GENESIS MAGAZINE MADE FOR INNOVATORS BY ROCCO

ROCCO

GENESIS

GENESIS SEVILLE 2024
STEPPING INTO THE THE LIONS DEN

SETTINGS THE SCENE: WHICH MNOs HAVE SUNSET 2G & 3G

INDUSTRY IMPACT: THE INNOVATORS 2024

5G SUNRISE: BEACONS OF HOPE & LEADERSHIP

FEB 2024, ISSUE 6

ROCCO

GENESIS

THE INNOVATORS - GENESIS HACKATHON - ROCCO IOO - TELCOBOOST TALKS - VISIONARIES GALA, COLOCATED WITH THE IO PLENARY

SEVILLE, SPAIN

20TH-21ST MAY

2024

CHECK THE SPONSORSHIP OPPORTUNITIES BY WRITING TO GENESIS@ROCCO.GROUP

THE ISSUE...

While lighthouses illuminate physical pathways, telecoms illuminates digital ones. Welcome to the first edition of 2024 of the Genesis magazine....

As we enter a new year there's always so many voices telling us what to be watching, what will be the biggest topics for the year ahead? Will Mobile World Congress surprise us with something new? What remains true, is that in the buffet that is 2024, we already filled our plates in the first round and unusually for us, we may not go back for second helpings. There's simply so much to work on...

We all expect 2024 to bring 5GSA sunrises, 2G/3G sunsets, new AI applications, RCS (will Apple or won't they), a focus on Mixed and augmented realities (thinking about the Apple Vision Pro again, but wow the cost!). It is a busy year true, but at the same time we all know that there's always at least one-small-shift which takes us by surprise each year, that ends up being significant to our industry, what will it be this year?

What we need more of in 2024 is relevant guidance, clarity, hope, what beacons will be there in the darkness to provide direction in our business challenges? The annual Genesis event of course.

In The Innovators 2024, there's a very broad and mixed selection of solutions going through to Seville this year, some quite radical.. Also the Challengers for the Genesis Hackathons have some interesting requirements for the companies registered to take part. The companies last year really made waves presenting their solutions at IO and GSMA WAS.

And finally we will soon know who are the top 100 people in the telecoms industry according to the ROCCO IOO. 25 of whom will receive awards in Seville. There will be quite some networking opportunities I can tell you.

I have the feeling Genesis can be that beacon, lighting up innovative ideas and people which for many will make for a very interesting 2024.

JASON BRYAN / JASON@ROCCO.GROUP

Editor-in-Chief

ROCCO CALENDAR

February 2024

M	T	W	T	F	S	S
			01	02	03	04
05	06	07	08	09	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29			

01 02 The Innovators Showcase & voting starts

14 ROCCO IOO voting ends

29 ROCCO IOO Jury Day

March 2024

M	T	W	T	F	S	S
				01	02	03
04	05	06	07	08	09	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

04
- ROCCO IOO Report release
- Genesis Hackathons Challenge webinar - Hackathon period starts

11 The Innovators voting ends

12 The Innovators shortlist release

22 Hackathon period ends

April 2024

M	T	W	T	F	S	S
01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

22 - 10 Hackathon judging period

10 Hackathon Shortlist release

May 2024

M	T	W	T	F	S	S
		01	02	03	04	05
06	07	08	09	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

20 - 24 Genesis 2024 & IO Plenary #06 co-located

21 Visionaries gala

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GENESIS

20th - 21th May 2024

Seville, Spain

ROCCO Genesis is an event designed to bring three perspectives on the challenges our industry is facing: innovative ideas, strategic insights, and training.

Genesis 2024 will be co-located with the IO Plenary #06.

www.innovativeoperators.io

IO Plenary #06

22th - 24th May 2024

Seville, Spain

ROCCO IOO is a selection of the 100 most influential people in Roaming, Interconnect, Fraud Prevention and Messaging based on industry opinion, nominations and voting.

See page 32

The Innovators is a research initiative conducted by ROCCO to identify and provide visibility to the most innovative solutions from Vendors and MNOs in our industry. This initiative creates a much-needed space for awareness of what's happening industry-wide.

See page 42

GENESIS Hackathon

The ROCCO Genesis Hackathon has created a new way to look at Innovation in our industry.
The hackathon focused on addressing two of the biggest challenges the industry is facing in the Roaming and Messaging areas. This Year Genesis hosts the final Shortlisted Solutions for the Genesis Roaming and Messaging Hackathons.

See page 48

The MNOs and Vendors taking part in The Innovators & the Genesis Hackathons will present to a panel of Lions who will give feedback to them live in front of the Genesis audience.

See page 53

The official Visionaries Gala from ROCCO will take place on May 21st and it will be a dinner where we will present more than 40 awards to The Innovators 2024, the winners of the Genesis Hackathon, the top 25 of ROCCO IOO 2024 and Tier 1 Vendors from our Vendor Benchmarking Reports.

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THE CHANGING FACE OF TELECOMS NEEDS A REGULATORY RESET

"IT'S BEEN SINCE THEN THAT ROAMING FOLK HAVE VIEWED THE REGULATOR AS THEIR BIGGEST NEMESIS."

BY DHIRAJ WAZIR,
CEO ROCCO STRATEGY,
PROGRAMME DIRECTOR IO

TALKING ABOUT ROAMING REGULATION

It was way back in 2007 when the EU commission announced its first version of the EU Roaming regulation. Of course the European MNOs not only felt the pinch but knew that there had been a siesmic shift in the industry. Although most MNOs suspected that this could be the beginning of the end of the golden era of Roaming, no one at the time could've imagined the widespread impact it would have globally.

Implementing EU regulation was comparatively easy, due to the legal structure of EU and with BEREC as a body which could co-ordinate and pull things together. As other parts of the world do not have a similar legal structure, where in a sense The European commission can dictate policy and BEREC can implement it, one certainly could not have imagined how varied regions of the world would be inspired by the EU Roaming regulation and to be frank implement some really bizarre rules. As an example in West Africa, MNOs are obligated to provide their customers the highest local tariff of the visited country. It's

"ALTHOUGH MOST MNOS SUSPECTED THAT THIS COULD BE THE BEGINNING OF THE END OF THE GOLDEN ERA OF ROAMING, NO ONE AT THE TIME COULD'VE IMAGINED THE WIDESPREAD IMPACT IT WOULD HAVE GLOBALLY."

well beyond the scope of this article to cover the totally illogical scenarios this can lead to.

Even the EU regulation which just started with caps has evolved into Roam Like at Home while on the way also flirting with the gobsmacking concept of introducing an Alternate Roaming Provider, where MNOs were forced to let a third party provide Roaming to customers.

Generally mature regulators shy away from putting price controls unless they deem that the entity being regulated has "significant market power", and at the time the regulators looked at Roaming as a distinct service from domestic connectivity and felt that as customer was tied to the domestic operator for Roaming services as well, it gave the MNO significant market power which in turn justified price controls.

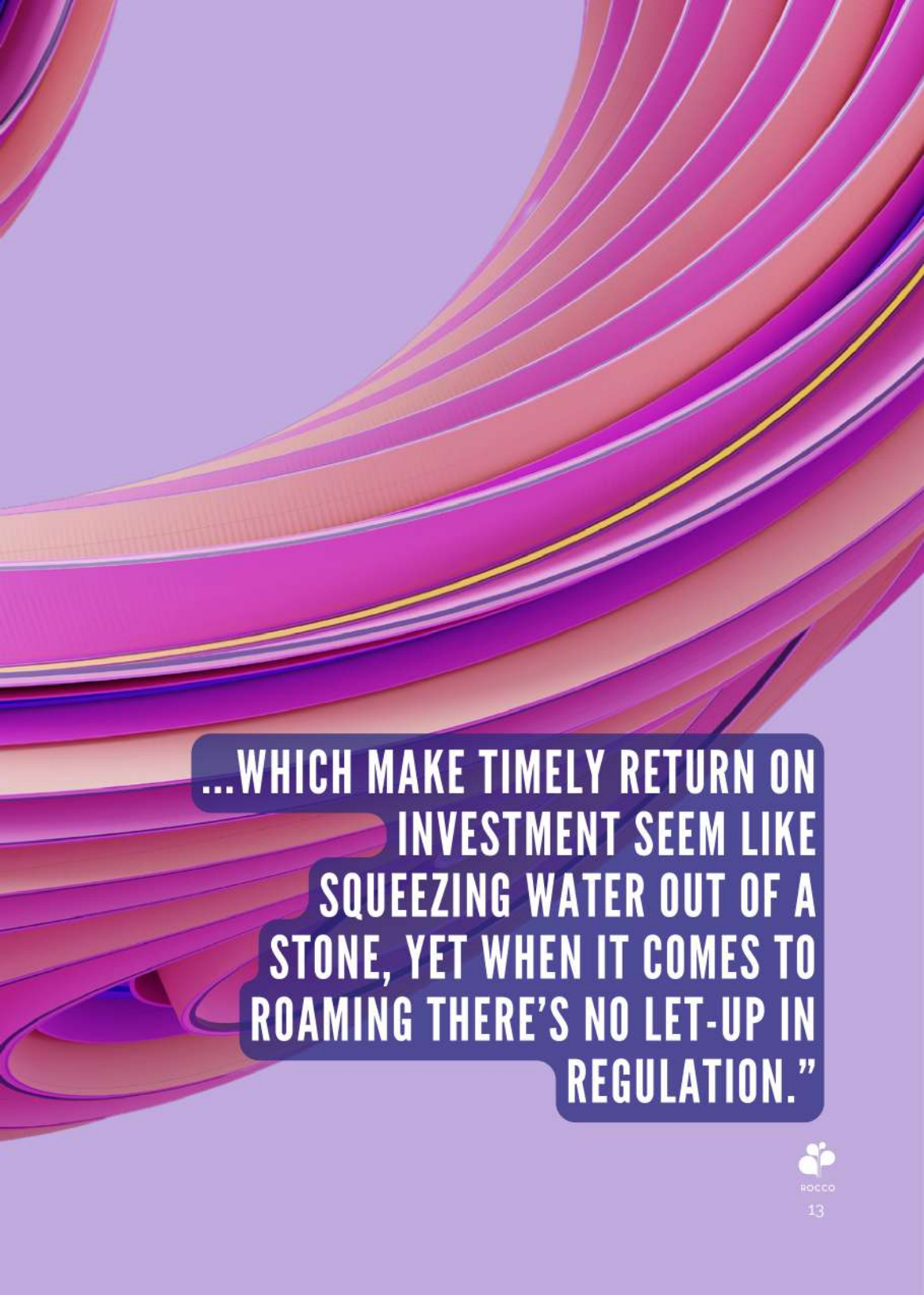
It's been since then that Roaming folk have viewed the regulator as their biggest nemesis.

Remember this was 2007, when Nokia's N95 was the most popular handset and the idea that a handset manufacturer could make an MNO kneel before it was a thought more alien than a Klingon fighting a Vulcan (I write in the hope that some Star Trek fans still survive). Today MNOs face negligible growth, increased spectrum costs and investment cycles which make timely return on investment seem like squeezing water out of a stone, yet when it comes to Roaming there's no let-up in Regulation. So having significant market power (speaking non-technically this time) comes across as a cruel joke.

However, if we step back and look at the evolving picture, perhaps it's time for Roaming managers to relook where they sit in the equation with the various stakeholders.

Since 2007 the power and leverage that Apple has managed to gain in the telecom space is no longer surprising or even news, at the time of writing this, it is the second biggest company in the world by market capitalisation valued at nearly $2.9 Trillion. Even the biggest group of MNOs put together pale into insignificance when faced with them. However recently there's were two "feeble" announcements which made anyone paying attention sit up. First it was Apple adopting USB-C charging cables and moving away from its proprietary Lightening cables which made everyone chuckle, and then came the big one ... Apple announcing that they would also be supporting RCS. Most people in the industry would have thought that there was a bigger chance of hell freezing over. No one doubts for a second that this was only due to regulatory pressure.

“TODAY MNOS FACE NEGLIGIBLE GROWTH, INCREASED SPECTRUM COSTS AND INVESTMENT CYCLES...


...WHICH MAKE TIMELY RETURN ON INVESTMENT SEEM LIKE SQUEEZING WATER OUT OF A STONE, YET WHEN IT COMES TO ROAMING THERE'S NO LET-UP IN REGULATION."

So really if there's a (not so) new bad-boy in town, is it not time for the Roaming managers to re-evaluate their relationships with their regulators.

One of the biggest challenges Roaming teams face is that OEMs like Apple and Samsung first certify MNOs and restrict where their devices can be used. This was a major issue when it came to VoLTE Roaming, in fact you may remember that initially MNOs had to ship handsets to their Roaming partners for testing. Although this has now been resolved we see the OEMs again institute the same policies for 5G as well … their devices just won't function with a 5G network unless certified. This puts MNOs in a very difficult position and makes launching new services extremely challenging. In fact from our experience in VoLTE Roaming we saw that if you are a small independent network, you really have no chance of getting the ear of the major OEMs and you could be waiting for months if not years before they decide to shower you with their generosity of certification. This obviously has an inordinate impact on service and hence end customers.

