A review of international mobile roaming to December 2011

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Executive summary

The European Commission reported on the implementation of the current Roaming II Regulation and proposed the Roaming III Regulation to run until 2022. This combined wholesale and retail price caps for voice, SMS and data (the retail data price cap being new). It also proposed the introduction of so-called structural measures intended to introduce sufficient competition to allow the withdrawal of price caps. Further reviews of the regulation are planned. A wide range of issues have been raised by the legislators, which will require to be resolved if the legislation is to be agreed and in place for the end of June 2012.

Elsewhere, a number of commercial offers have been made with significantly reduced prices. For example, a consortium of Asian operators offers unlimited data access for USD 12 per day. China Mobile has reduced roaming rates in Europe to RMB 2 per minute. Russian operators have struck deals with operators in the Baltic states to offer mutual reductions, while the Polish and Russians governments helped operators to coordinate price reductions. The Gulf Cooperation Council has directed the reduction of rates between the six countries.

The Australian and New Zealand governments have an inquiry underway, examining the reasons for the high prices of roaming between the two countries.

The USA has acted to ensure national roaming for data services.

Note: A previous update to April 2011 is available.

Keywords: telecommunications, wireless, roaming, legislation, regulation.

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1. Introduction

International mobile roaming (IMR) continues to be the subject of activity by legislators, policy-makers, and some regulators. In particular the issue of "bill shock" continues to be a major concern.[1] A previous note described developments up to April 2011.[2]

Visiongain estimates that annual IMR revenues would rise to over USD 66 billion (€51 billion) in 2016,[3] very similar to an earlier figure from Informa.[4] The European Commission estimate the value at €4.8 billion within the European Union or some four per cent of total mobile revenues. Following the global financial crisis tourist numbers are again growing driving up use of IMR services,[5] while there has been increasing use of data roaming given the proliferation of smartphones and tablet computers.

Vodafone has conceded that many business travellers continue to switch off their mobile data connections when abroad, causing themselves inconvenience and representing a "significant loss in potential revenue" to the operators.[6] It split the market for enterprises and consumers as 65 per cent and 35 per cent of total roaming revenues respectively. This behaviour is despite the discounted rates for enterprises and their supposed willingness to pay to remain connected – it suggests that prices would have to fall a long way before consumers will make extensive use of the data roaming service.

A group of very small providers have issued press releases and used twitterbots to publicise their "special" offers, for example, Newroam and Voiano. However, there is no evidence of widespread adoption of these offers or of any effect on prices. Such virtual providers appear to have only a few thousands of customers.

There continues to be only limited academic research on the subject of IMR charges and markets. One analysis warned of the likely need to sustain price caps indefinitely.[7] An analysis of wholesale roaming market by Telefónica considered whether concerns about markets justified interventions.[8] However, it was limited to cases of bilateral roaming, and while it extended models by allowing for the possibility of wholesale switching of traffic between suppliers, it ignored the question of multi-country groups which have a significant presence in Europe and have locked up much of the traffic.

Defraigne and de Streel in a rare analysis of the digital single market mention some of the efforts to regulate roaming and the legal challenge to the first Roaming Regulation, observing that "it is fair to recognise that competition in this sector [sic] has so far failed".[9] They argue for a concentration of actions on cross-border services and against intervention in the analyses of national markets. Sutherland, reviewing the governance of IMR since 1996, notes the lack of a sound economic understanding of the issue and expresses concern

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[1] Ewan Sutherland (2011) Lessons from 'Bill Shock' – trans-border mobile tariff structures. EVUA Mobility Conference, 20-21 September 2011, Amsterdam.

[2] Ewan Sutherland (2011) International mobile roaming – an update. SSRN.

[3] Global mobile roaming: operator strategies, opportunities and challenges in the 3G and LTE era. PRNewswire, 1 December 2011.

[4] Roaming revenues to jump 86% by 2015. Telecoms.com, 23 September 2010.

[5] Healthy growth of international tourism in first half of 2011. World Tourism Organisation, 7 September 2011.

[6] Vodafone "International data roaming and the enterprise" Insight news, 12 December 2011.

