OLIVER WYMAN

THE ROAMING TSUNAMI

DISRUPTING THE WHOLE INDUSTRY?

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THE ROAMING TSUNAMI

Business literature is full of strong words like "radical" and "disruption", which appear frequently in presentations and articles. But what would we say of a business whose regulation has changed, whose volumes will multiply by ten, whose prices will drop by a similar factor, whose retail value proposition will be totally transformed, and whose wholesale dynamics will be fully renewed? Wouldn't this business deserve the words "radical" and "disruptive" to describe its evolution?

Roaming will radically change in Europe first, and in most countries after that. This disruption will have deep consequences for operators and they will have to change every detail of their roaming business design. However, the roaming disruption could become a tsunami sweeping the whole industry by making price differences between countries visible and potentially challenging operators' customer ownership in the domestic business as well.

ROAMING TARIFF STRUCTURES IN THE PAST

Roaming has been a very profitable business for mobile telco operators. It worked as a non-regulated cost-plus activity, in which companies were able to set their margins because, on the one hand, it was never transparent to customers how the final prices were formed and, on the other hand, users seldom chose their service provider by taking roaming into account.

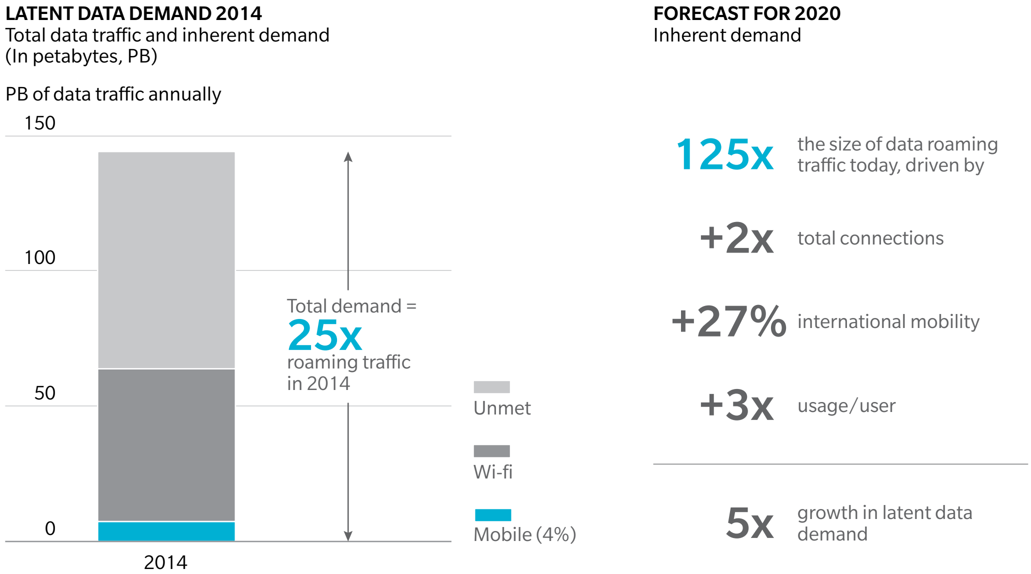
Let's look in more detail at how roaming worked. Operators determined wholesale prices, in one-to-one or (using multinational group structures and footprints) one-to-many negotiations. Two main goals drove these negotiations: firstly, wanting to keep prices as high as possible; and secondly, needing to minimise the effect of traffic unbalances between operators in different countries, that could always be done by steering traffic to network A or B in a given country at will. The wholesale team would then return home and tell their retail colleagues: "We have set wholesale roaming tariffs with all countries. Take these wholesale tariffs as a cost, add a mark-up and, voilà, you have your retail tariffs."

The retail team followed suit and retail prices were formed: a fully cost-plus scheme, hidden for many years to regulatory scrutiny. Without incentives to cut prices, and without competition, prices remained extraordinarily high. Our work in 2014 revealed that roaming data prices were between 5 and 100 times their retail equivalents (mostly due to the wholesale floor, not the retail mark-up). This dynamic was quite profitable for all operators. They captured healthy revenues from their own customers travelling abroad; most of these revenues went to the receiving network operators in the foreign country but, in turn, operators kept all the wholesale revenues (and margin) from these travellers.

