

# DISRUPTIVE TELECOMS

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**WORLD REPORT**

July 2022

## Leading Women in Telecoms



Network Virtualization Holds the Key to Building Smart Networks: Nokia

Samar Mittal  
Nokia Cloud Network & Services,  
MEA & India Market



Gaming and 5G: MediaTek Reinventing the Network Experience

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Fibre Deployment Enabling New Age Innovations: TSSC

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# From the Editor



**Zia Askari**  
Editor, TelecomDrive.com

## Why Women's Leaders Are Important?

Why do we need women leaders? And what is so different in women's leadership? These are some of the very basic but important questions. Answers can be found in the way women handle consultation and collaboration with peers and experts; how women handle transparency, flexibility and are willing to admit on their mistakes.

They are clear, consistent in communication and drive encouraging values of cooperation and empathy. All these qualities put them in ideal position to lead, drive and deliver in the technology-rich domains.

But the ground reality and situation is quite different as even today, the playing field is still far

from level for women. There is no doubt that there have been declarations, announcements and showcase of good intentions to support gender equality. From the Universal Declaration of Human Rights in 1947, to Millennium Development Goal (MDG) 3 in 2000, through to UN Sustainable Development Goal (SDG) 5 to promote gender equality. But when it comes to women empowerment and recognition of women in leadership roles, we still have a long way to go in the telecom space.

Why gender equality matters today?

Research clearly shows that systemic gender inequality and fewer women leaders are linked

to slow progress on innovation and sustainability outcomes too. Women are more likely than their male counterparts to put a premium on sustainability.

Despite the systemic obstacles, innovative women are architecting transformative change not only in their respective organizations, but also inspiring others to follow suit.

As part of our cover story on 'Leading Women in Telecoms' we are showcasing women professionals who are leading the way and making a positive impact on the global telecoms turf. We are doing this in order to ignite awareness about the positive multiplier impact that these women leaders have in their communities.

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# Leading Women, Leading the Way...



**T**here is no doubt that slowly but surely, women are being represented in large and small organizations within the telecom domain, but still there are very few telecom companies having a woman at the helm. That's why; much more needs to be done in order to change the gender landscape in this space.

Until the gender gap closes forever and women professionals are able to achieve equality in the C-suite, it's worth celebrating the multi-faceted professionals who have risen to the top and have contributed heavily for the betterment of the telecoms industry. Here we are presenting eight amazingly talented women professionals operating in different parts within the telecom domain.

Their individual journeys carry unique insights and can teach us all valuable lessons in leadership, perseverance and help us carry forward positive attitude towards life.

All these women profiled here are 'leading the way' and

are winners in their own unique way, they have done incredible work to establish themselves in a highly competitive marketplace.

While, we received a lot of submissions to participate in our cover story – we have selected these few, purely on the basis of their contribution towards the telecoms community, their winning attitude, their experience and diversity.

Here is our list of 'Leading Women in Telecoms' in alphabetical order:

Azita Arvani from Rakuten  
Beth Cohen from Verizon  
Bitu Milanian from Ribbon  
Donna Moore from LoRa Alliance  
Elif Yirmibes from Vodafone  
Eugina Jordan from CHIEF  
Jennifer Yohe from DZS  
Rituparna Mandal from MediaTek

# Azita Arvani | Leveraging Innovation, Shaping the Future

**F**or Azita Arvani, professional success means driving towards a fulfilling goal and enjoying the collaboration with people. While working with different organizations such as Nokia, Docomo, Xerox, and Upek, she always leveraged new technology and innovation to shape the future.

As part of our cover story on 'Leading Women in Telecoms' - **Azita Arvani, General Manager of Rakuten Symphony Americas** speaks with **Zia Askari from TelecomDrive.com** about her professional and personal journey.

**How has been your professional journey so far? Please tell us about your various job profiles?**

I started off my career as a computer scientist, soon asked to run a software development team. I was fast-tracked into Chief of Staff for Corporate R&D, where I leveraged my technical background to drive technology innovations from the R&D labs to the market. Then, I joined a pioneering mobile video Silicon Valley startup at the height of 2G era. I saw the future was in mobile and in video.

I have worked with many venture-backed startups and Fortune 500 companies such as Nokia, Docomo, Xerox, and Upek (now part of Apple), and now with Rakuten. The common thread among all my career moves has been around leveraging state of the art technologies to shape the future.



**What is the meaning of success to you, how important it is for you? and what is your mantra to succeed in an organisation?**

Professional success for me is driving towards a fulfilling goal, being excited about it, and enjoying the

collaboration with people. For me, this involves leveraging new technology and innovation to shape the future, with a great team in a fast-paced environment.

My mantra to succeed in an organization is to be creative, learn fast, move quickly, be open to diverse ideas and cultivate a collaborative work culture.

**According to you what are some of the most critical factors that have helped you become a leader in your organisation?**

It is vital to get input from multiple sources and give opportunities for my team to express their opinions on a topic. I stay curious to try and understand how people think – the process they use to come up with decisions. I seek opportunities to educate myself by learning from the industry thought leaders. I also push myself not to get comfortable and be sure I'm reaching outside of my existing circle to continually expand my network.

**When you look back in your career – what according to you can be termed as big turning points for you. How have these turning points helped you gain ground professionally?**

As I reflect on my career, there were several turning points. Choosing computer science as a major has channeled my passion for math into software field that has hugely impacted the world.

My experience working with innovations across many fields at Palo Alto Research Center has expanded my horizon of what is possible.

Leaving a cushy corporate job to join a Silicon Valley startup in mobile video back in 2G networks was a life-shaping experience.

Over the years, I have come to appreciate the complementary nature between power of scale at established companies and power of speed at startups.

**What are some of the challenges that you faced and overcome during your professional journey? How did you overcome these challenges?**

Telecommunication sales is a very complex and prolonged cycle. For this reason, introducing innovation in telecom has been more challenging than I've experienced with traditional software businesses. For me, this is a big opportunity to minimize friction for telecom startups, which I have worked on in different parts of the ecosystem.

I've always been a big proponent of diversity in the workplace, and I hope to foster more diversity in the telecom sector. Bringing diverse people, mindsets and life experiences together will continue to drive innovation in telecom, such as Open RAN and cloud native architecture.

This is an exciting time in the industry, and I've found it

very rewarding to be on the cutting edge. It takes time for big, new ideas to catch on, but when they do, you will see the positive impact of new tech in people's lives, it makes all the hard work and long days totally worth it.

**Please share with us some of your positive learnings that you have gained over the past many years and how these learnings have helped you become a better person / professional?**

A few things come to mind:

We need to be laser focused on achieving the goals of the organization. When managing our to-do's or our calendar, we need to think about the results and impact on moving the goal of the organization forward.

We should not take things too personally at work. This is not about me or any individual team member. We need to do our best and act boldly to achieve the best outcome. However, things may not work out and that is OK. This has helped me to do my job with confidence and make bold business decisions.

I work in high-tech fields, so it is very important to take the time to educate myself, to understand and learn about new technologies and stay ahead of business and market trends.

We work in a hyper global world. So, we need to be well-informed of different cultures and how to be most collaborative and productive in a multi-cultural work setting.

With greater level of experience comes greater level of responsibility and often this also involves grooming others, passing on your legacy ahead. Keeping this in mind, how do you look at helping others in your organization towards achieving success?

One should always think about one's legacy. Early in your career, you over-index on personal achievement. And as you move up the corporate ladder, you should help others climb up the ladder too.

I strive to develop the next generation of talent, mentoring, and creating opportunities for others. It gives me great joy to identify an individual's hidden strengths and help them flourish in their career.

**What are some of your big goals that you have achieved in the recent past – and your goals that you want to achieve?**

I was the first hire in Rakuten Symphony in the Americas. In just a couple of years, we have built an amazing organization that serves operators, enterprises and governments across the US, Canada, and Latin America with thriving customers.

I also strive to improve diversity, equity, and inclusion in the telecom industry.

# Azita Arvani | All About Integrity, Family and Friends

## How would you describe yourself as a person?

I consider myself an innovative, energetic, and creative person, always striving for excellence in everything I do. Working in a high-tech, fast-paced environment, these qualities have served me well, which I can carry over from my professional to my personal life.

## What are the three top most important things for you in your personal life?

Integrity, family and friends, and being of service for others.

## Please share with us some of your personal milestones and their contributions towards developing your personality?

Starting my own consulting firm shaped me to never be afraid to step out of my comfort zone and do the kind of work I have not done before or reach out to people outside of my circle to make things work.

## How do you see yourself evolve as a person over the past years and where do you see yourself in the coming years?

I'd like to reflect back and examine my work and life skills. Based on that, I'd work to accentuate the positive and improve on things that could be done better.

I'm also always in search of better ways of collaborating across international teams towards a fulfilling mission.

I'd love to continue to mentor women leaders and encourage more women to be in the tech field.

## What are your three qualities that have helped you grow as a person and a professional?

Constant learning through reading, working with top industry leaders, and picking exciting initiatives to work on



have helped me grow as a person. My can-do attitude and hard work have helped me grow as a professional.

## Please share with us some of your hobbies and interests?

Outside of work, I really enjoy being active, hiking, traveling, and learning about different cultures.

## Please tell us something about your family? How has been their support in terms of helping you grow professionally?

My family has been very supportive of my hard work for my professional endeavors. They have endured many sacrifices in order to support me achieve my goals.

# Beth Cohen | Driven by Creativity and Innovation



**D**riven by an exceptional hunger for creativity, innovation and a courageous heart to take risks - Beth Cohen practiced Architecture for a long time before moving into the field of IT systems administration. Now she is busy

inventing new products and services with the help of new-age cloud technologies. She has been a product manager at Verizon for the last nine years.

As part of our cover story on 'Leading Women in Telecoms' - **Beth Cohen, Cloud Product**

**Technologist, Verizon** speaks with **Zia Askari from TelecomDrive.com** about her professional and personal journey.

**How has been your professional journey so far? Please tell us about your various job profiles?**

I started my career as an Architect, which is what I trained to do in college. I practiced Architecture for 13 years until I changed to CADD design -- a new thing at the time. CADD design meant that I had to learn how to take care of computers. That led to my switching to IT systems administration, which I did for many years. I then spent 10 years with startup companies, where you get to do a bit of everything. And finally for the last 9 years I have been a product manager at Verizon. Who knew, when I went to Architecture School, I would end up working for a Telecom inventing new products and services?

**What is the meaning of success to you, how important it is for you? And what is your mantra to succeed in an organisation?**

While I did not plan it that way, I realized that for most of my career I have been on the cutting edge of technology, and that is exactly where I like to be. I focus on working for organizations that value creativity and the vision needed to build new products and services from nothing.

**According to you what are some of the most critical factors that have helped you become a leader in your organisation?**

Creativity, drive, a good understanding of the business and organization, plus a huge dollop of very hard work and a bit of luck. As a woman in technology, not all organizations I have worked for over my career have been supportive or welcoming, it is tiresome to spend so much time proving yourself over and over to your colleagues. When I saw that working for an organization that was not going to be supportive, I am not afraid to look for new opportunities.