[7] Terje Ambjørnsen, Øystein Foros, & Ole-Christian B. Wasenden (2011) Customer ignorance, price-cap regulation, and rent-seeking in mobile roaming *Information Economics and Policy* **23** (1) 27-36.

[8] Javier Domínguez Lacasa (2011) Competition for partners: strategic games in wholesale international roaming 22nd European Regional ITS Conference, Budapest 2011.

[9] Philippe Defraigne & Alexandre de Streel (2011) What is the digital internal market and where the European Union should intervene? Firenze: Florence School of Regulation. EUI RSCAS 2011/33.

about the disproportionate level of administrative and legislative effort devoted to a small part of the market.[10]

This paper considers first the developments in the European Union legislation, the work of the national regulator, the European Parliament and of the Council of Ministers. It next considers commercial developments in a number of countries, mostly beyond Europe. The developments in Trans-Tasman roaming are briefly described, followed by those in the United States of America (USA). Finally, conclusions are drawn and issues identified for further research.

2. European Union

In July 2011 the European Commission made its proposal for a third roaming regulation, which despite its name is a trans-national statute.[11] The proposals were complex, likely to prove contentious and difficult to implement within the time scale of twelve months (i.e., before the current regulation expires in June 2012), moreover it was unclear whether they would achieve the Digital Agenda goal of reducing IMR rates to the level of national charges.[12] The original ambiguity in this term, whether it meant the home or the visited country, seems to have been resolved in favour of the former.

The measures were in two parts intended to complement each other, the price caps were to be retained and extended to protect users (see Table 1), with the addition of "structural" measures, intended to increase competition. By separation the IMR service from domestic retail service it is proposed to introduce new players which would drive down prices offering an alternative to consumers.

Table 1Current and proposed retail price caps in Eurocents (excluding VAT)

		Unit	*Current*	*1/7/2012*	*1/7/2013*	*1/7/2014*
Data	Retail	MB	None	90	70	50
	Wholesale	MB	50	30	20	10
	Mark-up	%	-	200%	250%	400%
Voice-calls made	Retail	Minute	35	32	28	24
	Wholesale	Minute	18	14	10	6
	Mark-up	%	94%	129%	180%	300%
Voice-calls received	Retail	Minute	11	11	10	10
Text message sent	Retail	Per SMS	11	10	10	10
	Wholesale	Per SMS	4	3	3	2
	Mark-up	%	175%	233%	233%	400%

The European Economic and Social Committee (EESC) adopted a favourable opinion on the draft Roaming Regulation in late October 2011.[13] However, it feared that the measure would divert "too much" traffic to larger groups that enjoyed a dominant position, to the detriment of small operators, noting that the 2005 call by the EP for an assessment of the effect of the regulation on smaller providers had gone unanswered The EESC also regretted

[10] Ewan Sutherland (2011) Governance of telecommunications markets – the case of international mobile roaming. Fourth Annual Conference on Competition and Regulation in Network Industries Europe and beyond, Brussels, 25 November 2011.

[11] Proposal for a Regulation of the European Parliament and of the Council on roaming on public mobile communications networks within the Union. COM(2011) 402 final.

[12] Ewan Sutherland (2011) Roaming III: regulating international mobile roaming charges to 2022. SSRN.

[13] Opinion of the European Economic and Social Committee on the Proposal for the Regulation of the European Parliament and of the Council on roaming on public mobile communications networks within the Union (Recast) COM(2011) 402 final. CESE 1611/2011 - TEN/461.

that the impact assessment had not considered employment and working conditions in the sector.

Body of European Regulators for Electronic Communications

In 2009 the European Regulators Group (ERG), which combined the national regulatory authorities in the EU, was reconstituted as the Body of European Regulators for Electronic Communications (BEREC).[14] Article 2(d) of the regulation creating BEREC states it shall:

> issue reports and provide advice, upon a reasoned request of the Commission or on its own initiative, and deliver opinions to the European Parliament and the Council, upon a reasoned request or on its own initiative, on any matter regarding electronic communications within its competence;

It has offered reports and advice on IMR largely on its own initiative.