It's time for regulators to offer a helping hand and end this practice by OEMs of holding MNOs especially the small ones to ransom.

"IT'S TIME FOR REGULATORS TO OFFER A HELPING HAND AND END THIS PRACTICE BY OEMS OF HOLDING MNOS ESPECIALLY THE SMALL ONES TO RANSOM."

Another pet peev of most operators has been the non-level playing field that exists on how MNOs are regulated and how OTTs are. In many countries MNOs have had to develop specific solutions to provide Lawful Intercept for VoLTE to the local legal authorities. This in fact has handicapped a fair few operators and held them back from launching VoLTE Roaming. On the other hand, OTT players are free to offer voice with no such obligation.

The primary aim of most regulators is to ensure they implement rules and policies for the benefit of the end customers, in many instances they do this by encouraging competition and ensuring there's a level playing field. This is extremely critical for a healthy sector which then can continue to grow and innovate and provide new services to the country's citizens.

The current regulatory regimes were shaped in an environment where a very limited number of telecom companies provided telecom services, but this is not the case anymore, the landscape is now littered with OTTs, MVNOs, MVNEs, Aggregators, eSIM providers, not only that, the devices are dominated by just iOS or Android and just a few globally dominant players, arguably creating a duopoly. I don't believe the MNOs have done enough to educate and lobby the various regulators to make them aware of how lopsided the industry is becoming which is totally to the detriment of the end customer.

"I DO BELIEVE HELPING THE REGULATORS TRANSITION TO THE NEW WORLD OF TELECOMS AND RE-SET TO CREATE A LEVEL PLAYING FIELD IS EXACTLY THE RIGHT ASK AND SOMETHING THE MNOS NEED TO START TO DO IMMEDIATELY."

There has indeed been a massive effort by MNOs to make a case for revenue share from the likes of Netfix and Youtube, as MNOs argue that the investment they put in to build capacity just leads to these content providers making money without having to pay their "fair share" for delivery of the content.

Personally, I don't believe it's the right argument, after all the builders of a big house don't ask the furniture companies for a revenue share. The case I believe is being made more because if successful, the revenue share could be quite lucrative and not necessarily because it's a fair ask.

It may not make big headlines and may not bring millions of dollars in direct revenue to MNOs but I do believe helping the regulators transition to the new world of telecoms and re-set to create a level playing field is exactly the right ask and something the MNOs need to start to do immediately.

Connect and follow Dhiraj Wazir on LinkedIn:

ROCCO RESEARCH INSIGHT

MNOS ROAMING REVENUES

ROCCO Research Reports

TALENT SHOW

INDUSTRY COLLEAGUES ON THE MOVE!

Industry Colleagues on the Move!

Industry Colleagues on the Move!

ROCCO

Industry Colleagues on the Move!

Telecommunications is a constantly evolving industry, with new technologies and business models emerging all the time. As a result, it's no surprise that many professionals in the sector are always on the move, seeking out new challenges and opportunities to advance their careers. In this section, we'll be taking a closer look at some of the latest movements in the world of Roaming, Interconnect, Messaging and Fraud and Security, as industry colleagues take on new positions and responsibilities.

In this section, we'll be shining a spotlight on some of the most notable individuals who have recently made a move in the sector.

To all of them, congratulations!

ABDUL RAHMAN TOURJMAN

SENIOR BUSINESS DEVELOPMENT EXECUTIVE MONTY MOBILE

Last December, Abdul Rahman Tourjman was promoted to Senior Business Development Executive at Monty Mobile. Monty Mobile is a GSMA certified Open Connectivity SMS Hub and Roaming Broker, working closely with worldwide mobile operators to facilitate the international flow of data, voice and SMS across global markets.

Previously, Abdul was Senior Account Manager at Monty Mobile.

Congratulations on the promotion, Abdul!

ALEN TESKERA

BUSINESS ANALYST & SENIOR TECHNICAL CUSTOMER EXPERT NEXTGEN CLEARING LTD

This March, Alen is celebrating 5 years with Nextgen Clearing Ltd working as both a Business Analyst, as well a Senior Technical Customer Expert. Nextgen Clearing is the market-leading provider of global roaming services. They operate across 20 countries and employ almost 300 talented people.

Previously, Alen was working in various Roaming positions for Croatian Telecom, a part of global Deutsche Telekom (T-Mobile), which means he has, in total, more than 15 years' experience in the exciting and ever-changing world of Roaming.

Congratulations on this achievement, Alen!

ALEX PEREIRA

DIRECTOR OF OPERATOR PARTNERSHIP LATAM AT INFOBIP

Last September, Alex was promoted to Director of Operator Partnership LATAM at Infobip. Infobip is a global leader in omnichannel engagement powering a broad range of messaging channels, tools and solutions for advanced customer engagement, authentication and security.

Previously, Alex was Head of Operator Partnership, Americas at Infobip.

Congratulations on the promotion, Alex!

ANURAG AGGARWAL

CHIEF REVENUE OFFICER (ENTERPRISE BUSINESS) GMS

Anurag Aggarwal has recently moved to GMS as Chief Revenue Officer (Enterprise Business). GMS brings the mobile messaging ecosystem together by providing a single access point for messaging traffic exchange between mobile operators and enterprises. GMS' enterprise communications suite integrates AI technologies and CPaaS offerings to help brands improve customer experience.

Previously, Anurag Aggarwal was Chief Growth Officer at Globe Teleservices Pte.

Congratulations on this achievement, Anurag!

ASTRID K. GARCIA

NOC ENGINEER AT COMFONE

Last September, Astrid was promoted to NOC Engineer at Comfone AG. Comfone has built the foundation for providing a complete portfolio of first-class roaming services. With their Headquarters in Bern, Switzerland and regional offices covering Europe, Latin & North America, Central Asia and Asia Pacific, Comfone is well positioned to serve our global customer base of 600+ customers in over 200+ countries.
Previously, Astrid. was IREG Engineer Roaming International at Comfone AG.

Congratulations on the promotion, Astrid!

ATAKAN LIMAN

HEAD OF SALES GLOBAL MESSAGING QOOLIZE LLC

This January, Atakan has been promoted to Head of Sales Global Messaging at Qoolize LLC. Qoolize provides comprehensive services in Global Internet Access, A2P SMS, and voice solutions.
Previously, Atakan was Key Account Manager at Qoolize LLC.

Congratulations on the promotion, Atakan!

BIRGIT PRÆST

ROAMING MANAGER NUUDAY

Last November, Birgit Præst moved to Nuuday as Roaming Manager. Nuuday provides digital services, cloud solutions and entertainment to all of Denmark.
Previously, Birgit was the Scandinavian Implementation Manager at Telenor.

Congratulations on this achievement, Birgit!

DANIEL EICHERT

INTERNATIONAL SENIOR ROAMING AND M2M NEGOTIATOR (CHILE AND PERÚ) ENTEL GROUP

Last December, Daniel Eichert was promoted to International Senior Roaming and M2M negotiator (Chile and Perú) at Entel Group. ENTEL Group is a leading technology and telecommunications company with operations in Chile and Peru, offering mobile and fixed connectivity services, as well as a wide range of IT and digital services for individuals, businesses, and large corporations.

Previously, Daniel Eichert was International Roaming and M2M/IoT Negotiator (Entel Peru) for Africa, Europe and Asia at Entel group.

Congratulations on the promotion, Daniel!

GUNEL ALIYEVA

PARTNER SUCCESS MANAGER VOX SOLUTIONS

Last September, Gunel Aliyeva moved to VOX Solutions as Partner Success Manager. VOX Solutions optimises, accelerates and simplifies International Voice and Messaging through innovating in technology, platforms and processes. They serve operators, carriers, aggregators and enterprises worldwide. Previously, Gunel was Sales & Business Development at EDCH.

Congratulations on this achievement, Gunel!

JAMES WILLIAMS

VICE PRESIDENT OF BUSINESS DEVELOPMENT XCONNECT

This January, James has moved to Xconnect as Vice President of Business Development. XConnect is a trusted provider of global network and subscriber information, based on privacy compliant phone number data that includes number portability and risk properties, to optimise global communication services.

Previously, James was Director of Programmes at Mobile Ecosystem Forum.

Congratulations on this achievement, James!

JOHN MURTAGH

CTO OF SMSHIGHWAY

Last July, John has moved to SMSHighway as CTO. SMShighway uses mobile technology to connect enterprises to their clients. Combining a world class network directly with over 200 Mobile Network Operators, they create services designed to make it easier for their customers to transact and communicate with their clients.

Previously, John was Senior Partner products at Infobip.

Congratulations on this achievement, John!

KHALED ALKUWAIKBI

DIRECTOR OF WHOLESALE RESEARCH, REPORTING AND BI MOBILY

This December, Khaled has been promoted to Director of wholesale Research, Reporting and BI at Mobily. Mobily provides integrated services for three main sectors, individuals, businesses, and carriers. It has one of the largest wireless networks by coverage in Saudi Arabia as well as the region, and one of the widest FTTH networks, in addition to one of the largest data center systems worldwide.

Previously, Khaled was Wholesale International Roaming - Director at Mobily.

Congratulations on the promotion, Khaled!

LUANNA LUNA SENA

SOLUTIONS ENGINEER - RELATIONSHIP MANAGER AND PRESALES ACTIVITIES CELLUSYS

Last September, Luanna moved to Cellusys as Solutions Engineer, focusing on presales activities and working closely with customers. Cellusys designs and delivers solutions that give operators clear insights and comprehensive control over their signalling, with a focus on security, roaming, SMS monetisation and analytical applications.

Previously, Luanna was Senior Sales Executive at China Mobile International UK.

Congratulations on this achievement, Luanna!

MAMADOU SELLOU DIALLO

HEAD OF WHOLESALE AND ROAMING FREE AU SENEGAL

Last September, Mamadou was promoted to Head of Wholesale and Roaming at Free au Sénégal. Free in Senegal is a global mobile telephony operator in Senegal. It has over 4 million daily customers in mobile telephony, Internet and financial services. Since the launch of its 4G+ service, Free in Senegal has set itself the goal of bringing the digital world to the people and businesses of Senegal.

Previously, Mamadou was the Roaming Supervisor at Free au Sénégal.

Congratulations on the promotion, Mamadou!

MARCO HOFFMAN

LEAD OF THE IT DEPARTMENT SWISSCOM

Last September, Marco was promoted to Lead of AIT Department at Swisscom. Swisscom is Switzerland's leading telecoms company and one of its leading IT companies.

Previously, Marco was Senior Roaming Manager at Swisscom.

Congratulations on the promotion, Marco!

MICHAEL DOWNS

VP SALES -EUROPE AT SHIELD-IOT

Last September, Michael Downs moved to Shield-IoT Ltd as VP Sales - Europe. Shield-IoT provides cellular IoT operators with the capability to address their enterprise customer cybersecurity and compliance concerns with an enterprise-grade, AI Asset Intelligence & Threat Management software. With Shield-IoT, operators can gain the trust of IoT enterprise customers and accelerate the adoption rate of cellular IoT services. Previously, Michael Downs was Vice President of Sales at Cellusys.
Congratulations on this achievement, Michael!

MIHAI LUCA

SYSTEM ADMINISTRATOR AT POST LUXEMBOURG

Last December, Mihai Luca moved to Post Luxembourg as System Administrator. POST Luxembourg is the leading postal and telecommunication services operator in the Grand Duchy of Luxembourg. POST Luxembourg also offers a wide range of financial services and philately. Previously, Mihai Luca was Business Analyst at RoamsysNext.
Congratulations on this achievement, Mihai

NILS ZIMARA

HEAD OF ROUTING AT IBASIS

This January, Nils moved to iBASIS Business Messaging as Head of routing. iBASIS Business Messaging is a specialized global messaging portfolio dedicated to delivering scalable and secure SMS solutions for medium to large enterprise customers. Previously, Nils was Business Development Manager - EMEA at Twilio.
Congratulations on this achievement, Nils!

OBAID RAHMAN

HEAD OF INTERNATIONAL WHOLESALE DU

In December 2023, Obaid Rahman has moved to du as Head of International Wholesale. du is a reliable telco and ICT player shaping the future of communication and an integral driver of the UAE's economic, social and digital transformation. Thriving on digitally innovating all facets of the contemporary telecom experience, it touches the lives of millions of customers everyday as a dedicated enabler of connectivity, continuity and growth across consumer and enterprise segments. Whether delivering state-of-the-art smart city infrastructure, bespoke enterprise ICT solutions, government communications, secure data solutions, or the very best in home entertainment and value.

OLIVIER BOUCAUD

CCO OF NEXTGEN CLEARING LTD

Last July, Olivier Boucaud moved to Nextgen Clearing Ltd as CCO. As a passionate, inspirational and results-oriented leader, with the ability to navigate and lead in diverse cultural and business environments, Olivier is a great addition to the talented team at Nextgen.