So what did roaming look like from an economic angle? It was a business with very high prices and very low volumes, leaving a huge portion of the latent demand unfulfilled. Take roaming data as an example. Even in 2015, when most domestic retail mobile data tariffs have already migrated to bundles of different sizes, roaming data is very often priced under a pay-as-you-go logic (or with very small daily, weekly, or monthly opt-in bundles) and with extremely high prices. This is an issue in voice. But in data, it is an adoption deterrent for most users, since it is impossible for them to translate an experience (watching a YouTube video on a mobile device, for example) into a quantity of units (such as megabytes, or MBs) to be multiplied by a price.

The result is a huge unserved demand (see Exhibit 1). In our projects on this subject in Europe, we found that only 5–10 percent of the latent demand for roaming data was fulfilled by cellular networks.

Exhibit 1: Current roaming tariff structures and price levels have generated a huge unmet demand



LATENT DEMAND IS 25x THE CURRENT ROAMING MARKET – AND PROJECTED TO GROW ANOTHER 5x BY 2020

Sources: GSMA analysis, GSMA Intelligence, UNWTO, Informa, Machina, Mobidia, Oliver Wyman analysis

Globally, this figure drops to 4 percent. The fulfilled demand was mainly formed by users in highly inelastic segments, typically business travellers whose usage was paid by their companies. Most consumer-segment travellers, terrified by stories of bill shocks, refrained (and they still do) from using roaming data and turned their data connections off when travelling abroad. The result was (and still is) an almost "by the book" monopolistic outcome, with perfect discrimination.

THE DISRUPTION

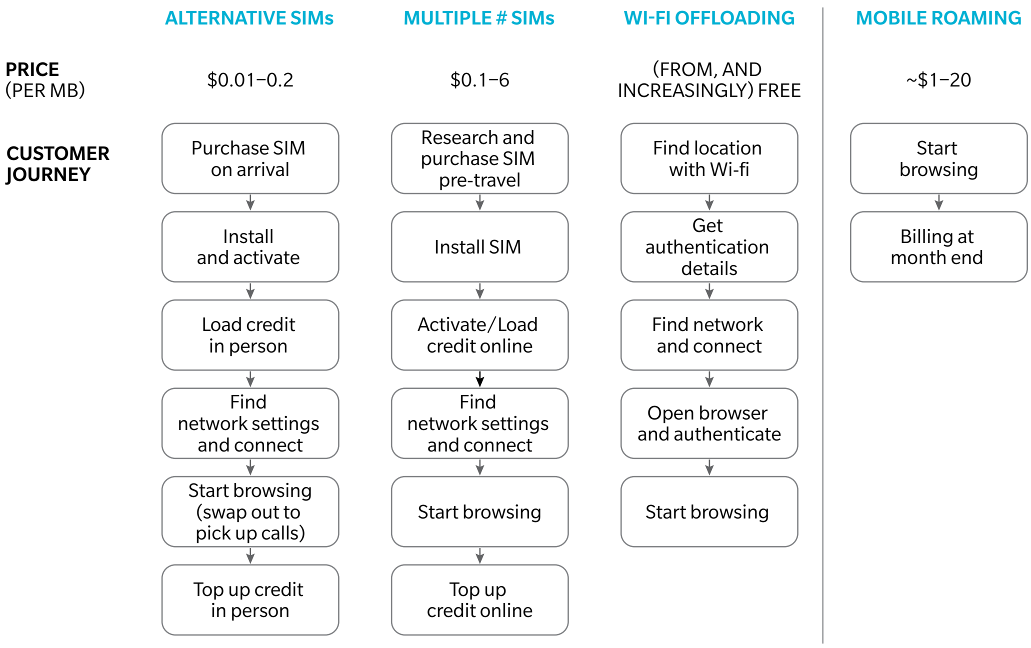
Every monopoly, if not protected by regulation, will sooner or later be attacked (or, in economic jargon, "contested") by new entrants. In the past, there have been some attempts to arbitrage operators in the roaming business. Everyone travelling abroad will see vending machines at the airport offering prepaid local SIMs. There have also been some web-based business designs offering much cheaper roaming tariffs. However, most of these attempts involved a significant amount of hassle for users. For the average customer, it was impossible to use these alternatives (shown in Exhibit 2).