One of the peculiar features of BEREC is that it appears to operate outside the usual practices of better regulation.[15] It has not conducted a consultation on IMR, nor has it conducted its meetings in public in contrast to bodies such as COCOM, RSC and RSPG, nor does it publish any substantive minutes.[16] In particular it has not provided impact assessments for its opinions and reports. Indeed most of its views are careful assertion rather than being based on detailed evidence. Its opinions and reports are not subject to reconsideration by BEREC nor can they be examined by an independent appellate body. Not being a legal entity, it appears not to be subject to judicial review.[17]

At the end of August, BEREC published its purported "technical analysis" of the Commission's proposals on its own initiative.[18] This built on its previous report on the roaming regulation.[19] It agreed with the EC that market forces would not be sufficient to ensure "reasonable" prices for consumers and that wholesale and retail prices would have to set by legislation for some time, though it cautioned that: "No-one wants eternal price regulation".[20] BEREC said it was "very cautious" about the extent to which the benefits of decoupling home and IMR services might be realised and seemed to suggest other measures would be sufficient. It advocated lower retail price caps than proposed by the Commission. However, it neither recalculated the values in the EC impact assessment nor did it offer any alternative calculations.

BEREC presented its views to the ITRE and IMCO Committees of the European Parliament.[21] Its representative also attended and its spoke at subsequent meetings of those committees.

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[14] Regulation (EC) No 1211/2009 of the European Parliament and of the Council of 25 November 2009 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Office.

[15] Communication of the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Implementing the Community Lisbon programme: A strategy for the simplification of the regulatory environment. COM(2005) 535 final.

[16] It is unclear, for example, which authorities take a lead and whether voting on opinions on IMR are unanimous or by a majority.

[17] Nonetheless, some national courts such as the High Court of England and Wales might be willing to hear a case seeking to overturn its opinion on IMR, though if it sought the guidance of the European Court of Justice (ECJ) the delay could nullify the outcome.

[18] BEREC (2011) Analysis of the European Commission's proposal for a regulation on roaming. Riga: BEREC.

[19] BEREC (2010) Report on international mobile roaming regulation. Riga: BEREC.

[20] Indeed, the ECJ has made clear this would not be legal under the TFEU.

[21] Chris Fonteijn Presentation by BEREC Chairman on international roaming for IMCO. 5 October 2011.

European Parliament

The European Parliament assigned the legislative proposal to the Industry, Research and Energy Committee (ITRE) with opinions to be provided by the Internal Market & Consumer Protection Committee (IMCO) and the Legal Affairs Committee (JURI).[22]

The EC presented its proposal and impact assessment to IMCO in August 2011.[23] Engstrom made a proposal of an alternative wholesale cap of €10 per Gigabyte, which he argued was needed to allow for the more extensive use of data services by consumers. The Committee was concerned to overcome IMR surcharges in order to create the single market, but to succeed required to keep things simple for consumers, in contrast to the complexities of the EC proposal.

On 10 November 2011, there was an exchange of initial opinions by the ITRE rapporteur Mrs. Niebler (EPP) and the shadow rapporteurs: Mr. Goebbels (S&D), Mrs. Valean (ALDE), Mr. Lamberts (Greens), Mr. Chichester (ECR) and Mrs. Tzavela (EFD).[24]

On 20 December 2011 there was a mini-hearing on the roaming regulation at the ITRE Committee followed by a meeting of the IMCO rapporteur and her shadow rapporteurs. There is to be a debate and a vote on amendments on 6 February 2012 at the IMCO Committee. The plenary sitting is expected to be on 18 April 2012.

The issues considered by these meetings were:

- Need the regulation be this complicated;
- Can the transparency measure for consumers be extended to those travelling beyond the EU/EEA;
- Can Roaming Regulations IV, V and VI be avoided;
- Whether to pursue competition by structural means or to continue with price caps;
- Whether to reduce price caps steeply to enable existing operators to offer pan-European tariffs or to provide a sufficiently large margin to attract in new entrants;
- How to ensure the decoupling of roaming from domestic services could ensure a well informed choice by consumers and fast/effective implementation once taken;
- Whether an "escape clause" could be crafted allowing operators to avoid the expense of the technical provisions for decoupling domestic and IMR services if they offered their customers "near" domestic charges;
- Whether it would be justified to open access to domestic markets through a roaming regulation, given the former had been declared competitive;
- Were the costs significantly lower than present estimates; and
- Whether a wholesale cap of €10 per Gigabyte was feasible.

