

HUAWEI PEOPLE

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Connect Minds, Create the Future
Opening Speech by Eric Xu at STW 2022 on
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VOICE

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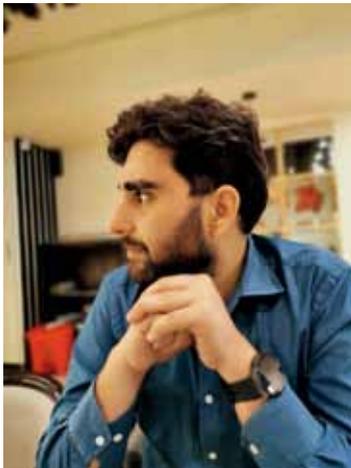
—Opening Speech by Eric Xu at STW 2022 on September 26, 2022

The world around us has undergone swift changes over the past year. Geopolitical conflicts have intensified, and the global economy is rife with challenges and uncertainty. Despite this, Huawei has managed to achieve remarkable progress, which would not have been possible without the relentless hard work of our employees and the incredible support of our partners. Of course, we still face a number of tremendous challenges ahead.

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HUAWEI PEOPLE

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Connect Minds, Create the Future

—Opening Speech by Eric Xu at STW 2022 on September 26, 2022

Ladies and gentlemen,

Distinguished scientists, experts, scholars, and industry representatives from around the world,

Good morning and good afternoon!

Welcome to the Huawei Strategy and Technology Workshop 2022.

The world around us has undergone swift changes over the past year. Geopolitical conflicts have intensified, and the global economy is rife with challenges and uncertainty. Despite this, Huawei has managed to achieve remarkable progress, which would not have been possible without the relentless hard work of our employees and the incredible support of our partners. Of course, we still face a number of tremendous challenges ahead.

I. Innovating to revive the economy and build a better future

Advances in science and technology are the key driving forces behind progress – both for humanity and civilization. Our world today is facing headwinds to development and economic growth. There's an urgent need for scientific and technological innovation to get things moving again.

In the energy sector, in order to cap carbon emissions and achieve carbon neutrality, we have to overcome a number of challenges, including the reliability of renewable energy, inefficient energy conversion, costly energy storage, insufficient safety, and barriers to real-time scheduling.

In computing, the coming decade will see a global increase in demand by two or three orders of magnitude. To meet this demand, we need to find a way to move past Moore's law, break through bottlenecks in von Neumann architecture, and make computing power available across regions.

In communications, 5.5G has the potential to cover five times more XR users in a single cell and improve uplink performance as well. This is a step forward, but it's far from enough to support a truly immersive experience with holographic communications. It's far from enough to enable ubiquitous, consistently fast, ultra-broadband access too. To make these happen, we need more breakthroughs and innovation. What key technological advances will 6G bring? The industry is looking into it.

In artificial intelligence, we have seen relatively large-scale use in domains like image and speech recognition. In many other domains,



however, training new AI models still heavily relies on an extraordinary amount of computing power and data. Small-size samples, a lack of explainability, as well as insufficient security and adversarial robustness are among the key barriers to the wider application of AI.

And last but not least, there's digital transformation. Helping industries go digital is a key element of the digital economy. At the core of this process is the sensing, transmission, computation, and storage of information. Traditional industries in particular have a pressing need for robust IT solutions. For the past year, Huawei has been making a concerted effort to help traditional industries transform with advanced information technology. We have managed to resolve many problems that have been plaguing industries for decades. But there's still a long way to go. We need to work together to unleash the full productivity of every single industry. This will catalyze the rise of new industries, new forms of business, and new models, and ultimately move the world forward.



For the past year, Huawei has been making a concerted effort to help traditional industries transform with advanced information technology.



II. Investing nonstop in basic research and open innovation

To survive, thrive, and have a bright future in this extreme environment, we need to keep investing heavily in basic research and pursuing open innovation. Over the past decade, Huawei has invested a total of CNY845 billion in R&D. Over CNY20 billion goes into basic research each year. To address future challenges and sustain growth, we have built 86 basic technology labs and have partnered up to establish 172 joint labs, including joint innovation labs, with universities around the world. Through these labs, we conduct joint research on basic technologies, focus on making breakthroughs in

the greatest challenges of our time, and resolve the problems we face as Huawei paves the way for ongoing survival.

We will continue to remain open as we engage with academia and industry – or, as we put it, "to absorb the energy of the universe over a cup of coffee." To this end, we have built many platforms for open discourse, including the Lavender Summit in France, the Sakura Summit in Japan, the Snow Mountain Summit in Switzerland, the Maple Leaf Summit in Canada, the Mendeleev Forum, the Future Network Forum, and the Huangshan Mathematics Forum. The Strategy and Technology Workshop you've joined us for today is also one of these platforms, where scientists, experts, scholars, and industry

partners from both inside and outside Huawei gather together to exchange ideas and discuss strategy and technology. Previous workshops have sparked meaningful new insights, and they continue to bear fruit. We hope that this year's workshop is just as thought-provoking.

Over the past two years, we have built more than 10 Chasparks near top universities that we partner with. These facilities provide teachers and students with an open and easily accessible environment for free discussion. We will continue to open more Chasparks moving forward. We have also launched a website and mobile application for Chaspark. These online platforms allow for seamless exchange of ideas on scientific and technological topics



Openness and innovation is the only path to a better future.

between different universities and disciplines – anytime, anywhere. Through Chaspark, we hope to keep exploring, guiding, opening up, and delving into important subjects of scientific inquiry. Together, we can gather the best ideas from the brightest minds.

III. Attracting world-class talent and providing a world-class platform

Universities are the primary force behind knowledge creation, so we will continue to provide funding to support their basic research. Businesses are the major force behind innovation. We can share industry challenges and provide the necessary funding, platforms, and data to complement academic inquiry. The challenges businesses share can help inform universities as they conduct theoretical research and make technological breakthroughs. This will link up the entire process from cutting-edge research and the development of competitive products, on to widespread commercial application.

At Huawei, we have more than 750 scientists from various fields, more than 5,500 chief experts in different systems, and 105,000 people engaged in R&D. But we don't want to confine our R&D efforts to Huawei alone. Instead, we want to build an open, diverse, and multi-level R&D structure that develops global capabilities attainable to us, accessible to us, and known to us.

We will continue to provide

support for professors, associate professors, postdoctoral researchers, and PhDs. Each year, we help fund more than 1,000 professors, associate professors, and scholars. Each year, we provide more than 3,000 young minds with internship opportunities. Each year, we provide research support for more than 500 postdoctoral researchers who join postdoctoral research stations at Huawei. Each year, we spend more than US\$600 million on extensive research and exploration, technical collaboration, training, and competitions for tens of thousands of university students and teachers.

IV. Attracting world-class talent to tackle world-class challenges

President Xi Jinping proposed that scientific research at universities must focus on four aspects, one of which is to drive economic growth. But there is a major roadblock to achieving this goal: universities tend to lack an in-depth understanding of business scenarios and supporting data. Huawei can help in this regard. We have collected a wide range of real-world business scenarios, along with a rich array of meaningful data, to help inform academic pursuit. Together, we can maximize our strengths.

In recent times, Huawei has summarized a number of long-standing problems facing ourselves and our industry. We have distilled them into scientific challenges and made them publicly available for

the entire world. We hope these challenges will serve as a beacon, bringing together the world's brightest minds – people with a solid grasp on basic theory and who think outside the box.

In 2020, we tested the waters by announcing ten mathematical challenges in the post-Shannon era. This prompted a deluge of valuable thoughts and ideas. In the past year, we have expanded the list to 190 challenges covering 19 fields, inspiring the active participation of tens of thousands of professors, associate professors, and scholars from more than 100 universities and research institutes around the world. Among them, more than 1,500 proposed solutions to the challenges provided. After review and verification, 133 potential solutions won the Huawei Spark Award. This approach can truly shrink and even bridge the gap between academia and industry, and guide theoretical and technological breakthroughs with world-class challenges.

The world is changing fast, with new industry opportunities and technologies arriving every day. New ideas, new theories, and new technologies are emerging one after another. Only by working together, exchanging ideas, and challenging each other can we ignite the sparks of wisdom. Openness and innovation is the only path to a better future.

We look forward to free discussion, open communication, and proactive sharing. And we hope the workshop will be a rousing success!

Thank you.

Good Things Take Time

By Fahad Alam Khan / Pakistan

“This is going to be a long night,” I said to myself while sleeping on a concrete rooftop, without pillow and bed, under a full moon. How did I end up here?

After graduating with a degree in telecommunications engineering from a top university of Pakistan, I joined a subcontractor firm to start my career, trying to gain some experience like many other youngsters. My role was to help deploy sites in remote areas. It was a tough job, but I had to start my career somewhere. It was my faith and skills that kept me going in such harsh conditions.

When You Think Positive, Good Things Happen

“What value can you bring to our project?” My Huawei interviewer asked me after a long technical interview.

“There’s no tool to measure a person’s capability and future dedication to the job. I’m good at developing solutions,” I replied to



the interviewer. “My education or working experience might not be the best, but I’m confident that I’ll bring a change and find ways to optimize the work. As an old saying goes, never underestimate a person who overestimates himself.”

This whole scene happened when one of my friends referred my resume to Huawei for a job opening of a front office transmission engineer at the Network Operation Center (NOC).

After a few rounds of interview, I got selected for the said position. From harsh remote areas, I was ready to work in the office on my favorite machine – my laptop. Programming has been my hobby since childhood. I bought my first personal computer (PC) when I was 15 years old by saving my own and my brother’s pocket money for years. That was a time when I had to prove myself that I was good at communicating about matters of technology and I could make a difference by creating value for the company and customers.

Proving Yourself to Yourself

“We need more engineers like you. If you can recommend some good resumes to me, I’ll be grateful,” said the vice president (VP) of Delivery and Services of Huawei Pakistan while presenting an award to me after my four months of joining Huawei.

Let me share with you what happened in the lead up to my receiving the award. When I joined Huawei, I noticed something in our routine work that could be improved. Whenever there was an issue with the network, our team needed to identify the faulty part or device. We needed to check each device status from the system and then to open multiple files

to find the relationship between it and other devices. In a case where multiple devices were affected, we needed to locate the primary device. Our team had to spend around 30 minutes pinpointing the device every time when a fault occurred in the network. It was repetitive work. So, every day, our team of eight employees went through this process of fault spotting for multiple times. For me, it became boring.

“I’ll change this,” I said to myself. “And I have to make it automatic. But how?”

“Oh, boy, what are you doing? Better focus on your work like your fellow colleagues,” my manager said to me when seeing me busy in trying to come up with a solution to the issue so persistently. I smiled and said, “Sir, just wait for a few days, and I’ll give you a surprise.”

“Where’s my surprise?” Every day in the next couple of days, my manager would ask me with a smile on his face, while holding a cup of tea in his hand.

Finally came my surprise. After working on this for 15 days, I worked out an algorithm to automate the process. I created an IT tool which reduced the fault locating time from 30 minutes to 1.

The tool was so successful that it was not only welcomed in Huawei but also praised by our customer’s senior manager and his team.

