



INNOVATIVE OPERATORS

Accelerator Programme

WHITE PAPER

**WHOLESALE ROAMING:
GETTING AHEAD OF THE CURVE**

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ENSURING A FUTURE FOR ROAMING

The warning signs are there, MNO's need to own innovation for themselves to ensure a future for Roaming, be one of the first to do something different and accelerate potential new opportunities.

The Roaming and Interconnect industry finds itself at a defining moment. There are opportunities and there is a clear future for Roaming, but following a period of disruption: regulations, alternative roaming solutions and OTT's, we now face not one, but multiple and simultaneous challenges for which the vast majority of MNOs are ill prepared.

For Roaming and Interconnect to continue to succeed, the whole ecosystem must be in step. Who likes to be left behind? Unless MNOs join together, a lack of innovation can and will create massive issues for the end customers, with domestic services, not functioning when customers go abroad. Is there any point, for example, to be ready for 5G SA Roaming today and not have any roaming partners to launch with?

The VoLTE Roaming Problem

We've already slipped with VoLTE roaming, the price for which many operators will continue to pay for a while. Only 16 MNOs have launched VoLTE Roaming (source GSMA – Dec 2020) and 2022 is shaping up to be the year when major decommissioning activity will take place, (Source ROCCO Research) Many MNOs are likely to lose voice services with important roaming partner networks.

For the first time in our history, Mobile operators will see their roaming footprints shrink or have to deal with monopolistic roaming partners in otherwise competitive markets.

There's no running away from the fact, that as an industry we were abysmally slow to pick up on the link between decommissioning and VoLTE Roaming, and in the coming years many operators will have to answer very difficult questions to their customers as to why they are unable to serve them with roaming across the world as they used to previously.

Withdrawal of services is akin to handing over customers to far inferior competing technologies and OTT applications.

Let's think about 5G Roaming

The position on VoLTE Roaming is surely what 5G Roaming is going to look like next year. However, there is so much more at stake. When we talk about 5G roaming, since most of our backend processes were designed for 2G, how are we meant to succeed here?

The Challenge of Making Change Globally

Have you ever wondered why, while the rest of the world has moved to the adoption of new technologies like Blockchain, Smart Contracts and Machine Learning, Wholesale Roaming is only now starting to pick up on these opportunities? It would appear the industry just hasn't invested in the right resources (both internal and external) to ensure roaming processes are optimised for the future. Clearly, a few leading MNO's have been trialling new tech, but you can't move ahead with a few MNOs supporting something when the world is on a different model. The only way to move is to move with everyone.



Inclusivity on the Agenda

There’s also another challenge, most of the design work for wholesale roaming is often done by a specific niche of companies who volunteer resources to invest in that. Rarely do we hear or see global representation of MNOs small and large, from all continents of world come together to make adoption global. Yet, the tools and processes we use are expected to be adopted by everyone.

Think about where you see International conferences being held, there’s not a continent that doesn’t have its specific show to present regional business opportunities from ITW in the US to Africom, telecoms operators have a lot to say about the initiatives they are leading. For Roaming however, there are no forums looking at the specific challenges of emerging continents or markets. How can anything in our industry be designed with global adoption in mind when there is so little global representation. Emerging markets also need to ensure that their challenges are incorporated in the long term design of roaming, otherwise we can never achieve the ambition of having a consistent approach. Every region has its own specific societal, governmental and political background which brings its own specific challenges. It’s time to address this challenge.

The Covid 19 Impact

Although Covid-19 has created a major dent in MNO revenues, in the bigger picture it’s only a distraction which has further delayed us from achieving the challenges we need to meet head on. Apart from VoLTE and 5G Roaming, MNOs also have to engage with IoT Roaming, e-sims, Network Slicing, Blockchain, AI, Fraud prevention, Arbitrage, grey routing, etc. The list goes on.