Despite a desire to avoid repetitive regulation, there appeared to be an acceptance of a review in 2016 which would, necessarily, have the possibility of adjustment to price caps.

Almost inevitably some operators elected to use scare tactics. In particular it was claimed that by opening wholesale access to third parties non-European firms, notably the rapacious Apple and Google, would enter the markets, both roaming and domestic, devastating the European network operators. However, with this, potentially powerful exception, there was no indication that there were prospective new providers. Indeed, Transatel said that low retail roaming prices would cause it to close within a year or two.

While the "escape clause" was said to be for small operators, to spare them high implementation costs, if the large operator groups (e.g., Orange, T-Mobile, Telefónica/O_2,

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[22] Progress can be tracked in the legislative observatory on roaming and at the ITRE Committee.
[23] Vesa Terävä, Presentation of the roaming proposal impact assessment. European Commission, 30 August 2011.
[24] Draft agenda, 10 November 2011, Brussels.

TeliaSonera and Vodafone) were to opt out it would reduce the decoupled retail market to a very small scale, potentially eliminating market entry. It is an obvious case for a revision to the impact assessment.

There seemed to be no interest in the suggestion of Transatel to open wholesale agreements to MVNOs.[25] This seems likely to be a relatively cheap option to implement and could do only minimal harm.

One "expert" suggested referring the matter back to DG Competition, where roaming was mishandled from 1996 until 2004.[26]

The Council of Ministers

The other chamber of the EU legislature is the Council of Ministers, which held its 3134th Council meeting on Transport, Telecommunications and Energy on 12 and 13 December 2011.[27] The Council noted, in a public session, a progress report on the draft roaming regulation and held a discussion on the basis of a presidency questionnaire.[28, 29]

The aim of the incoming Danish presidency would be to achieve a first-reading agreement with the European Parliament in early 2012.

The Council working party had discussed the proposal at six meetings on the basis of three clusters of issues:

- Structural measures;
    - Whether they would indeed meet the Digital Agenda target?
    - Whether the costs of implementation might be substantially higher than €300 million?
    - Should call forwarding to a roamer be included?
    - Should a deadline be imposed on BEREC for the publication of its wholesale access guidelines?
- Price caps;
    - Could the retail prices not be reduced to be closer to wholesale?
    - Was there sufficient margin for market entrants?
    - Was withdrawal in 2016 premature?
    - Should the threshold be reduced from 75 to 50 per cent?
    - Should the 2015 review be postponed?
- Transparency, safeguards and supervision:
    - Could information provision be extended to roaming beyond EU/EEA?

While national delegations welcomed the legislative proposal, most sought further clarification on:

- The scope of the wholesale access obligation;
- The technical and practical feasibility of de-coupling the provision of domestic mobile services from IMR services; and
- The implementation time-frame for particular provision in the regulation.

Delegations expressed concern about the margin between the retail and wholesale price caps.

[25] The original EU obligation to provide IMR services to other operators with spectrum severely constrained the market, a decision repeated in Roaming I Regulation of 2007.
[26] Tony Shortall.
[27] See Council press release 18416/11 Provisional Version, Presse 486, Pr Co 78.
[28] http://register.consilium.europa.eu/pdf/en/11/st17/st17900.en11.pdf
[29] http://register.consilium.europa.eu/pdf/en/11/st17/st17751-re01.en11.pdf

3. Bilateral deals and commercial developments

In Asia the Bridge Alliance combines operators from eleven countries to provide a platform for advanced roaming services and commercial offers.[30, 31] It is presently running a "smiling traveller" campaign to draw attention to the offers from the group.[32] These include:

- Bridge AsiaRoam Data SIM, a prepaid SIM card with unlimited data roaming for USD 12 (€9.30) per day;
- Bridge VoiceSMS packages:
    - Roam15 – USD 18 (€14) for 15 voice call minutes and 15 SMS messages,
    - Roam30 – USD 32 (€25) for 30 voice call minutes and 30 SMS messages,
    - Roam60 – USD 60 (€47) for 60 voice call minutes and 60 SMS messages.