One day, I received a customer’s email with these words: “Excellent work, Fahad.” These three words still feel fresh to me; and every time when I am down, I will say to myself, “You can do it, and do it excellently.” Even today, when my colleagues say to me, “How are you?”, I reply them with “I’m excellent!” From that day onward, excellence has been a compulsory ingredient in my recipe of work.

I proved myself to myself. I was neither assigned to make this tool, nor was I told to improve our work efficiency. I made the tool to transform my and our team’s way of working.

Improving the Efficiency of Daily Work

“Fahad, now you have to take care of our Operation Support Systems (OSS) software.” One day my manager told me while communicating with me on shifting my job role. This happened after my six months at Huawei.

I was transferred from a network operation department to a software-related department where I had the opportunity to make tools for digitization. I felt amazed because I loved to develop software. My hobby became my job.

But there was one problem. Before developing software, we usually need to understand hardware. Until now, the only hardware I had known was the laptop. But for big applications, I needed to run them on quite a lot of servers.

“We need to deploy 11 servers in a data center,” my manager told me while leaving his office one day, “Will you try it?”

“Sure, I will.” I responded firmly but with a question mark on my face.

I was a little nervous. I had never seen a server before, not to mention deploying it alone.

“Don’t worry,” my manager patted me on the shoulder and said, “I’ll arrange some IT experts to support you in completing the deployment.”

I had two options. One was to tell my manager that I was only good at software, and to suggest that he should ask other colleagues to do the deployment. And the other was,

of course, to deploy the servers by myself with the support.

I went for the second one. And I made it. It seemed impossible until it was done.

I deployed the hardware and then it was time to develop applications. In our team, we worked as front office engineers. Most of the day, we had to keep our eyes glued to the screen. In the case of any alarm issued, we would immediately report it to the relevant teams for rectification. It was a difficult job which required continuous attention, similar to a doctor monitoring a patient's heartbeat.

I started to develop a new application to improve and automate this "heartbeat monitoring process". Like the previously mentioned tool which helped my teammates to locate a fault, my new tool aimed to alert the team when there was a fault in the network. By automating the "heartbeat monitoring process", our front office team could improve our efficiency of working on the daily routine, allowing us to focus more efforts on creative and innovative ideas rather than only looking at the screen.

The new tool proved to be a success. "Thanks, Fahad," one of colleagues said to me happily. "Now with your new tool, I can have a coffee break with other teammates and discuss more creative ideas for our work!"

"I'm just trying to make our work and life easier. You're welcome to give me more ideas on other new applications as well!" I replied smiling, but inside I was feeling proud and happy because I became the source of inspiration and happiness for people around me.



At Huawei HQ in Shenzhen, China

Sailing Towards Shenzhen

"Fahad, you have been selected as a golden seed for the Operation Web Services (OWS) training program in China," my director told me one day in 2015, exactly one year after I joined Huawei.

That was quite a success for me. The feeling of going to China itself was amazing.

I joined other 20 exceptional employees from around the world in the training for one month at Huawei headquarters (HQ) in Shenzhen, China. We were trained to create and leverage applications on a new Huawei platform called OWS, which aimed to improve the efficiency of operational teams.

I had a great time in Shenzhen. It was a great experience meeting with extraordinary trainers. This was my first time to go out of my home country and meet so many people from other countries. I made quite a lot of friends whom I am still in touch with. For most of us it was the first

time in China, so we also went out for sightseeing in our spare time.

After 30 days of training, all of us went back to our countries as experts in development & operations (DevOps). Now I had the platform to show my programming skills and bring about operational transformation.

My First Application on OWS

"When will you show me your first application on OWS? Don't tell me that you only enjoyed sightseeing in China," my manager asked me with a smiling face.

"Yes, soon you'll see our first application on OWS," I replied quickly, trying to figure out some ideas on what to do.

"Developing applications isn't a problem for me. But what application should I develop first?" I said to myself.

I noticed that we had many outsourced colleagues from our cooperation partner working in our department, who still marked attendance on paper every day. At that time, only regular Huawei employees could mark mobile attendance through WeLink in certain Huawei office areas. According to my estimation, we had about 800 outsourced staff members in our team located in many different offices. Each month, our partner had to collect piles of paper documents for further processing and auditing. What a chore!

"That'll be a good opportunity for me to begin with!" I delightedly said to myself.

"Sir, we plan to help our partner to launch an application to realize mobile attendance for our outsourced staff colleagues," I talked with my director. "With this new application,



I was speechless with excitement: What a great honor that was!

no matter where they are in Pakistan, they'll be able to mark their daily attendance on their mobile phones, as long as they're working onsite."

With our management team's approval, the mobile attendance application was successfully launched soon. That was my first application on OWS and it was again warmly welcomed. "Wonderful!" one of the attendance auditors thumbed up to me after using it. "With one click, we can see 800 staff members' attendance records. The system also highlights some abnormal records for us to check!"

That application became so successful that it was downloaded across 19 countries by our colleagues from the OWS application store and deployed for their project teams.

"Fahad, we're also facing the same issue in our country. Can you help us?" Soon I started receiving similar messages from my colleagues from the Middle East (ME) projects.

The best thing about OWS is that it provided an app store, which is like the Huawei AppGallery. OWS developers from around the globe can upload their approved applications, and other project teams can simply choose and download from the app store and bring benefits to their projects. Many project teams from the Middle East region deployed these applications from the app store. The local management team decided to arrange a training session in Bahrain to enable their operational teams to develop and leverage more such

applications. And they invited me as a trainer. I was already in contact with most of the trainees but it was nice meeting them face to face. I taught them application development and also shared my experience in software defined operations (SDO).

In the old days, people had to wait on the roadside for a taxi, and even had to wave and shout to get one. Nowadays, they can call a taxicab with just a few clicks on some online car-hailing applications like Uber. Likewise, we have digitized our daily operations in our work to facilitate paperless working, with everything online and information just one click away. This is the essence of SDO.



Presenting SDO at Huawei University

From Trainee to Trainer

SDO has become a reality in Pakistan. We have turned our traditional paper-based operations to paperless ones – everything was online. My goal of achieving zero repetitive tasks was achieved through automation. To be specific, I made it with the help of OWS. We have achieved amazing results by improving our team's work efficiency by 25% and slashing project cost by up to 20%, all thanks to OWS.

One day I received an email from HQ. It read: "We would like to invite you to be a trainer for our next training program in China. You will share Pakistan's successful experience in digitalization, teach our trainees application development on OWS, and show them why and how such application development is great for network operational projects."

I was speechless with excitement: What a great honor that was! But I was also nervous.

"All the trainees are experts and even some are managers and directors. How can I teach them?" I said to myself on my flight to Shenzhen.

Soon I found myself standing in front of my class in HQ, ready to deliver the session. For a few seconds, though, I was at a loss, wondering where to start. The training organizer and facilitator from HQ, standing at the back row of the classroom, waved his hand to me as a sign of encouragement, as if he were saying, "Go for it! It's your show time now!"

“Technology has a language. It’s called code. And we believe coding is an essential skill for everyone. Learning to code teaches you to solve problems and work together in creative ways. So, we have created OWS, where you can bring your ideas to life,” so I started with whatever came across my mind. Seeing the satisfaction on the faces of the class, I felt confident and delivered the whole session in the best possible way. We received 98% positive comments from the trainees.

This marked a role transition from a trainee in Shenzhen a few years ago to a trainer in the same building now at Huawei University. The success further motivated me to achieve more, making me more committed and dedicated.

Welcome to the Sales World

“I have a piece of good news for you! The management team decided to transfer you from Delivery to Solution and Sales,” my director told me one day in 2019.

“So it means I’m leaving my department?” I was in a state of shock. “That’s a little sad for me” I murmured in my heart.

“Please don’t get it wrong. You’ve done pretty well. Now you should be given more responsibilities and opportunities to grow,” my director explained, patting me on the shoulder.

I had worked in a delivery team for more than five years. I was a little excited to join a new department. But somewhere in my heart, I was somewhat sad to leave all my friends who were like my family.

“I’ll make more contributions in a new department.” That was what



With my services sales team in 2021 (Author is 6th from right)

I kept saying in my mind for quite a while after joining the Solution and Sales team. In Solution and Sales, I was responsible for selling or expanding the Customer Experience Management (CEM) solution business in Pakistan.

“But I don’t know anything about the CEM solution and sales. What shall I do?” One day I shared my inner concerns with one of my colleagues.

“If you want to teach someone how to swim, you should throw him into the water,” he said smiling; and he added, “As a solution manager, you’re obligated to build solid relationships with customers and provide them with help and create value for them. You need to put yourself in the customer’s shoes.”

“But aren’t the account teams responsible for building customer relationships?” I quickly asked with confusion.

“Stay customer-centric and try to engage with the customer proactively. And you’ll be successful,” he confidently replied.

In my early days, my teammates introduced me to sales basics and taught me the processes. On the other hand, I was looking for an opportunity to meet with a customer.

“Fahad, next week you shall meet with a senior manager of the customer. He has some expansion plans for our SmartCare, a Huawei Customer Experience Management (CEM) platform,” my director said to me one fine morning.

“Great!” I replied, excited over getting an opportunity to meet with our customer. At the same time, however, I asked myself nervously, “How should I do it? Where do I start?”

“Fahad, I think it’s time for us to stop expansion and investment in this CEM platform,” the senior manager of the customer said to me when I had extended my greetings to him. And he added, “The CEM platform should help us more on the business side rather than on the network side.”

“That’s quite challenging,” I thought to myself while making an attempt at getting more insights into

their real needs.

After the follow-up discussion, I discovered that the customer's real concern was about their decreasing revenue. If we could address their concern with proper solutions through the CEM platform, there could still be some good win-win opportunities for both sides.

We set up a team, which consisted of ME and HQ experts who were not only from the network side but also from the business and marketing sides. We designed and selected multiple scenarios to address the customer's business and marketing concerns before the second meeting with them. "We need to deploy the initial use cases with existing hardware and software. This phase is critical to changing the customer's perception about CEM." I said in a kick-off meeting for drafting the first CEM business-related solution for the customer.

We selected some features of CEM that could help the customer improve their revenue. First, we provided them with an analysis of the "annoyed subscribers," which was a term we came up with in brainstorming to refer to some service users who were having unpleasant user experiences. For instance, they might face call drops or slow Internet access speed sometimes. They were likely to churn (or leave the customer's network) if their experiences did not improve. We identified some areas with a possible presence of the "annoyed subscribers" and shared our findings with the customer to focus on those areas.

And we worked with the customer to come up with measures accordingly to improve user experiences. In this way the customer started to see a reduced subscriber churn rate, which quickly

resulted in revenue increase.

"Have you seen an email from our marketing team?" a technical manager from the customer asked me this rhetorical question when calling me one day. He went on to share with me some great news: "The marketing team appreciated our CEM capabilities and they were pleased with the positive results after using them. They agreed to do more cases on CEM. Now I'm going to do the CEM expansion with more confidence!"

The news gave us a higher level of motivation to go on. We designed the solution based on more new requirements from the customer. In that year of 2020, the customer issued us the largest ever purchase order (PO) for CEM expansion in the market of Pakistan.