Before joining Nextgen in 2023, Olivier was CCO for Comfone in Switzerland.

Congratulations Olivier!

RICARDO BONASSI

SR. DIRECTOR LATAM BUSINESS DEVELOPMENT AND MARKETING NATIVEMSG

Last November, Ricardo has moved to nativeMsg as Sr. Director LATAM Business Development and Marketing. NativeMsg specializes in creating innovative conversational experiences for businesses using artificial intelligence (AI) and rich messaging channels.

Previously, Ricardo was the Director of Market and Product Development at Mobile Ecosystem Forum.

Congratulations on this achievement, Ricardo!

SARAH BARAKAT

DIRECTOR OPERATOR PARTNERSHIP MONTY MOBILE

Last October, Sarah was promoted to Director Operator Partnership at Monty Mobile. Monty Mobile is a GSMA certified Open Connectivity SMS Hub and Roaming Broker, working closely with worldwide mobile operators to facilitate the international flow of data, voice and SMS across global markets.

Previously, Sarah was Deputy Director Operator Partnership at Monty Mobile.

Congratulations on the promotion, Sarah!

STUART MITCHELL

VP OF STRATEGY
ESIM GO

Last December, Stuart moved to eSIM Go as VP of Strategy. eSIM Go removes obstacles to MNO technology adoption, collaborating with operators to create, test and launch compelling digital mobile offerings that would otherwise remain on the drawing board.

eSIM Go's significant domain expertise, flexibility and resources make them a good partner to drive MNO innovation and go-to-market.

Global brands in travel, MNO/MVNO, fintech among others trust eSIM Go to generate revenue and increase customer loyalty, ensuring quality and choice based on eSIM data bundles from over 1,000 Tier 1 operator networks in 150+ countries.

Previously, Stuart Mitchell was Global Product & Business Development, Rich Messaging at Sinch.

Congratulations on this achievement, Stuart!

VIVIAN JONES

REGIONAL VICE PRESIDENT
TWILIO

Last November, Vivian moved to Twilio as regional vice president of Twilio for LATAM. Jones will lead Twilio's strategy, operations and growth in the Latin American region focusing on major markets in Brazil, Colombia and Mexico. Twilio enables companies to use communications and data to add intelligence and security to every step of the customer journey, from sales to marketing to growth, customer service and many more engagement use cases in a flexible, programmatic way. Previously, Vivian was LATAM VP at Infobip.

Congratulations on this achievement,Vivian!

ROAMING & INTERCONNECT SUPPLIERS

ROCCO Research Reports

ROCCO 100 2024

ROCCO 100 IS A TIME TO PAY TRIBUTE

www.roccoresearch.com/rocco-100/

> Roaming and Interconnect weren't built in a day. They have existed for over 30 years and for the first time, we would like to recognise the people who have made our industry what it is today, the 100 most influential people in Roaming and Interconnect.

What's really special about this community is the many outstanding people. The time has come to reward those colleagues who have made an extraordinary contribution to our industry between 2022 and 2023.

On February 14th the voting phase will end, and the analysing phase will start. The analysis stage runs between 14th February and March 4th 2024. On February 29th, we will have the Jury Day, where the candidates will be anonymously evaluated by the **ROCCO IOO Jury**.

As a result of these analyses, on March 4th, the list of the 100 most influential people will be released in the ROCCO IOO Report (ranked in alphabetical order).

The top 25 most influential people will be awarded at the Visionaries Gala on May 21st as part of the **Genesis 2024 event.**

ROCCO IOO TIMELINE

18TH SEPT - 6TH NOV 2023	6TH NOV 2023 - 14TH FEB 2024	FEB 29TH 2024	MARCH 4TH 2024	MAY 21ST 2024
1. NOMINATIONS	2. VOTING	3. ANALYSIS	4. RESULTS	5. RECOGNITION

www.roccoresearch.com/rocco-100/

MEET THE ROCCO 100 JURY

Charlotte Schoenmakers

Charlotte Schoenmakers is a seasoned corporate communications and change consultant, renowned for her extensive expertise in navigating complex transformations within diverse national and international organizations.
Born in a picturesque Dutch village, Charlotte pursued her passion for understanding societal dynamics by earning a Bachelor's in Social Sciences from Utrecht University, followed by a specialized license in Corporate and Change Communications from Amsterdam University.
With over 15 years of hands-on experience spanning influential roles at Dutch Railways, Dutch Government, Rabobank, and other prominent entities, Charlotte honed her craft in driving impactful change trajectories. Around 11 years ago, she expanded her focus to personal development, mastering executive coaching, group facilitation, and somatic leadership techniques.
Currently based in Spain, Charlotte operates as a freelance consultant, empowering individuals and organizations within the green and blue economy. Her approach centers on fostering resilience amid change, equipping individuals with the tools to not just adapt to external shifts but also to foster intrinsic alignment and preserve their identity throughout the transformative journey.
Known for her innovative perspective, Charlotte thrives on leveraging disruption and embodiment techniques to catalyze growth, facilitating a paradigm shift from comfort zones to realms rich in learning and accelerated development.

www.roccoresearch.com/rocco-100/

MEET THE ROCCO 100 JURY

Inés Martínez Corts

Inés Martínez Corts is a distinguished academic with a degree in Psychology, Master degree in Human Resources, and a PhD in Social Psychology (awarded Extraordinary Doctorate from the University of Seville).

Currently, she works as an academic at the Faculty of Psychology at the University of Seville, she is a key member of the INDRHO Group and the research team at the Gender Observatory Laboratory of the Andalusian Institute for the Prevention of Occupational Risks (Laboratorio–Observatorio de Salud Laboral desde la Perspectiva de Género de Andalucía (LAOGEN)). Her extensive career spans teaching, research, and management across three universities. Noteworthy achievements include creating a Guidance Office for students, co-creation the Master in Gender and Equality, and leading the Official Master in Psychology of Organizations and Work for over 9 years.

As a principal researcher, she has contributed significantly to competitive projects at Europe and Spain, particularly focusing on health and working conditions, gender gap, leadership... She has presented her research at over 40 international conferences, authored numerous publications, and been a guest speaker at more than 20 conferences on gender, work-life balance, and human resource management.

MEET THE ROCCO 100 JURY

Charles Towers-Clark

Having sold his company, Charles is presently engaged in doctoral research at Warwick Business School, focusing on the impact of automation on proactivity within organizations, particularly in the context of AI. Additionally, he provides advisory services to organizations on this topic.

As a Forbes contributor and international speaker, Charles has previously served as Chairman of Pod Group, an advisor to InnovateUK, and authored 'The WEIRD CEO'. He is recognized as an expert contributor to national and international press discussions on the future of work and the implications of AI, including BBC Radio 4's 'Positive Thinking, Keeping Humans Relevant At Work', where he participated in a 30-minute discussion on human skills in the workplace.

His interest in this area stems from his experience as CEO of Pod Group, where he implemented a change process to promote individual initiative and responsibility in anticipation of AI, including changes to the work environment and even allowing employees to choose their own salaries.

www.roccoresearch.com/rocco-100/

HOW THE ROCCO 100 AWARDS ARE MADE

The ROCCO 100 Award

They're only received by the top 25 from the ROCCO 100.
The awards are made of solid bronze and weigh 3 kilos, and they are based on the classic "brick" phone.

The Creation Process

First, you make a mould, then a wax casting. The second step is a bronze casting. It goes through a quality control. To conclude the process, finishing and detailing.
They take over a day to manufacture.

LIKE THE ROCCO 100 EACH AND EVERY AWARD IS UNIQUE

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BENCHMARKING REPORT
ROCCO
VISIONARIES
Gala
GENESIS
21ST MAY 2024
SEVILLE, SPAIN

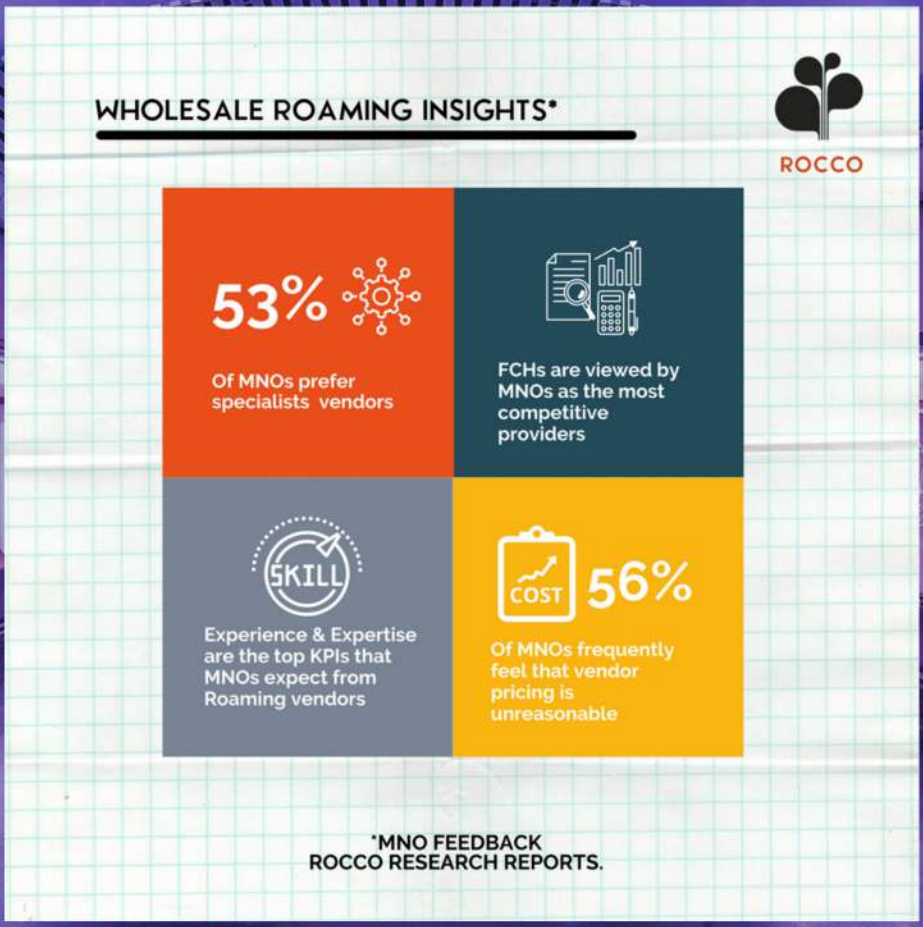
HELD IN HACIENDA AZAHARES

THIS YEAR'S THEME: "FLAMENCO PASSION"

THE DRESSCODE IS RED & BLACK: FLOWERS, FANS AND POLKA DOTS

ROCCO RESEARCH INSIGHT

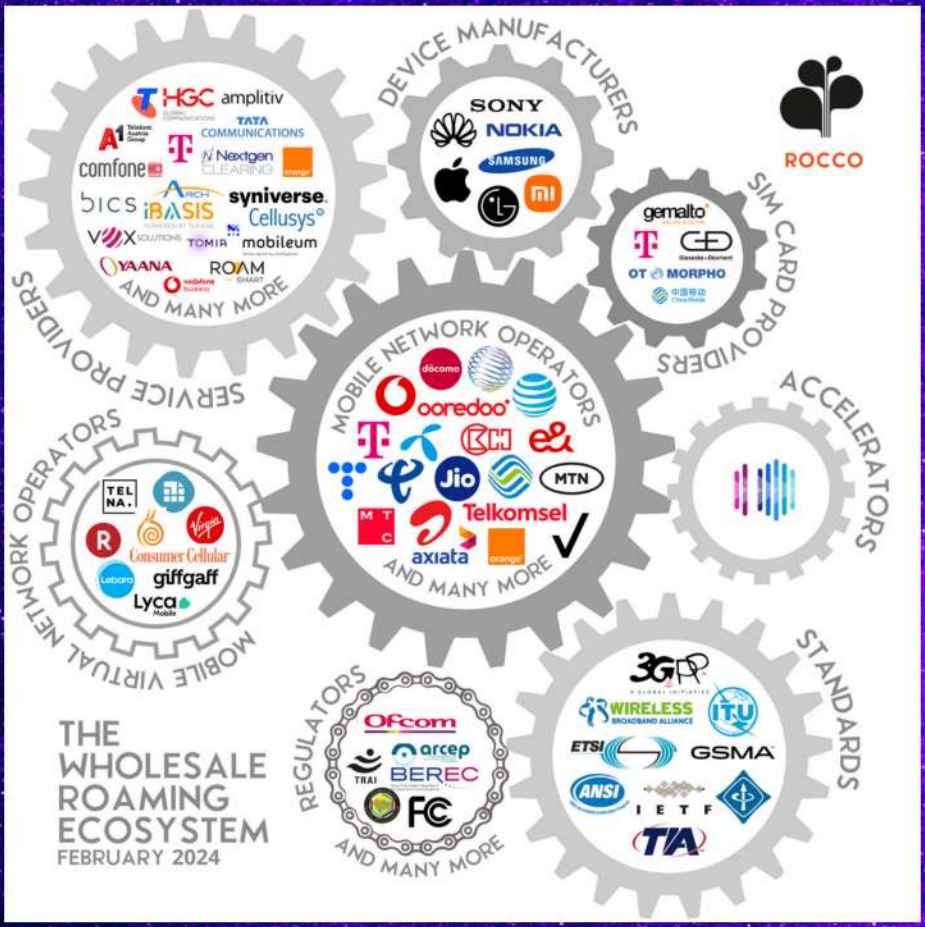
WHOLESALE ROAMING INSIGHTS



ROCCO Research Reports

ROCCO RESEARCH INSIGHT

THE WHOLESALE ROAMING ECOSYSTEM



ROCCO Research Reports

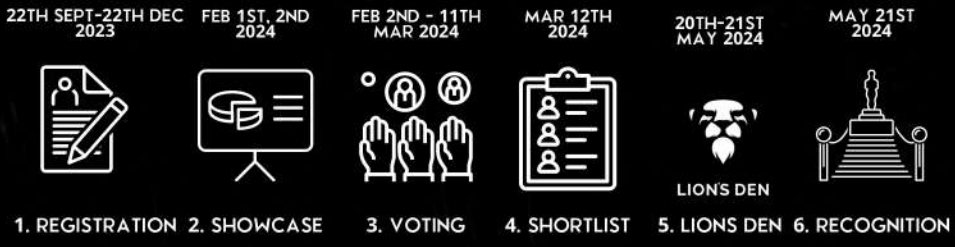
THE INNOVATORS

The Innovators is a research conducted by ROCCO to identify the most Innovative MNOs and Vendor Solutions in our industry.