One surprise has been the sequence of deep cuts made by China Mobile to its IMR charges, reaching levels of €0.36 per minute in Europe (see Table 2).[33] It was reported as saying it had negotiated less expensive roaming deals with international operators because of the increasing number of its customers going abroad. Another suggested explanation was that the operator could not offer customers the Apple iPhone and were trying to retain high-spending customers.

Table 2 China Mobile prices in December 2011 (in RMB per minute)[34]

	Voice calls				*SMS*	*Data*
	Local	*Incoming*	*To China*	*To other country*	*To China*	*Per Megabyte*
Belgium	2.99	2.99	5.99	5.99	1.29	20.56
France	0.69	1.99	6.99	1.99	0.39	10.28
UK	0.69	1.99	7.99	1.99	0.39	10.28
USA	0.59	0.99	0.99	3.99	0.19	10.28
South Africa	2.99	2.99	3.99	4.99	1.29	20.56
Tanzania	4.99	5.99	12.99	12.99	1.99	51.40
Kenya	5.99	5.99	33.99	33.99	1.99	51.40
Ethiopia	4.99	5.99	29.99	25.99	1.99	51.40
Egypt	0.99	1.99	1.99	3.99	0.39	10.28

Note: Prices are substantially reduced for France and UK from May 2011.
€1 = RMB 8.29

Its domestic rival China Telecom has announced it would become an MVNO in the UK and USA, with plans for entry into France and Germany, in order to serve ex-patriate Chinese students and workers, offering them low rates to call China.[35, 36] It would also be available to the growing numbers of Chinese tourists, offering an alternative to IMR services.

A number of providers, sometimes described as MVNOs, offer "global" SIM cards as an alternative to the use of the IMR service provided by an operator in the home country.

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[30] https://www.bridgealliance.com/About_alliance-member.aspx
[31] Ewan Sutherland (2010) "International mobile roaming in Asia and the Pacific Islands" working paper available on SSRN.
[32] Bridge Alliance embarks on 'The smiling traveller' brand campaign to showcase benefits of roaming with the alliance network. Bridge Alliance, press release, 14 December 2011.
[33] China Mobile cuts international roaming fees. *China Daily*, 2 August 2011.
[34] Ewan Sutherland (2011) International mobile roaming. Johannesburg: LINK Centre.
[35] China Telecom to name UK MVNO host by end August. Telecoms.com, 18 August 2011.
[36] China Telecom 'to start MVNO in US', Global Telecom Business (gtb), 9 November 2011.

Several of these offers come from Cubic Telecom, which acts as a wholesaler or MVNE, supporting retail providers.[37] Alternative SIM cards providers include:

- Brightroam;
- Clay Telecom;
- Cloud Roam;
- Matrix Cellular;
- Newroam;
- Polar Wireless;
- Rebelfone;
- Ryanair;
- Trufone; and
- Voiano.

There are no statistics for these types of provider, but such evidence as exists suggests they are much too small to affect the behaviour of the operators.

A rather complex deal was cut by the Russian and Polish governments in which operators in the two countries cut their wholesale and retail IMR rates to the level of the EU Roaming Regulation. Very little documentation has been published on these arrangements, for example, there appear to be neither legal instruments nor impact assessments.

The Russian operators have been reducing their rates to Europe (see Table 3), at levels suggesting Megafon must have negotiated access to the regulated wholesale rates or to prices very close to them. It is not clear how this might have been done, but it could be that one of the Baltic or Polish operators is reselling wholesale access as part of the deal on roaming with Russia.

Table 3 Megafon price reductions[38]

		Dec. 2011			*Previous tariff*	
	Per	*RUB*	*€*	*reduction*	*RUB*	*€*
Incoming calls	Minute	6	0.15	89%	56	1.36
Calls back to Russia	Minute	16	0.39	82%	86	2.08
Outgoing text message	SMS	6	0.15	68%	19	0.46
Mobile data	Megabyte	50	1.21	54-89%	110–440	2.66-10.65

€1 = RUB 40.31

HCC (NSS), a regional MNO in Russia, announced discounted IMR rates on Tele2 networks in Croatia, Estonia, Latvia, Lithuania, Kazakhstan, and Sweden, with calls to Russia at RUB 19.90 per minute and incoming calls at RUB 14.90.[39] Although more expensive than Megafon, these are nonetheless substantially reduced.