"Fahad, we've changed the perception of CEM in our organization. We've agreed to offer you the expansion PO. Keep bringing us more value and I'll be sure that our CEM expansion won't stop," the senior manager of the customer said happily while issuing the PO.

After the expansion, I continued working out more valuable solutions from CEM and my focus was on making CEM an integral part of the customer's operations. I spent more time working at the customer's office than at Huawei's. They started to trust me more and more and even considered me a member of their team. It dawned on me that, in order to be successful, you need to make your customer successful first.

Good Things Take Time, and Great Things Take a Little Longer

With Huawei I have got an



Bumping into my former manager at Huawei Dongguan Campus, who interviewed me several years ago (author is on the right)

opportunity to transform myself from a delivery engineer to a solution expert, a position that has enabled me to support operators' digital transformation, especially in the operational domain and CEM. What will the future hold for me? This I do not know. But whatever it is, it will be challenging and I am ready to face it. Good things will happen in life but with only those who have unquestionable belief in themselves. Never lose hope in your abilities, dear readers. Sometimes, I would spend many hours drafting one email in order to see a satisfied smile on my customer's face. I am persistent in self-perfection. The better you become, the greater the reward you will reap.

The Life of My Choice

Growing Together with Huawei

By Luciana Tehupeiori / Indonesia



The Beginning of My Journey

How can I forget the moment when I walked into the Huawei office in Jakarta of Indonesia for an interview? The office impressed me as a very crowded place, full of professionals and busy people; yet I found myself admiring those moments and those people. As a young girl back then, I had been dreaming of working at some great companies, but Huawei had not been one of them. It was after that day of my interview at the company that I kept repeating the same words inside my head: “I want to be a member of this company.”

As a young candidate with work experience, I was interviewed

for several rounds, and I vividly remember the first round. My interviewer might be a manager, I supposed. From his polite but serious look, I was sure that it would be a tough interview session. There were three candidates waiting for their turn and I was the first one. As a result I had little time to think of any possibility that could happen in the next 10 or 15 minutes, knowing that it would all depend on my performance. During the face-to-face interview, I was asked a few questions about my previous work experience. I answered them one by one, but I was a little nervous and, as I think back on that day, was not in my best form during the interview. Afterwards I really had no idea of what he was thinking about

me. His face did not show any sign that could indicate whether he liked me or not. At that moment, I even thought that there was no possibility that I could pass the first round of interview. So I left the Huawei office hopelessly. Two days later, to my surprise, I received a call from Huawei. As I was told, my interview had actually gone well and they would like to continue the following rounds with me. On that day I knew that I was probably predestined to be a member of Huawei, a dream company for me since my first round of interview at it. Finally my dream came true and I joined Huawei in April 2018.

I was a little nervous but excited when I walked into the office on my first working day. Starry-eyed with

grand dreams for the future, I sat down at the corner of the office lobby. Suddenly I heard a deep voice, “Hello, Luciana. It’s so nice to see you again!” It was the man who had interviewed me for the first round. To my surprise, this time he did not look serious, but wore a warm smile on his face instead. Then he began to show me around the office, introducing me to each department; finally he led me to the Customer Support (CS) department where I would work, and introduced me to the CS colleagues one by one enthusiastically. I felt reassured by the sincere welcome from my manager and colleagues.

After the introduction to the departments was done, my manager started to walk me through the basic knowledge of the spare parts business, including the organizational structure, business processes, and some of my specific job responsibilities. After learning such basics, I came to realize that my job would require strong skills in analysis and summarization.

To be honest, I was not really good at both. Meanwhile, I did not have any background or knowledge of telecommunications. I started to feel diffident for this job. Seeming to notice my anxiety, my manager told me not to worry. “We’ll assign you a mentor, who will ensure you’ll learn by a plan and do well,” he said reassuringly. “And as long as you work hard, you’ll surely grow quickly with the team, and you’ll adapt to the job and the environment soon enough.” Then he introduced me to the project manager, my mentor, who soon started to teach me the specific knowledge of the project that I would be involved in. That day I felt that at Huawei all people were very nice and open to each other and that they were willing to guide me to grow step by step.

I saw one quote on the social media platforms saying: “Go find a job you love; then you will not have to work every day of your life.” But for me, the right job is one which

enables me to grow. As I would learn in my time with Huawei, we do not have to love our job each day in our lives since growing is not always easy and happy; we just need to make our best efforts to do everything well in our work and that will help us to grow faster and get stronger. As proven over time, Huawei is absolutely the right place for me.

The following short story is of my growing with Huawei and being a member of Huawei Indonesia spare parts maintenance team.

From Zero to Hero

My first job role in Huawei was a spare parts specialist, managing the spare parts service of the CS projects. This position definitely required me to learn many things, from spare parts asset management to spare parts delivery monitoring, and from making a clear report of the spare parts business to the project team to having negotiations with a very strict customer. In the beginning, although it was a busy job, everything went smoothly at the spare parts team of the Indonesia Representative Office (IRO). Two months later, however, it turned out to be a very difficult time for us, I would say.

In June 2018, the IRO spare parts team started to cooperate with a new logistics service provider (LSP). In the spare parts business, the LSP performance is critical to Huawei’s business KPIs as well as to customer satisfaction. During our cooperation with the new LSP for the first time, though, we received some complaints from our major customers. The complaints mainly resulted from our (our team and the LSP’s) inadequate preparations in a limited timeframe for faulty spare parts inventory management at the customer premises.



With my teammates (author is 2nd from left)



After the conversation, I kept thinking what my manager had said to me.

The faulty spare parts were supposed to be returned from the customer's office to Huawei's local warehouses first, before they should continue to be sent back to Huawei Headquarters (HQ) at Dongguan, China from Indonesia. But the return time required by the customer is sometimes inconsistent with the actual pick-up time of the LSP, leading the quantity of faulty spare parts to increase on the customer side. Over time, the IRO accumulated more and more faulty spare parts, causing the faulty inventory rate to rise much higher than the target set by HQ.

In December 2018, I was assigned to take on this challenge and solve the issue. I believed that it was time for me to start to make a mark in Huawei CS Indonesia. Honestly, I was not sure if I would be able to solve the issue, because I had been with Huawei only for seven months, and had not yet fully understood the spare parts business. I still remember clearly how overwhelming the pressure was on me at that time. In the beginning, for the two weeks I kept trying to urge the LSP to speed up the return of the customers' faulty spare parts to Huawei warehouses. However, I found that the faulty inventory rate still kept increasing and it made me feel depressed. At that time, I had no idea how to handle it. The problem kept popping up in my head and I was so troubled that I almost wanted to give up. One morning, with mixed feelings, I went to my manager's office. I said to him with my face

lowered, "It seems too difficult for me. I don't know how to resolve it. Can you arrange someone else to do it?"

First, let me tell you more about my manager. After working for seven months together, I surely got to know him better. My first impressions about him in the interview had been wrong. He was just an introvert, a guy of few words, which explained why he had looked so serious at the first time we met. After hearing my desperate request, he politely asked me to sit down and said to me calmly, "You know why we chose you to be the spare parts specialist? During the interview, I discovered that you were a patient and persevering young lady, who could crack on with one problem until it was resolved; it's a character trait I really appreciate. So I'm pretty sure you are quite up to the task. Why don't you believe in yourself this time? First, you should find the root causes, analyzing what actually happened; then you'll know what to do. There are several experts in the region and HQ, who have extensive global experience and will advise you on how to make the analysis. As an old saying goes in China, 'What you learned from books is theoretical after all. It is crucial for you to personally practice it.' Sometimes, it's not enough to sit in the office and wait for solutions. Instead, you should go to the site or to our warehouses to find out what really caused the problem in the current handling process, and I'll grant you the permission. If you need any other support, just let me know."

That conversation ended up with a single "OK" from my side, because I knew what he had said was true. I had not analyzed the real causes of the current problem, nor had I gone to the site to verify. I had simply urged the LSP to return the faulty parts – which had proven to be an inappropriate, futile approach. Thus motivated by his words and quickly recovering my confidence, I chose to continue with the task.

After the conversation, I kept thinking what my manager had said to me. In the IRO, we had three different faulty parts return scenarios related to customers, engineers, and subcontractors respectively. I started to make deep analysis case by case to find out the actual root causes. In the next month, I first discussed with the experts of the region and HQ about the possible causes of the high inventory of faulty spare parts and then, according to their advice, analyzed the historical inbound and outbound records. Meanwhile I went to the warehouses, where I got myself involved in the faulty spare parts return process with the LSP. Finally, I discovered the key point: In some warehouses, after receiving faulty parts, the LSP did not enter the faulty parts information to the Huawei IT system, so the IT system could not balance the account of these faulty spare parts, even though they were already in our warehouses. According to the Huawei spare parts assets management regulations, only after the correct supporting documents



LSP migration celebration with spare parts team (author is 6th from left)

are provided can physical goods information be put into the IT system.

So, in order to resolve these historically accumulated problems, we had to surmount the biggest challenge – collecting proper supporting documents from each party in the different scenarios among customers, engineers, subcontractors, the LSP and our internal team. With the assistance of my manager, I started a kick-off meeting with customers, engineers, subcontractors and the LSP to gather these supporting documents. Fortunately, based on the key points I had analyzed, we reached an agreement that the customers, engineers and subcontractors were willing to help provide supporting documents in different scenarios based on the list of faulty spare parts.

The agreement gradually led us to find the solutions. After many meetings, by classifying the problems we gradually came up with

the corresponding solutions, and managed to sort out most of the faulty spare parts information. And then we went to the relevant warehouses with the representatives from the LSP to handle the physical faulty spare parts one by one and process them correctly in the IT system. We had over 70 warehouses in Indonesia and I worked onsite in some major ones for three weeks in a row. It might be the longest three weeks in my life. I worked there day in and day out making sure that each and every process was done correctly. Only in that way was I sure that we were making some progress. I was grateful that our customers were very understanding and cooperative with us. We finally reached a consensus and moved on the right track.

Days became weeks and weeks turned into months. The LSP also took some feasible measures to improve the work efficiency. Since

we had found out the root cause and worked on the solutions together, we began to gradually improve our faulty spare parts inventory management on a daily basis. My objective was to reduce the faulty inventory rate as much as possible, better to be lower than the target rate set by HQ. And that was the objective towards which I had done everything in faulty spare parts management over the past several months.

One morning, on a normal day just like any other day, I started my work with checking some emails and viewing the dashboard webpage of our IT system to see if anything changed in the indicator of the faulty inventory rate. Soon, much to my surprise, I saw the faulty inventory rate, previously very high, drop to a fairly low level – even lower than the target rate set by HQ. “Is this for real? Or is it just a bug in our IT system?” I sat there shaking my head, muttering to myself;



Group photo after new employee training was completed (author is 1st from left at the 1st row)

I was still not sure. Two hours later, I refreshed the dashboard webpage, and the data was the same as before. At this I was very excited, knowing that my efforts for the past six months had finally paid off and that my ability to deal with problems had been greatly improved in the process. The result was recognized by HQ experts and my manager. Meanwhile I made a call to our customers to share the good news with them and express my deep gratitude. In response our customers expressed their appreciation of our customer-centric attitude and business improvement efforts. That was, I thought, a moment that was worth all our efforts.