After the industry support on previous editions. ROCCO will continue to offer the Genesis event and the Innovators Programs again in 2024 to identify the most innovative solutions from MNOs and Vendors.

Categories are as follows for either an MNO or Vendor solution: Roaming, Messaging, Fraud & Security and Interconnect.

THE INNOVATORS TIMELINE



www.roccoresearch.com/the-innovators/

THE INNOVATORS

LONGLIST

DMITRY SUMIN

AI-POWERED SMISHING DETECTION SOLUTION

AB HANDSHAKE

DANIEL MCTAGUE

EVENT-DRIVEN STEERING

Cellusys

RUI RIBEIRO

SPOTLIGHT

comfone

CARLOS DASILVA

CLOUD IPX & EDGE SIM

consoleconnect

THE VOTING PHASE CLOSES ON MARCH 11TH
WATCH THE VIDEOS OF THE SOLUTIONS AT VOTE AT

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LONGLIST

MALICK AISSI

REVENUE AT RISK MODEL

iBASIS

IGOR SKUTSENYA

LANCK TELEKOM OMNICHANNEL PLATFORM

LANCK TELECOM

HUSSEIN KAMMOUNY

A SMARTER MNO

monty mobile
THE ART OF TELECOM

DMITRY KURBATOV

THREAT-INFORMED DEFENCE FOR 5G/4G

SecurityGen
Telecom Security. Transcending Generations.

UDI SOLOMON

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Shield-IoT

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THE INNOVATORS

LONGLIST

BILLY OLIVER

UNIVERSAL COMMERCE

syniverse.

ZHENI KONSTANTINOVA

MANAGED ROAMING

telenor | linx

TEODOR MAGUREANU

VOX360

VOX SOLUTIONS

RAJ PURI

EVA GILDUM

THE CO-PILOT

YAANA

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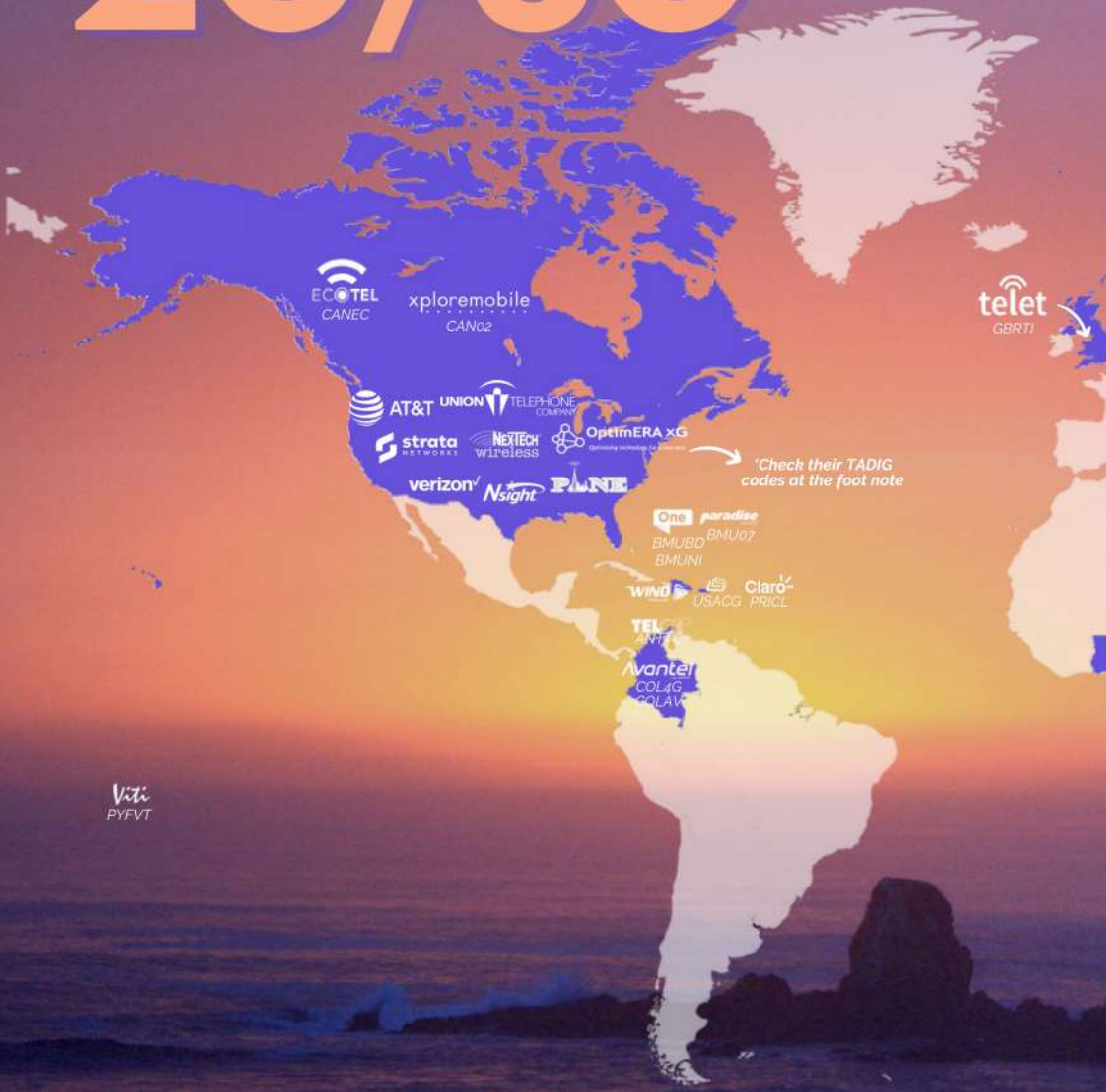
2G/3G



* AT&T Mobility: USACG, AAZUS, BMU01, USA3G, USA88, USA99, USAA1, USAAT, USAAU, USABS, USACC, USACP, USACR, USADE, USADK, USADP, USAEU, USAFN, USAFR, USAGE, USAHH, USAIA, USAJD, USAJR, USAL1, USAMB, USAMF, USAMK, USAMM, USAMX, USAPB, USAPL, USAS6, USASE, USASO, USAUK, USAUS, USAVG, USAWH, USAXT, USAZ1, USAZ2; Nex-Tech Wireless LLC: USA6G; Nsight Spectrum, LLC: USAC2, USAC3, USAC4, USANS; OptimERA Inc.: USAFU, USAOP; Pine Telephone Company: USAPC; Uintah Basin Electronic Telecommunications, LLC D/B/A Strata Networks: USASN, USASS; Union Telephone Company: USAUN; Verizon Wireless: USAVM, USAVZ

46
Operators
30
Countries
ice
NORIC
FASTWEB
telecomegypt
EGYTE
Jio
INDJ1, INDJ2, INDJ3, INDJ4, INDJ5, INDJ6, INDJ7, INDJ8, INDJ9, INDJL, INDJM, INDJN, INDJO, INDJP, INDJQ, INDJR, INDJS, INDJT, INDJU, INDJV, INDJW, INDJX
TWNGT
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ZAF19
ZAF38
seatel
KHM3A
YTL Corporation
Berhad
MYSYC
SIMBA
SGPT1
SGPT3
ALTEL
MYSAL
mobile
MYSMI
webe
MYSP1
smartfren.
IDNM8
TELETOK
tpg
TELECOM
AUSVF
Countries coloured in purple have MNOs that have sunset their 2G/3G networks
SUNSETS
Source: Network Closures Report (GSMA)

ROCCO is pleased to present the revolutionary Genesis Hackathon!

> We think we can all agree the Industry has some major challenges, some of which have been ongoing for many years. In our annual Genesis event, ROCCO brings together mobile operators, enterprises and vendors to unite to try to address some of these challenges.

REGISTRATION IS NOW OPEN!

Providing several stages of visibility:

MNOS, VENDORS & MIXED TEAMS CAN REGISTER

The stakeholders (MNOs) will raise the Roaming & Messaging challenges during the Challenge webinar on March 4th, 2024. They will also answer potential questions from participants.

The participants teams will receive a guide about each challenge. They will have until 22nd March to develop their solution/idea and record a 15-minutes video explanatory.

The stakeholders raising the challenges will vote on the solutions they like the best and shortlisted solutions will be featured at **Genesis 2024 from May 20th to 21st 2024.**

The final phase will take place in Genesis, where the shortlisted solutions will be analysed in detail by a panel of judges.

After receiving the judges' feedback and being voted on, the top solution for each category (Roaming & Messaging) will be awarded at the Visionaries Gala.

To register for The Genesis Hackathons 2024, contact us at hq@rocco.group

www.roccogenesis.com/hackathons/

GENESIS Hackathon

MEET THE STAKEHOLDERS

Robert Jones from BT will raise the Messaging Challenge

Robert is the Head of Messaging at BT, leading the team responsible for the strategy and commercial delivery of BT's Enterprise and Wholesale messaging products.

He has over nine years of experience in the messaging industry. Before his current role at BT, Robert had various roles across the Consumer and Business divisions of EE, Orange and Wanadoo, working within Business, Airtime and Broadband. In these roles, Robert has consistently emphasised partnership development to deliver mutual value.

The focus of his team is on the development and delivery of messaging solutions that meet the needs of customers and partners, ensuring that BT's products are both innovative and reliable. A key priority is the enhancement of the messaging portfolio to include richer messaging products, as well as tackling fraud in the SMS channel. This effort is part of the #TrustinSMS initiative, which has recently been recognised with the Prime Minister's Award for Cyber, a testament to BT's comprehensive strategy for protecting its customers.

Robert has a keen interest in technology and security, a passion that informs his approach to leading his team and driving the development of secure and innovative messaging solutions.

REGISTER TO PARTICIPATE AT
www.roccogenesis.com/hackathons/

RAISING THE CHALLENGES

Alain Barbier from Orange will raise the Roaming Challenge

Alain (only the French can pronounce it correctly) is a seasoned professional working as Roaming Dep Director at Orange France. With a strong academicbackground in International Marketing and Business, Alain has seamlessly combined his experience with technical expertise in IT and telecommunications, honed during his time at Universal Music and Interop tradeshow.
He started his journey with Orange during the France Telecom era, and has held various roles within the company, from B2B and Wifi to the wholesale roaming business. His tenure has been marked by navigating the complexities of EU regulation and leading initiatives such as the challenging VoLTE go-to-market strategy.

Beyond his professional life, Alain is the father of two daughters. He is currently rehabilitating his sports addiction, indulges his musical passions as an amateur guitarist and singer, and nurtures a deep fascination with foreign cultures and geopolitics.
Despite his notable contributions and his unofficial nickname of "the dinosaurus of roaming", Alain remains humble and has never sought the limelight as an industry lion. His dedication to innovation and his resilience in the face of challenges speak for themselves, earning him the respect and admiration of colleagues and peers alike.

REGISTER TO PARTICIPATE AT
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Check out the course catalogue on page 92

www.roccoeducation.com

DARE YOU ENTER?
LION'S DEN
LION'S DEN

LION'S DEN

A Vendor/MNO pitches an innovative idea/product/solution which could help the Roaming, Messaging, Fraud Prevention & Interconnect industry to generate revenues or save costs, become more efficient or offer more quality solutions to end subscribers. They will present to a panel of Lions who give live feedback to them in-front of the Genesis audience.