**When you look back in your career – what according to you can be termed as big turning points for you. How have these turning points helped you gain ground professionally?**

I found that I although enjoyed the architectural work and loved seeing the buildings actualized, I found the field itself to be extremely conservative and narrow. It occurred to me that many of my employers for did not share my values and interests. I reassessed whether my chosen career was really right for my talents and skills and decided to explore the then nascent architectural

computer aided design industry, which eventually led to systems administration, on to startups and product development. I never looked back, but at the same time I recognize that my architectural skills are what have made me successful.

**What are some of the challenges that you faced and overcome during your professional journey? How did you overcome these challenges?**

Being a woman first in construction and then IT has never been easy. I always felt I had to be 10 times as good as my male co-workers to succeed. I gave myself promotions and raises by moving to new opportunities when I got tired of getting headaches from smacking against the glass ceiling.

**Please share with us some of your positive learnings that you have gained over the past many years and how these learnings have helped you become a better person / professional?**

Everything I have done over my career are lessons in new skills. The biggest lesson is that it is OK to take risks and it is OK to fail. Your employer has much more to lose than you do!

I have lived the development of the Internet from “ground zero” working on some of the hottest security, networking and web technology protocols from their infancy. I have been creating large scale IT infrastructure architectures to support 7x24 data centers on a national scale, as well as processes at scale to deliver systems in hyper-growth conditions. It has certainly been an exciting ride!

**With greater level of experience comes greater level of responsibility and often this also involves grooming others, passing on your legacy ahead. Keeping this in mind, how do you look at helping others in your organization towards achieving success?**

To my mind, encouraging and supporting the next generation is paramount. Even more important is the work needed to make structural changes in the workplace, so that all people, no matter who they are, have an equal opportunity to earn a seat at the table. I am proud to say that Verizon has a strong commitment to not only encouraging everyone to achieve their best, but it has also worked hard to create the corporate culture to allow true equality across the board.

**What are some of your big goals that you have achieved in the recent past – and your goals that you want to achieve?**

I earned my first patent in December 2021!

# Beth Cohen | Highly Focused, Continuous Learner

## How would you describe yourself as a person?

I have always been a highly focused person who sets goals. What I do is not make a mountain out of a mole hill, but make a mole hill out of a mountain. As I break the larger goals into smaller more manageable goals, all of a sudden, the larger goals no longer seem so unobtainable.

## What are the three top most important things for you in your personal life?

Of course, spending time with family and friends is important. Unlike others, I make sure that my personal life and work life are kept relatively separate. I generally do not make a policy of hanging out with co-workers.

## Please share with us some of your personal milestones and their contributions towards developing your personality?

I went back to school in my late 40's to earn my MBA. Once I had hit the halfway mark, that I had completed 10 classes, the rest seemed like an achievable goal. Looking back to see how far I had come helped me look forward to see I had less to do to reach my destination.

## How do you see yourself evolve as a person over the past years and where do you see yourself in the coming years?

I make it a priority to make sure I have opportunities for continuous learning. I have been part of a study group for over 10 years, that keeps me sharp and allows me to see other perspectives and ways of thinking.

## What are your three qualities that have helped you grow as a person and a professional?

When I am much stressed, I know that I will not be a very effective worker, so I take some mental health time for myself. No matter how busy I am, I set aside some time and space to recharge my batteries so to speak. When I am really stressed, I work really hard to complete a task,



so I can reward myself with a walk with a friend. There is nothing better than a nice brisk walk to clear out my head and get my idea juices flowing again.

## Please share with us some of your hobbies and interests?

I own a 130-year house, which keeps me plenty busy with renovations and upkeep.

## Please tell us something about your family? How has been their support in terms of helping you grow professionally?

Having a support system in place is critical for success. Without it, it can quickly lead to burnout for even the most determined and focused individual.

# Bitá Milanian | Leading from the Front

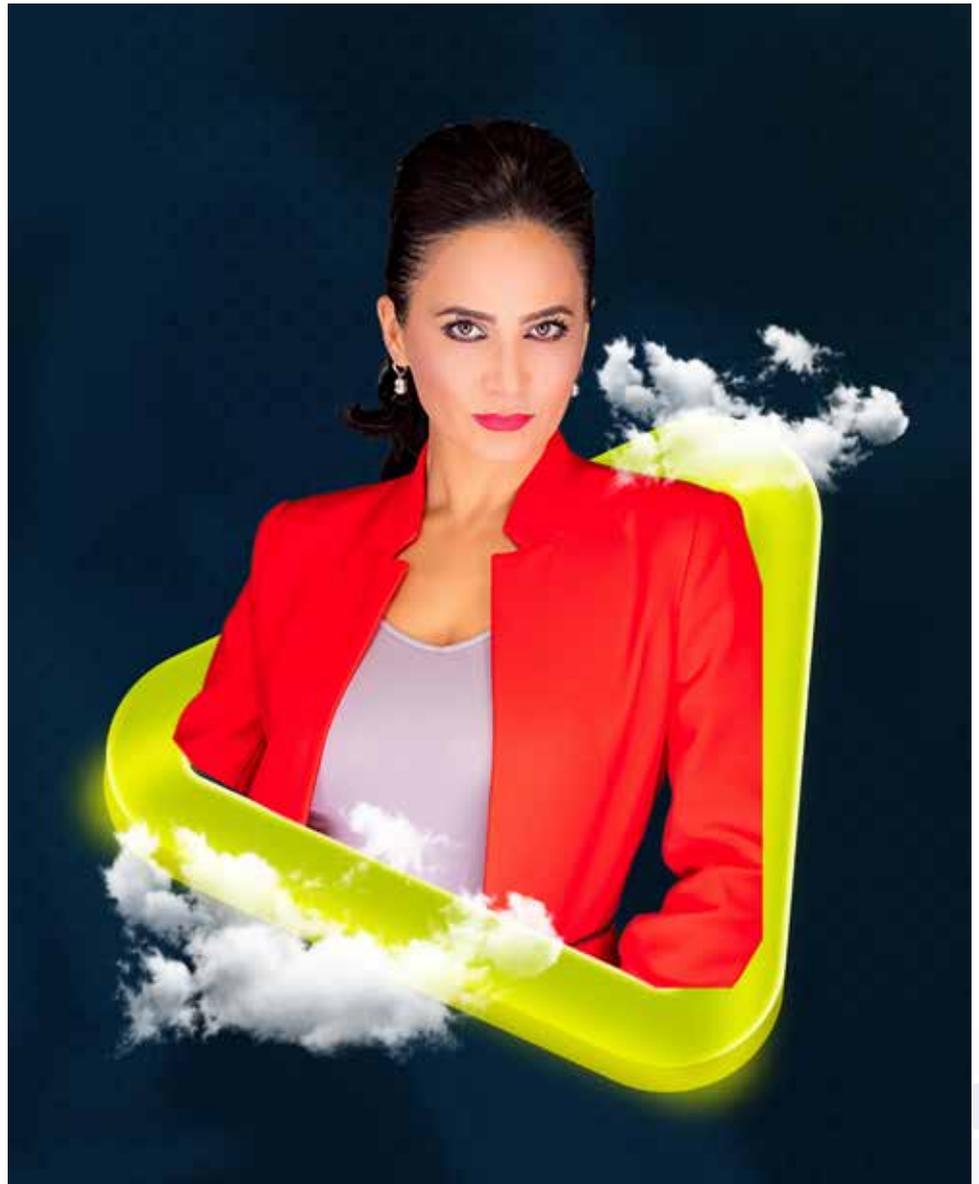
**F**rom leaving Iran in the year 1989, to establishing herself in the city of Los Angeles - Bitá Milanian's inspirational journey is nothing less than incredible. Always leading from the front, she has worked with a number of organizations and by sheer hard work and an innovative spirit, created a special place for herself in the technology-oriented global telecoms domain.

As part of our cover story on 'Leading Women in Telecoms' - **Bitá Milanian, SVP, Global Marketing, Ribbon Communications** speaks with **Zia Askari from TelecomDrive.com** about her professional and personal journey.

## What has been your professional journey so far? Please tell us about your various job profiles?

My professional journey has been incredibly rewarding, challenging, and everything in between. Ever since I immigrated to Los Angeles from Iran in 1989, I have strived to make the best life that I could for myself and my family. Each day, I hope to make a meaningful impact in the place I call home.

I've grown as a strategic marketer, holding leadership positions in various telecom and non-profit organizations. I am currently the SVP of Global Marketing for Ribbon (rbbn.com), a publicly traded global communications company. Prior to joining Ribbon, I was the founding



Executive Director at Farhang Foundation (farhang.org), a non-profit promoting Iranian art and culture for the benefit of the community at large. I am also the founder of the creative agency, Butterfly Buzz (bflybuzz.com), where I engage in projects that support up-and-coming artists and non-profits in increasing their profiles and optimizing their brands.

**What is the meaning of success to you, how important it is for you? And what is your mantra to succeed in an organization?**

Success for me is being able to use my natural gifts and talents to positively influence and/or impact a person or a cause that is important to me. Success in an organization requires a high level of trust amongst your teammates to do their part in reaching set goals. At the same time, success means taking risks and seeing mistakes as opportunities to learn and grow.

**According to you what are some of the most critical factors that have helped you become a leader in your organisation?**

I am not afraid to fail. I have an entrepreneurial spirit, which has helped me take calculated risks that have garnered some major wins for the organizations I am a part of. I encourage the same mindset with my team and believe everyone can come to the table with a great idea! I also understand how to create buy-in around a shared vision. I can rally a team behind a project and/or cause, even when circumstances are tough.

**When you look back in your career – what according to you can be termed as big turning points for you? How have these turning points helped you gain ground professionally?**

Every change of experience has been pivotal to career momentum. I am a big believer in “just say yes” when it comes to challenges, and when I take on new challenges, I am fearless because I am positive that with enough deep thought, hard work and determination my team and I can find the way to make things work.

I am fortunate to be part of one of the most dynamic and continually disrupted industries in the world – technology – and while the pressure to respond to shifting market conditions can be daunting, it is in fact what drives me, my team, my colleagues, and my network to get creative – competitive – and active. While there have been distinct milestones and accomplishments over the last twenty-five years that span my career, there is not a single major project that has not been a big turning point. This is a great time in history to be a lifelong learner, especially when the work being done in the technology sector has so much potential to make life better for millions and even billions of people.

**What are some of the challenges that you faced and overcome during your professional journey? How did you overcome these challenges?**

Like many immigrants to America, I have faced the same challenges others have; as a woman moving in what has been traditionally seen as a “man’s world” I have had to do what every smart and successful woman in technology

has had to do: work even harder, deliver beyond what is expected of me, and lean in with a quiet, but firm intensity.

Because I am so committed to ensuring world-class quality across every project and communications platform and product my team and I create, one of the biggest challenges I faced earlier in my career was work-life balance. I am proud to say I have now mastered the art and science of being fully human and full of happiness – as a daughter, sister, wife, friend, community organizer, and – most recently grandmother.

We all need to take care of our physical and mental health, to find time to rest and reflect, and to refuel so we can be our best and help as many people as we can, while guarding our health and happiness so that we can continue to achieve success in all life’s dimensions.