The Life of My Choice

Every cloud has a silver lining, as they say. To me the saying means that every difficulty brings us closer to our greatest victory. And it best describes my first one year in Huawei. After I resolved the problem of the high faulty spare parts inventory rate,

I was promoted to team leader in January 2020. In the next two years, I organized two sessions of training for new employees in the spare parts warehouse to improve their knowledge of the spare parts business and get them familiar with Huawei hardware modules. Meanwhile, I invited our customers to visit our warehouses, introducing Huawei's spare part business core capabilities and showing them our unique value. Every problem resolved and each activity held successfully sped up my growth. Although growing has not always been easy and pleasant, I am sure that it has made me stronger. Then in April 2022, I was appointed spare parts manager, a position going with greater responsibilities.

As Huawei employees we are all aware of our well-known corporate core values: Staying customer-centricity, inspiring dedication, persevering, and growing by reflection. I believe what we have achieved is a result of our identifying with those core values. Faced with

problems or difficulties, we need to soldier on until we resolve them and meet customer requirements. As for me, a young and fresh employee without any telecommunications knowledge and technical background, I have been given an opportunity to start and advance my career in the ICT field, which is also an opportunity for me to create more value for myself, for the company, and for our customers.

Everyone in Huawei is busy every day, but I have never seen anyone working without passion, for I know that passion is what drives us to become better each day. And here I am, in the right place to grow and improve myself. I may not love my job every day, but I am grateful every day that I am a member of this organization. I believe that, in the coming days, I will become stronger and better together with Huawei. As a saying goes, "When we choose our job, we choose our lives." In my case, my career with Huawei is the life of my choice.



The Golden Ticket: From a Seed to a Blossoming Flower

By Uppiah Renu / Mauritius

The First Step in a Dream Come True

When I was still at university, the name Huawei piqued my curiosity through its “Seeds for the Future” scholarship program for the first time while I was chatting with a senior schoolmate of mine. The first thing that I did (as most people would nowadays) was to google it! I was deeply immersed in the stories of this information and communications technology (ICT) giant and words were floating in my mind, such as a leader, a fighter, an innovator, and a juggernaut!

As I was assiduously scrolling

through the feeds, I became cognizant of the value that Huawei’s “Seeds for the Future” holds. Every year, Huawei brings together and cultivates young ICT talents from all over the world through this life-changing program. These selected seeds are sent to China for a two-week study trip. There, they explore Huawei’s cutting-edged ICT at Huawei headquarters (HQ) in Shenzhen and research facilities in Beijing, experience traditional and modern Chinese culture, take Mandarin classes, and go on cultural excursions to iconic sites such as the Great Wall and Forbidden City and hone their professional skills.

I could not take my gaze

off while learning more about the program, which was all aflame with ardor and excitement. “Would Huawei recruit only the top 10 seeds from my university? Could I be among the top 10? Would the university recommend my name for this program?” All these conundrums were firing through my brain and all I was thinking of was how to be part of this prodigious organization.

I then took a deep breath and whispered to myself: “Renu, forget what has been done and focus on what can be done.” From that day up to my final year, I toiled day and night, anticipating that opportunity: Seeds for the Future!

Finally, I was called for an interview, which marked the inception of a remarkable journey. It was not only my first job interview ever but also a once-in-a-lifetime chance. It was simple for me: Either nail it or screw it! During the night prior, I was tossing and turning in bed and before I knew it, it was already dawn. I had all those mixed emotions of excitement, pride, nervousness and doubtfulness about whether I would land a job with the company of my dreams.

While I was waiting in the reception area, the fortress of my confidence was collapsing upon seeing some candidates leaving the room one by one in despair. My turn for the interview was minutes away and I anxiously reminded myself of my goal. As they called my name, I entered the room with poise yet panic, and extended my trembling hand for firm handshakes and greetings. A series of questions began and I answered all with apparent confidence despite the fear inside me.

Before leaving the room, I could sense the lost hope completely. However, as goes a quote from Zig Ziglar, “Difficult roads often lead to beautiful destinations.” To my pleasant surprise I was selected as a “seed”, a stepping stone to my dream.

Seeds for the Future: Mind-Blowing Experience Turning Theory into Reality

I embarked on a trip to China, the world’s fastest developing country, with my other fellow seeds. My wanderlust kept me on the edge of my seat until I set my feet in Beijing, the capital of China with more than 3,000 years of history. The city was far beyond what I had envisaged: the greenery, the cleanliness, the modern



On the way to China (author is 3rd from right)



At Huawei’s training center (author is 2nd from right)

and traditional architecture, the innovative technologies, the vibrancy, and the wonderful array of attractions.

Chairman Mao Zedong summed it up succinctly: “He who fails to reach the Great Wall is not a true hero.” Indeed, Beijing is home to one

of the Seven Wonders of the World – the Great Wall – and many other scenic attractions. So, without a visit to the Great Wall, no trip to Beijing would be complete. From the series of stones to the earthen fortifications, I was completely bug-eyed with this

spectacular bucket-list experience. This trip was also livened up with the paradise venue of the giant pandas at the Beijing Zoo, the Bird's Nest Stadium, and the traditional courtyard houses. My historical knowledge was in no doubt boosted up at this stage.

In the bulk of the first week of Seeds for the Future, my fellow seeds and I learned the Chinese language, calligraphy, painting, and Taiji (a branch of Chinese Kung Fu) at Beijing Language and Culture University; it was truly a very fruitful experience, giving me an insight into Chinese traditions. Moreover, the deep-rooted Chinese culinary culture rendered me speechless. The food was definitely exquisite, coming in a range of flavors and varieties.

By that time, I had determined that the purpose for me was not only to get technical training but also to broaden my horizons, be it in Chinese culture, cuisine, music, education, language, cultural heritages, or even renowned landmarks. However, it was time to set off for the next destination: Shenzhen, the birthplace of Huawei. While Beijing was preserving the ancient architecture, Shenzhen was modernizing into a vast metropolis and an appealing city, with a strong power of connectivity. I was flabbergasted by the extensive application of the Internet of Things (IoT) on the streets, from connected bicycles to mobile payments and cloud computing in smart transport and safe city solutions. When I first stepped into Huawei's Training Center and Exhibition Hall, I realized how huge Huawei was. In this hands-on experience, we witnessed how products and solutions were developed and were able to experience how theory became reality. I could feel that we are venturing into an intelligent era, characterized by love.

The Internship: At the Crossroads Between Learning-and-Doing and Learning-by-Doing

After facing the real Huawei in China, I aspired to work together with my fellow seeds, to grow and form part of that one big Huawei tree for a better, connected world.

My wish was granted when I received my acceptance notification from the HR team offering an internship, kick-starting my professional career. Indeed, this is an indelible mark for us young graduates who want to improve our skills to the level required in the fast-changing market.

I was assigned to the Enterprise Product & Solution Sales Department to which I remained committed from day one. At first, it was very difficult for me to understand the working regime of this department, especially when I saw my other fellow seeds going on the field while I was always at the office, learning about the products and solutions and taking so many exams.

Whilst having an engineering background, I found it challenging to adapt to this department since I had expected to spend most of my time onsite. During the first few months, I struggled with the project tenders, Huawei bidding processes, channel business rules, contract negotiations, and facing customers. Not only did I have certain limitations in accessing certain platforms but all concepts were new to me, concepts which I had never heard or come across before. Despite all these, I always kept my composure when meeting customers or handling any project flow. There were days when I just wanted to sit and cry, but I kept holding on, remained dedicated, and cultivated



At the DigiTalent Launching Ceremony

myself through my mistakes and achievements along with learning from every single human being in the office or even from virtual beings.

Huawei ICT Competition: The Early Bird Catching the Worm

Huawei is so vast that there are constantly opportunities to grow, as long as you are willing to rise to new challenges in your assignments. One such assignment was the task of conducting Huawei ICT competition road shows with the ICT Talent Ecosystem team during my internship. At first, I was perplexed as I did not have any knowledge of this ecosystem. However, by using iLearning portals and a relevant bookshelf for guidance, I learned a lot about this prestigious event and its global value for students; thus I managed to run successful road shows with more than 1,000 student registrations for the first time in Mauritius.

Watching the glory videos of



previous ICT competition series and winners made me feel enthusiastic and excited, prompting me to join the competition after ensuring proper compliance and credentials. I knew that it would be a tough journey since I would have limited time due to my full-time internship. However, I stopped all my racing thoughts and went for it. From that moment, my journey as a night owl began. With collective efforts, perseverance, teamwork, and strategic planning, we stood second at the Regional Final and won the First Prize in the Global Final, bringing the visibility of our paradise island Mauritius to an international level.

A New Lease of Life: From a Seed to Huawei Staff Member

While my confidence level boosted up at the winning stage of the competition, my internship was coming to an end. Sadly, during that rough patch COVID-19 struck, adding fuel to the fire and bringing with

it: working from home, lockdown, exhaustive online meetings, and loss of face-to-face touch.

We were adapting to these changed circumstances, when out of the blue I found myself shouldering some new responsibilities despite zero experience on my part. I felt like being thrown into a deep pool without knowing how to swim. Quitting sounded like a good option but I chose to be the best version of myself and strive until I got promoted from an intern to a Huawei employee working as a product engineer in the Enterprise Business Group (EBG).

The EBG was at an early stage of development in Mauritius. People still regarded Huawei as a “smartphone” seller despite its leading position in the ICT industry. Putting Huawei at the forefront of industry customers kept on bringing a unique set of business challenges. While I was busy meeting with customers from different sectors, I would develop sales partners, improve the capabilities of existing partners, learn the product portfolio, and adopt

a strategic approach to tackling obstacles. I was still swamped with the processes and the new role when I was also appointed deputy leader of ICT talent manager to develop the ICT ecosystem, including ICT Academy and Huawei Certified ICT Associate (HCIA) development in Mauritius.

Within a year, I developed new customer leads and opportunities in the banking, hospitality, and education sectors. I was also able to identify new sales partners for enterprise through channel insights, cloud resellers, and channel service partners. This accelerated my growth, turning me into an “all-in-one” EBG sales responsible: Bidding Responsible, Product Manager, Channel Manager, and Account Manager. Indeed, I could have never learned so much all by myself. Michael Jordan has rightly put it: “Talent wins games, but teamwork and intelligence win championships.” I worked closely with our ICT experts, the delivery and service team, the supply chain team, the contract & negotiation team, and the finance team to further enhance my technical and sales capabilities that



◀ Awarding Ceremony of ICT Competition (author is in the middle)

At the Seeds Opening Ceremony in China

Seeds for the Future Graduation Ceremony (author is 3rd from right)

enabled me to fulfill my responsibilities. The quintessentially commercial strategy allowed me to understand the different concepts for planning and managing opportunities in line with digital transformation.

Even though most of my time was consumed in the ICT business, this never prevented me from giving my absolute best as a talent manager. From launching HCIA classes to signing up with new academies to collaborating with the United Nations Educational, Scientific and Cultural Organization (UNESCO), I racked my brain to shake things up. When we worked to launch the Huawei Mauritius DigiTalent Initiative, we also developed a talent cultivation whitepaper, which was launched at the same event in Mauritius.