Then the EU stepped in with its Roam Like At Home (RLAH) regulation (see Exhibit 3). The European Commission (EC) approved an agreement that, by June 2017, there will be no extra roaming charges for users to pay when travelling abroad. (A set of rules on fair usage defines some limitations to avoid the "permanent roamers" effect.) The roaming volumes of minutes will be deducted from users' domestic bundles as if they were at home. A transition scheme from March 2016 will allow small mark-ups over the maximum established wholesale prices.

The EC stated in its directive that, in summer 2016, wholesale roaming tariffs will be scrutinised to ensure they really enable RLAH retail tariffs. This means a Copernican revolution of the roaming business in Europe, for the following reasons.

Exhibit 2: Alternatives to roaming?

Up to now, operators have benefited from the fact that alternatives are loaded with hassle, allowing them to keep a profitable roaming business



Price formation will no longer start with negotiation between wholesale teams from different operators. On the contrary, the wholesale department, before entering into negotiations with other operators, will come to the retail teams to ask: “What retail tariffs must the wholesale agreements enable to comply with RLAH logic?” From a cost-plus to a retail-minus logic.

With retail prices in mind, the wholesale teams will start negotiating, but this time with a clear target of getting wholesale prices that, under an RLAH scheme, produce a profit. This is because, in the new context, if traffic is unbalanced between two operators, the roaming dream could become a nightmare for the operator that exports the most traffic. Each operator (or group of operators) will view this new regulation with a different sense of urgency depending on its position – as a net receiver or exporter of traffic. Net traffic exporters will be keen (and very active in front of EU institutions) on changing the wholesale pricing dynamics as soon as possible to ensure profitable implementation of retail RLAH. Net traffic receivers will await more clarity and see what impact the EU regulations will have on traffic volumes.

From an economic point of view, operators will again get a tiny margin (if any) over roaming-out revenues. They will keep roaming-in margins, but this time with effective prices that, in Europe, will be around a quarter of their previous level. The counterpart to this effect is that volumes will explode. Once users realise that RLAH is a reality, they will start to make worry-free use of mobile voice and data when travelling. According to our estimates, this changing usage pattern could lead to volumes around ten times higher than they are currently. Roaming will therefore evolve from a high price, low volume business structure to a low price, high volume one.

Will the disruption affect markets other than Europe? After the bold move by the EU, it is going to be difficult for regulators in other geographies not to act along similar lines. There are clear signs that the direction set by Europe will be followed in other regions. Vodafone is already offering RLAH for its customers when they are in the USA, Telefónica and Claro are offering it in Central America, and AT&T is doing so in the USA and Mexico.

Exhibit 3: EU regulation on roaming

The aim of the EU note is to introduce Roam Like At Home (RLAH) by June 2017 with the possibility of adding a surcharge in the interim period

2016

APRIL 30

- **RLAH** scenario with **small surcharges** up to the maximum wholesale rates[1,2]

JUNE 15

- **Review of the wholesale roaming market** by the European Commission
- Proposition of a new law to the European Council and Parliament

DECEMBER 15

- **"Fair usage policy" definition** to prevent abusive use of roaming[3]

2017

JUNE 15

- Full RLAH scenario
- **No overcharge applicable.** Consumption to be deducted from national plan volume/allowance as if you were at home, with no extra charges

1. Maximum wholesale rate set as €0.05 per minute, €0.02 per SMS, and €0.05 per MB (excl. VAT). For calls received, the maximum surcharge will be the weighted average of maximum mobile termination rates across the EU
2. Also, domestic prices will be limited to the retail caps: €0.19 per minute of call made, €0.06 per SMS sent, and €0.20 per MB of data (excl. VAT)
3. For roaming that goes beyond fair use, a fee may be charged with a maximum of the wholesale rate that operators pay for using the networks of other EU countries

How long will it be before AT&T and Verizon customers travelling from the USA to Europe can benefit from the same treatment that Vodafone customers enjoy when travelling from Europe to the USA? It is just a matter of time before we witness RLAH-like approaches in most regions, at least on a cross-border or regional scale.