THE LIONS (PEOPLE FROM MNOS) WILL RATE "THE INNOVATORS" & THE "GENESIS HACKATHON" SOLUTIONS. THEN THE AUDIENCE AT GENESIS WILL ALSO HAVE A CHANCE TO RATE THE IDEAS.

HOW THE LION'S DEN WORKS:

Companies/Individuals pitch their idea to the Lions, showing with a maximum of 10 slides the full solution, its name, cost, uses, time to market, etc

The Lions will ask direct questions, debate among themselves the pros and cons of the idea and whether they like the idea.

Lions are intimidating, not always nice, you don't know how they will react, but they will ultimately provide good advice.

The Lions **will listen** with an **open mind** to each idea which is being pitched to them.

They will give honest **feedback/constructive** criticism stating why they approve or disapprove of the business idea/solution and provide a final opinion.

THE LION'S DEN PRIDE

SUNIL JOSHI
EE (NOW PART OF BT)

MANUELA MONTAGNA
CKH IOD

The 3rd Lion will be announced soon

The 4th Lion will be announced soon

The 5th Lion will be announced soon

JASON BRYAN INTERVIEWS:

SIMEON CONEY AND STUART MCBRIDE

FROM ENEA

UNLOCKING THE ENIGMAS OF ARTIFICIAL INFLATION OF TRAFFIC

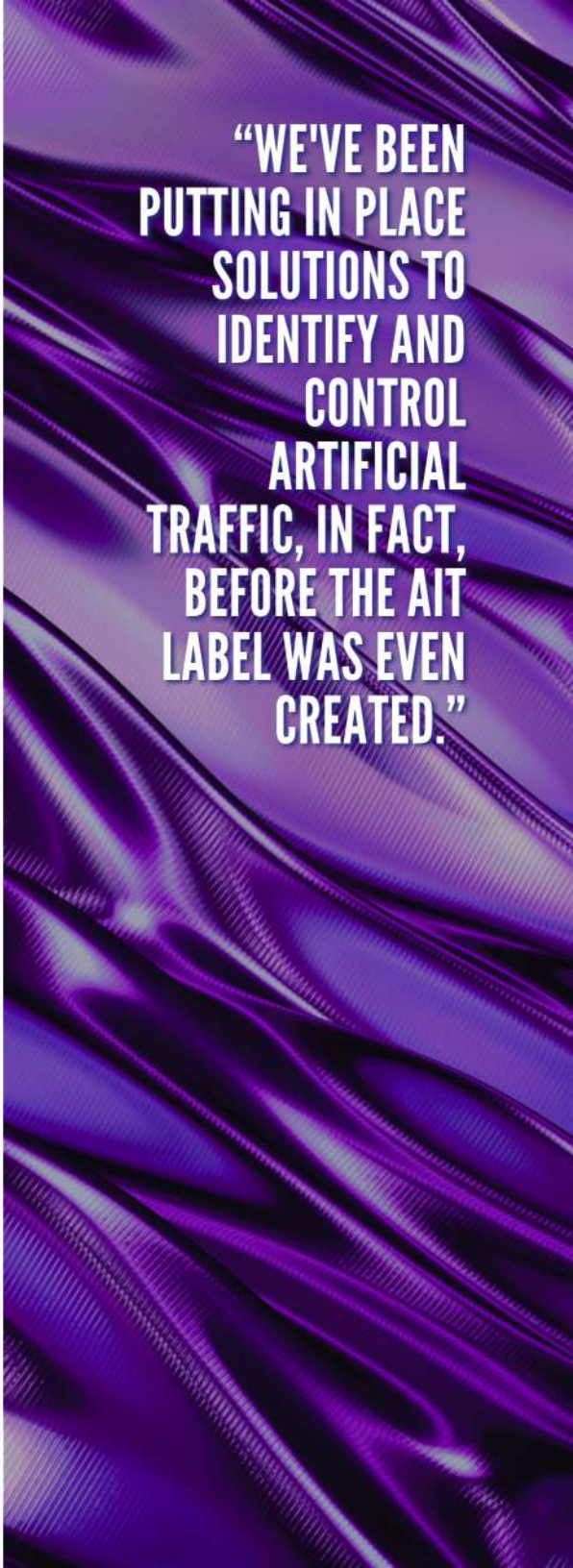
THE SIX FACES OF AIT REVEALED

THE SIX FACES OF AIT REVEALED

Jason Bryan
It's a real pleasure to be here with Simeon and Stuart from Enea. My first question is around Enea. This is a new name for some people in the industry. Can you elaborate a little bit more on that? And also introduce yourselves and your roles

Simeon Coney
Thanks Jason - I now have responsibility for business development of the Network Security portfolio within Enea. I've been with the business since we founded and we marked our 20th anniversary this year Just over two years ago we were acquired by Enea, a Swedish public company, who have a portfolio of telecom products. It's a great fit on both sides, we have been able to bring the security capabilities to complement an existing portfolio that covers a range of market leading products including traffic management, data management, WiFi & IoT.

Stuart McBride
I'm Stuart McBride, Director of Product Management for our messaging portfolio. Like Simeon, I also came from Adaptive Mobile, which has become the Network Security business unit in Enea and have been with the business for seven and a half years. Originally



as Head of Threat Intelligence and now in product management.

Jason Bryan
Great excellent, guys. Thank you. So it's been a couple of years, Simeon since we last spoke. And of course, we know that business is very interesting these days, lots of new developments. How is business in Enea?

Simeon Coney
Growing strong, we continue to have very good adoption and growth in both the operator side of our business, as well as in markets like CPaaS and aggregators. Our security propositions spanning everything from signaling protection, covering additional barriers such as voice, to messaging are very, very strong. A lot of people tend to think of anti-spam as really being the entry point for messaging protection & control. And for a lot of the market, being able to address that continual evolution of threats with anti-spam protection is absolutely the starting point. But in addition to that, managing commercial A2P messaging has also been a very strong growth driver. The whole industry has seen very solid growth in revenues, but also a corresponding set of challenges. Not only do we have the grey route scenarios, where players are trying to improve margins by finding alternative routes, but we're also finding now a whole set of additional drivers for network inspection and control solutions with functions like regulatory compliancy drivers. Increasingly we're finding countries mandating not only the type of content, ensuring that minors are kept safe and that there's adherence to local content laws, but also actually really starting to think about how users are impacted by the fact that, we're always got the mobile about us 24/7. So there's now consideration that functions like what type of content is appropriate during which times of the day, is really driving the need for protection solutions to deliver far more than that simple security. The industry is now finding there's so much more complexity around actually analyzing what type of content, making far more automated intelligent decisions about the nature of the content, not just who is sending it.

Jason Bryan
It sounds fascinating to me, are you thinking about, or have you developed solutions around Machine Learning or AI? I suspect this is something that you're looking at.

Simeon Coney
Absolutely, the only way to scale when you're processing billions of messages every single day in milliseconds, is to use some level of additional automated machine based intelligence. What we continue to determine is, it's about having a blend of techniques and a blend of capabilities. Taking the 20 years of experience we've got, ensuring that these range of techniques and models are appropriately used, as the industry has seen too many sort of flash in the pan approaches of, a silver bullet model, that

frankly has high impact to legitimate traffic. So it's about using all of these techniques, with that experience to get targeted and accurate decision making in real time. And certainly Stuart can talk more about some of the really exciting things that we've been doing.

Stuart McBride
While we've applied AI to security for several years, our current focus is on large language models and how well we can apply them to various use cases. We've exceeded our own initial expectations with the results we're achieving so far, particularly that we can train these models to be language agnostic. So instead of requiring local solutions in different regions, it actually applies to language generally. There are many use cases for this. At the moment, we are categorizing messages based on intent. At the same time our research team is evaluating new applications of similar models. For example, identifying brand names, identifying malicious traffic, and so on.

Jason Bryan
It certainly does sound like you're in the front line of tackling these issues as they come along in the market. So it's very reassuring to hear what you have to say about that. So, we're here because you were voted as tier one in our SMS Firewall research by Mobile Operators. And, I have to say, there's a lot of operators out there who really admire the work that you're doing. And, you know, it's a tough market, there's alternatives, of course, and clearly, Enea is a company that is widely respected. How did you feel in the team? How did the team react to this accolade?

Simeon Coney
What we love about this is customer recognition. It's one thing to say you've got great functional capabilities, or you've got a great brand name, but at the end of the day, customer's perception of our business and what we've delivered and achieved in partnership with them is what matters. It was great to see that recognition. What we love is the level of detail the report gets to. Being scored second highest on Net Promoter score, that really helps us feel that we're doing the right things for our customers, that we are really helping them in their business.

Jason Bryan
Fantastic. Yeah, it's something which we run every year and the reason for that is because we recognize that leadership in companies changes. And the perception of customers is always evolving. Now, one of the key things, as we're talking about the evolution of SMS and firewalls, etc, is AIT, I understand you have a view on six different types of AIT. Is that correct? And can you tell us what they are?

Simeon Coney
AIT as a term has been in circulation for a couple of years now, and what we've been finding is that the usage of it and the variety of definitions starts to become almost contradictory. When we look at some of the various industry groups and their definitions what we are seeing is that, actually, a number of

different types of AIT abuse weren't being captured. So what we decided to do was create a taxonomy of types of AIT. We're in quite an advantageous position, because, as I mentioned earlier, our customer base spans everything from A2P campaign onboarding at the CpaaS stage, so immediately as a brand, generating it, right the way through interexchange carriers, through aggregators, into the terminating operators. It really enables us to get full visibility of the entire messaging ecosystem chain. For us, AIT attacks harm our customers right the way through that ecosystem. We've been putting in place solutions to identify and control artificial traffic, in fact, before the AIT label was even created. When we came to actually defining these, we realized yes, that there are six distinct types. And in fact, what I would say is that the different attacks are being carried out by different organizations, for different purposes, and using different techniques. So folks sitting, for example, on an operator side may not get visibility into some of the other upstream forms of AIT. Likewise CPaaS themselves, whilst bearing a lot of the pain of it may not see other types of attacks that are occurring downstream. So this is really what drove our initiative for creating this taxonomy of the six different types.

As to what they are - we're bringing out a paper that puts these in more detail. To summarize for this interview there is the bot generation. And this is the one that got all their headlines when Elon Musk came out and said X formerly known as Twitter was being scammed to the tune of 60 million dollars a year for SMS texts by bot traffic.

So yes, there is absolutely traffic being generated by effectively fake agents that are generating it at the point of origin in that service. From that perspective, from CPaaS down the chain, all see it as regular A2P traffic. But the challenge, of course, is detecting and controlling the abusive AIT traffic as it's incurring cost back to the brand.

We're also seeing attacks being injected and generated by other accounts directly into CpaaS, emulating brands and potentially abusing and defrauding the CPaaS themselves. At that second intermediary stage, we're also seeing forms of traffic inflation occurring at the aggregator level, outside of the control and visibility of the CPaaS and the inter-exchange carriers, but, at the point where traffic termination charges,which have recently been going through significant increases in the market,occur.

And there is also the age-old problem of end user generation, which is, malware or apps on the device generating traffic. Malware like Flubot never really go away, they evolve, and there are always consumer SMS package reselling apps appearing on App Stores . So, yes, six different distinct types of AIT for different purposes, sometimes financial gain, sometimes for reputational damage. It's important to also note there are legitimate types of artificial traffic.

A lot of folks in the ecosystem are using test traffic generation to look at billing accuracy, customer experience, quality of service, things like that. So, not all forms of artificial traffic are bad, but it's critical to spot what is bad, and what is damaging. Certainly a lot of the analysts numbers are starting to show AIT figures in the region of 20 billion fake AIT SMS a year in 2023. So we really feel that AIT is a significant issue for the entire ecosystem, because if it's not addressed, it will result in the reduction in traffic overall, brands lose, operators lose, aggregators and CPaaS lose, everyone suffers as a result of this.

Jason Bryan
Leading to my next question, which is really... there's got to be an impact that comes then down the line. Is this going to reduce, I mean, MNO, or Enterprise confidence in SMS as a solution? Because we've always seen SMS growth. Now, it seems to be stabilizing a little bit, there's obviously alternatives. What is your thoughts about that?

Simeon Coney
I would say without a doubt: enterprises have had their confidence in SMS impacted, and that's across the spectrum of enterprises. Take the big brands, we know and see how much they're getting impacted. And again, we'll be publishing some examples of the numbers in our upcoming report. But we see this can also happen with small companies, Anyone who has an interface that is able to programmatically generate messages is at risk. It's not their core business to understand and control this type of issue, they are trying to innovate and create their own goods, products and services. If they don't

understand expensive international termination rates, or if they're trying to enter or fulfill a particular market, and with the global connectivity that the A2P ecosystem provides, it means these brands are at risk. It's good to see that the industry is recognizing this, and some parts of the ecosystem are starting to put in place solutions like ours and others to actually address this issue. But if we don't keep appropriate eyes and focus on this, yes, brand's confidence will be shaken. They'll suffer uncontrolled spend, and that means that they will look for alternative communication channels. And there are alternative approaches out there for some of those use cases.