Dreaming It Possible: The Journey to Excellence

Following several achievements and my enthusiastic nature as a core value practitioner, I was recommended and selected for the Huawei Southern

Africa Region (SAR) Ambassador 2022 Program which brought another taste of my Huawei experience. I got the opportunity to be part of the Local Talent Elite (LTE) Training hosted in South Africa (SA) where we had interactive sessions with the management team. I was part of an amazing team comprising experienced core value practitioners. After hearing about the purpose of the Ambassador Program, I became more motivated than ever to drive the people around me. I have served as a chaperone and role model during the Leadership, Employability, Advancement, and Possibility (LEAP) launch; I have been the face and voice of Huawei during charity events, a campus ambassador for ICT students, a guest speaker in internal and external Huawei events and, most importantly, an example and reflection of the essence of Huawei's corporate culture.

When I look back, I cannot help asking myself: "How did I manage to get through all of this? How did I get the energy to play so many roles and shoulder so many responsibilities?"

All I know is that whenever I am given a task, be it related to my assigned role or not, I always take it as a challenge and give it one hundred percent. In one line I would say: "Nothing ventured, nothing gained." Today, I see myself as an "all-in-one" EBG engineer, an epitome of fervor, confidence, courage, strength, perseverance, and hunger for success.

What I truly feel is that Huawei is one big family where each member has his or her particular role to play and I am honored to find myself being part of it. It is known for its diverse staff, who are practicing and representing Huawei's core values.

It is not until you fall that you fly. So, whenever there are challenges, there are possibilities. When there are possibilities, there are opportunities. I always seize these opportunities and get myself prepared all the time! All I look forward to now are new challenges, new horizons, new roles, new experiences, personal and professional improvement, and hopefully an interactive session with Mr. Ren Zhengfei!



Faces of Our
Trustworthiness

Perseverance, Key to Success

Interview with Device BG Software
Technical Expert Cheng Jusheng

By Wang Ran / China



Editor's note:

Huawei adopted a five-year plan for thorough transformation in order to build trustworthy, high-quality products and solutions, and become the most trustworthy supplier and partner in the information and communications technology (ICT) industry. With this plan, the company aims to systematically enhance its software engineering capabilities throughout the product lifecycle, covering product design, complete build, delivery, and operations and maintenance (O&M). This is necessary as building trustworthiness is vital to the survival of Huawei.

Cheng Jusheng graduated from Zhejiang University in 1998 with a doctoral degree. After working in the U.S. from 2004 to 2008, he joined Huawei in 2008.

Cheng, a C&Q level-7 software expert, has been working on source code for more than 10 years. In total, he has analyzed about seven million lines of source code, outputting more than 30 analysis documents.

Cheng is also the winner of three science and technology progress awards at the national, provincial, and ministerial levels in China. He led the new big data storage technology and platform program, which was a key part of the 13th five-year plan of the Chinese Ministry of Science and Technology. He holds more than 60 patents, more than five of which were granted outside of China.

Cheng is one of Huawei's top interviewers. Over the past more than 10 years, he insisted on asking applicants to write code onsite during interviews. This was finally adopted as part of Huawei's standard interview process in 2019.

Cheng loves sports and is a good badminton and table tennis player. He has won team competition championships of the Beijing Research Center on several occasions. He also took up running in 2019, and runs 2,200 kilometers each year. To date, he has finished seven marathons and dozens of half marathons.

Cheng is also the proud father of two well-educated children: His daughter currently studies at Tsinghua University; his son is a star pupil in primary school. He has won praise for his lectures at the Beijing Research Center and Chengdu Research Center on how to balance work and family life and stay healthy.

Q: *When and why did you choose to join Huawei?*

Cheng Jusheng: I joined Huawei in 2008, before which I had worked on storage R&D in the U.S. At that time, I had heard many rumors about Huawei, such as massive overtime, heavy workloads, and fierce competition. This made me hesitant to work for the company. However, Huawei was still a good choice in terms of development prospects and technical strength if I wanted to work in China. Therefore, I decided to take a closer look at the position.

During an interview at Huawei's Beijing Research Center, I saw a banner on the wall of the office, saying "How far you can go depends on who you travel with." I was greatly impressed by this sentence and decided to join the company there and then. I have now been with Huawei for more than 10 years, and will hold onto my position here as long as I can.

Some people may not understand why I decided to join a company because of a single sentence, but, quite simply, I was deeply touched by it. How far we can go truly depends on who we travel with. Similarly, the accomplishments we can make depend on who we work with, as collaboration is just as important as individual efforts. If we work with excellent individuals, we may eventually become as excellent as they are. On the contrary, if we work with someone who gives up halfway, we may give up too.

Q: *You have designed architecture and key solutions for numerous projects. Could you share some of your experience in architecture design?*

Cheng Jusheng: Over the past 14 years at Huawei, I have undertaken a large number of projects, mainly in

the areas of distributed file systems, distributed storage, and distributed databases. I currently work on HarmonyOS.

Among these projects, the visualized storage project I did in 2016 was particularly special. The system in this project had entered commercial use in 2013. However, there were many problems with this system in the live network of nearly 10,000 sites, resulting in serious user complaints.

In early 2016, the Cloud Business Unit (BU) and the Central Software Institute jointly made an official announcement on recruiting experts to form a Flying Tiger Team that would work to solve the problems. And, according to the announcement, those who could help solve the problems would receive a bounty. Many people saw this project as some sort of a mission impossible. The architecture design director approached me and said, "This project is very difficult, and we'd like to put you in charge of it. If you couldn't solve the problems, then we would have no choice but to give it up." I agreed to take on this challenge.

Just as a doctor needs to identify the cause of a disease through diagnosis before prescribing a treatment, I had to find out the causes of the problems before solving them. I immediately started collecting information and analyzing it for the causes. However, I received conflicting information from managers, marketing personnel, and R&D engineers. Some said that the employees lacked the ability to solve the problems. Some said that there was something wrong with the key underlying technology that needed to be changed. And others even said that the problems were caused by low product quality. No one told me

exactly what had caused the problems, and perhaps they did not know. Therefore, I had to figure it out on my own.

I spent about 10 days reading 5,000 to 6,000 trouble tickets, user complaint records, and design and test documents, as well as every single line of the code. Upon completing this task, I found that 50% of the problems were caused by technology and the other 50% came from low product quality.

Technical problems included key technology failing to be implemented, and the time sequence being mismatched during concurrent operations in distributed scenarios. Quality problems included flawed code, insufficient considerations regarding concurrent operations, and perfunctory handling of numerous abnormalities. In addition, a lack of test scenarios led to a failure to simulate many complex user scenarios.

After identifying these pain points, I started to formulate countermeasures. On the technical side, I had two options: One was to completely overturn the original solution and build a new one using different underlying technology. The second was to introduce optimizations to the original solution. I did a careful code analysis, and my technical expertise and experience told me that the underlying technology adopted by the original solution was actually good and could support the technical implementation of the project. So in order to address the problems more efficiently, I went with the second option: making optimizations based on the original solution.

We created an adaptation layer that was compatible with both the original and new mechanisms. Within the new mechanism, we focused on

implementing the key technology that had been implemented in the industry. Within the original mechanism, we focused on optimizing the code and sequence in concurrent operations, and the lock mechanism, as well as the handling of exceptions.

To increase code quality, we centrally reviewed and rectified each line of code, and ramped up efforts to test them. For example, we integrated many resources in order to automatically test the code around the clock. We also tried our best to simulate user scenarios by artificially causing numerous faults and interruptions. After nearly a year of work, the technical solution was finally implemented as I had hoped. The system gradually became more reliable, and the quality greatly improved.

After the system settled into stable operations, the next problem I had to solve was how to smoothly upgrade the system within the live network and ensure that no problems would occur after the upgrade. We had two options. One was to use new data generated during the system upgrade to gradually replace the original data until all of it was migrated. The other was to keep the original data unchanged during the system upgrade, and then rapidly replace all of them with new data in one go after the system was upgraded. Afterwards the new data would be used for all system functions.

After discussions with the customer, the frontline account manager told us that the customer insisted on no service interruptions occurring during the upgrade. I designated an entire team to design a system upgrade solution based on this requirement. However, the solution was becoming more complicated as time went by, and problems kept

popping up. I felt as though we were in a whirlpool that was constantly pulling us towards its center. Even though I assigned my team's best employees to support the upgrade, the problems still kept appearing one after another.

What was wrong with our upgrade? What could I do? I calmed down, and carefully read the code of the upgrade solution. That was when I realized that the solution was heading in the wrong direction and would not help complete the upgrade. Therefore, I decided to delete all of the code and lead the design and implementation of a new upgrade solution myself. After more than a month of painstaking work on this new solution, we solved all of the system upgrade problems.

This is the biggest difference between the optimization of an old product and the launch of a new one. When optimizing an old product, we must improve its functions and performance without impacting customer services on the live network. The original upgrade solution had ignored this point, and only focused on the technical part. If I had not realized this in time, the upgrade would have ended in failure.

The system was successfully delivered and smoothly upgraded, no longer causing any problems to the live network of nearly 10,000 sites. Since 2016, there have been no network accidents or user complaints. The customer and product line executives have been very satisfied, and spoken highly of this project.

Q: In 2020, you moved from the Cloud BU to the Device Business Group (BG), and started to work on HarmonyOS, which was different from the distributed storage systems you had previously worked on. How did you adapt to this change?

Cheng Jusheng: These are truly two very different technical domains, and the transition was challenging. However, I did not feel that it was a big deal, and I was confident that I could do it well. I came to this conclusion due to two reasons. First, I knew that the technologies of the cloud and storage product lines were quite different from those of Android and HarmonyOS used by mobile phones. This would pose some challenges for me.

However, when I delved into these technologies, I found that the difficulties were not as much of a problem as I had imagined. The key technologies involved in HarmonyOS, such as distributed scheduling and communications, distributed file systems, distributed databases, distributed management, and the Linux kernel, were my strengths. What I lacked was knowledge on elements unique to Android and HarmonyOS, such as the framework layer and hardware abstraction layer (HAL). If I could quickly grasp this knowledge, it would be much easier for me to work on HarmonyOS. Second, I had worked on architecture and solution design, and code analysis for nearly 20 years, during which time I had analyzed more than 6.5 million lines of code. Based upon this foundation, I was confident that I would be able to quickly get the hang of Android and HarmonyOS.

Q: You have been working at the Device BG for two years, witnessing the breakthroughs HarmonyOS has made in the industry. What have been your main takeaways during this period?

Cheng Jusheng: During my two years at the Device BG, I witnessed the effect that restrictions had on Huawei mobile phones and

our Kirin chips, as well as the launch of HarmonyOS. Though the work was challenging and I was under huge pressure, the difficulties facing the company have driven me to work harder, making me proud to be a Huawei employee. My main takeaways have been that we must have a can-do attitude and always be prepared to take on challenges. As Zeng Guofan (statesman, military general, and Confucian scholar of the late Qing Dynasty in China) said, “In whatever we pursue, empty talk is useless without action. We must engage ourselves in work and dare to take on responsibilities. This is how we achieve success.” I want to engage myself in HarmonyOS and contribute to its development.

Q: In your opinion, what skills should a good architect possess for architectural design?