**Please share with us some of your positive learnings that you have gained over the past many years and how these learnings have helped you become a better person / professional?**

I have learned to appreciate the present moment. All we have is right now, and I have made it a priority to focus on that instead of dwelling in the past or constantly thinking about the future. This allows me to be more intentional in every business and personal decision I make and give my undivided attention to whoever I am with.

**With greater level of experience comes greater level of responsibility and often this also involves grooming others, passing on your legacy ahead. Keeping this in mind, how do you look at helping others in your organization towards achieving success?**

I hope to remind others that the value of old-fashioned hard work is here to stay! No matter what technology develops, people who put in the effort and consistently take action will be the ones who rise to the top. I also hope to ensure that everyone, especially those from diverse backgrounds, have a seat at the table, and are provided with the tools and resources to grow as leaders.

**What are some of your big goals that you have achieved in the recent past – and your goals that you want to achieve?**

I am proud to be in a leadership position at an amazing company that continues to raise to bar for innovation each day. I am also proud to be a member of the Forbes Communications Council and the CHIEF network. In 2020, I was recognized as one of the 10 Most Successful Businesswomen to Watch, and I hope to live up to that legacy for many years to come. Personally, I would love to continue to grow personal passion project BITAKITCHEN.com into a global lifestyle brand.



## Bitá Milanian | Connection, Creation and Family

creating the life I've always wanted for myself and feel fulfilled both personally and professionally.

### How would you describe yourself as a person?

I am a global citizen and a world traveler, deeply inspired by my surroundings and the places I visit. I also consider myself empathetic, inviting, creative, disciplined, fun and innovative.

### What are the three top most important things for you in your personal life?

**Connection:** I need to feel connected to the people around me and continue to put myself out there and connect with new people.

**Creation:** Whether it's creating a new recipe or coming up with a new marketing campaign, creating new things is a form of self-expression and how I show up as my authentic self.

**Family:** I wouldn't be anywhere without my family and the friends who I consider my family.

### Please share with us some of your personal milestones and their contributions towards developing your personality?

One of my recent and special milestones was creating my culinary brand, BITA's KITCHEN. A true labor of love, I pour my heart and soul into creating healthy recipes, lifestyle choices and more that encourage others to lead a more balanced life through selfcare.

### How do you see yourself evolve as a person over the past years and where do you see yourself in the coming years?

The older I get, the more comfortable I am in my own skin. Although I care deeply about people, I care less and less about their opinions of me. It's not easy though, I must admit. It's liberating to know that I am living and

### What are your three qualities that have helped you grow as a person and a professional?

I am open—to new perspectives, people, and experiences.

I do not give up—when one door closes, I will figure out a way to open another!

I am a connector—I use my love of connection to give back to charitable causes, create new business opportunities for others to succeed, and support my local community to bring people from all walks of life together to

### Please share with us some of your hobbies and interests?

Spending time with my 5 grandkids whose ages range from newborn to 7 years old is on top of my favorite and most special "me time." I also love cooking and hosting dinner parties that lead to interesting and inspiring conversations. You can also often find me in the kitchen testing out a new vegan and gluten-free Persian dish. I also love participating in dance competitions for the various charities I support or for personal challenge. And Pilates has been a lifesaver for me and my lower back issues.

### Please tell us something about your family? What has been their support in terms of helping you grow professionally?

My family means everything to me. I treasure the time I spend with my husband of 21 years, parents who thankfully live close to me, as well as my stepson and his amazing family of 7. It's very important for me to celebrate special occasions and milestones, both big and small. My husband has been my biggest advocate and supporter, as I have grown in my career as a marketing executive, launched business ventures and volunteer community work.

# Donna Moore | Passionate about Technology as an Enabler



**H**aving about two decades of experience, Donna Moore started her career as a nurse and then moved over to the business side of healthcare and then moved towards the technology industry.

Today, she is highly regarded in the industry as a great catalyst and as an enabler for future-proof technology adoption. Her current work at LoRa Alliance is bringing to life new-age innovations with LoRaWAN use cases.

As part of our cover story on 'Leading Women in Telecoms' - **Donna Moore, CEO and Chairwoman of the LoRa Alliance** speaks with **Zia Askari from TelecomDrive.com** about her professional and personal journey.

### **How has been your professional journey so far? Please tell us about your various job profiles.**

I am currently CEO and chairwoman of the LoRa Alliance®. In this role, I oversee the organization, its strategy, and its direction to drive the global adoption of the LoRaWAN® standard. I have nearly two decades of experience launching new companies and growing businesses across a variety of industries and competitive environments.

Before joining the LoRa Alliance, I was the CEO of SpireSpark International, a company that provides highly skilled technical and operational expertise to design and build certification, compliance, and conformance programs. That followed my role as executive director of the Digital Living Network Alliance (DLNA), where I successfully led DLNA to become the de facto internet of things (IoT) standard for streaming video, audio, and picture files to each other over a LAN. During my tenure there, DNLA achieved global market adoption with over 4 billion certified devices deployed worldwide. I have a Bachelor of Science degree from San Diego State University.

### **What is the meaning of success to you, how important it is for you? And what is your mantra to succeed in an organization?**

I truly have a passion for using technology to help people and businesses reach their potential. So, success for me is fulfilling this passion and seeing LoRaWAN technology making a positive impact on the lives of people, the health of the planet, and ultimately the success of businesses in a sustainable manner.

In terms of a mantra that has been key to my success, I would say discipline, which is choosing between what you want now and what you want most. To succeed, you really must stay focused on what you want most and avoid getting distracted by things in the short term.

### **According to you what are some of the most critical factors that have helped you become a leader in your organisation?**

To effectively drive the LoRa Alliance and achieve its goals, a major aspect of my role is to collaborate with stakeholders and board to align around a common vision – which means listening, learning, and persuasion are must-have skills. I developed these skills early in my career in sales and marketing positions, and they have been the most valuable to me as I moved into leadership positions.

The three leadership areas that I adhere to are autonomy, mastery, and purpose. Employees of any organization need to connect the outcome of their role to the higher purpose of the organization. Once that is achieved, employees need to be given autonomy that will allow them to achieve mastery of their work. These three factors consistently enable teams to achieve better performance and satisfaction in their roles. I believe everyone needs these to flourish and feel a sense of connection with their work towards a greater purpose.

### **When you look back in your career – what according to you can be termed as big turning points for you. How have these turning points helped you gain ground professionally?**

I started my career as a nurse and then quickly moved over to the business side of healthcare, working my way up to become chief operating officer of a very large healthcare organization. However, I often felt frustrated as I saw technology implementations move other industries forward rapidly while healthcare moved slowly. I first entered the technology industry intending to strengthen my background and understanding of technology and bring that knowledge back to healthcare. Instead, I have been consistently energized by my work in tech and have stayed in the industry ever since. My current work for the LoRa Alliance really brings my career full circle, with LoRaWAN in use across a variety of use cases that support sustainability, environment, health, and community.

### **What are some of the challenges that you or your organization faced and overcome during your professional journey? How did you overcome these challenges?**

As it did for everyone, COVID-19 created many challenges for the LoRa Alliance and our members. What was most fascinating – and inspiring – was how the LoRaWAN ecosystem responded, rallying to address the needs of a rapidly changing marketplace. If you go back in time to early 2020, it was clear that

no one really knew what COVID-19 was or what was needed to get back to our “normal” pre-pandemic lives. Governments, cities, and businesses alike were seeking help – looking for technology innovation that could help them protect their citizens and employees. LoRa Alliance members saw that LoRaWAN, a low-power wide-area networking (LPWAN) technology for IoT, would be a perfect fit to solve these new challenges, and they began rapidly developing solutions to help mitigate the pandemic – for contact tracing, cleanliness and air quality monitoring, and social distancing, to name just a few.

COVID made the need for actionable information to improve the health, safety, and welfare of people around the world an urgent priority. It has been inspirational to watch our members rise to these challenges and collaborate to bring solutions to market faster than anyone thought possible. These solutions remain critical even today as the economy is starting to move forward, because they provide assurance that environments are safe.

**Please share with us some of your positive learnings that you have gained over the past many years and how these learnings have helped you become a better person / professional?**

One lesson that really stands out to me is that growth relies on getting out of your comfort zone. That which doesn't challenge you doesn't change you. This has made me a stronger leader, because when I face hard or risky decisions, I remind myself that it's okay to struggle in the short term, as growth and opportunities come from being uncomfortable.

**With greater level of experience comes greater level of responsibility and often this also involves grooming others, passing on your legacy ahead. Keeping this in mind, how do you look at helping others in your organization towards achieving success?**

I focus heavily on building trust, mentoring staff, and developing long-term relationships with my team. Having trust as the foundation allows for very frank

and honest discussions, because my team knows I have their best interest at heart. Through these discussions and mentoring, I've been honored to help many of my colleagues advance in their careers. One person I mentored now runs her own company; another is running a startup to convert plastic into diesel fuel; and another is now running sales for a large technology company. I've continued to stay in touch over many years, and now we're in positions where we can support each other. It's truly rewarding.

**What are some of your big goals that you have achieved in the recent past – and your goals that you want to achieve?**

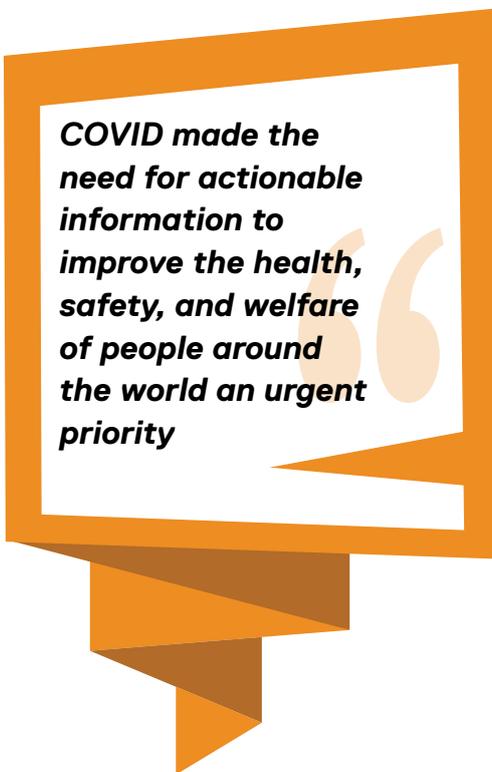
I find it very instructive to look at the organizational goals I've been able to impact during my time at the LoRa Alliance. I think these achievements are representative of how I align my goals with those of my company and drive to make them happen.

- LoRaWAN infrastructure and deployments have grown exponentially.
- LoRaWAN moved from one of many LPWAN technologies to the market leader and the only LPWAN to achieve deployments at a massive scale globally.
- The LoRa Alliance's vision and open environment has enabled our members to deliver innovative solutions that are tied to the alliance's strategy. This has led us to become the largest LPWAN

ecosystem, with the most:

- Deployed networks
- Certified devices
- Global deployments
- End-to-end solutions to make deployments easier
- Network options: public, private, satellite, community, and hybrid
- Deployed multi-technology solutions

It was the combination of all these achievements that contributed to making LoRaWAN a mature technology and its recognition as an international standard by the independent standards organization ITU-T.