LEVELLING THE PRICE PLAYING FIELD IN EUROPE?

As huge as the roaming business is, the main disruption could take place outside its own boundaries. How might this happen?

Let's consider two national mobile markets, A and B (shown in Exhibit 4). We will assume that retail prices in market A are 30 percent higher than in market B (we can find this kind of imbalance in Europe in December 2015). Using RLAH logic, operators negotiating roaming wholesale tariffs in market B won't accept prices above their retail tariffs; otherwise they will lose money when their customers travel to country A. But then operators in country A will be forced to offer roaming prices to operators in country B that will be way below country A's own retail prices. So when customers of an operator in market B travel to country A, they will enjoy a price that will undercut prices of market A operators.

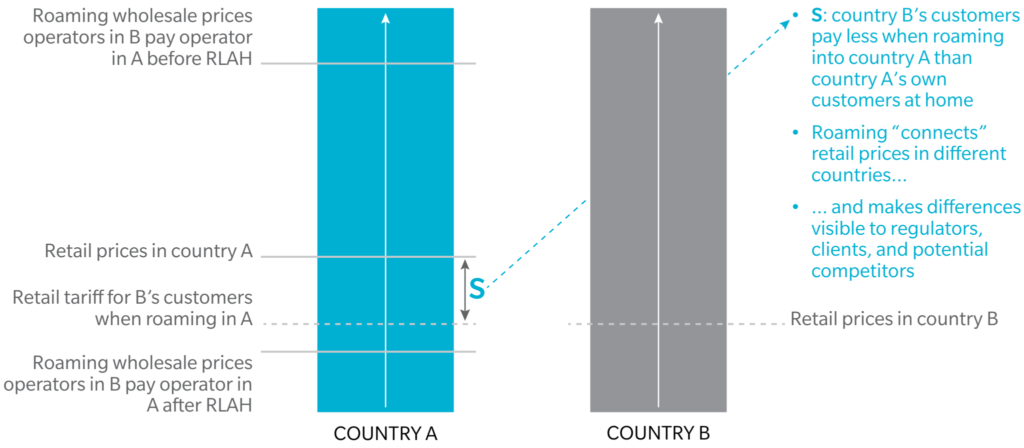
This sends out three kinds of signals:

1. It tells regulators in market A that operators in this market could reduce their prices, a signal that could be relevant when it comes to establishing Mobile Virtual Network Operator (MVNO) prices in the domestic market.
2. It becomes clearer to customers in market A that the prices their operators charge in this market are too high.
3. An operator in a low-price market could try to arbitrage price differences by entering as an MVNO in a high-price market, simply by getting a national wholesale price at the same level as the wholesale roaming price.

As this dynamic is generalised across Europe, price differences among national markets will become less sustainable. Roaming will, to some extent, "connect" price levels in different markets, making it very difficult in any given country to sustain mobile prices that are significantly above the European average.

Exhibit 4: Roaming levelling prices in Europe

Customers of operators in country B will pay less when roaming in country A than country A's customers at home



CLIENTS AT RISK?

Under the new RLAH scheme, not only revenues or margin but also clients could be at risk. Let's think of an Over-The-Top (OTT) player or a handset vendor, with a strong brand, willing to enter the mobile business. This agent could get an MVNO agreement in one EU country; strike roaming agreements with Mobile Network Operators (MNOs) in most other EU countries; and exploit soft-SIM features to extend its offer to most of Europe. Under the fair usage policy that the EU will enforce, this approach could face limitations. However, the agent could instead strike national wholesale MVNO agreements with the same MNOs and use the soft-SIM features to offer a pan-European mobile service. In this setting, traditional MNOs would see not only a challenge to their profit margins but also a threat to their customer base.

A TSUNAMI OF IMPLICATIONS FOR THE ROAMING BUSINESS AND BEYOND

Everything will change in the roaming business. Retail tariffs will no longer include a charge for roaming. Vodafone has already anticipated this move, and the operator's new Red tariffs include no roaming charges in Europe and the USA. Accordingly, wholesale tariffs will have to go through a radical change. To enable RLAH, they must move away from pay-as-you-go schemes to mimic the bundle nature of most domestic retail schemes. And they will have to cut prices drastically.