Cheng Jusheng: Over the past 10 years and more, I have been constantly engaged with our frontline colleagues and those in projects to design architectures, solutions, and features, and implement key code. In my opinion, a good architect must have a broad understanding of technologies. They must have a big picture of what is presented to them, and a comprehensive, in-depth understanding of the key technologies and solutions in the respective domain.

A good architect must also possess in-depth technological expertise. They require a deep understanding of the intricacies of implementing key technologies. They must also be able to implement solutions and to optimize them and the system architecture based on the results of running code. Only by combining theory with practice, and architectural design with code implementation, can an architect

develop high-quality system architecture.

Q: Do architects have to write code? Do you write code yourself?

Cheng Jusheng: I would like to share two points of view in response to this. First, architects and system engineers do not necessarily have to write code, but they must have the ability to write good code and possess a clear understanding of how code is implemented throughout the entire system. Personally, I am more than ready to write code and take exams. Second, how can we judge whether an architect understands code? They may understand just 100 lines of code, the code of just one program, or the code of all key processes throughout the entire system. I think that an architect who really understands code is one who knows how the code of key processes and major solutions throughout the entire system is implemented. They must also know whether there are any performance and reliability problems that need to be resolved. Third, if an architect wants to write code, they can do it for a process that they design themselves, and then run the code in the actual environment. However, they should not write framework code or pseudo code, as these are meaningless.

Q: There is a post on Xinsheng Community reading that architectural design and development are separate and that some architects and experts do not understand development. What are your thoughts on this?

Cheng Jusheng: To have an answer, we need to look at this question closely from several perspectives. First, is this a common issue? Personally, I think that it is often true that architects or experts do not understand development. They do

not write or review code, locate causes of issues, or make optimizations to improve system performance. A small number of architects and experts even have problems with architectural design. Their high-level design is so abstract and condensed that developers have to redesign the architecture based on their own interpretation of the architect’s design.

Second, we need to consider the main reasons for the separation of architectural design and development. I think that there are two reasons behind this. First, architects and R&D engineers have different responsibilities, meaning that there is a clear boundary between them. As a result, architects simply mind their own business without caring about upstream and downstream processes. Some architects only focus on the so-called “big architecture”, without paying any attention to the implementation of interfaces, key processes, major solutions, etc. by downstream coworkers. Second, the architecture provided by the architect is too generalized and abstract to guide development in practice. Some architects simply draw several big boxes, lines, and layers on a single presentation deck to explain a “big architecture”, paying no attention to unified modeling language (UML) diagrams, “4+1” views, modules, or key processes, so it is no surprise that their architecture design is often criticized by R&D engineers.

Third, architects are too busy to focus on technical details. They often hold high-level positions, meaning that they are very busy and have many meetings. Therefore, they may not have time to focus on development after completing the architectural design and requirement breakdown.

Finally, we must consider how to solve the problem of

separation between architectural design and development. I have two recommendations for this based on the aforementioned reasons. First, the boundary between architects and development engineers should not be strictly defined. After designing architecture, architects should help development engineers consider several key questions. For example, how the architecture can be implemented and key processes can be executed, what the main interfaces are, and where potential performance or reliability problems are likely to occur. Second, architects must continuously improve their design capabilities. They need to accumulate more technical solutions and architecture prototypes. When designing architectures, they should always have a well-thought-out plan, rather than playing it by ear. A good architect should have many solutions to choose from, so they can select the one that best suits the situation.

Q: I know that outside of work, you excel at sports and ensure that your children are well educated. You are a C&Q level-7 technical expert in the company. You love playing badminton and serve as the director of the badminton association of the Beijing Research Center. You also love running and run up to 2,200 kilometers every year. Your children are also receiving an excellent education. Your daughter is studying at the School of Economics and Management of Tsinghua University, and your son is a top performer in his primary school. How do you balance so many things so well?

Cheng Jusheng: I think that success comes from persistence. This is true of work, exercise, family, and our children's education. Many people tell me that they are very busy at

Huawei, and have little time for other things. I am also very busy with work, and I frequently travel on business. I went to Chengdu for six months and eight months in 2009 and 2010, respectively. I spent all of 2016 in Hangzhou and 2017 in Shenzhen.

However, regardless of how busy we are, in my opinion, we should always take time to look up, see the road ahead, and think about the future. Work, exercise, family, and our children's education are not contradictory, and they can be effectively balanced. In August and October 2020, I gave lectures at the Wuhan Research Center and Beijing Research Center respectively on the topic of how to balance work and family life while maintaining a healthy body. More than 1,000 people tuned in online to each of these two lectures. They expressed many thoughts and feelings on this topic, and asked me a lot of questions.

I would like to reemphasize this: No matter how busy we are, we should always take time to look up, see the road ahead, and think about the future. When we are in our 80s and look back at our lives, we will surely agree that nothing is more important than exercise, work, family, and our children's education. These are our lifetime KPIs, which take us time and effort to accomplish.

Although I am very busy and often travel on business, in order to complete the goal of running about 200 kilometers per month, I run at lunch or supper time each workday. Usually I run about 10 kilometers from 12:00 to 13:00, and then eat some steamed bread and corn after 14:00 while I am working or having a meeting (online). If I have a meeting at noon, then I run at supper time.

For my children's education, I assign my children tasks to complete



Cheng Jusheng with his child

every morning, and check the results when I get home late at night. At the weekends I provide them with any help they may need with their homework or studies. This is how I support my children's education.

Q: We all know that success comes from perseverance, but this is easier said than done. How do you persevere in doing these things well?

Cheng Jusheng: It is true that it is easier said than done. But we do not need to over-think it. Instead, we should simply do what we want to. I have persevered in reading code for nearly 20 years, playing badminton for 28 years, and keeping a diary for 36 years. Once you complete an extremely difficult task, you may find that everything else is easy.

I started running in October 2019. Although it can sometimes be a little boring, especially during marathons, I have quickly adapted to it, and still run today. Why have I been able to persevere in running? The reason is simple: I have already persevered in analyzing source code for 20 years, playing badminton for 28 years, and keeping a diary for 36 years. Compared with these long years of habits, running for just three years in a row has been relatively easy for me.



View from the office window

In the year of 2020, Malaysia implemented the Movement Control Order (MCO) due to the surge of COVID-19 cases. Before the MCO, my line manager had assigned me to an Indonesia project. During the MCO period, however, all human movements and public gatherings

were restricted nationwide. When I read the news on social media, I knew that I would be unable to travel to Indonesia to support the project. The next day, my line manager called me and reassigned me to another project. In this new assignment I was to provide remote delivery support for the M project, where, as required by the customer, we would upgrade their

network during the MCO period. My line manager appointed me integrator, a role of remotely supporting the commissioning and integration of the project. At that time, I felt a little bit sad. Actually, I had preferred to support overseas projects in person because I could experience new things in another country. But due to the MCO, traveling to other countries

was out of the question. We could just support projects in a remote way.

Start of the Project

Due to the MCO, we were unable to get back to the office and we had to provide the support by working from home (WFH). On the first day of the project delivery, the team leader convened a WeLink meeting and required me to join in. During the meeting, he asked me some questions to test my understanding of the commissioning and integration skills. After that he made a training plan for me – the duration of which was two weeks. And he would be my trainer in these two weeks. As was his training style, he would ask me to do the presentation after one day of training and would then ask me some questions during my presentation. He wanted to make sure that I really and fully understood it. He was a friendly guy, so I did not feel any stress during the training. When the training ended, he started assigning me some sites, where I would proceed with commissioning and integration under his guidance. To ensure that I was able to handle my work in a short period of time, I requested my team leader to assign me more sites. I always believe that practice makes perfect. Even if I would often work overtime, I was very satisfied because I knew that my skills improved day by day. Finally, I was familiar with all the scenarios in the M project and, within two weeks, able to handle my work alone.

Beginning of Hard Life

In August 2021, customer M placed additional emergency purchase orders (POs) and required us to complete them within that month. The M project team started implementing



With my teammates (author is 3rd from left)

the Multi-Operator Core Networks (MOCN) solution. That month really made the deepest impression on me. The work load was doubled compared with the previous work load. Now we had to work harder every day. During the break or at the end of our meetings for business discussions, we would steal a little leisure from the rush of business. Everyone joked with each other and shared the interesting things that had happened around us or from social media. Our line manager, keen to keep updated about the current condition of the M project, made a phone call to me asking me about the state of affairs. I explained to him that the project was now in full swing and at its peak. All of us often worked extremely hard. Due to the additional emergency POs, though, we did not have enough resources to keep up with such a large number of the sites. After he found out my current situation, he recognized my efforts and said that he

would try to discuss it with the team leader and find out a solution. A few days later, the project team managed to add three more members to assist us with the project. Their arrival successfully eased up our burden.

Role as Project Team Leader

During the project delivery, my team leader provided me with a lot of guidance. At the start of the project, I was a newbie in site integration. So I almost did not have any idea about site integration. I often had a lot of questions to ask him, who always answered and explained patiently until I fully understood. Sometimes I jokingly asked him whether he would feel annoyed because I kept asking him questions. He smiled and told me that my questions were welcome anytime.

My team leader not only guided



During the meetings, I communicated with the frontline colleagues to understand the relevant technical standards, requirements and scripts.

me in technical skills, but also helped me improve my communication skills in the project. In the early days of the project, I was responsible for the site integration and had little communication with other teams. One day, my team leader said to me, “Chun Min, besides good technical skills, as engineers we also need to practice our communication skills, which are very important for the feasibility of the project delivery. You need to improve through practice. Starting from today, I’ll involve you in some of our project meetings. You can take a look at how I communicate and negotiate with other teams. In addition, I will assign you some tasks to let you communicate with other frontline teams to improve your communication skills.” I nodded and replied, “Great! I’ll try my best to do it”. And he continued, “Don’t worry. I’ll be on standby to give you support anytime.”

After that, I started to organize project meetings and invited my team leader and other frontline teams to join in. During the meetings, I communicated with the frontline colleagues to understand the relevant technical standards, requirements and scripts. Certainly, my team leader stood by me to give support whenever necessary. After the meetings, I also cross-checked with all relevant parties offline to make sure that all follow-up work was completed in time and met the requirements. Finally, the project stakeholders confirmed our work results, which had met their requirements. I updated my progress

to my team leader, who was satisfied to see that I was able to deal with the project management myself and complete the work within two weeks successfully. After that, my team leader started to ask me to preside over all the key project meetings.

I started joining this project as an integrator in October 2020. My support of the M project lasted for more than 1 year. After my team leader found that my commissioning and integration skills became mature, he started to share with me some of his job responsibilities, such as helping to manage some escalations, assisting in solving issues with my team, providing training or guidance for newcomers and dealing with the frontlines to come up with solutions for new scenarios. At that time, I served as an assistant to my team leader. If he was too busy to respond to other teams for any issues, I would

step up to handle them on his behalf. One day in January 2022, he suddenly came and told me, “Chun Min, I’ll be released from the project next month. I’ve already discussed with the management team and I’ll hand the team leader role over to you.” At that moment, I felt very sad at the news. I also felt anxious because I had never taken any management role in any project previously. So I told him, “I’m not sure if I’m able to handle the project well.” My team leader smiled and tapped me on the shoulder, “Be confident. I believe you can do it.” Starting from that day, he started the handover to me. On the same day, my line manager also called me and informed me that I myself would be the team leader. In February, my team leader was released from the project and I started assuming the team leader’s role in the M project.