## Donna Moore | Growing through Struggle, Resilience through Practice

### How would you describe yourself as a person?

I am passionate and driven, and at the end of the day, I want to know I've made a difference to people and the world at large. I truly believe that it takes a village to enact change and have never doubted that even a small group of people collaborating can make a significant difference in the world.

My passion for making a difference impacts every decision I make. The kinds of projects I like to work on are often ones that may seem impossibly large, but staying committed to doing the right thing makes the path forward clear. Ultimately, this clarity helps me achieve the goal.

I also believe that life happens for you, not to you, meaning that everything happens at the right time, not too soon or too late. That's been a guiding principle for me, especially when things have not worked out as planned. I've found that in retrospect everything happened when it did and how it did for a reason.

### What are the three topmost important things for you in your professional life?

**Growth through struggle:** I believe that struggle is part of the process of growth. Struggle can be so frustrating, and we often use it as a reason to stop what we're doing or change paths; but in my mind, if you are not challenged, you don't evolve. Embrace the struggle and know that by getting through it you will progress to something greater and more fulfilling.

**Resilience through practice:** Hard work and practice are what will allow you to master a skill or your craft – and once it's mastered, you are stronger, more agile, and

resilient because you are able to look for different ways to solve any issues you may face.

**Transformation through small actions:** Simply put, nothing happens in big steps – progress is all about taking one step at a time or one action at a time. These actions become more significant as you go along and ultimately lead to change. Take IoT as an example. For people who are new to it, they see today that LoRaWAN is a great connectivity option, but they don't see the years of small steps, small decisions, and small actions that built upon each other to get to the point where we are now. Just like the saying, "The journey of a thousand miles begins with one step," nothing happens overnight; a series of small actions or thoughts bring big ideas to fruition.

### What are your three qualities that have helped you grow as a person and a professional?

Grit is one of my defining qualities. No matter how hard something is, I dig deep, push, and see things through.

Passion is huge for me – I am very passionate about the things that I engage in and take on. My passion drives me, and hopefully those around me.

Focus is another key quality. I'm extremely good at focusing on what needs to be done and prioritizing to make sure I spend my time on the right things so I can achieve the outcomes I desire. Even during the day, I'll stop what I'm doing and ask myself if my time is being spent in the most important and most effective way to achieve my goals. If it's not, I reprioritize what I am doing. It is very easy to get distracted or pulled off course by spending time on things that are busy work but not the most important work.

# Elif Yirmibes | Driven by Innovation, Working with Passion



**E**lif Yirmibes carries about two decades of technology-rich experience and started working with Vodafone in 2004 as a Radio Access Technology Engineer. With the help of her unique drive for innovation and a passion towards thinking differently, she has managed to create her very own special place and as a result, today she is leading the Open RAN Product Performance division at Vodafone Group.

As part of our cover story on 'Leading Women in Telecoms' **Elif Yirmibes, Innovation Hub & Product Performance Snr. Manager, Vodafone** speaks with **Zia Askari from TelecomDrive.com** about her professional and personal journey.

### **How has been your professional journey so far? Please tell us about your various job profiles?**

After graduating from Electronics and Telecommunications at the University, I started my career as a software engineer and joined Vodafone in 2004 as a Radio Access Technology Engineer. I have held various technology leadership roles including Radio Planning and Optimization, Radio Strategy Investment, Network Quality, Terminal/Sim Technology. Recently, I am leading the Open RAN Product Performance division at Vodafone Group.

### **What is the meaning of success to you, how important it is for you? And what is your mantra to succeed in an organization?**

I think success is a feeling of inner satisfaction when you achieve your goals. When I know that my efforts are purpose driven, it encourages me to push harder. The mantra for me is always being authentic, thinking differently, and working hard.

### **According to you, what are some of the most critical factors that have helped you become a leader in your organization?**

Inclusion and diversity in gender and thought have been key factors in helping me empower, develop my skills and grow in my organization.

### **When you look back in your career – what according to you can be termed as big turning points for you? How have these turning points helped you gain ground professionally?**

That was when I started my first leadership role. I had the opportunity to observe people. You have to pay attention to the details of people's lives. I learned how to create trust-based communication. When you

gain people's trust in all means, you realize that people believe in following the same path as you and are passionately committed to it. My biggest and bravest achievements are those that come true in the spirit of togetherness.

### **What are some of the challenges that you faced and overcome during your professional journey? How did you overcome these challenges?**

There are times when you have to make decisions where you may not get support. You have to be brave enough to take the decision and take the accountability. You need to depend on the data and your in-depth understanding of your profession to move ahead.

### **Please share with us some of your positive learnings that you have gained over the past many years and how these learnings have helped, you become a better person / professional?**

You can fall while living your journey. If you do not stop learning, you will fall forward. This fall could be related to something in your relationships or profession, be positive and always look for opportunities or create your own. You will become a resilient person in your organization and in personal relationships.

### **With greater level of experience comes greater level of responsibility and often this also involves grooming others, passing on your legacy ahead. Keeping this in mind, how do you look at helping others in your organization towards achieving success?**

I always believe in human capabilities for continuous improvement. If you grow together, you will grow fast and much better. It is an opportunity to create an environment where you can capitalize on productive ideas and, together, make it a success.

### **What are some of your big goals that you have achieved in the recent past – and your goals that you want to achieve?**

I always have a passion for doing something good that matters, and aspire to make a difference. We have introduced technologies that improve people's quality of live and contribute to technology evolution. I am sticking with my unique goal and will work on to do it better.

# Elif Yirmibes | Passionate, Determined and Self Confident

## How would you describe yourself as a person?

I would say that I am an analytical, self-confident person with a social personality.

## What are the three top most important things for you in your personal life?

Family, friendship, health, faith and we are living for a reason and purpose is very important.

## Please share with us some of your personal milestones and their contributions towards developing your personality?

Some memories are unpleasant, like being in a serious car accident with your family and you having another car accident, a college house burning down, your only loved brother having serious operations in young age, dealing with the death of a pet. All this has made me a resilient person, positive mindset and more connected to life and people.

## How do you see yourself evolve as a person over the past years and where do you see yourself in the coming years?

As long as you are focused on learning and have an open mind, you are becoming a more humble person over time. In the coming years I want to grow into someone who is much better at forgiving and letting go of resentments.

## What are your three qualities that have helped you grow as a person and a professional?

Being Passionate, Determined and Self Confident and Being lively.

## Please share with us some of your hobbies and interests?



I like playing volleyball, cycling and hiking in nature. I just started learning to play the piano. Recently, my interest has been to learn gardening and agriculture.

## Please tell us something about your family? How has been their support in terms of helping you grow professionally?

I have a family of love, friendship, and support. My mother was a teacher and my father and brother have business degrees. I am the only one with engineering degree. I am married to an engineer. I am always encouraged to make my own decisions and to be brave. I always trust that whatever happens they are always behind me and they will help me in finding the way.

# Eugina Jordan | Leading with Integrity and Courage

It is her insistent courage; strong will and integrity that has always helped Eugina Jordan win under pressing circumstances and trying conditions. She was instrumental in bringing to life the #OpenRAN movement in the year 2014 and today, it is fast becoming an innovative way for operators to do more with less.

As part of our cover story on 'Leading Women in Telecoms'- **Eugina Jordan, Founding Member at CHIEF**, speaks with **Zia Askari from TelecomDrive.com** about her professional and personal journey.

## How has been your professional journey so far? Please tell us about your various job profiles?

Born and raised in communist Russia, I have built an amazing career in the telecom space, rising up from secretary to a C-level executive.

When I moved to the US from Canada in 2000 during the collapse of the dotcom economy, I was faced with a very tough economic situation. Despite having two degrees (teaching and computer science), I was only able to get an admin job at a tiny startup Starent that went onto becoming a public company and then acquired by Cisco.

That first job gave me an opportunity, and I did not throw away my shot at success.

Back in 2014, when I started talking about #OpenRAN, people thought that I was crazy. Today, OpenRAN is a global movement with many companies and mobile



operators committing to building their wireless networks in more open way by mixing and matching components from different vendors.

I defined the new disruptive market category of Open RAN on global telecoms turf and I have been advocating for Open RAN for many use cases, macro and private networks and promoting it with speaking (15+ in 2021 alone), articles (over 70 in 2020/21/22), workshops, and

patents on 5G and Open RAN (7).

I am a founding member of Boston chapter of CHIEF, an organization for women in the C-Suite, to strengthen their leadership, magnify their influence, pave the way to bring others, cross-pollinate power across industries, and effect change from the top-down.

**What is the meaning of success to you, how important it is for you? And what is your mantra to succeed in an organisation?**

Success to me is leaving this world a better place than I have found it. Success to me is bringing more women into leadership roles that I am not the only one or the last one. Success to me is helping people realize their full potential.

When I was growing in my career there was no seat at the table for people like me. Not even for me to bring my chair. So, I have built my damn table extension. At 51, I invite people to that extension I have built. As it's now my responsibility.

**According to you what are some of the most critical factors that have helped you become a leader in your organisation?**

Empathy and strategic thinking.

**When you look back in your career – what according to you can be termed as big turning points for you. How have these turning points helped you gain ground professionally?**

The turning points in my career were always around me asking for what I deserved: a job, my next promotion, or an interesting project to lead. Even when it was a “no”, the lesson learned was to keep going, keep asking, keep fighting. Because when other women see me succeed even after many tries, they get the courage to ask for what they deserve as well. Why courage? You need courage to admit areas you need to work on, take the feedback to work on yourself and to be building expertise in your field

The courage is to ask. For mentorship, sponsorship, for that next promotion. You need to ask though the answer might be “no”. Courage is not giving up on you and your dreams. It's not going to be easy. It will be all worth at the end. As if you succeed, you will be able to open more doors and bring more people like you to the table. You might be the 1st one, but you won't be the last. You cannot be the last one. As all the sacrifices of your family, your hard work will be all in vain.

**What are some of the challenges that you faced and overcome during your professional journey? How did you overcome these challenges?**

Often times white men who are feeling confused will ask

me (or any number of other people that do not look like them), “Is it really that bad? You're really successful, and you've never said that this stuff happened to you.”

The answer is “Yes, of course it happened to me. I didn't succeed because it did not happen, I succeeded IN SPITE of those things happening. I succeeded because I was resilient and there were people who mentored me, sponsored me, and supported me WHEN it was happening.

What me and others like me are being forced to reckon with is our own complicity in the system. When we chose which battles to fight, we couldn't challenge the system the way it is being challenged today because our mere presence WAS a challenge to the system that did not want us there. But as a result of it, we now are the ones who have enough power to lead the change.

**Please share with us some of your positive learnings that you have gained over the past many years and how these learnings have helped you become a better person / professional?**

My leadership style is built on two values: integrity and courage. They are the foundation of how I see the world, how I influence it, and how I lead. I know that courage is a very important value for a leader as it's about doing what's right, even if it's tough. I believe that a courageous leader inspires others.

