rites and virtue.

## The spread of Confucianism

Confucianism survived its suppression during the Qin Dynasty partly thanks to the discovery of a trove of Confucian classics hidden in the walls of a scholar's house. After the Qin Dynasty, the new Han Dynasty (206 BC–AD 220) approved of Confucian doctrine and sponsored Confucian scholars, eventually making Confucianism the official state philosophy. Study of the Confucian classics became the basis of the government examination system and the core of the educational curriculum. No serious attempt to replace Confucianism arose until the May 4th Movement in the 20th century.

After its reformulation as Neo-Confucianism by Zhu Xi, Wang Yangming and the other Neo-Confucians, Confucianism also became accepted as state philosophies in Korea and Japan. Korea of the Chosun Dynasty has been termed a “Confucian state”.





# Stir-fried Rice Noodles

*At last, I, too, learned how to fry rice noodles. I often prepared them for my wife and my child. Every time I put noodles into the pot of hot water, my mother's words would ring in my ears: take one of the noodles you are cooking and nip it with two fingers to see if it can be broken completely. And then tears would well in my eyes; maybe it was because of the steam rising from the pot....*

**I**n Jiangxi Province, China, there is a snack, the temptation of which is irresistible – stir-fried rice noodles. It is simple to make. Cook rice noodles in boiling water, and when they are done, put them in a sieve to let water drip off. Afterward, stir-fry the noodles with pepper and soy sauce, and then add egg and meat. What a mouth-watering smell! The price is reasonable. It costs just two or three yuan for a big bowl of noodles. One can find such a snack in every street or lane in Jiangxi.

Before I went to primary school in 1977, I had no idea of such a delicacy as fried rice noodles in the world. Because of our family background, the whole family was sent to a remote

village far from our hometown in 1969 at the height of the Cultural Revolution – a tragic period of time in Chinese history. There were six kids in the family. I was then just born and my eldest brother was only ten. My father, who had just been demobilized from the Korean battlefield, returned with two medals and a pair of leather boots. Later, he became a middle school teacher in the village and my mother quit her job as a teacher – one not on government payroll, and became a farmer for she had to take care of us little hungry kids. It was a hard time. All I can remember now has something to do with food: picking waxberries, baking sweet potatoes and beans, or preserving peppers. Our



stomachs seemed to be empty all the time.

One day when I was seven years old, mother went with me to visit my uncle at the cultural center in the county seat. Uncle treated us with a meal of fried noodles at the small restaurant near the center. It was the first time in my life that I had tasted such a dainty. Compared with our daily meals of rice with sweet potatoes, the fried rice noodles seemed to be food for the emperor. As I was wolfing down my noodles, mother gave me a great amount from her bowl and looked with satisfaction as I finished them all. I had an ambition after the visit to town – when I grew up, I would work in the fried rice noodle restaurant or become a movie projectionist at the cinema on the opposite side. Hence I would quench my thirst for food, both material and spiritual.

In 1980, when my father was transferred to the education bureau in town, we moved there with him. Mother grew vegetables in some plots before and behind the staff residential building. My eldest brother worked at a construction company to help support the family. A family of seven, with five kids attending school, lived on father and brother's pay and the little money mother earned by selling her vegetables. At that time, I could only taste my fried rice noodles in my dream.

Owing to the hard life in the countryside, in 1982 mother got rheumatic heart disease, which became more and more serious with each passing day. She had to go to Shanghai for an operation, which would cost 5,000 yuan. It was an astronomical figure at that time. For mother's treatment, father had to borrow money from relatives and friends. With much difficulty he collected a little more than 3,000 yuan, including the 30 yuan he got from the leather boots he had sold. Then off they went to Shanghai for mother's operation. It was the first time our parents had been away from home to such a faraway place and for such a long time. When the pleasant smell of fried rice noodles from vendors' stands outside the school drifted into the classroom, I couldn't help thinking of the first time I had noodles with mother and worrying about her operation. I heard that father rented a tiny room beside the hospital and prepared meals by himself. And mother was even reluctant to buy an egg for herself. Fortunately the operation was successful as a whole. However, said the doctor, further treatment was needed if she wanted to recover fully. For lack of money, mother gave up and returned home one month and a half later.

Since 1982, my other brothers and my sister had left school and got jobs one after the other. Gradually we paid off all the debts, and a meal of fried rice noodles was not a wild wish anymore. Mother often prepared some for us and we all felt her noodles terrific.

It was my turn to take part in the national matriculation in 1989. Mother went out of her way to buy rice noodles at a village, where the noodles were extremely good for they were prepared with the spring water there. In the three examination days, mother began to get busy in the kitchen before dawn. When it was time for breakfast, I would have before me a big bowl of fried rice noodles. Maybe it was the magic effect of the noodles that I, who used to lag behind others, ranked fifth in the whole class in the examinations. I remember when, after coming out from the math exam, I told mother how in three minutes I solved a problem that was worth 8 points, I saw on her face a happiest smile, which has imprinted in my mind ever since.

After graduation from the university, I got a job in Guangdong Province. I went to my workplace by train directly from the university. As the train, which would pass my town seat, would stop for three minutes only, I told mother in my letter that she did not need to go to the station. However, when the train drew to a stop, I saw in the crowd the familiar figure of my mother, who was then, to my sorrow, getting weaker. Mother, supported by my sister, tottered over to the compartment window and handed me a tightly wrapped parcel. She said to me before the train started: do your job well! In her eyes I saw concern and expectation.

The train left the station slowly and mother's silhouette gradually disappeared. I unwrapped the parcel to find a box of freshly fried rice noodles, from which was wafted a familiar smell. It was for the remainder of my journey. A special sentiment filled my mind. As the old saying goes, when parents are home, the children should not leave them. Mother had been sick for a long time and I knew she wouldn't be strong enough to go and see me in Guangdong in the future. Now that I was away from home, I was afraid chances were slimmer for me to be with her.

Between 1993 and 1996, I managed to go home no more than three times a year and each time I could stay for just a few days. Every time, mother, despite her ill health, would prepare a large bowl of fried rice noodles for me. I could see her satisfaction when I finished the whole lot. Unfortunately in the winter of 1997, mother became seriously ill with renal failure and arteriosclerosis, and was unable to lie down to sleep. We brothers in turn donated our blood to mother and fortunately she survived. Every day when mother was in hospital, I massaged her back, which was numb for leaning on the quilts for a very long time. I was rubbing her back one day when she began to tell me the way to stir-fry rice noodles. It is quite simple, she said. The key is the timing of boiling the noodles, neither overdone nor underdone. Pick a noodle

*(To be continued at P.31)*



*by Xu Yongbo*

# Prize-winning Photos

from the Third Photo Contest at  
Huawei Headquarters



*by Zou Zixuan*





*by Qian Lei*



*by Ma Jian*



*by Zhang Junguan*

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