Working at office with my team member sitting just beside me (author is 1st from right)

A Rainbow After the Storm

After the peak period in project delivery, the site volume decreased. Now we had time to take a rest. Meanwhile, due to the decreasing COVID-19 cases, we were allowed to return to the office to work. There were some advantages in working from home, but there were things that could not be done at home, like joking, chatting and having lunch with friends in the office. Some funny things happened on our first day back at the office. For one, I forgot which floor our office was located. What a long time had gone by since we started working from home! I walked into the company building as usual. But when I went into the elevator, I could not remember which floor I should go to. Then I walked out of the elevator and called my friend to ask for this. Another funny thing was that we always communicated with each other at the WeLink meeting, and so we had not actually seen each other's faces before. I clearly remember that I sat beside one of my team members but we did not know each other in person. Then I messaged him to ask for his seat location. At that moment, I discovered that he was just sitting beside me! Finally, I was able to see the faces of all my teammates physically in the office.

After getting back to the office, my line manager treated us to lunch in a restaurant. That was the first time our team members gathered and took lunch together after the MCO. While



Having lunch with my team members (author is far left)

waiting for the food to be served, we chit-chatted with each other happily just like a family.

Now in the office, when I feel tired, I take a break for a few minutes. Normally, I have a coffee and then take a look out of our office window. A good view helps to relax me. It makes us feel better and forget our worries for a while.

Conclusion

I spent one and a half years providing remote support for the M project, which ended successfully. From my involvement in the project, I saw my technical skills and knowledge improve by the day. In addition, as a team leader in it, I also learned how to communicate and negotiate across

different teams. Everything is hard in the beginning. We must not give up and must keep moving forward. While we may think that a task is challenging just because we are not familiar with it, we can actually keep improving ourselves through practice, which helps us to attain perfection. Without polishing, gemstones would not shine, as goes the saying. There is no shortcut in the way to success. The only way is never to give up and to clear all the obstacles along the way. Teamwork is another important approach to achieving success. We need to know that we are not alone and that we are fighting together with our teammates. They will always be our supporters. I hope that I can have an opportunity to work with them again, as I did in the M project.



There is no shortcut in the way to success. The only way is never to give up and to clear all the obstacles along the way.

Unleashing the Power of Technology for a Greener, Digital Europe

[Paris, France, October 17, 2022] The third stop on the global tour for HUAWEI CONNECT 2022 began today in Paris. The theme of this year's event is "Unleash Digital", gathering thousands of industry leaders, experts, and partners from the ICT and green development sectors worldwide to explore how all stakeholders can more effectively unleash digital productivity, promote Europe's green and digital transition, and build up stronger digital ecosystems.

Powering Europe's digital and green transition with digital technology

To kick off the event, Ken Hu, Huawei's Rotating Chairman, delivered a keynote outlining three ways the ICT ecosystem can help break through common barriers in digital transformation:

Boost digital infrastructure, including more robust connectivity and stronger, more diverse computing resources.

Help organizations go beyond simple cloud adoption and truly make the most of cloud, focusing on advanced technology services that drive leapfrog development.

Build out local digital ecosystems, including partner development, strengthening the digital talent pool, and providing more support for SMEs.

These three approaches to promoting digital transformation are tightly aligned with Europe's Digital

Decade policy. "Huawei will continue to work closely with our partners in Europe to support the region's digital and green transition strategy," said Hu. "We are committed to supporting Europe's economic recovery, the success of its industry, and enabling sustainable development."

At the event, a distinguished group of industry and government representatives also took the stage to share key steps their organizations are taking to drive Europe's digital and green transition forward, as well as the best practices and thoughts through the journey. These include Franc Bogovič, Member of the European Parliament; Alain Assouline, President of Digital Commission of CPME; José Donoso, President of the Global Solar; Fabien Aufrechter, Web 3.0 Vice President of Vivendi; Gonzalo Elguezabal Ayala, Executive Director of AOTEC in Spain; and Victor Marçais, Senior Partner at Roland Berger.

"In Europe, for Europe": Empowering local industries and cultivating digital talent

Digital capabilities and ecosystem development are key for Europe's digital transformation. "To help European industries go digital," continued Hu, "we are working hard to build robust, secure, and resilient ICT infrastructure. To support ongoing innovation, we have also built multiple Innovation and Experience

Centers, as well as OpenLabs, in cities like Munich and Paris. Together, we can create more targeted solutions for European industries and help speed up the digital transformation process."

Huawei is also working with local partners to help cultivate digital talent in the region. The company has opened a number of ICT academies in Europe that focus on upskilling students and professionals. Since 2011, Huawei has provided ICT training for more than 4,000 people in 12 European countries, including the UK, France, and Germany.

"Using bits to manage watts": Building a greener Europe with digital technology

"On the green front," said Hu, "we combine digital technology with power electronics to help our customers in all industries lower their carbon footprint and achieve the objectives of the European Green Deal." As of 2021, Huawei has helped its customers and partners generate more than 84 billion kilowatts of clean energy here in Europe – cutting CO2 emissions by nearly 24 million tons.

"From sustainable development to building out the ecosystem, we are in Europe, for Europe," concluded Hu, reiterating the company's commitment to working alongside its customers and partners to build a greener, digital future.

Huawei Cloud Launches 10 New Services in Dubai

Unleashing Digital with Cloud Native

[Dubai, UAE, October 12, 2022] HUAWEI CONNECT 2022, themed "Unleash Digital", kicks off in Dubai today. Industry leaders, experts, partners, and guests from the Middle East and Africa gather to share their thoughts on technological innovation, ecosystem collaboration, and digital transformation. Ken Hu, Rotating Chairman of Huawei, delivered a keynote speech under the conference theme and called for enterprises to "embrace cloud for leapfrog development" for digital transformation.

Joy Huang, President of Huawei Cloud Strategy & Industry Development, said that greener infrastructure, continuous innovation, and shared experience are the paths to digital transformation. Huawei Cloud launches three cloud native products: CCE Turbo for container engine, UCS for ubiquitous cloud native, and GaussDB. Four pipelines are released for software development, data governance, AI development, and digital content production. Two new core aPaaS services are available, KooMessage, and KooSearch.

Huawei Cloud works with partners to develop an NLP model for the Arabic language that supports hundreds of billions of parameters. The OptVerse AI Solver is released. The upgraded knowledge computing provides a faster path to combine industry knowledge with AI.

Jacqueline Shi, President of Marketing and Sales Service of Huawei Cloud, pointed out that the key to unleashing digital is to embrace the cloud, and cloud native is the way to realize digital transformation.

Huawei Cloud has built 70 AZs in 27 Regions around the world and rolled out 92 cloud services in the Middle East. Huawei Cloud is launching new Cloud Regions in Saudi Arabia and Egypt. Empowering customers, partners, and developers with cloud native, Huawei Cloud stands ready to drive digital transformation for the local economy.

Huawei and Dronetech Elevate Partnership to Facilitate Sustainable Farming in Austria

[Linz, Austria, October 4, 2022] Huawei and Dronetech, Austria's largest drone service provider, announced today new applications resulting from their collaboration in 5G smart farming.

At the Nussböckgut vineyard, a centuries-old estate in Upper Austria that was first mentioned in a document in 1323, the two companies provided an update on their pioneer project that started last year, and introduced how their 5G and IoT technologies can advance sustainability in agriculture. The two companies also hosted a panel made up of digitalization and agriculture experts discussing how technology innovation, and 5G particularly, can promote sustainable farming amid rising global concerns for food security.

The two companies announced that their collaboration is entering the second phase called "Digital Sky". Huawei will provide cloud computing services on top of 5G, which will serve as the foundation for real-time artificial intelligence (AI) analysis. Meanwhile, equipped



Huawei and Dronetech cooperate on 5G-based drone solutions



5G smart farming tour hosted at the Nussböckgut vineyard in Linz, Austria

with high-resolution cameras and sensors, Dronetech's drones will survey the land and objects, to capture images and data that will be processed by AI, and provide actionable findings to the users instantly.

The technology helps farmers detect small insects, monitor crop status and predict harvests, allowing them to optimize the use of water, chemicals and pesticides precisely, and with minimum waste.

In the second phase, the project also plans to develop a shared economy approach for drone services. Users from different sectors, including farmers, municipalities, corporates or individuals could rent the drones and their AI solutions for a wide range of applications, such as inspection of solar panels, traffic management, or power lines wear-out detection.

"The project of Huawei

and Dronetech with drone use in asparagus and winegrowing is the first in Austria and here we want to analyse plant growth with real-time image recognition. By doing so, we want to improve the harvest, the output and the quality of the products," explains Andreas Reichhardt, Director-General of Directorate-General VI – Telecommunications, Postal Services and Mining at the Austrian Ministry of Finance. "We want to use the opportunities of the digital transformation, for this we need an optimal infrastructure, here the focus is in the area of 5G."

The biggest challenge for introducing 5G-enabled drones to agriculture is network coverage. Currently, 5G networks are primarily designed for end-user who are mostly at ground level or indoors. High-quality coverage for drones, which

routinely fly 50 meters above ground, still needs to be developed.