**With greater level of experience comes greater level of responsibility and often this also involves grooming others, passing on your legacy ahead. Keeping this in mind, how do you look at helping others in your organization towards achieving success?**

I believe that mentorship schemes are pivotal in encouraging and equipping women for leadership. To this end, I spearheaded a grass-roots initiative that mentored women and young engineers. This mentorship program was so transformative that the mentees won multiple awards, and 95% of them secured full-time employment after their internships. Due to its resounding success, this expanded into a long-term company-wide mentorship program in 2021 and mentorship is now a requirement for all managers. I also know that sponsorship is more important than mentorship as sponsorships will help women advance in an organization.

**What are some of your big goals that you have achieved in the recent past – and your goals that you want to achieve?**

Creating a new market category (Open RAN) and educating the whole industry on it was hard work, but now seeing it mainstream is a huge reward.

# Eugina Jordan | Behind every successful woman ...is a supportive partner



## Please share with us some of your personal milestones and their contributions towards developing your personality?

This question got me thinking what actually my younger selves would be proud of.

My 6-year-old would be so proud that I stayed happy, positive, and kind. She believed that the world needed more shiny people on rainy days, and she would not be disappointed.

My 14-year-old would be pleased to know that I still love reading and always find the time to spend with a good book. She would be also so happy to know that I still not allow anyone to be bullied. She would be proud that I choose truth and integrity over comfort. She would be also proud that I am comfortable in my body and do not afraid to look funny or awkward when I dance or exercise.

My 24-year-old would be proud that I have built a great life outside of my birth country, I have built new bonds, new friendships. She would be also proud that though I cherish my roots, I am not afraid to learn and grow in every new environment I find myself in. She would be proud that I have applied my master's in teaching and computer undergrad to build an amazing career in marketing. #ScrappyMarketing

My 30-year-old would be so happy to see that I have a beautiful family. She would be so happy to know that my husband and I have built a wonderful home for ourselves, our friends and family. The journey to that family has taken a few wrong turns and at times it felt so gloom, but she would be crying very happy tears seeing the yard with three dogs running around and smiling people gathered at a dinner table on holidays.

My 37-year-old would be so proud that my son grew up to be a kind, hard-working, compassionate individual. She would no know that the decision of leaving a bad family situation was as good for him as I was for me.

## How would you describe yourself as a person?

I am an introvert, and many would be surprised with this classification. The two values that drive me are courage and integrity. I am loyal and fair. I also have a corky sense of humor.

## What are the three top most important things for you in your personal life?

My family (my husband and my teenage son), my three rescue dogs and myself. I am slowly learning that I need to prioritize myself as well. If your own tank is empty, you cannot help others. Put your own oxygen mask on first.

My 42-year-old would be proud that I helped grow a tiny startup into an industry leader. She would be extremely amazed of the 7 patents. She would not be surprised that I wrote almost 75 industry articles and would be proud that I helped define a new market category.

Let me tell you, it took a long time, hard work and tenacity. I have made mistakes and I learned from them.

It makes me happy to know that I would set a good example for my younger selves. I am now the person that my past selves would look up to and aspire to be like.

We have been socialized to believe that immigrant women belong in certain roles, few of which are in the executive suite, but in sharing my story with you, we are pushing beyond those boundaries.

Never in my wildest dreams did we, imagine that I would become who I am today, a C-level executive, an industry disruptor.

If you stay true to yourself, you might just be surprised and make your younger self proud by where you end up.

Just like me.

And your story will become bigger than you. And you too, will have the responsibility to lift others up, to help them on their journey.

As for me?

My adventure continues. And I hope my current self would be so proud of my future selves.

### **How do you see yourself evolve as a person over the past years and where do you see yourself in the coming years?**

I am an immigrant female leader who worked my way up from secretary to an executive. So, I am an expert on resilient and servant leadership. I was also a single mom that wanted to create the best life for my son by earning my American dream through hard work and tenacity. I now give back to women, immigrants, underprivileged and underrepresented communities through mentorship, workshops, social to inspire them to work hard and not to put limits on themselves and to earn their American dream. Through sharing my story, I can help women, immigrants and other underprivileged communities to show that if they break their barriers and are willing to grow and do the work, if they find the right mentors and sponsors – all this will help them realize their full potential.

That is why, I am writing a leadership development book. I will present the reader with actionable steps, frameworks and worksheets so they can learn how to fuel self-growth, how to find sponsors and mentors and how to make an impact on this world once they are in a position of power and have a platform and a voice. Peppared with some inspiring stories from other individuals that succeeded in their career despite where they came from, color of their

skin or college they attended, this book will give many underrepresented individuals not only tools to succeed, but also hope, inspiration and encouragement.

### **What are your three qualities that have helped you grow as a person and a professional?**

Courage, desire to grow, take feedback, and tenacity. My story is a positive example that if you work hard, play fair, continue to learn and always believe in yourself, you can grow yourself, your career and others. I believe that the door is always open; people need to be strong enough to open it, get a seat at the table and work hard to get where they want to be.

### **Please share with us some of your hobbies and interests?**

I love reading, going to theater, and museums. Before Covid, we used to take a trip to Europe in the summer to see all the amazing sites. There is nothing better than sitting outside in the summer Paris and eating a freshly made sandwich and people watching.

### **Please tell us something about your family? How has been their support in terms of helping you grow professionally?**

Behind every successful woman ...is a supportive partner.

For the six years of my son's life, I was a single parent. My son was my world. And men weren't lining up to date a single mom with a toddler and a very busy marketing career.

The higher power had other plans and brought the most amazing dad and husband into our lives.

One January night, I decided to sign up for match.com. I signed up for 6 months as it was much cheaper. 😊

A week later, I got an email that was horribly misspelled, but the person was named Aramis like one of the 3 musketeers. It was one of my favorite books. So, I replied!

And the rest is history.

6 months into our relationship, Aramis told us if we were ever in the mall to tell the staff of the store, he owned to give us free smoothies.

My 6-year-old stated, "Aramis must love us so much if he gives us free smoothies!" Loves us. Not loves you, mom, loves US.

I am grateful for the 11 years of unconditional love and support that he has shown to me and the kid.

My husband is one of my blessings of my life. He has always believed in my abilities. He took care of the kid when I had to travel for weeks at a time.

So, for all of you who wonder, how can I do it all, I can only because I have support at home. I am just an ordinary woman ...

# Jennifer Yohe | Creating Opportunities, Enabling Transformation

**W**ith over two

decades of technology and procurement experience, Jennifer Yohe is playing a critical role towards wholeheartedly supporting the DZS mission and vision of enabling today's broadband service providers to become tomorrow's experience providers through network and business model transformation.

As part of our cover story on "Leading Women in Telecoms" - **Jennifer Yohe, Chief Operations Officer for DZS, Inc** speaks with **Zia Askari from TelecomDrive.com** about her professional and personal journey.

**How has been your professional journey so far? Please tell us about your various job profiles?**

I am an award-winning business, technology and procurement executive with over two decades



of experience in the telecommunications industry.

With a combined 21 years of experience at Time Warner Cable and Comcast, I joined access networking infrastructure, service assurance and consumer experience software solutions provider DZS in 2021. As head of customer advocacy for the company, I am working to develop and cultivate executive customer relationships and support commercial business and vendor management to fuel the company's global growth objectives. I am well-known among the industry peers and leverage my relationships to benefit DZS and its systems and processes.

An effective and proven procurement and operations executive, I helped cable operators save more than a billion dollars throughout my career. Prior to DZS, I spent twelve years at Comcast, most recently as senior vice president of procurement, where I managed billions of dollars in cable infrastructure products and services, negotiated successful deals, ensured customer satisfaction and helped grow the Comcast enterprise. Prior to Comcast, I spent a decade at Time Warner Cable in multiple roles, including vice president of business affairs. I also held senior roles at MediaKind (formerly Ericsson) and NASCAR and started my career at the Washington Redskins.

I have been recognized for my leadership and efforts to amplify women in tech with various accolades and awards, including the "Women in Technology Award," "Most Powerful Women in Cable" and "Top Women in Technology."

**What is the meaning of success to you, how important is it for you? and What is your mantra to succeed in an organization?**

I joined DZS during an extremely transformative time for the industry and organization as a whole. Through highly differentiated innovation,

I am helping DZS drive and take advantage of the early innings of a once-in-a-generation, decade-long, industry upgrade super cycle to multi-gigabit, fiber-based broadband services and to 5G/6G.

For me, success means supporting the DZS mission and vision of enabling today's broadband service providers to become tomorrow's experience providers through network and business model transformation that begins with my team. I measure my own success by how well the company is doing as a whole. I also measure success by my ability to create opportunities for my team to outperform the competition and grow in their careers.

**According to you what are some of the most critical factors that have helped you become a leader in your organisation?**

I joined DZS under the leadership of CEO and President

Charlie Vogt. We had previously worked together for years, with me on the client side at Comcast and Charlie on the solutions provider side. Over the years, I developed a respect for Charlie's leadership and approach to business, seeing him as a unique leader: someone who is effective, dynamic and ambitious (having overseen major transformations and helped entire industries undergo massive change). When the opportunity arose for me to join DZS at a pivotal juncture and help bring life-changing broadband to people around the world, she jumped at the chance.

I respect that Charlie never asks his team to do something he wouldn't do, and I emulate this in my own team. I ask my team only what I have or would be willing to do myself.

I have always sought to understand the communications industry from the ground up. Climbing the ladder at companies like Time Warner Cable and Comcast equipped me with the fundamental business and technology knowledge and skills needed to help innovative, expanding companies like DZS flourish. I am equally committed to ensuring the best quality of experience for my customers as well, routinely seeking to address problems at their source and develop solutions that provide real long-term success, including increased ARPU and fewer truck rolls.

I believe that failure can always be used as a learning opportunity. Offering my team chances to "fail fast" is a core tenant of my leadership style – and is what has allowed them to produce such impressive results. I have always been open to taking risks in my professional life, and recognizes how beneficial that has been to my career, knowing one always learns fastest from mistakes.

**When you look back in your career – what according to you can be termed as big turning points for you. How have these turning points helped you gain ground professionally?**

One big career turning point for me was my transition from a manager level to senior level positions, where the role became much more defined by making decisions that are best for the company and its employees than ever before. Moreover, I realized that an increase in responsibility required an increase in adaptability. The more human and technical resources I have overseen, the more I have come to incorporate alternative methods of training, delegation, and inspiration.

Additionally, I have experienced a shift in my career when I started negotiating procurement deals. As I was often one of few females in tech, I faced challenges early-on and felt that I had to work twice as hard to gain the respect of my colleagues and counterparts. Once I was able to prove myself and perform well, I started to gain more confidence and respect in my roles.

**What are some of the challenges that you faced and overcame during your professional journey? How did you overcome these challenges?**

When I first joined DZS, I was tasked with helping the company navigate the difficult supply chain dynamics that have been plaguing the entire industry and many others. As head of operations, I spearheaded a number of improvement initiatives to help manage through a constrained environment and enable DZS to maximize shipments despite elongated lead times.

