

## The 411 on International VoIP

By Steve Heap



Welcome to the first in a series of articles focusing on the issues and opportunities in the international call termination business for VoIP providers. This introductory article outlines the challenges of international VoIP termination and the driving growth of mobile operators and VoIP service providers. In future articles, I will identify the revenue and service opportunities in VoIP international call termination, and the accompanying difficulties and potential solutions.

### - Today's Landscape: The Growth and Challenges of International VoIP Termination

The growing adoption of VoIP has introduced many technical and business challenges as well as growth opportunities for telecommunications providers. VoIP makes it very easy and inexpensive to interconnect between carriers, compared to the assignment of fixed TDM ports and circuits. As a result, the industry has evolved from an environment where there was one or two wholesale carriers involved in the termination of a call, to today's environment where there may be four or five players. This adds complexity and cost to call routing and can expose companies to potential fraud through relatively easy manipulation of signaling of a VoIP call. Yet, with all its challenges, this new VoIP landscape can also provide opportunities for telecommunications companies to reach new markets, expand their service offerings and increase their margins.

### - The Advent & Growth of Cell Phone Operators

Since the early days of international calling, the receiving carrier would specify a

rate to terminate calls to its country. As new mobile operators entered the marketplace, the country, or market, was split between the fixed line numbers and the mobile numbers. These markets were defined by international calling codes, and the terminating carrier would define UK Mobile, for example, as a series of codes that together constitute all the code ranges assigned to the mobile operators in the country. In most countries, fixed lines (or Proper lines) were defined by the difference between the country code (i.e. 44) and the Mobile codes. There was little attempt to define all the various codes that fully define the fixed line destinations in that country. Over time, the mobile markets were split into the specific mobile operators (because of price differences between them), but, apart from sometimes splitting out a major city in the country, the Proper markets have not evolved. The growth of mobile operators with higher priced termination and higher portability levels is an issue that wholesale VoIP-based carriers need to tackle.

In the mobile space, where call termination costs are high and maintained through regulatory ruling, another change has occurred. Many of the original mobile networks have grown significantly; as a result, the Regulator has reduced the cost of termination to reflect the economies of scale. However, the newer 3G networks require a massive investment to provide country-wide coverage, and so the Regulator has allowed a much higher termination rate to those operators. The independent operators are competing for business in an environment where most consumers already subscribe to mobile phone service. Most of Europe has legislated and encouraged number portability to enable competitive carriers to compete with PTT's on equal footing, so the majority of subscribers on the new 3G networks, with their expensive termination rates, actually have in-

dividual telephone numbers that originally were assigned to the lower cost incumbent operators.

### - And Then There Were VoIP Players

Competition for fixed lines, most recently in the form of VoIP-based service providers, has added another significant complication. In many countries, the Regulator has supported the rise of competitive carriers by allowing a higher termination rate to their customers compared to the norm for the original PTT. In Belgium, Germany, France, Poland and others, a call to a competitive service provider costs the carriers more than a call to a customer of the PTT. Overlaying portability on this more complex structure adds yet another problem and/or opportunity that fast-moving VoIP players are able to address. This area also lends itself to peering opportunities – again, to be covered in a future article.

### - Termination: Challenges and Opportunities

International carriers have long bought and sold with one another based on simplicity and blends rather than complexity. For example, if there is only a small percentage of calls to the expensive mobile numbers, or a small number of calls ported to the expensive destination, then a blend slightly higher than the PTT rate is an easy answer. As competition evolves towards higher percentages of portability and competitive carrier customers, the risk associated with blending increases substantially.

This is just a taste of the topics to be covered in coming articles. Each one will tackle a particular issue and identify solutions and opportunities for fast moving players in this competitive industry. **IP**

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