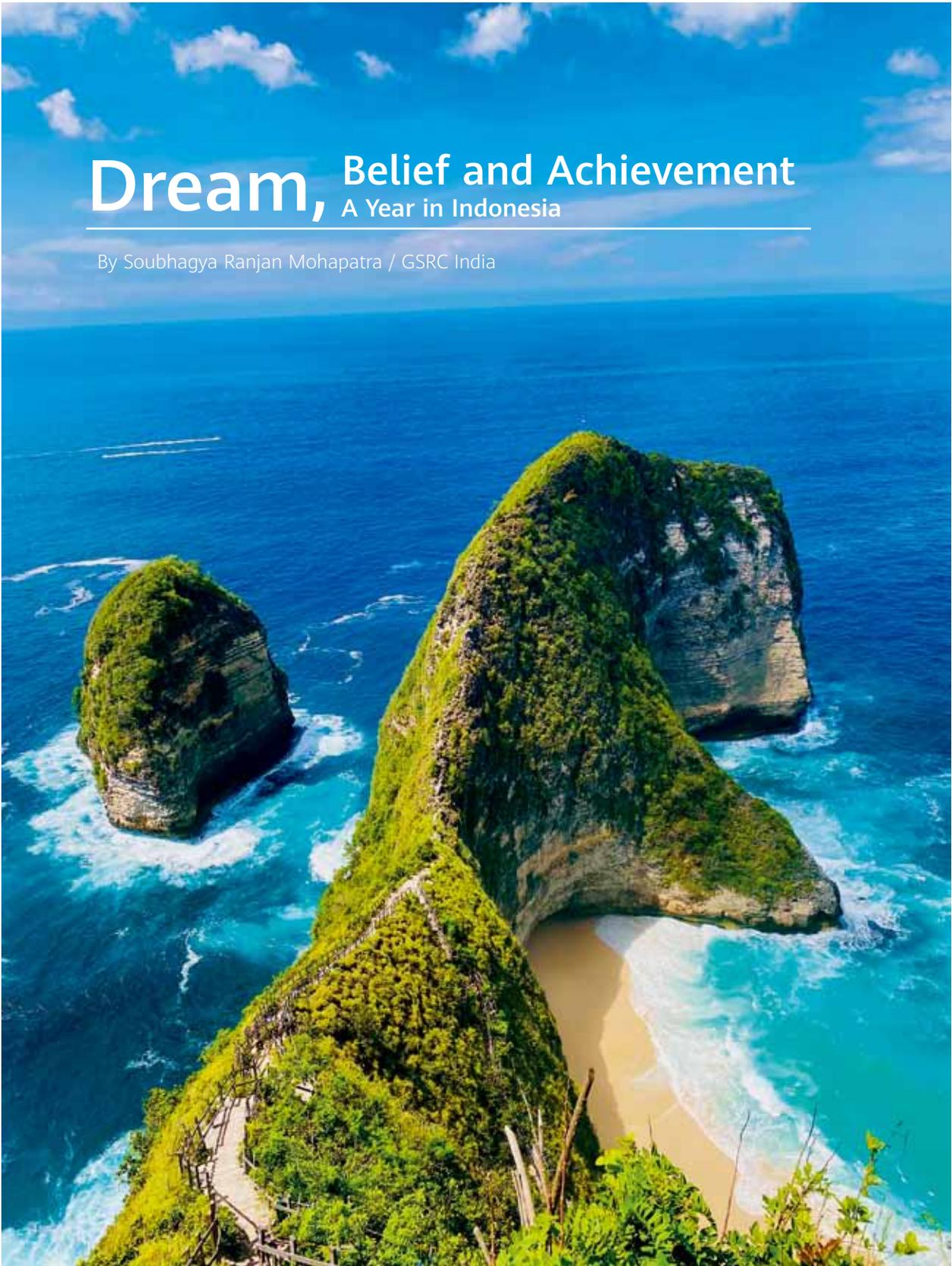
Erich Manzer, Deputy CEO of Huawei Austria, said: "5G was developed for three key application areas: For high bandwidth, low latency and to connect millions of devices. Using drones in combination with AI and 5G can solve many resource-intensive operations such as maintenance or area monitoring."

David Hopf, CEO of Dronetech, noted: "AI-powered drones are important enablers for the sustainable future of agriculture. Partnered with Huawei, we developed a solution that can not only massively reduce the use of pesticides and fertilizers, but also enhance farming efficiency and cut labor costs. This helps our food supply chains to be more sustainable."

Dream, Belief and Achievement

A Year in Indonesia

By Soubhagya Ranjan Mohapatra / GSRC India



Kelingking Beach, Indonesia



It was very challenging to work from home and try to remain as effective and efficient and maintain the quality of work results.



Jakarta, Indonesia to support a radio network design and optimization project. Upon arriving there, I was happy to meet some of the old friends and new colleagues from Malaysia, Indonesia, the Philippines and India. The local colleagues and customers were very much friendly. The working atmosphere was cool in Huawei and customer premises.

We successfully completed the trial on pilot clusters and carried out the whole network deployment. As of March 18th, however, we started to work from home, which was an entirely new experience to everyone. It was not easy, especially to us office workers accustomed to working together face to face physically. It was very challenging to work from home and try to remain as effective and efficient and maintain the quality of work results.

Delivering Through New Challenges

In the early days of supporting the project, I was appointed the new solution delivery team lead of a major project with multiple sub-projects. My team and I were involved in the trial and deployment of complex solutions.

When the project was at its peak of delivery, we had to go all out and deliver with the same efficiency and quality as before. All the team members worked closely with each other to ensure the success of the project. Due to the COVID-19

Beginning of My Journey

Since I joined Huawei Global Service Resource Center (GSRC) India in 2014, I have supported different projects in several countries such as the UK, Finland, Thailand, Myanmar, and the Philippines. But the year 2020 had altogether given me a different project delivery experience in Indonesia. It was a challenging but great experience working in Indonesia, where my team and I achieved many milestones working from home (WFH) and the office. Our excellent delivery was highly appreciated by the customer CTO, for we made it happen under very adverse circumstances.

Understanding the Culture and Colleagues

In January 2020 I arrived in



Team dinner in Jakarta (author is 3rd from the left)

pandemic, the local airports were closed, and new team members could not join the project at the frontline. Fortunately we had the Global Service Center (GSC) resources supporting us remotely. Meanwhile, we managed to train the remote support team and made them understand the project, customer requirements and the quality criteria of delivery. Soon, with the remote support team starting to support the project, we were able to achieve our target.

Due to the introduction of the WFH mode, the customer and their networks had a changed focus and priority. People started using Internet services in working from home. To ensure the quality of service, operators started introducing new solutions majorly focusing on WFH users. To deliver these solutions with good quality, we dedicatedly worked together and fulfilled all the requirements of the customer. Our dedication and effort received the appreciation of the customer's management.

Staying Healthy Physically and Mentally

Apart from working from home and achieving the project targets, we knew that we must stay healthy during the pandemic. I took part in monthly indoor exercise competitions organized by our department. The competitions were part of the excellent initiative by our department to motivate us to boost our immunity and help us stay healthy in body, mind, and spirit.

Scenic Jakarta

While working from home, every day I saw the beautiful view of the city of Jakarta from my balcony.



A view of Jakarta city lights from my room

With the lockdown imposed due to the pandemic, it was always calm and clear outside.

Trip to Bali on Holidays

It is always nice to get some vacation from the busy work schedule. When the pandemic began to ease, I got some time during one of the long weekends and I planned to visit Bali, one of the most beautiful destinations where one can relax and see some of the most breathtaking sights that an island has to offer.



Photo of the reflection of Lempuyang Temple

Among the many places I had visited, Lempuyang Temple was one of the most beautiful. It is located on the slope of Mount Lempuyang in Karangasem, Bali.

Another place I visited is Penida Island, an enchanting remote island outside Bali. There I was fascinated with its sandy white beach and spectacular views from the cliff.

Returning Home

Finally, after 11 months of a rollercoaster ride, we achieved many milestones, and delivered the projects successfully. The customer appreciated all our work and we managed to earn their confidence and trust. During this period of time I learned how to survive in tough situations while I kept on working with my team towards the major common goal.

I made some new friends with Huawei colleagues and people from the customer. Moreover I had the opportunity to experience beautiful Indonesian culture and traditions and to see the local landscapes of stunning beauty.

In the end, I would like to say that together we can make the difference and together we can achieve our goals against all odds.

You Are a Writer at Heart!

Have an experience worth sharing? Drop us a line! *Huawei People* can help amplify your voice and spread your story to Huawei colleagues around the world. We are now seeking contributions from any employee who has a good story to tell. Get your work published, get remunerated, and see your article in print in *Huawei People* magazine. So if you fancy yourself a wordsmith, contact us NOW for a chance to flex your storytelling skills!



We Want:

Work Stories of Individuals

Go to our website and read *A Man, a Cook, and a Dog*, and write us your unique work stories. We want to highlight the contributions of ordinary people who do extraordinary things, because good examples are like a beacon in the dark, they lead and inspire us.

Team/Project Stories

Read *Stars Along the Mountaintops* and share your own touching team/project stories. We believe the best team and project stories reflect our company's purpose and core values, on which the company was built and still rest on today.

Life Stories of Individuals

What Do I Do in Office? is a story about how a daddy explains his work in Huawei to his 5-year-old son. Share with us your own touching, inspiring or life-changing experiences during your career at Huawei. Your readers around the world may feel quite connected.

Opinions

Read *Why Protecting IPR Should Matter to Us All* and share your opinions on issues and policies at Huawei. The best submissions offer fresh insight, critique ideas, actions, and policies – not people, suggest solutions, and align with the core values of Huawei.



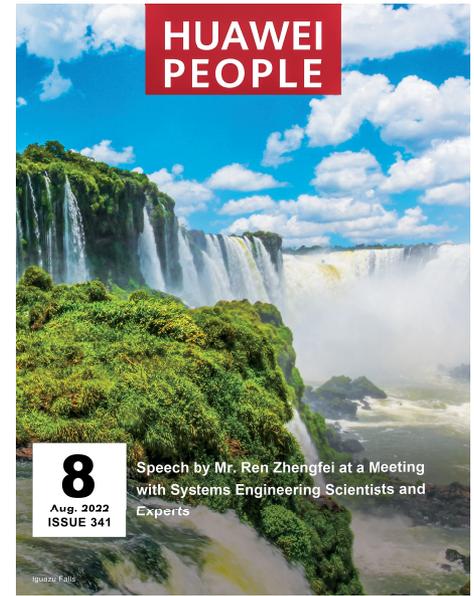
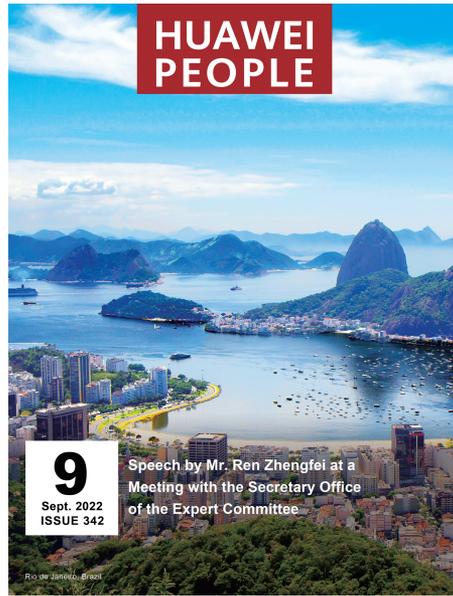
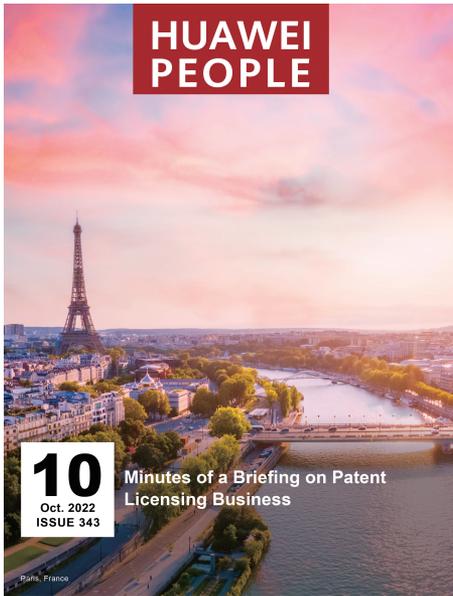
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We Want Your Amazing Photos!

We are looking for some good photos to use for the cover of Huawei People. From the east of the Pacific to the west of the Atlantic, from the north of the Arctic Ocean to the Southern point of South America, from the high plateaus of Bolivia to the low lands of the Dead Sea... Photos of famous landscapes and typical landmarks from the countries and regions where Huawei operates are most welcomed.

Get your photo printed in the cover page of Huawei People magazine and receive a good payment. Take a shoot and share your masterpiece with us!

We prefer high resolution photos with vertical orientation for the magazine cover. Please send photos to hwpeople@huawei.com.