Personally, I have overcome many challenges in my career, including defying stereotypes about female employees in tech fields, which has been one of the most meaningful and impactful. As a woman working in a male-dominated industry, I have had to prove my value and leadership ability. I have quelled these doubts with years of integrating competitiveness with compassion, focusing on boosting my team and benefitting my customers.

Working with leaders and managers of varying personality types and leadership styles is another challenge I faced with resilience and optimism. Though some collaborations have been easier than others, I have always thrived, despite being confronted with a range of difficulty when operating alongside my executives. I have viewed these incongruencies not as obstacles to be ignored, but as opportunities for growth.

**Please share with us some of your positive learnings that you have gained over the past many years and how these learnings have helped you become a better person / professional?**

Over the course of my career, I never lost sight of accomplishing my goals, specifically as they relate to empowering and transforming communities. That is at the core of everything DZS strives to achieve. Nothing has given me more satisfaction than being part of DZS's mission to bridge the digital divide, connect the underserved and unserved, and offer a reliably exceptional customer quality-of-experience customers deserve.

On a personal level, I appreciate and celebrate my colleagues' differences. Understanding the strengths and limitations of my own team members has not only enabled me to lead them more effectively and utilize my team members according to their own strengths but has also allowed me to recognize my own areas for improvement. Whether it's negotiating a high-profile deal or mentoring the next wave of female executives, I maintain a constantly evolving attitude toward business leadership. I try to see the positive in everything I do. Even if things are crashing down around me, I can see the positive and try to be better today than I was yesterday.

**With greater level of experience comes greater level of responsibility and often this also involves grooming others, passing on your legacy ahead. Keeping this in mind, how do you look at helping others in your organization towards achieving success?**

As I continue to progress in my career, I embraced my role as a mentor, which I have been doing for more than 20 years. As such, I began incorporating several team-building practices into my training, whether it's through formal/structured mentoring programs or more organic opportunities. Whether role-playing at presentation workshops or sharing negotiation tips, I have consistently found new ways to improve the skill set of my team, establish a healthy collaborative operation, and contribute to DZS' continued success.

I am proud of the people I have mentored and groomed in the industry, particularly women. Throughout my career, I have led several employee resource groups for women. I served as an advisor for Women in Cable Telecommunications for five years, helping women in the industry to advance their career. And while at Comcast, I owned supplier diversity, where I looked for minority and women-owned businesses to work with.

With that said, I have noticed the departure of women in the communications/tech industry following the COVID-19 pandemic, which I consider a point of concern. I am actively communicating with women's networks and people in the industry to find a way to prevent that trend from continuing while attracting and recruiting the next generation of female leaders in communications and tech.

**What are some of your big goals that you have achieved in the recent past – and your goals that you want to achieve?**

Ultimately, I want to see the entire communication service provider industry thrive as it collaborates and competes to adjust to the changing broadband landscape and serve the evolving needs of my customers. DZS is well-positioned to lead the transition, and I am motivated to help the company achieve that success.

At the outset of my career, I pursued financial and status-related goals typical of an uber-industrious, high-aspiring female executive. However, as I have progressed in my career, my primary goal has shifted to being a leader that colleagues and customers can rely on. I seek to continue building a reputation based on my dedication, hard work, foresight and commitment to making the company and people better than they were before they arrived.



# Jennifer Yohe | Tough, Fair and Trustworthy

As I have progressed in the world of telecommunications, I continue to focus on the business and seek opportunities to support others who are growing in their careers. As such, I began incorporating several team-building practices into my training. Whether through role-playing, presentation workshops, or negotiation tips, I have consistently found new ways to improve the skill set of my team, establish a healthy collaborative operation, and set my company up for continued success.

## What are your three qualities that have helped you grow as a person and a professional?

The main quality that has helped me to become a better executive and person is trust. I have operated on a simple yet powerful philosophy: trust over transaction. While I make strategic efforts to benefit my company in any given deal, I have learned that long-term business and customer relationships can only prosper through a lasting mutual commitment. I do not merely speak of the importance of trust – I instill it directly. For example, when a network or software issue is reported, I dial in to listen to every sourcing call. This gives me the confidence to address problems wherever and to whatever degree they occur and provides my customers the assurance that I truly care about their satisfaction.

## Please share with us some of your hobbies and interests?

I am a lifelong sports fan. I have a particular love for NASCAR and American football, having watched countless games. I have even crossed state borders just to see my favorite teams play. In addition to enjoying the raw entertainment side, I am also fascinated by the strategic aspect of sports. I love learning how new rules, players, and game plans will affect the totality of the sport. I also love traveling, specifically to the Caribbean.

## Please tell us something about your family? How has been their support in terms of helping you grow professionally?

My family has played a major role in my professional success. I remember what I learned from my mother: “don’t be afraid to take risks and always be better today than you were yesterday”. I also credit my sisters for encouraging me to pursue my goals, both personal and professional, in whatever field I desire to pursue.

## How would you describe yourself as a person?

I am a tough but fair leader. While I do not demand perfection, I expect good-faith efforts from myself and my team to get things done. With that, I lend a compassionate ear to both dissatisfied customers and struggling team members. Above all, I maintain an unshakable optimism that sustains both me and my team through even the most difficult transitions.

## What are the three top most important things for you in your personal life?

The three most important things to me include staying healthy, building and maintaining relationships, and leaving the planet a better place.

## Please share with us some of your personal milestones and their contributions towards developing your personality?

There was one crucial moment in my life that led me to value the importance of community and self-belief I still carry with me today. When I was just 15 years old, my father passed away, leaving my mother to raise her daughters on her own. Despite feeling the crippling burden of her husband’s absence, my mother decided to return to the classroom to earn a Master’s degree in nursing to provide additional support for her family. Seeing my mother show remarkable resilience in the face of such tragedy has given me unwavering faith in my own ability to lead and care for others.

## How do you see yourself evolve as a person over the past years and where do you see yourself in the coming years?

# Rituparna Mandal | Leading with Passion for Excellence

**W**ith over 25 years of rich experience, from working with

Texas Instruments during early days of her career to starting her own venture in the form of Immensa Semiconductors in 2013 (later acquired by MediaTek), Rituparna Mandal has always been a leader with a unique passion for excellence and perseverance.

As part of our cover story on 'Leading Women in Telecoms' **Rituparna Mandal, GM, MediaTek Bangalore** speaks with **Zia Askari from TelecomDrive.com** about her professional and personal journey.

**According to you what are some of the most critical factors that have helped you become a leader in your organisation?**

As a woman entrepreneur and in my role as a senior leader, I have taken forward several key responsibilities. Semiconductors have been a male-dominated industry, fulfilling a leadership role in such a scenario demands hard-core commitment, passion for excellence and perseverance. You need to prove that you can fight all odds to work on challenging projects and deliver the result on time. All through the projects, I have followed a systematic approach so I could deliver my best and meet

deadlines. I believe I have an inherent strength to absorb the challenges and maintain a composed state of mind in stressful situations.

Leading a team is a great responsibility and with a



passion towards innovation, I have always been keen to take up innovative projects, assume ownership, and strive to deliver the best results. I have learned to adapt to changes quickly and never take anything for granted. The core values driving my success have been transparency, integrity and accountability in every role I take up.

**When you look back in your career – what according to you can be termed as big turning points for you? How have these turning points helped you gain ground professionally?**

The most significant turning point in my career life was the launch of my start-up company Immensa Semiconductors in 2013. It was the culmination of my aspiration to do something that is really challenging.

In fact, I started the company after working a long 16 years at Texas Instruments, which helped me gain hands-on experience on SoCs and get an insight into where the semiconductor industry is heading. The learning I acquired during that period gave me the confidence to build my first semiconductor company, which for sure, would be atypical for a woman of my cadre. Later, when Immensa was acquired by MediaTek, I became part of MediaTek with greater responsibilities and with much bigger projects to handle. In fact, MediaTek opened the big world of semiconductors in front of me and set the path ready to pursue my passion. Throughout my career, I have been keen to learn new things and refresh my skills so that I can stay updated in the rapidly evolving industry environment.

**What are some of the challenges that you faced and overcome during your professional journey? How did you overcome these challenges?**

Challenges are multi-fold. Semiconductor technology is perhaps the most complex of all the technologies. Look at the transformation that swept the industry in recent years. The process nodes evolved from 130 nm in 2001 to 3 nm in 2022, in just a span of 20 years, and still on. With regard to communications technologies, we are now witnessing the momentous transition from 4G to 5G and to 6G and higher. While major markets like India are talking about moving to 5G, a few advanced nations have already started testing 6G. The same is the case with digital technologies. The rapid developments around AI, IoT, Edge, AR/VR and related technologies have impacted

the semiconductor segment significantly, reducing the technology lifecycle, thus creating immense pressure on chip designing firms like MediaTek.

The challenge is to cope with this rapid transformation and drive the team to accomplish the target in this highly competitive environment. Thanks to MediaTek's R&D focus, we are able to hire enough talent and allocate resources to drive this journey forward. As a result, we are ahead of the race with several ground-breaking innovations which have hit the market in recent months. Examples are the Dimensity 5G series of chips, with the latest Dimensity 9000 featuring the world's first 4nm process on smartphones. We are also at the forefront of 5G technology and millimetre wave advancements. Of late we have released the first mmWave 5G chipset

Dimensity 1050 that will power the next generation of 5G smartphones with seamless connectivity, displays, gaming and power efficiency.

As a woman entrepreneur and professional, I have confronted another set of challenges, especially during my early career life when I had to also manage my family with two young boys. I believe it is the responsibility of every organization to be compassionate with every mother and provide her with appropriate facilities to accomplish her career goals. At MediaTek, we have been practising the WFH model to help expecting and young mothers. Thus I can say MediaTek is a women-friendly organization; we have women roles at every level, including the top managers.



**Please share with us some of your positive learnings that you have gained over the past many years and how these learnings have helped you become a better person / professional?**

Constant learning. And always being motivated by challenges: Given the fast-paced technology cycle, it is important to hone your technical and leadership skills from time to time so that you can deal with the emerging challenges. I am happy to say that I am still a student, learning new things by reading books, magazines and online stuff, as well as from interpersonal interactions and motivational speeches. And I believe knowledge earns respect everywhere.

Second, understanding the team and focusing on teamwork: Workplaces are very dynamic. We meet people of different age groups and cultures/educational

backgrounds. Maintaining harmony and team spirit is the first and foremost priority for a manager, and this demands extraordinary efforts. Over the years, I have learned how to inspire the team to achieve their target. The binding philosophy is to remain compassionate and friendly, and I hope I succeed in doing that to a great extent.

**With greater level of experience comes greater level of responsibility and often this also involves grooming others, passing on your legacy ahead. Keeping this in mind, how do you look at helping others in your organization towards achieving success?**

The workforce is the most valuable asset for any organization. Retaining the talent is important as it can build loyalty and enhance productivity. Equally important are the upskilling and reskilling efforts as both can add value to the resources. We have taken up several such initiatives wherein the participants get the opportunity to learn the latest technologies and also build soft skills. We also engage with external agencies and occasionally partner with third-party vendors to conduct special training, especially in the hardware segment. Also, there are special training programs designed for managers/future managers, which largely focus on building organizational values and leadership qualities. These apart, we conduct regular meetings and one-on-one sessions with each employee to understand his/her issues. Such interactions also help us understand the loopholes and fix them before they impact productivity.