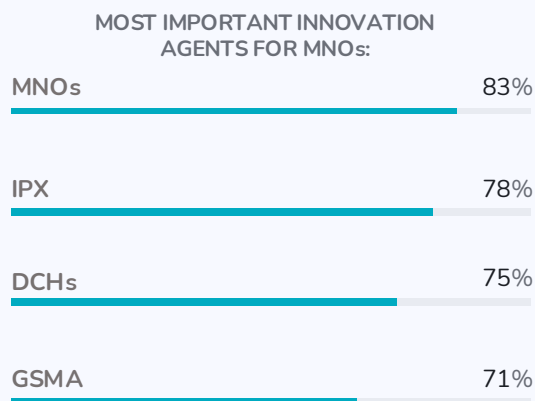
So how did we get here, and what’s gone wrong?

Over the last few years the Wholesale Roaming world was skewed towards Roaming teams strengthening their commercial negotiation teams. After extending the roaming footprint across the world, most MNO’s eased up on continuing to invest in Roaming expertise. In 2015 41% of Roaming teams surveyed said that their companies supported them to attend Roaming Standards meetings. In 2019, this had come down to just 9%. (Source: ROCCO Research) This has led to a situation where slowly but steadily there’s been a huge deficit created in roaming expertise. This has translated to very few people in the industry having an end to end view of what’s happening and the implications of this.

We are witnessing the creation of a perfect storm: the combination of multiple simultaneous challenges and a huge lack of expertise to deal with it.

Is it time for a Roaming Re-Think?

What the industry needs is an injection of innovation and education. In a survey, when MNOs were asked who they saw as most important for innovation, MNOs reported that in fact it is their fellow Operators where they see most innovation happening.



Source: ROCCO Research



But if we are to protect our customers and continue to provide them with the best possible services, Innovation needs to happen in a structured focussed manner with real drive and resources behind it; Not piecemeal, haphazard with adoption by only some networks.

We need a programme where MNOs can share their vision, expertise and knowledge to drive the industry through practical and educational workshops on the key challenges across different markets.

Could an “Accelerator Lab” Approach work for Roaming Challenges?

Working on ideas and solutions

The VoLTE Roaming Taskforce was created in November 2019 following many conversations with MNOs expressing a need for a more practical and solution oriented approach and only MNO members with Verizon as the chair. The principle was simple, to have an MNO only forum where MNOs can identify VoLTE Roaming issues and challenges and in a shared manner, find fixes and share expertise and experience to enable other operators to launch VoLTE Roaming quickly and seamlessly. The taskforce has also been working to create awareness in the industry and socialise the impact of the decommissioning of 2G and 3G on roaming services.

Being an MNO only forum, the taskforce was able to focus on the challenges MNO's face and work on them exclusively as a community. For example: Very early it was recognised that operators were having to ship handsets for testing, and that this was clearly not sustainable. The Taskforce was able to quickly identify handsets which are not blocked and advertise this to its members so that other MNOs could be guided as to which handsets to use.

It also appeared that MNOs were finding it difficult to work with some handset manufacturers who had blocked VoLTE Roaming on their handsets and only opened on a piecemeal basis after receiving operator requests in limited releases, and thus delaying launches.

Quite a few of the members lobbied handset manufacturers which led to them changing their processes and promising to open VoLTE Roaming by default for all. This has been a huge success of the taskforce and will greatly help MNO's looking to start testing.

We are told that the creation of this taskforce also helped other industry bodies to recognise the criticality of the situation and some of their workgroups have also started to focus on this. In fact the taskforce sent a liaison statement to other industry bodies, requesting to focus on the specific issues where current standards needed further development.

The taskforce also explored the vendor community to look for solutions already developed for the issues that had come to fore. Vendors with relevant solutions were invited to present their products. After their presentations the taskforce members were able to discuss the pros and cons of the solutions together as a team and various members even volunteered to either conduct trials or further help the vendors refine the solutions and ensure that they were in line with what MNOs needed. This has greatly helped mitigate the risk of “expertise deficit” we talked about earlier.