Jason Bryan
Those are very, very interesting points that you're raising because you said about keeping an eye on this. And it's really... there is no body, let's say, or association that's really, let's say, focused on preventing this, as I see it. And there is attempts by companies recognizing this is bad, aggregators especially. This is not something we should continue doing or supporting in any sense. But who's monitoring or, you know, accrediting companies who aren't doing it? It seems to me that it's important, like companies like yourself to focus on it. But as a whole industry, how do we clean it up for the future? I mean, it's a big question for me.

Simeon Coney
Oh, it really is. This is why we've been working on the definition, the taxonomy, because without a detailed definition, there is no way of quantifying it. If you can't measure, you can't size and if you can't size, you can't work out the impact. So it all stems from being able to say, "Okay, what specifically are the problems that we're looking at here". And these top level definitions, that are contradictory, just don't enable and facilitate that. So yes, absolutely as an industry, we need to find clarity, and perspective in being able to show where these issues are occurring, so that we can put the appropriate focus in place to help deliver that type of protection to avoid us all ending up suffering.

Jason Bryan
So just to conclude on this point, and you said, you're introducing a white paper on this topic, obviously, we'd be very interested to know more about that. And to, and to see what it says and I'm sure many, many of our followers would also be interested.

Simeon Coney
Yeah, absolutely. We'll be launching that, in the New Year, and we will keep you posted, Jason, on that. We're trying to create something here as an industry definition, so we would welcome other industry experts insights and commentary. We really do feel the more people that we can get to focus on this and being able to quantify it, size it and talk about techniques to address it, absolutely the better.

Jason Bryan
So we touched before on AI. And actually ROCCO is in the process of running an AI research because we're trying to identify companies who are doing AI based tools. Obviously it's the buzzword of the year. What is an AI specifically doing? I asked you a little bit before, but maybe you could elaborate a little bit more on the kind of tools that you're working on that have AI capabilities, let's say.

Simeon Coney
The first thing I would say is, we've been doing AI for 10 years now. We have machine learning deployments, particularly on lexical analysis going back to 2014. We have been working extensively in this area and understand the pros and the cons of bringing solutions like this to the market.

Jason Bryan
Thank you Simeon. Could you answer the question in terms of technology, Stuart?

Stuart McBride
As Simeon said, we've been involved with AI for 10 years or more, but it has evolved very substantially with large language models. So what we're focusing on now is the kind of tasks that we need to be able to perform at a volume and speed which means there is really no alternative. So one thing is categorizing messages in real time, and categorization covers everything from whether it's malicious, it's phishing, it's from your bank. Initially we're doing a proof of concept based on the message categories for Android and Apple, at a high level, we are splitting things between Multi Factor Authentication, other notifications, and promotions, or marketing.

And there's many use cases for this, some of them will come from the operators and the service providers themselves. They want to handle this traffic differently. Some of them come from regulators, meaning the operators are obliged to handle them differently or impose various restrictions such as only sending them at certain times. Another factor is attachments; the best way to classify an image is to use AI to do it. There's certain reasons you don't want humans doing that job. And it's something the big Social Networks still have to do with human intervention. But in terms of messaging, we would hope to address this problem almost exclusively with AI. The goal is to allow the AI to make as many decisions as it can, without any supervision, after going through a general training function.

Jason Bryan
Wow! So AI is really teaching itself, and evolving. Is that something you imagine? Because, I think at the very beginning of what to expect from AI, you know, when you consider it, it's just at that point where it's developing, but it's at the very beginning, because there's got to be a lot of development there, that is coming in the future as it grows, and it teaches itself more. I mean, it sounds fascinating what it's going to be able to do.

Stuart McBride
I think we're all going to continue to be surprised at what it can do faster,and possibly more accurately than us.

Simeon Coney
Just to give one example. I've seen a lot of technology in my lifetime, and aspects like language have always been one of those things that are a challenge. There's such a variety of different languages that people want and like to communicate in. We have a lot of multi-language disciplines and experience in our business, and a lot of security analysts with a very broad spectrum of language skills, because we protect a quarter of the world, so we have to speak the language that our customers' customers speak and interact with, and that's I think one of the powers of AI. It is able to extrapolate beyond that. It really means that no matter what language folks are using to communicate, that we can help deliver that level of protection and security.

Jason Bryan
Fantastic. Thanks, guys for helping us to understand how this market can evolve with AI. I think it's very fascinating. I would look forward to hearing more about it in the future. So what would you say then, reflecting on everything that's been said in this interview, what is the key differentiator that an AI brings to the market? Would you say?

Simeon Coney
First off, our focus. This is our business. There are many companies out there who provide a bit of security. They are sitting in the right place in various architectures to do security functions such as processing the traffic. But this is our

business, we have security teams, we have product teams, we can focus our whole operation on these types of threats to our customers, which enables us to do things that, frankly, any other business just doesn't have the cadence, or the discipline or the focus, let alone the expertise and experience to apply that.

Jason Bryan
It's a very good point, I think, based on research that we've done in the last few years, there's a definite interesting trend towards specialist companies who are focused on this area. I think it's really not very easy for any Mobile Network Operator, for instance, to be able to judge what are the trends in the market to have really dedicated resources, who are on top of things, who are looking at things. It's just the economies of scale, the fact that you have multiple customers being able to notify you of issues or that you're identifying issues in advance and being able to alert other customers to them. I think it just makes total sense.

Simeon Coney
Exactly that customer base, that knowledge, that insight, it's that scale function, means we can be proactive and preventative. Techniques are continually evolving, but then they are shared and spread across the world. So the wider the visibility, the more we can provide and ensure proactive protection, because we've seen those techniques used elsewhere. And I think, that's one of the characteristics of the security industry. When we talk about competition, it's not like, say, automotive., This isn't Jaguar versus Ford versus Mercedes, where they're competing for the customer's money. Frankly, the people we're competing against with here are the attackers, those are the people that are evolving and changing their techniques. We stand shoulder to shoulder with the other security companies who are delivering solutions to address those. So, it means we have to be good, we have to evolve, we have to be fast, we have to be accurate.

Jason Bryan
So one final question for you, although I have a sneaky extra question. So what is Enea working on in 2023? I mean, we're coming to the end of 2023. What have you guys been working on this year?

Stuart McBride
One of the focuses that we've had in Product Management is, you may have seen that we had a portfolio relaunch. Much of our technology is the same, but the portfolio is being relaunched as we're not just selling SMS firewalls to operators. The market has broadened to aggregators and communication providers of all sorts. And we realized the necessity of having more specific offerings for what these players need. We might have a potential customer with a very specific use case whether it be based on message categorization for handsets or some previously unknown threat to the network or users.
As we mentioned already, the biggest part of our 2023 new technology is the application of AI to text and images. And we are also,

with the help of AI and other kinds of proprietary automation, working on providing options for operators who want to be more self-sufficient. Our Threat Intelligence Unit has always been a big differentiator and something that is very popular with our customers. But this expertise comes with a cost. And we want to provide a more self-sufficient option, while still offering very powerful protection.

Jason Bryan
Excellent. That sounds like a lot. You guys have a lot on. A lot of projects, but it's really fascinating to hear.

Simeon Coney
To put some of these things in context Apple recently announced, to the surprise of many, they are working on implementing RCS. We've been supporting RCS protection for eight years now, and MMS protection for 18 years, which as you have mentioned, it's not just about text, it's about the attachments; images, video etc. We really see having insight and control on that rich media suite is just as important now, as the textual portion. So with those announcements it again places everything more towards where we have been and where we continue to focus on, which is protection for the whole stack.

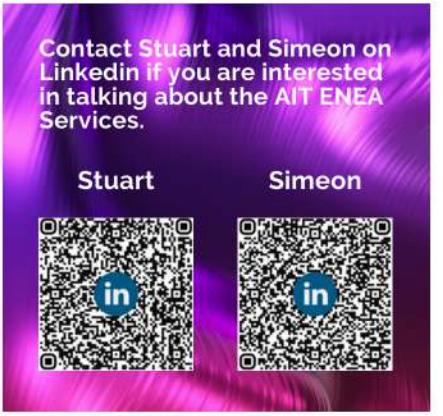
Jason Bryan
That was my sneaky question. It was about Apple. Since that announcement, LinkedIn has been blasted with people communicating it. And then secondly, people communicating "are we going to face the same issues as we've had with SMS??" So it's very reassuring to to hear from you guys that that's something that you are already working on and already solved in a sense.

Simeon Coney
Absolutely, those same issues will be faced. We've been protecting that RCS bearer for many, many years. And, yes, it not only has the same issues as SMS, but a whole range of other ones. It is higher throughput, you've got more of a complex protocol stack to manipulate, you can put attachments on it. That just increases the attack surface.

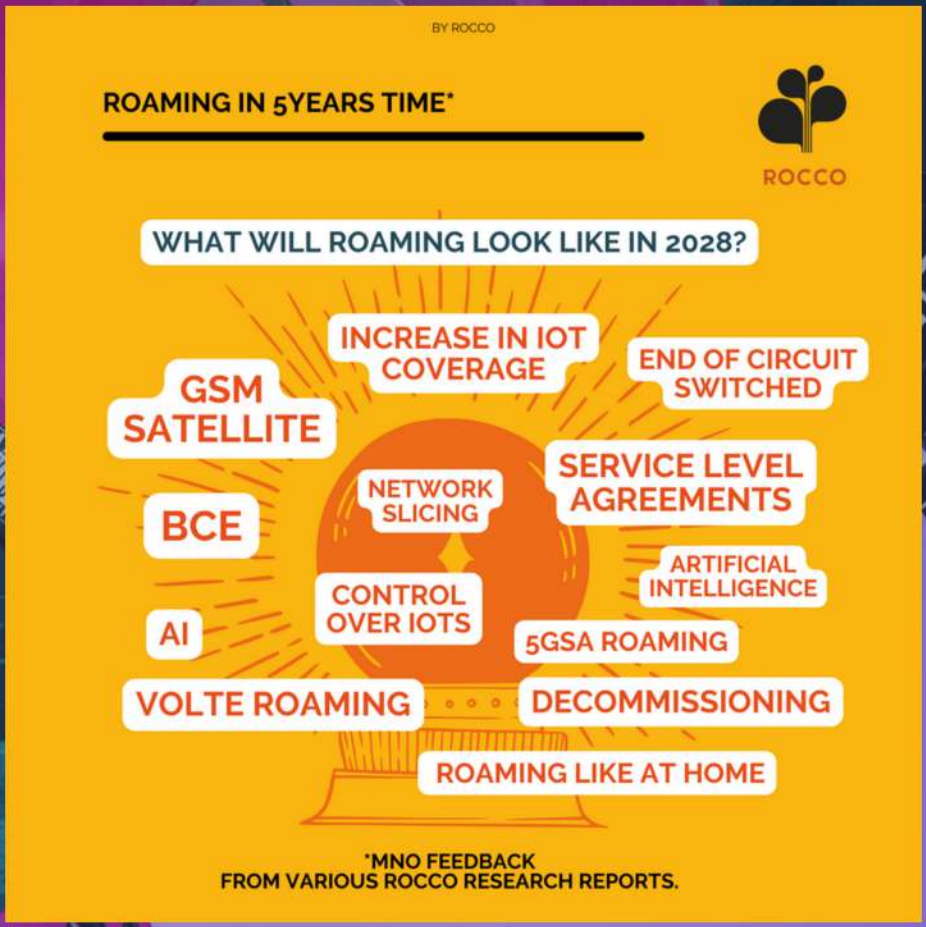
Jason Bryan
It sounds fascinating, guys, everything that you're working on. I really want to thank you for your time to share with us some of these insights on AIT, especially and RCS. very topical. So thanks a lot guys.

Simeon Coney
Really appreciate the opportunity. And we really appreciate the reports that you do. The insights give us direct feedback from our customers and the market. So looking forward to 2024.

Jason Bryan
Fantastic, thank you both guys.



WHAT WILL ROAMING LOOK LIKE IN 2028?



ROCCO Research Reports

KEY CHALLENGES FOR WHOLESALE ROAMING

“5GSA IS SLOWLY BUT SURELY GAINING TRACTION. MAJOR TELECOM COMPANIES AROUND THE WORLD ARE INVESTING BILLIONS IN INFRASTRUCTURE AND TRIALS, PAVING THE WAY FOR A MORE CONNECTED FUTURE.”