**What are some of your big goals that you have achieved in the recent past – and your goals that you want to achieve?**

Over the past few years, the team at Bengaluru has contributed several major breakthroughs to our portfolio of SoCs. The Chromebook SoC, for example, was built from scratch at the Bengaluru centre. Most recently we also accomplished several high-level targets related to the latest Dimensity 5G series of chipsets.

At present we are working on 5G and millimetre wave technologies with a focus on vast variety of applications in IoT, Edge and AI. Some of the ongoing projects

focus on automobile IoT and neuro pilot programs. We have even bigger projects in pipeline, and we expect the Bengaluru R&D centre will emerge as the hub of chip innovation in India in the near future. There has to be a big picture in very decision that is taken when organisational growth or managing performance and understanding employee sentiment. Therefore it is the ability to fine-tune, rethink and focus, take ownership and strive to outperform.

**How has been your professional journey so far? Please tell us about your various job profiles.**

My professional journey so far has been enriching and extremely enjoyable. Over the course of 25 years, I have essayed various roles in the technology sector, from

Texas Instruments, where I was the manager for foundation IP development and handled teams of over 100 to my current stint as General Manager at MediaTek. In 2013, I launched Immensa Semiconductors and created a foundation IP portfolio in leading-edge technologies across top foundries. MediaTek acquired Immensa in 2015 and I joined the company as Director, Advanced CPU and Foundation IP technology. Over the last 7 years, I have worked on accelerating my career at MediaTek while contributing to the vision and mission of the company.

**What is the meaning of success to you, how important it is for you? And what is your mantra to succeed in an organisation?**

Success is a very personal metric when one spends 25 years in an industry. While the meaning and connotations can change from time to time, success has always been a focus area for me. From my childhood, I have always attempted to deliver my utmost best in whatever I take up, and the satisfaction which comes from giving one's best is what defines success in my eyes. If I am able to consistently perform in line with my capabilities, I believe I have succeeded in my endeavour. The same holds true when it comes to succeeding in an organisation. There is no point to competing with someone else to succeed at the workplace – my effort has always been towards bettering myself and remaining committed to the goals of my organisation – and this has helped me attain satisfaction in all walks of life. Persistence and a continued drive to excel have been my mantras for success.

***From my childhood, I have always attempted to deliver my utmost best in whatever I take up, and the satisfaction which comes from giving one's best is what defines success in my eyes.***



# Rituparna Mandal | Persistent, Focused and Instinctive

**How do you see yourself evolve as a person over the past years and where do you see yourself in the coming years?**

I would like to continue learning and creating value. Technology will continue to redefine the society in various ways and it is up to us to have the determination and ability to influence and create a positive impact.

**What are your three qualities that have helped you grow as a person and a professional?**

Persistence, adaptability, and a thirst for constant learning are the three qualities which have enabled me to grow in both, my personal and professional life.

**Please share with us some of your hobbies and interests.**

My hobbies revolve around nature and greenery. We have a beautiful garden at home and I enjoy tending to the plants while distressing. I also practice yoga and meditation to stay calm. My interests have become increasingly aligned with helping others, especially since the pandemic, and I try my best to help in whatever way I can, whoever I can. During the pandemic, I was involved in supporting the migrant working population with funds and organizing open kitchens and sponsoring PPE kits and materials for health workers. I also take interest in fostering stray animals in our vicinity as no act of kindness is too small.

**Please tell us something about your family. How has been their support in terms of helping you grow professionally?**

My father, who was the first engineering graduate from his village, is my hero and inspiration. My mother, who wished to see her daughter as the first woman engineer in the family, drove me to pursue engineering and follow my passion whole-heartedly. My parents have played a huge role in fostering my professional growth. Post marriage, my husband and sons have also been very supportive of my career and, as a household, we share all our responsibilities to ensure that no one is too burdened to follow their dreams or pursue their ambitions.

**How would you describe yourself as a person?**

As a person, I have always been focused, driven, persistent, instinctive and adaptable. These attributes have helped me stay rooted in a fast-paced sector while doing my best to create a niche for myself. Gratitude is another attribute I value in myself and I am very grateful for the opportunities I have received in my life and career.

**What are the three topmost important things for you in your personal life?**

Spending time with family, traveling and doing things together.

Spending time with oneself, I love art in all forms, read and write.

Staying healthy and connected with people who are important to us.

**Please share with us some of your personal milestones and their contributions towards developing your personality.**

As a child, I was always one of the toppers in class. I have always been hungry to be the best in everything I do and this has helped develop my personality while focusing on bettering myself rather than competing with others. My parents taught me to always give my 100% to everything I do, never have any regrets, and never pick the easy option. These life lessons have played a major role in developing my personality, both as an individual and as a leader. My stint as the head girl at school and class representative in college instilled in me discipline and leadership and these lessons have stayed with me throughout.

# Network Virtualization Holds the Key to Building Smart Networks: Nokia

*At a time when global telecoms community is looking at reducing their operational costs while at the same time, managing the ever growing network complexities in today's 5G era - they look for enabling business agility. This is where network virtualization is playing a critical role and holds the big key for building smart networks that are completely future-proof.*

*Samar Mittal, Vice President Head of Nokia Cloud Network & Services, MEA & India Market speaks with Zia Askari from TelecomDrive.com about the company's focus as an enabler for virtualisation of networks and its future plans.*

**With the wave of digital transformation across industries, as one of the leading players, how do you see the demand of virtualized networks going up?**

Businesses and industries have understood that digital transformation is critical to their long-term success and is the only way to manage the scope, scale, cost and business complexities in line with their business goals and strategies. Enterprises are now looking at their wide area networks (WANs) infrastructure for more than just connectivity. They need to offer a flexible environment and unify their entire network to provide the end-to-end application visibility and control required to deliver a range of services, or to provide programmable security across the entire network. CSPs are looking at



reducing the costs and managing the growing network complexities, to stay profitable, especially when seen under the light of 5G. They are looking at business avenues beyond connectivity. And for that, they need to be more agile, responsive and adaptable to customer needs.

This is what is driving the need and the demand for network virtualization. Network virtualization is the key to build smart networks that can address dynamic and diverse service requirements – be it defining new service capabilities and policies that can be applied consistently and seamlessly, scaling up/ down services, or moving network functions across

resources, or increasing operational efficiency with automation and cloud technologies, or making smart use of network data as a business enabler.

**What are the top use cases of virtualized networks? What are some of the latest technology trends in this segment?**

While the utility of virtualized networks is multi-dimensional, some of the trends and use cases that are seeing a lot of traction are:

- **Network Functions Virtualization (NFV):** Allows the separation of network services from the underlying hardware, which in turn,

allows to roll out new services dynamically without having to install dedicated hardware.

- **Software Defined Network (SDN):** Separates the control, data and management planes so that each layer can scale independently, thereby simplifying the overall network design and making it more programmable.
- **Automation:** Enables higher network efficiency and improved resource utilization, faster provisioning and roll out of services, traffic steering and routing among others
- **Edge computing:** Edge computing allows the processing and computing to happen at the edge of the networks for latency sensitive services.
- **AI and Analytics:** Turn network data into a powerful business enabler – driving improved performance, greater productivity, and a superior customer experience.

### What are the benefits of using virtualized networks for the companies?

Network virtualization will help companies and organizations to enable faster service delivery, reduce operating expenses and provide a more secure, stable, agile, and automated network. It will allow to build a network that is both customized and responsive to your enterprise's unique needs, without incurring the costs and complexities of a customized network. The organization can connect sites, workgroups, and applications faster and more cost-effectively and react to changes more easily owing to the inbuilt agility.

Not just that, the control - moves, adds, and changes in the network are under complete control and are centrally driven on a per-site

or whole-of-network basis. The provisioning of services gets lot faster with automation along with flexibility to move workloads to the edge where needed. Further, it also allows the businesses to move away from the proprietary equipment and instead adopt a more cloud-based infrastructure that allows them to be more flexible and use commodity hardware.

### How does Nokia help to maximize total network ROI and increase average revenue through virtual networks?

Nokia's SDN and NFV solutions reduce the operations' complexity and allow CSPs and enterprises to respond and adapt to the changing service environment, build scalable, secure and adaptive networks and realize the full benefit of virtualization. They allow the businesses to use cloud technologies, cognitive analytics, operational intelligence, machine learning, the Internet of Things (IoT) and enhanced security to bring more value to their customers.

Our solutions help our customers – be it the service providers or enterprises, evolve their networks to create new markets & reinvent existing ones and be prepared for the future to support new business models and adapt to changing customer demands.

### What are the leading solutions that Nokia is providing in the sector?

Nokia firmly believes in the benefits that virtualization will bring to the CSPs/Enterprise and their end-customers. Nokia offers multiple solutions that offers virtualization infrastructure and software services deploying and managing cloud native applications over it.

Nokia CloudBand infrastructure software, is a ready-to-use software solution geared towards customers who seek an easy way to build a

serviceable, highly available, secure, and protected virtual infrastructure that supports NFV and Containers that is simple to operate and is easily upgraded

From connectivity side, Nuage Network from Nokia, helps service providers, web-scale operators and enterprises unleash the power of the cloud by extending it to the branch. Our Software Defined Wide Area Networking (SD-WAN) solution gives the freedom and flexibility to connect sites, workgroups, and applications faster, more securely and more cost-effectively, react to change easily and respond to growth seamlessly.

Nuage Networks Virtualized Network Services (VNS) extends the power of SDN to create a seamless WAN that connects the datacenters to the business, regardless of location - enterprises can build their own infrastructure, or purchase VNS as part of a managed service offered by service providers. It seamlessly links the enterprise locations regardless of size or geography while reducing the requirement for customized networking.

We believe, the evolution to NFV/SDN will shift the way network services are designed, delivered, and assured. With ever-increasing customer expectations as well as competitive pressures, CSPs/Enterprises must move toward closed loop services-oriented operations. It enables CSPs/Enterprises to prioritize the resolution of customer-affecting service issues in automated fashion. Nokia offers Digital Operations Center (DOC) that provides a single pane of glass to manage entire life cycle of a service i.e., Design, Deploy and Assure. Digital Operations Center brings orchestration and assurance capabilities together to enable a new slice-based innovation ecosystem and new revenue opportunities by offering digital services to new industries and is based on various industry standards like ZSM, ETSI NFV, 3GPP, TMF etc.