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Building Together

Bringing Roaming professional together in the VoLTE Roaming taskforce brought about the idea that if MNOs would come together for workshops on VoLTE they would also take the time to discuss other issues too. What the industry needed was a kind of entity which ran practical workshops and “accelerator programmes” to solve the long term problem of being behind the curve when it came to roaming opportunities.

Creating an entirely new entity with MNOs as partners was a concept which came about after the first few meetings of the VoLTE Roaming Taskforce. But the only way forward we could conceive of keeping the workshops going, was by building a non-profit organisation, independent, MNO member run, MNO member chaired with exclusively MNO Roaming projects on the agenda.

Working side by side with other MNOs in a safe environment regulated by all the normal measures needed to ensure compliance to anti-trust policies etc,...

We think it is precisely this “accelerator lab” like environment and a joint working platform of MNOs that is needed to face all the challenges of the day in Roaming, so for once we can get ahead of the technology curve.

Want to build something practical with that will not only work to solve challenges but educate and stimulate innovation?

In a survey from Q4 2020, members of the VoLTE Roaming Taskforce were asked if they felt that there was a need for a solutions focussed programme which was exclusive to MNOs, run by MNOs and enabling candid discussions (without any sales agenda) and of course focussed on MNO challenges. The support was overwhelming. Each of the above criteria were felt to be either important or very important. (please see below graphic for details).

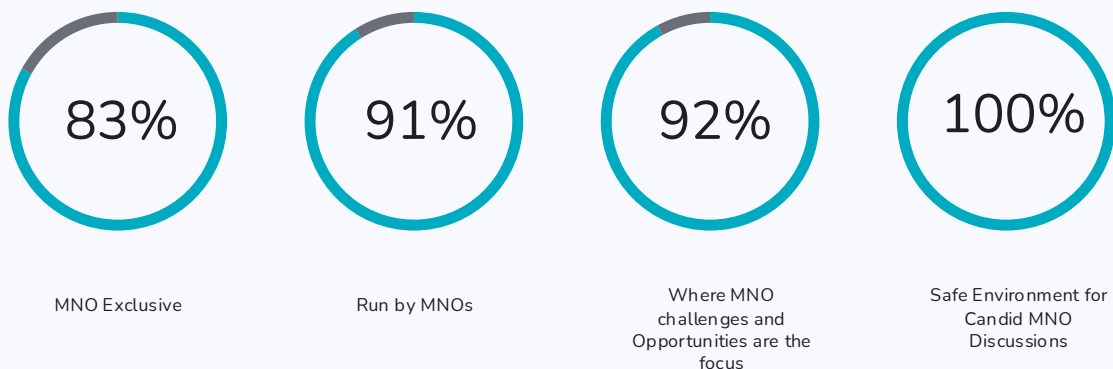
Introducing IO

With a successful proof of concept and an overwhelming feedback to expand the remit of the VoLTE Roaming taskforce, The Innovative Operators accelerator (also known as IO for short) has now been launched. IO is run as a independent non profit company and it has MNO only members with the objective of driving Innovation and education within the industry.

The MNO Executive Board members create a work plan for the year, with the objectives of not only shaping this area but driving education and awareness with other MNOs, so that even scarce industry expertise can be used to drive the industry forward in step.

NEW FORUM OPPORTUNITIES:

● Important or Very Important for MNOs



Source: ROCCO Research



IO is open to all Mobile Network Operators large or small from all regions of the world, and will endeavour to work closely supporting the work of standards bodies like the 3GPP, ITU and GSMA through sharing our findings and guiding them to where standards need further development.

IO is currently looking for its Executive Board members with the aim of having the first board meeting in Q4 2021.

Current IO Projects anticipated for 2021, to be ratified by the IO board are:

- **New Services Roaming Lab: VoLTE, 5G, NB-IoT**
- **African Roaming Alliance**
- **Re-Think Roaming Lab**
- **Fraud and Security mitigation Lab**
- **New Opportunities Lab**

Look out for a schedule of events related to these labs and how you can contribute.

If you are an MNO interested to participate in the development of IO, to see the business plan for IO, or for further information, please contact us at:

- info@innovativeoperators.io