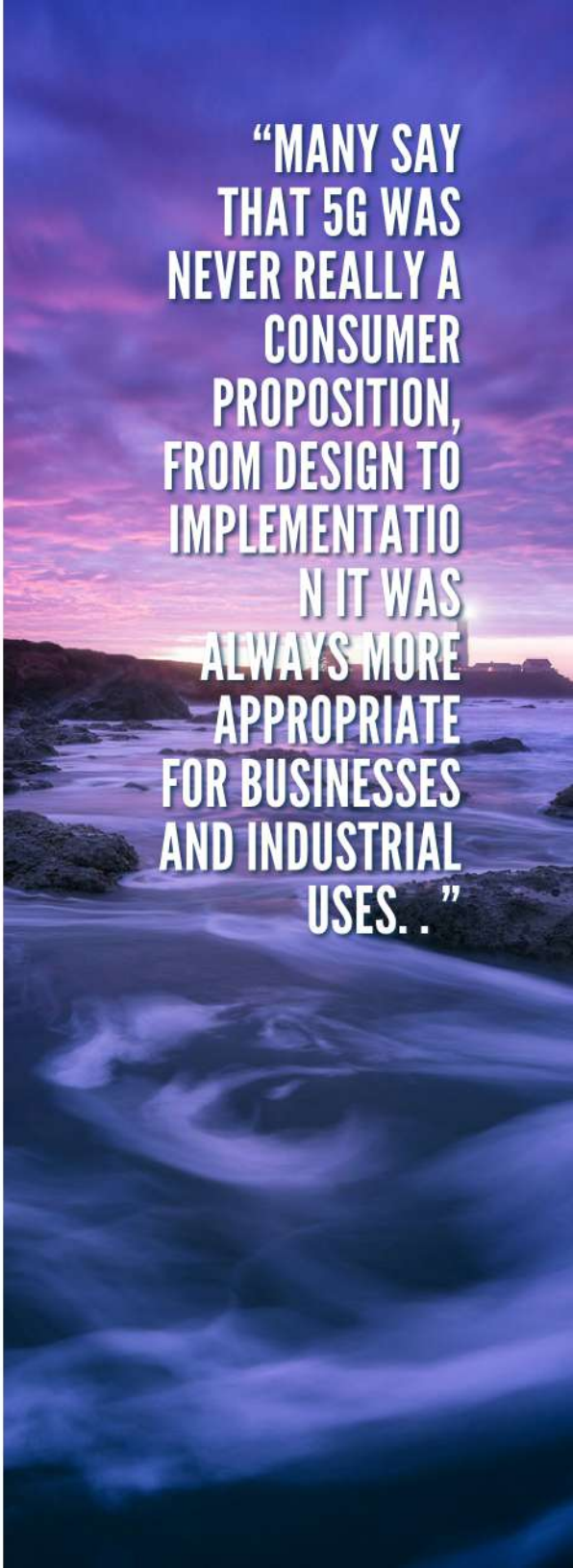
5G SUNRISE: BEACONS OF HOPE AND LEADERSHIP

BY JASON BRYAN,
CEO ROCCO RESEARCH,
DIRECTOR GENERAL OF IO

TALKING ABOUT 5G SUNRISE

With 2G and 3G decommissioned in 30 countries and networks already looking at 6G I thought it was worth revisiting where we are with 5GSA and what progress is being made.

Many say that 5G was never really a consumer proposition, from design to implementation it was always more appropriate for businesses and industrial uses. However Mobile Operators were unlikely to be seduced into investing billions only to improve connectivity in factories and ports or help develop hi-tech medical services. They were unlikely to invest in use cases which were unclear and yet to emerge. So instead, the industry wrapped 5G in the kind of marketing that paints everything, even small improvements as world-changing innovations. Then it was decided to release 5GNSA and 5GSA, a two-pronged approach. The first 5GNSA (non-standalone) allowing 5G devices to explore 5G but just based on the 4G Network core. The Second 5GSA (5G standalone or maybe we can call it 5.5G) that will bring home the real value.



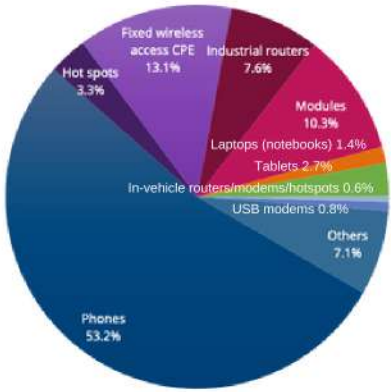
5GSA does boast great advantages. It's faster, more reliable, and holds the potential to unlock a myriad of futuristic technologies. However, maybe because the benefits didn't really come for NSA there is already talk of what 6G will bring without us even getting to 5GSA.
5G technology began emerging as a viable option in the telecommunications industry around 2018 and started to gain momentum in subsequent years. Major telecommunications companies worldwide began investing in 5G infrastructure and conducting trials to prepare for its rollout. By 2019 and 2020, 5G networks were being deployed in various countries, with commercial launches in select cities. Since then, the adoption of 5G technology has continued to expand globally, with more widespread availability and implementation across different sectors. But what is the result?

Figure 1. Number of operators investing in 5G SA for public networks and number investing in any 3GPP 5G network according to the GSA.

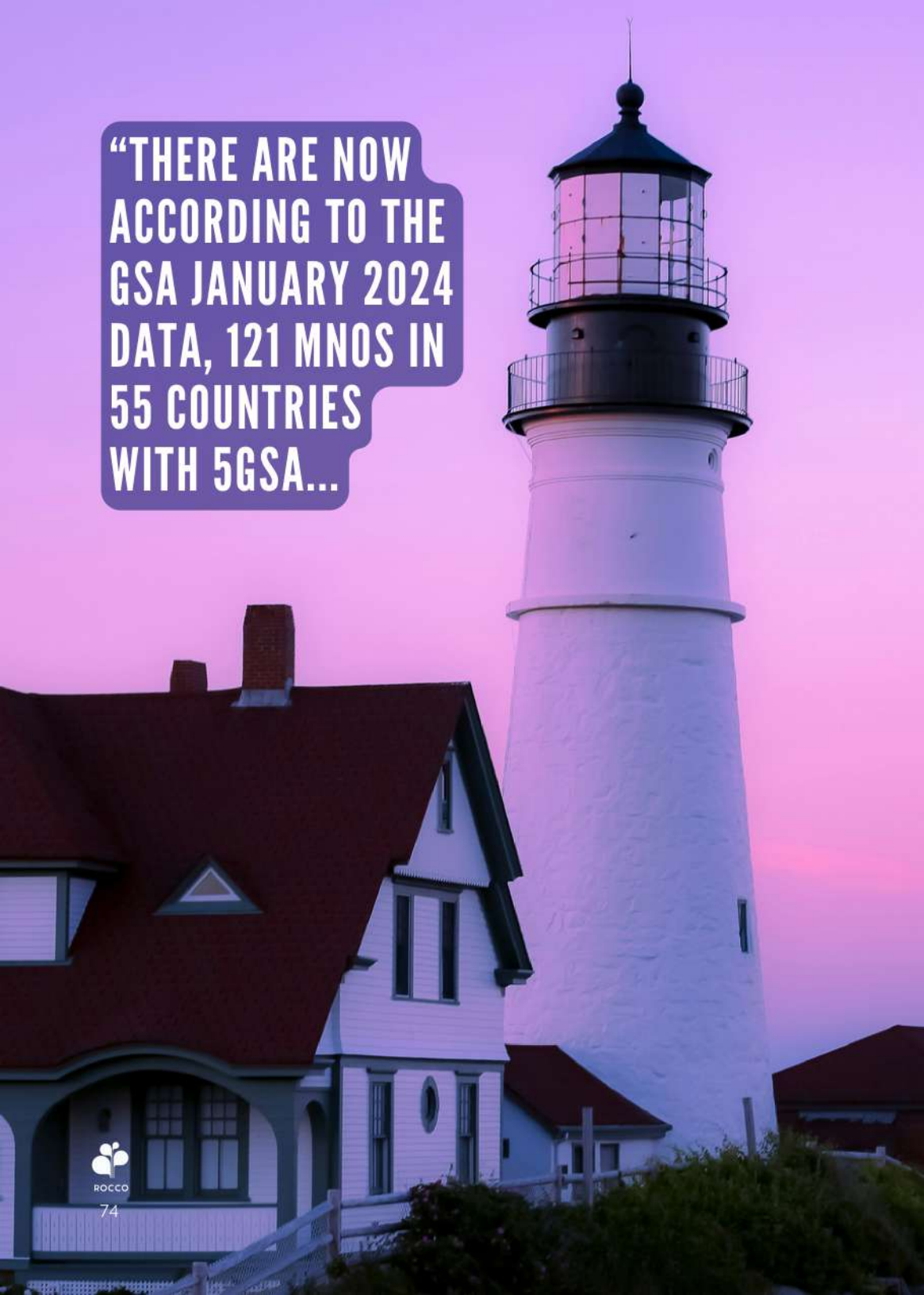
Figure 2. Countries and territories with operators identified as investing in public 5G SA networks. Powered by BING.

There are now according to the GSA January 2024 data, 121 MNOs in 55 countries with 5GSA. But still, it remains that over half the devices are mobile devices and not even 25% even related to the 5GSA for industrial uses.

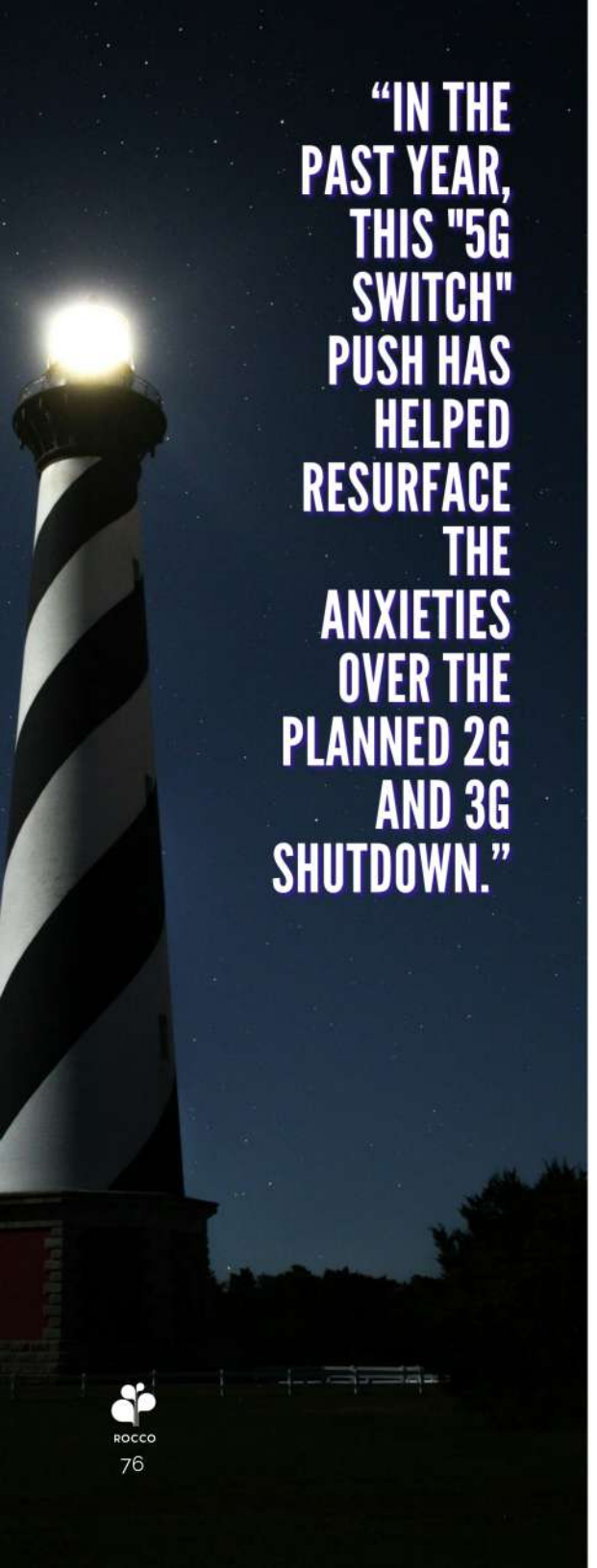
Figure 3. Announced 5G Devices by form factor. Data from GSA.



Back in 2020 China Unicom announced the Luoyang branch in Henan province would automatically switch its 5G transmitter stations to sleep mode from 9 p.m. to 9 a.m. because there were few people using them. While its well known that 5G base station equipment consumes about three times more energy than 4G because of the way the technology works, it also suggests that 5GSA use cases are unclear. We see this being recognised all around us. The average person on the street isn't reaping benefits just yet. Terms like "Massive IIoT" and "network slicing" might as well be in a foreign language for everyday people. Its more terminology which excites engineers some might say.


“THERE ARE NOW ACCORDING TO THE GSA JANUARY 2024 DATA, 121 MNOS IN 55 COUNTRIES WITH 5GSA...

...BUT STILL, IT REMAINS THAT OVER HALF THE DEVICES ARE MOBILE DEVICES AND NOT EVEN 25% EVEN RELATED TO THE 5GSA FOR INDUSTRIAL USES."