In the first years of the new environment, estimating volumes will be a major challenge. It will also be the key to not making losses from roaming due to failed wholesale negotiation. To estimate volumes accurately, operators need to change the way they manage roaming. Currently, roaming is managed by wholesale teams in almost total isolation from the retail and finance functions. For example, roaming is often reported in separate pieces (roaming out, roaming in) and operators seldom enjoy an integrated view with a single Profit and Loss (P&L) statement for roaming. This kind of approach will not work in the future. A collaborative and multidisciplinary approach will be required for operators to be as accurate as possible in estimating future roaming volumes.

From an economic standpoint, the roaming business will change to become low price, high volume in its structure. What will be the impact on operators' P&Ls? The extent to which operators will be able to sustain current revenue levels will depend on price elasticity of the demand. But this doesn´t mean that the final outcome depends on exogenous factors. On the contrary, the future of the roaming business depends heavily on the ability of operators to market the new RLAH schemes.

Currently, customers perceive roaming to be unaffordable; they think they risk a huge bill if they turn on their smartphone data connection when travelling abroad. Operators need to devise and launch the right communication campaigns to convince customers that the situation has turned 180 degrees.

So far, roaming has been absent from the dynamics of competition. However, in local markets, another consequence of the new roaming regime is that, for some months at least, roaming will be part of the competitive armoury of operators, which will encourage customers to view roaming as part of the value proposition. Vodafone has already taken the lead at a European level.

Another implication will be managerial in nature. So far, the main lever by which the roaming business has been managed has been unitary price. From now on, roaming will be managed from the perspective of the total Average Revenue Per User (ARPU), along the same lines that the industry has followed since voice started to lose its value and was included as part of indivisible bundles.

Finally, as we have explained, outside its defining boundaries, roaming also has the potential to change the dynamics of pricing in Europe by creating clearer price differences among markets and signalling them to regulators. All in all, it looks as though the roaming business will deserve the "disruption" tag.

WHAT CAN BE DONE?

In recent months, we have supported some of our clients in navigating disruption in the roaming market. A key factor for operators in managing this disruption is to realise that it is a CEO-level topic. It has enormous strategic implications – on revenues, on prices, and potentially on the ability of operators to retain customers – and cannot be delegated to wholesale or retail departments.

Our general view is that roaming requires renewed efforts to strengthen the relationship with customers. This effort should be grounded on three main principles: anticipation, radical improvement in customer experience, and a move from managing price to managing ARPU. More specifically, we think operators should:

- Anticipate retail disruption – unleashing latent demand by introducing new, worry-free tariffs as soon as possible to drive a change in customers' perception that roaming is unaffordable
- Review the strategic setting – assessing potential market entry by agents coming from the digital world
- Accelerate customer experience improvement programmes – getting closer to customers' experience of the digital arena
- Heavily communicate the new roaming approach – supporting the change in perception mentioned above
- Prepare a totally new approach to wholesale – moving away from pay-as-you-go schemes and devising tariff structures that remove the risks resulting from volume explosion, for example through margin preservation schemes
- Change the way in which roaming is managed – devising a more integrated approach and building a single, unified roaming P&L
- Where an operator is based in a market with prices above the European average, start preparing for retail price disruption – focusing on trying to preserve ARPU as high as possible

In summary, operators must assume that disruption in the roaming market will not only change the roaming business itself but will also have the potential to change the dynamics of competition in domestic markets. They should prepare to be profitable in this new context.

ABOUT OLIVER WYMAN

Oliver Wyman is a global leader in management consulting. With offices in 50+ cities across 26 countries, Oliver Wyman combines deep industry knowledge with specialised expertise in strategy, operations, risk management, and organisation transformation. The firm's 3,700 professionals help clients optimise their business, improve their operations and risk profile, and accelerate their organisational performance to seize the most attractive opportunities. Oliver Wyman is a wholly owned subsidiary of Marsh & McLennan Companies [NYSE: MMC].

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