A reduction in rates for travel in the opposite direction was reported by Elisa in Estonia.[40] Outgoing calls to Estonia and to the rest of the EU cost €0.42 per minute in Russia for post-paid customers while incoming calls are €0.13 per minute, with outbound SMS at €0.13, and data at €1.50 per MB. Its Estonian rival EMT announced it had reduced roaming rates in Russia by up to 90 per cent.

[37] http://www.cubictelecom.com/
[38] Russia's MegaFon slashes mobile roaming tariffs in Europe. TASS, 14 December 2011.
[39] NSS cuts roaming rates on Tele2 networks. Telecom paper, 29 December 2011.
[40] Elisa, EMT cut roaming rates in Russia. Telecom paper, 29 December 2011.

The six countries of the Persian Gulf Cooperation Council (GCC) have been working to reduce IMR rates within their region.[41] This is made easier by most of the operators being state-owned.

In Qatar, Qtel offers the "Shahry Passport", comprising a bundle of 100 roaming minutes, valid for 30 days, including calls back to Qatar, for local calls and for received calls:[42]

- France (Orange and SFR);
- Germany (O_2 and T-Mobile);
- Italy (Wind);
- Spain (Orange and Movistar);
- Switzerland (Orange and Swisscom);
- UK (O_2, T-Mobile and Vodafone); and
- USA (T-Mobile).

The cost is QAR 200 (€42) valid for 30 days is equivalent to:

- €0.42 per minute at full usage
- €0.63 per minute at two-thirds usage

Separately, within Gulf Cooperation Council countries its prices are:

- QAR 1.0 (€0.21) for local calls
- QAR 1.5 (€0.32) for calls forwarded from Qatar
- QAR 2.0 (€0.42) for calls back to Qatar

An agreement between the governments and operators in Singapore and Malaysia resulted in substantial cuts to IMR charges. As with the Russia/Polish deal remarkably few details are available. The per minute rates paid by Singaporeans travelling to Malaysia are:

- Prior to May 2011 SGD 0.70 to 1.00
- From 1 May 2011 SGD 0.56 to 0.80
- From 1 May 2012 SGD 0.49 to 0.70

The issue of IMR was discussed at the 17th meeting of the ASEAN Telecommunication Regulators Council (ATRC) in Brunei in July 2011.[43] It adopted an Addendum on ATRC Intra-ASEAN Mobile Roaming Rates (MRR) to the Record of Intent (ROI). The subsequent meeting of ASEAN telecommunications ministers in December 2011 welcomed the ATRC action and encouraged implementation.[44] The medium term objective of ASEAN is to eliminate IMR surcharges.[45]

Ministers also noted that bilateral arrangements had been or were being implemented between:

- Malaysia-Singapore;[46]
- Brunei Darussalam-Malaysia; and
- Brunei Darussalam-Singapore.

They encouraged other Member States to consider joining these efforts.

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[41] Ewan Sutherland (2011) "International mobile roaming in the Arab states" *info* **13** (2) 35-52.
[42] Qtel launches all-new "Shahry Passport" for better value roaming. Qtel, 5 April 2011.
[43] 17th ATRC focus on mobile roaming issues, regulations. *Brunei Times*, 13 July 2011.
[44] Joint ministerial statement of the 11th ASEAN telecommunications and IT ministers meeting and its related meeting with external parties, Myanmar, 9 December 2011.
[45] Move to end roaming fees within ASEAN. *The Jakarta Post*, 17 November 2011.
[46] From 1st May 2011 Singapore and Malaysia mobile subscribers received reductions of up to 30% for voice calls and 50% for SMS. There was no legal instrument, merely informal agreements between governments and operators.

If the Singapore/Malaysia and Russia/Poland deals are “measures”, if they are enforced by some sort of governmental mandate, then they would fall within the scope of the WTO’s General Agreement on Trade in Services (GATS). From which it follows that mobile operators in other countries could claim MFN treatment and thus the discounted wholesale rates, though it is very difficult to see how they could be obliged to pass on savings to their customers.