# Gaming and 5G: MediaTek Reinventing the Network Experience



*Focusing its efforts on gaming, MediaTek is delivering lot of innovations such as its flagship HyperEngine for 5G, enabling gamers to benefit from the low-latency 5G and Wi-Fi connections with intelligent multi-network balancing, attuned resource management that helps sustain FPS while maximizing battery life.*

*Anku Jain, Managing Director, MediaTek India interacts with Zia Askari from TelecomDrive.com about the company's focus on delivering elevated 5G experience and how gaming is becoming an important 5G use case for customers.*

**Gaming is becoming a great use case to drive 5G experience for customers. How 5G will revolutionise smartphone usage and mobile gaming and what is MediaTek doing in this direction?**

Gaming is one of the fastest-growing industries in India, registering 40% growth in 2019–20. With over 300 million users, Indian gaming industry has surpassed that of the U.S. in the recent period. The growth is primarily driven by the proliferation of cheaper mobile broadband in India. As per the current industry estimates, phone-based gaming apps account for 86% of total gaming apps in 2021.

With 5G deployment the gaming industry will enter the next phase of growth, driven by the superfast, low-latent mobile broadband. The industry will also witness rapid adoption of

cloud gaming and eSports, which will accelerate the flow of investment to the sector. These developments will favour the market proliferation of 5G smartphones industry in India in the coming years.

With greater focus on gaming, MediaTek has enhanced its flagship HyperEngine for 5G, enabling gamers to benefit from the low-latency 5G and Wi-Fi connections with intelligent multi-network balancing, attuned resource management that helps sustain FPS while maximizing battery life, and new AI-based imaging enhancements to make use of MediaTek's powerful APU.

**How can technology companies take advantage of 5G and bring innovative 5G experience? How do you look at such developments as a technology enabler?**

**enabler?**

Look at the evolution that swept the telecom networks and see how they have helped the generations evolve over the past couple of decades. From 2G to 5G, we saw the dramatic pace of evolution in terms of technology and use cases – from voice to data, and now to a connected lifestyle, where everything from home appliances to vehicles and industrial robots to farmlands are controlled by a single smartphone. Chip is an integral part of these innovations. In fact, every new network technology brings a new set of requirements and with that a new set of use cases emerge. Thus, it is an opportunity for not only chip integrators but all associated companies like digital tech enablers, hardware/software firms, middleware integrators, and the like. We have witnessed the emergence of several startups in recent years, and

in the days ahead we will see more, especially in segments like gaming, metaverse, AI and IoT.

At MediaTek, we are prepared to address the market requirements arising from 5G innovations. Already we are associated with leading OEMs operating in India, providing them with the technology and hardware to enable them to bring the best devices to the market. As a unique approach to SoC development, we have opened our select Dimensity chip architectures to OEMs, especially those for cameras, displays, graphics, AI processing units, sensors, and connectivity sub-systems. These efforts will help foster further innovation and diversity in products.

### **How big is the 5G driven gaming market today? How fast is this growing?**

Globally 5G gaming is gaining wider acceptance. Though there are no specific data pertaining to 5G gaming, a report revealed by OpenSignal in early 2021 found that 5G gaming experience is excellent in top 5 countries where 5G deployment is in full swing, and the rest of the countries where 5G is being deployed are also trailing with remarkable progress in 5G gaming experience.

In India, 5G smartphones have already made their entry, with many of them promising excellent 5G gaming experience. Analysts believe that gaming will be one of the most important applications of 5G in India, and with the latest trends like cloud gaming and metaverse, the growth will be faster. With 5G, we can also expect eSports to become mainstream in India. Already the market has witnessed major collaborations and investments from leading gaming companies, network operators and sports companies. Going by the estimates of Internet and Mobile Association of India (IAMAI), India is estimated to have 650 million active gamers by 2025.

Comparing this with the recent report from Ericsson that 5G will carry more than half of Internet traffic in India in five years, we see great market opportunity for 5G gaming in India. It also opens new revenue stream for operators, cloud companies and related technology vendors, so ultimately it is a win-win scenario for all stakeholders.

### **What is your roadmap on 5G Gaming innovations? What are the top features gamers look in smartphone?**

MediaTek has realized the potential in mobile gaming long before. The Helio G series (with "G" for gaming) of SoCs was designed to address the gaming requirements in the 4G/LTE era. At the heart of these innovations was the HyperEngine technology which has a Networking Engine and a Resource Management Engine as its foundation. HyperEngine is now enhanced with several features to support the requirements of gaming in 5G era. The latest HyperEngine 5.0 can support lower-latency connections at 2.4GHz, 5GHz and 6GHz. It also comes with high-end UFS 3.1 storage and LPDDR5 memory that ensure ultra-fast data streams to accelerate apps, social feeds and faster FPS in games. With intelligent multi-network management, the technology ensures lower latency for smooth user experiences and maximized battery life. We have made the display more intelligent, with capabilities that automatically adjust the refresh rate to match the game frame rate detected, reducing power use to extend battery life.

The wish list of Gen Z gamers keep on expanding, so we expect more innovations to sweep smartphone arena in the near future, be it metaverse, AI or cloud gaming. This will necessitate further innovations, especially in areas like display, memory, connectivity and battery life. With regard to chip technologies, all

these developments mean further innovation in terms of CPU, GPU, memory attributes and energy efficiency. This means MediaTek has to continue the journey as the world's top chip innovator to bring incredible technologies to the market tailored for the incredible users.

### **What can we expect from MediaTek in the coming months? Tell us about your upcoming unique technologies, which will be available in the chipsets?**

With innovation as its lifeblood, MediaTek has been driving enhancements across the entire gamut of technologies powering the smart devices of the century. In gaming, we are currently focusing on HyperEngine to further enhance the gaming output, in addition to building new capabilities around latest trends in cloud, raytracing, AI, metaverse, and more. One of the latest innovations, for example, MediaTek's ray tracing SDK works with an effective denoising technology to remove irregularities and enhance visual quality. Raytracing is expected to be a major trend among flagship 5G smartphones in the coming months.

Additionally, we are aiming on innovations across key specs in smartphones including photography, video, processor speed and more. MediaTek's AI Super Resolution, for example, intelligently resizes video to match the display's native resolution. Other major technologies on focus include WiFi 7, AIoT, Edge and other innovations across smart devices spanning home, automotive, and connectivity segments. In WiFi 7, Multi-Link Operation (MLO) is an important innovation that allows aggregation of multiple channels on different frequencies bands at the same time, negotiating seamless network traffic even if there is interference or congestion.

# Fibre Deployment Enabling New Age Innovations: TSSC

*Growing demand for connectivity is now coming from not only bigger cities but also from small locations of the country and this is driving further developing rise in demand for optical fibre cable from the telecom and IT segment. Further to this, there is an increased adoption of FTTH (Fibre to the Home) connectivity and surging number of data centres that are driving optical fibre cables market in India over the coming years. Hence, such fibre deployment is enabling new age innovations. All this is creating huge potential for Telecom Sector Skill Council (TSSC) to enable workforce that can handle such fibre expansion and demand generation.*

**Arvind Bali, CEO, Telecom Sector Skill Council (TSSC) speaks with Zia Askari from TelecomDrive.com about the dynamics of optical fibre market and India's growing need for broadband access.**



**How do you anticipate the optical fibre market expanding in conjunction with India's growing need for broadband access, particularly in rural**

**areas?**

Rural India makes up almost 2/3rd of our total population. This also makes them one of the biggest untapped markets for India.

During COVID, we saw that data consumption increased across rural subscribers with the push for digital adoption. Currently, India's Rural Tele density as of Feb'22 was 58.50 %

which includes wireless & wireline. Rural Telephone Subscribers as of Feb'22 is 521.28 million.

Rural India's internet penetration rate climbed from 4% in 2007 to around 45 percent in 2021. Even though this data is low, they indicate that almost 50% of the population of 1.37 billion of people had access to the internet that year. All these indicators show how lower cost, and more service options are bridging the divide between rural and urban India. Use cases like tele-medicine will soon be crucial to provide vital first aid in critical times. Fibre will make this all possible while further lowering the costs.

**India is a hub of talent force and with the advent of new-age technologies and optical fibre shaping up to be an important sector for the companies and the government to invest, how do you plan to leverage the workforce and make them ready to be deployed into the field?**

India optical fibre cables (OFC) market stood at INR 7,000 crores in 2019 and is projected to grow at a CAGR of 19.7% to reach INR 16,500 crore by 2024. This growth will be a result of rising investments in OFC network infrastructure by the Indian government along with increased internet penetration across the country. This is in-line with government initiatives such as Smart Cities, Digital India and AtmaNirbhar Bharat.

Moreover, growing demand for OFC from the telecom, IT etc., rising number of mobile devices, increased adoption of FTTH (Fibre to the Home) connectivity and surging number of data centres are further anticipated to fuel optical fibre cables market in India over the coming years.

Talking about new-age technologies, we will soon see auction of 5G spectrum which will boost industrial and commercial adoption of future tech like IoT, ML/AI, drones,

blockchain, M2M communications, AR/VR/XR etc.

**The Indian optical fibre and accessories market has seen a surge in the adoption of optical fibre-based networks such as fibre-to-the-home (FTTH) connectivity and other cutting-edge technologies. What are the opportunities that you envisage and how do you see the demand going up?**

FTTH has become synonymous with internet in most urban dwellings in our country. There is an increase in demand for fibre salesman, fibre splicers, fibre technicians and broadband technicians across India. Companies are hiring at a growing rate. We are currently fulfilling demands in rural areas in over 15 states especially in Bihar, Chhattisgarh, and Jharkhand. Companies have already started mobilizing in villages.

Apart from the big telcos and ISPs, some of the major players operating in India OFC market are Sterlite Technologies, Himachal Futuristic Communications, Birla Cables, Vindhya Tele links Limited, etc. RailTel has also been a big part of the Bharat Net project which aims to fiberize internet across India improving last mile connectivity. With so many companies expanding their services, jobs are being created in rural India as well.

**How do you envision various government initiatives such as Bharat Net contributing to the realisation of the Digital India vision in the future years?**

Digital India has been a phenomenally successful initiative for creating a quantifiable footprint of Indian citizens. This not only makes their daily activities easy by means of digital payment gateways, fuel businesses to scale up on digital platforms (e.g., Paytm, bharatpe etc.) but also helps connect communities

to services and information. This has resulted in the boom of opportunities and cross-sectoral verticals like edtech, fintech, Healthtech etc.

Digitization creates accountability, reduces capital and operational expenditure, and requires less manpower to sustain a service or product. This gives an opportunity for MSMEs to compete on both national and international platforms. Moreover, personal finance has become accessible to the common man be it financing, easy monetary transactions via UPI and various apps also helping manage personal finance.

**With rising demand for fibre deployments in sectors such as railways and defense, does India have enough skilled labor to deploy the infrastructure, and how do you think the demand/supply gap can be filled?**

Currently, manpower in fibre is inadequate. This has led to delayed timelines on many govt-led projects. What we need is to cultivate a sense of ownership for these workers. Most of these workers are contractual and their job security depends on multiple factors like location, duration of project and salary. Once projects are completed, they find it hard to work in the same line as projects are spaced across India and it isn't easy to relocate especially for those who are supporting their families.

This leads to them taking up other jobs to sustain a living. What we need is to conduct educatory induction programs for the candidates to help them map a trajectory for their professional career. For contractual workers already in the workforce, standardizing their skills through programs like Recognition of Prior Learning (RPL) under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY). This extra step has been shown to reduce worker attrition and will help provide continuity for both employees and employers.

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