Is there a killer use case? With Apple having released in the USA its spatial computing solution Vision Pro this February, the answer is probably in mixed, augmented and virtual reality. It makes sense that the next natural evolution of devices is wearable eyewear, which also means augmented reality. From Cinema to TV, TV to Computer screen, to mobile device to wearable… the screen has been getting smaller and closer to the eye. Drones is also an area to watch.

5GSA is slowly but surely gaining traction. Major telecom companies around the world are investing billions in infrastructure and trials, paving the way for a more connected future.
And let's not forget the scramble to bid farewell to 2G and 3G means more and more people feel coerced into upgrading, all the while grappling with persistent dead spots and issues unless 5G is full optimised and out. In the past year, this "5G switch" push has helped resurface the anxieties over the planned 2G and 3G shutdowns.

And just as we've come to grips with 5G, talk of 6G is already making the rounds.

Work is underway on 6G standards already through standards-setting bodies like 3GPP, which contributed to 5G. But at this point, because 6G standards have not been set, there is not really a clear idea of what the technology will look like and there's no reason to wait for 6G.
On Balance, even today while Roaming announcements have been made, there's no real traffic running across them yet. I don't see the likelihood of a critical mass of MNOs being ready with 5GSA for Roaming for some time. Everyone is pointing to 2030 as a year of major convergence: the year decommissioning of 2G/3G is complete, 6G will have started in the USA and Far East and 5G SA Roaming is really on the move. I think the key is to focus on 5GSA deployment today and to plan for the future.

Watch this space **ROCCORESEARCH.com** for more news on what MNOs are actually doing, what their challenges are and how they are progressing.

5G SA ROAMING COVERAGE*

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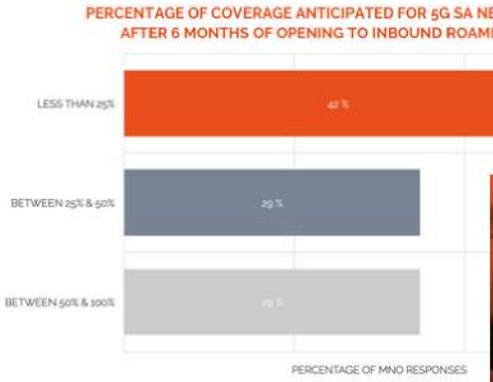
"The average expected percentage of coverage after 6 months of opening to Inbound Roamers is 42%"

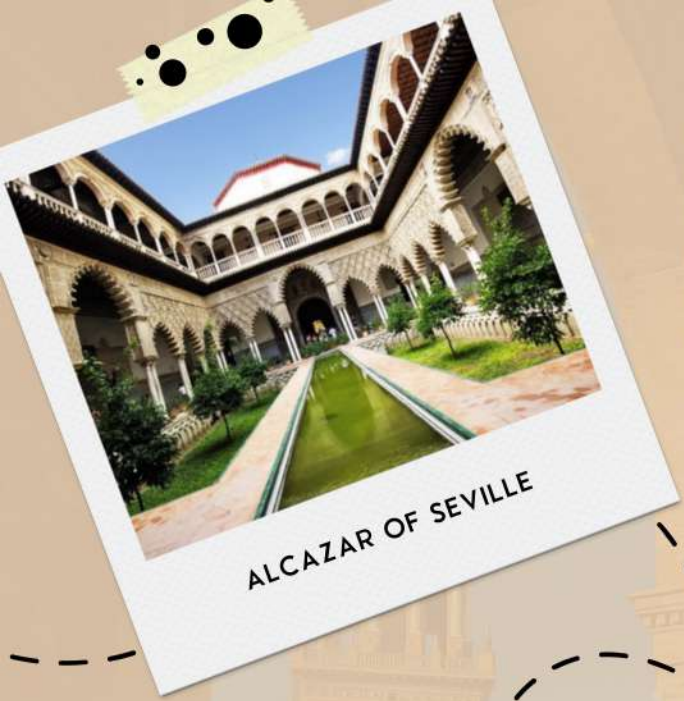
Survey Question: What percentage of coverage do you anticipate for your 5G SA Network in the first 6 months of opening it to Inbound Roamers?



*MNO FEEDBACK
5GSA ROAMING MONETISATION 2023

About

Seville



ALCAZAR OF SEVILLE

If art t is your thing, you'll love the Royal Alcázar of Seville. Its construction begun in the 10th century, in the Islamic era. Enjoy a peaceful walk around its "Patios" with gardens and Mudéjar-style ornaments.

Probably, The Giralda is the most iconic image of Seville. Is the bell tower of Seville's Cathedral, and it remains one of the most important symbols of the city, because it has been since the Middle Ages. In fact, numerous replicas of the Giralda have been built in the United States, mostly between 1890 and 1937.

THE GIRALDA

Undoubtely, Seville's Cathedral is the most impressive monument you can see. It is a Roman Catholic cathedral and it was registered in 1987 by UNESCO as a World Heritage Site, becoming one of the largest churches in the world as well as the largest Gothic church.

SEVILLE CATHEDRAL

PLAZA DE ESPAÑA

You won't like to miss Plaza de España in Seville. The construction took place between 1914 and 1929 and located in Maria Luisa's Park. This square includes gems such as the navigable river and tiled alcoves representing different provinces of Spain.

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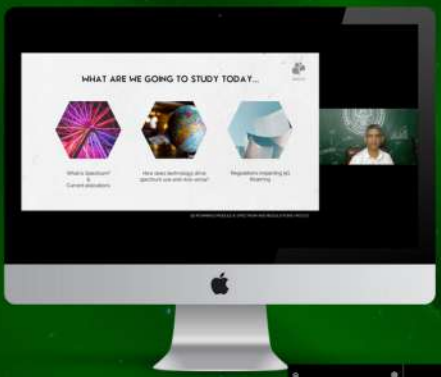

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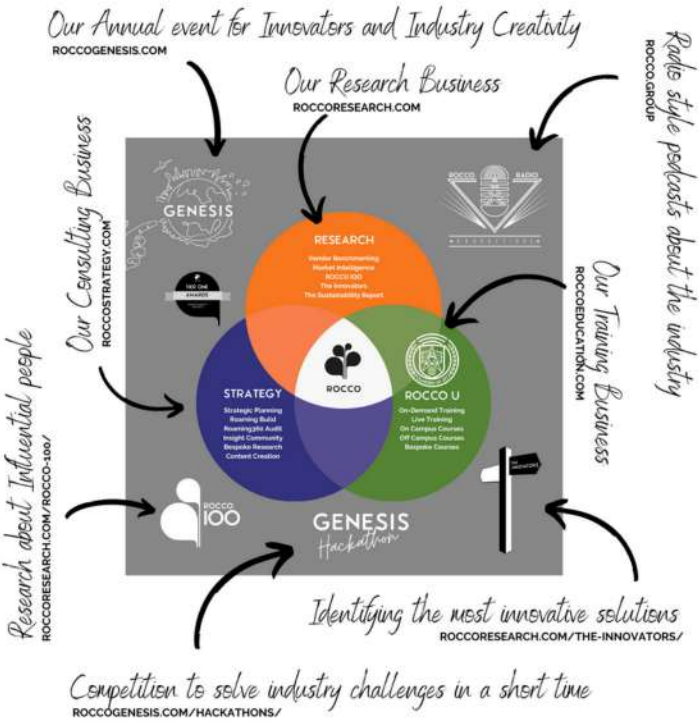

Nothing is so consistent in the telecoms sector as change. Faster, better, cheaper… Our zeal to consume more quality content, wherever we are in the world at a faster pace has turned us into an impatient crowd that stares at screens almost uninterruptedly and fidgets angrily at the smallest sign of a connection hiccup. But we all know that professionally and as businesses **we always need to start preparing ourselves for the next step** because there's always another generation and a new buzz to get excited about.

ROCCO has been around since 2012 and from our conception we wanted to be a catalyst for **innovation with Research, Strategy and Education** that wasn't biased, sponsored or boring. We now have **three companies**, and we're not afraid to start a fourth, if there's something new to deliver and a challenge to be met.

We create multiple types of reports on Roaming, Messaging and Fraud and Security and we deliver on-demand training and strategic consulting which together provide a rich foundation on which to wage strategic excellence. In telecoms, we face multiple unimaginable scenarios, but we face them with actionable insights, clarity of direction and purpose.

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ROCCO Research market impact reports present a module and add-ons scheme. The aim is to provide more flexibility to our customers in a way that they can choose the insights that are more suitable to their needs. These reports contain the following:

MARKET IMPACT	This module contains an analysis of a specific service from both the vendor and operator perspectives. With this information, the reader gets a deep understanding of the latest developments in a service, what vendors are offering and what MNOs need.
VENDOR BENCHMARKING	Detailed analysis of vendor performance which contains all the KPIs, value indicators and ROCCO's admiration quads.
REGIONAL ANALYSIS	Analysis of vendor performance and MNO market insights from a regional perspective.
HISTORICAL ANALYSIS	Analysis of vendor performance and MNO market insights from a 5-Year perspective.

In addition to market impact reports, ROCCO also publishes strategy reports that analyse the evolution of the telecom industry from a strategy perspective. Some of these reports are the eSIM Strategy Report or the AI Applications Strategy Report. For further information please contact hq@rocco.group

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REPORTS FOR 2024 WHAT AND WHEN

The following list contains the reports ROCCO will release in 2024 including our annual, strategy and market impact reports. Please note that the reports in yellow are only delivered to ROCCO Executive Members.

If you want to receive more information about ROCCO Membership options you can request our catalogue by sending an email to hq@rocco.group.

Q1 2024

THE 24 REPORT	Combining Strategic Insights from across all our 2023 reports, and explaining our expectations for 2024 with Admiration Quads
AI APPLICATIONS STRATEGY	Results of interviews on with Mobile Suppliers of solutions that are exploring Artificial Intelligence in our specific telecoms arena
SMS MONETISATION	Results of interviews with Mobile Operators and vendors on SMS Firewalls and Monetisation Solutions
WHOLESALE ROAMING PROCUREMENT GUIDE	Wholesale Roaming Procurement Guide featuring advice for Mobile Operators on what is on offer from Vendors in the Wholesale Roaming Space
ROAMING M2M IoT MONETISATION	Results of interviews with Mobile Operators and vendors on M2M/IoT Roaming Monetisation Solutions for 2024

Q2 2024

WHOLESALE ROAMING BILLING & CHARGING MONETISATION	Results of interviews on with Mobile Operators and vendors of BCE, Data Clearing, Financial Clearing
ARTIFICIAL INFLATION OF TRAFFIC SOLUTIONS	Results of interviews with Mobile Operators and vendors on AIT Solutions in the market

Q2 2024

RCS MESSAGING (MOBILE OPERATORS)	With Apple on board, RCS is one to watch, results of interviews with Mobile Operators and vendors on RCS solutions
A2P SMS MESSAGING (MOBILE OPERATORS)	Our Annual globally recognised report which provides results of interviews with Mobile Operators and vendors on A2P SMS
A2P SMS MESSAGING (ENTERPRISE)	Our Annual globally recognised report which provides results of interviews with Enterprises on A2P SMS

Q3 2024

IPX	Results of interviews with Mobile Operators and vendors on IPX Solutions
VoLTE ROAMING	Results of interviews with Mobile Operators and vendors on VoLTE Monetisation Solutions in the market
NETWORK SECURITY & MONETISATION	Results of interviews with Mobile Operators and vendors on Signalling Firewalls and Monetisation Solutions

Q4 2024

5G ROAMING MONETISATION	Results of interviews with Mobile Operators and vendors on 5G Roaming Monetisation Solutions for 2024
GLOBAL CONNECTIVITY	Results of interviews with the industry on Mobile Convergence Including GSM Satellite, 5G Private Networks, WIFI 6,7 etc

RESEARCH SURVEYS

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Since its inception in 2012, ROCCO has been conducting surveys for mobile operators worldwide. Over the years, ROCCO has become a platform where mobile operators can openly and anonymously share their views. With a core focus on Roaming, ROCCO also conducts surveys on Messaging, Interconnect or Fraud & Security.

WHY TAKING OUR SURVEYS IS IMPORTANT?

- You can rate telecom providers in an unbiased way across more than 30 KPIs.
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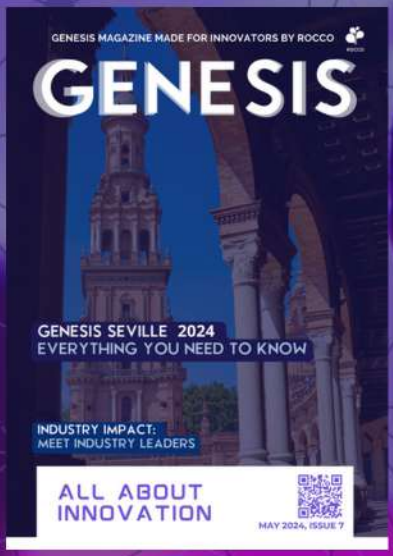

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