The question also arises of whether the deals between the operators comply with competition law, which usually prohibits agreements to fix prices or to share markets.

4. Australia and New Zealand

The governments of Australia and New Zealand opened an investigation into IMR charges between the two countries – Trans-Tasman roaming – in 2010. On 28 April 2011, the two ministers, Stephen Conroy and Steven Joyce, announced a joint market investigation into Trans-Tasman mobile roaming.[47] This had been initiated in response to lobbying by the Australian Telecom Users Group (ATUG), which no longer exists.[48]

The governments of Australia and New Zealand apparently delayed acting on IMR charges because of concerns about commitments in free trade agreements.[49] The issue being that reduced wholesale rates intended for Australian and New Zealand operators would have to be offered to operators from the USA, without any reciprocal reductions.

The two departments received sixteen submissions to their 2010 discussion paper, with individual users and consumer groups in broad agreement that prices for trans-Tasman mobile roaming services are relatively high.[50] While retail prices had been reduced, especially those of Vodafone New Zealand, this was deemed insufficient to undermine the preliminary conclusion that prices were relatively high. The analysis by the two departments found:

> … that the actual wholesale prices charged are materially in excess of the estimates used as benchmarks.

They propose now to examine whether any reasons exist to justify prices exceeding the estimated competitive prices to such a degree. Given their use of BEREC cost data, which are believed to be overly conservative, even the recorded price reductions will be insufficient.

To date DBCDE has awarded two contracts to investigate Trans-Tasman roaming:

- 2008 – KPMG (AUD 76,000); and
- 2011 – Frontier Economics (AUD 72,000).

It has tendered for a third contract which would bring spending to some AUD 250,000.

The problems in resolving what otherwise would seem a simple problem, of high IMR rates between two countries, are various. There is considerable asymmetry in the travel patterns ensuring that any simple price reductions will cause some operators to lose out. The

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47 Trans-Tasman mobile roaming. Department for Broadband, Communications and Digital Economy, 28 April 2011.

48 ATUG closes its doors. *IT Wire*, 29 August 2011.

49 Trans-Tasman mobile roaming talks hit roadblock. *Computerworld*, 1 August 2011.

50 Ministry of Economic Development of New Zealand and the Department of Broadband, Communications and the Digital Economy of Australia (2011) Reasons for the joint decision to launch a New Zealand-Australia market investigation into trans-Tasman mobile roaming. Wellington and Canberra: Ministry of Economic Development of New Zealand and the Department of Broadband, Communications and the Digital Economy of Australia.

observance of the legal formalities precludes price cuts agreed in "smoke-filled" rooms. The absence of a simple intervention and the need to craft specific legal instruments delays the result.

5. United States of America

In April 2011, the Federal Communications Commission (FCC) adopted rules for national roaming requiring major carriers to offer "reasonable" rates to their domestic rivals.[51] However, it did so only on a 3-2 vote. Almost immediately, Verizon Wireless sued to overturn the decision, a matter still before the Court of Appeals in Washington DC.[52]

The FCC argued it was promoting consumer access to nationwide mobile broadband services by requiring facilities-based mobile operators to offer wholesale data roaming services to other operators on commercially reasonable terms and conditions.[53] In doing so it argued it would promote investment in and deployment of mobile broadband networks. In its long consultation, the overwhelming majority had favoured this position in order to promote availability, notably regional and rural operators together with consumer groups. One concern by dissenting commissioners was whether the FCC had exceeded its authority by imposing rules of common carriage that were impermissible under its statute.

6. Conclusion

If the European Union is to adopt Roaming Regulation III before the present legislation expires at the end of June 2012 it will require considerable work and some compromises on the ambitious, overly complex and rather theoretical proposal made by the EC. The adjustment of the price caps continues to be by political haggling, with nothing to link it to the still unknown level at which demand might increase, nor even to the impact assessment. Changes to the mark-up on the wholesale caps are to be made by balancing what is thought attractive for new entrants and what is thought to be the underlying costs – effectively horse trading.

The EU institutions in their deliberations seem wholly to have ignored commercial developments such as the creation of roaming hubs and, especially, those developments outwith the EU. The approach has been somewhat theoretical, devising means *ab initio* or by analogy to intervene in markets, rather than trying to build on known successes such as:

- International call forwarding service and dual-IMSI solution in Hong Kong SAR;
- Pan-African tariffs of Zain/Airtel;
- Price cutting by China Mobile; and
- Leakage of EU regulated wholesale prices to non-EU operators.

Analysis of these commercial developments could provide an informed basis for interventions. Additionally, there is Pre-paid Local Number service (PLN), a known technology, available off-the-shelf at minimal cost.

If the trans-national operator groups are allowed to opt out of the decoupling of domestic and IMR services (e.g., Vodafone could make relatively minor adjustments to its roaming passport), there would be very little market left for new entrants to address and thus no

[51] FCC mandates wireless data roaming. Reuters, 7 April 2011.
[52] Verizon sues FCC on data-roaming rule. *Washington Post*, 17 May 2011.
[53] FCC (2011) *Second report and order in the matter of reexamination of roaming obligations of commercial mobile radio service providers and other providers of mobile data services*. WT Docket No. 05-265. Washington DC: Federal Communications Commission.

increase in competition. The proposed reliance on MVNOs seems equally tenuous, even illusory, since these are mostly small firms and mostly not in segments of the market where they might have an effect on general IMR rates.[54] No evidence has been produced that, in the present difficult economic climate, there are firms that have access to the investment capital needed to penetrate the market.

The role of BEREC remains troubling, given its democratic deficit. It appears neither to represent anybody nor to be accountable to anybody, with a vested interest in enduring interventions in the roaming market.

If, as the European Parliament concedes, the future is truly about data, then IMR looks like the wrong model. It was designed for voice networks where the customer cared about their telephone number, whereas on an IP network identities are more complex and independent from the network. This logic opens the way to a number of solutions:

- Existing operators offering near home prices either based on internalisation of traffic or the Engstrom wholesale price cap of €10 per 1 GB;
- A variation of the Bridge Alliance model of €9 per day for retail customers;
- Becoming a customer of the local operator using Pre-paid Local Number (PLN); or
- Purchasing a new local SIM card for a data services, with calls and SMS forwarded separately (e.g., by VoIP).

What would be needed by customers is cheap, affordable IP connectivity with some small (possibly optional) premium for the forwarding of calls and text messages sent to the home network.

The EU legislation, as presently conceived, is no more replicable by other countries or economic groupings than in the past. Despite the interest of near neighbours and countries further afield, the EU has failed to offer a lead.

There remains a need for research on wholesale and retail roaming markets, in economics and consumer behaviour. There is also a need for analysis of the digital single market and the possible role, if any, that roaming plays in that.

[54] Transatel after several years of operation has only 10,000 customers, though they spend €95 per month.

Abbreviations

3G	Third Generation
APEC	Asia Pacific Economic Cooperation
ASEAN	Association of South East Asian Nations
AUD	Australian Dollar
BEREC	Body of European Regulators for Electronic Communications
DG	Directorate-General
EC	European Commission
EEA	European Economic Area
EP	European Parliament
ERG	European Regulators Group
EU	European Union
FCC	Federal Communications Commission
GB	Gigabyte
GCC	Gulf Cooperation Council
GSMA	GSM Association
IA	Impact Assessment
IMCO	Internal Market & Consumer Protection Committee of the EP
IMR	International Mobile Roaming
IP	Internet Protocol
ITRE	Industry, Research and Energy Committee of the EP
LTE	Long Term Evolution
MACO	Mobile Access and Call Origination market
MB	Megabyte
MFN	Most Favoured Nation
MNO	Mobile Network Operator
MVNO	Mobile Virtual Network Operator
NZ	New Zealand
OECD	Organisation for Economic Cooperation and Development
PLN	Pre-paid Local Number
RMB	Renmimbi or Yuan (China)
RUB	Russian Ruble
SAR	Special Administrative Region (China)
SGD	Singapore Dollar
SIM	Subscriber Identification Module
USD	United States Dollar

VAT	Value Added Tax
VoIP	Voice over Internet Protocol
WTO	World Trade Organization

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