

# IP Clearing

## central to successful WiMAX roaming



*Following the recent rash of WiMAX deployment announcements, you might be forgiven for thinking the future of WiMAX seems increasingly secure. However, its burgeoning success could be significantly derailed if it fails to solve the complexities of roaming, according to Gavin Dresselhuis, co-founder and managing director of "Trustive," Europe's largest wireless hotspot access provider. He proposes the role of the wireless IP clearinghouse as fundamental to this success.*

According to ABI Research, the global telecommunications is on the cusp of major change, as mobile WiMAX starts to move from trials to real-world deployments. This is a market that, as a whole, may reach as much as \$1.6 billion by 2009 according to Infonetics. In addition, ABI forecasts substantial WiMAX subscriber numbers worldwide: more

than 95 million using CPE devices by 2012 and almost 200 million using mobile devices, with some overlap between the two groups.

Yet, in my opinion its future will only become secure once the challenge of WiMAX roaming is resolved. GSM only became a real success once roaming had taken off. Indeed, Trustive's 2007 WLAN Roaming research found that coverage was the most important thing for end users when purchasing subscriptions for wireless hotspot access.

From the operator perspective WiMAX roaming serves customer needs and provides additional associated revenues. Currently, mobile operators generate over \$60 billion in revenues annually from roaming which constitutes 20 per cent of their profits. With the new limits on roaming charges within the EU set by the European Commission and technologies such as Voice over Internet Protocol (VoIP) the ability to bring in new revenue streams is essential.

However, roaming is a complex process. It requires negotiating complex contracts with a variety of providers, network integration, accurate billing, settlement and service provision, high levels of process efficiency and revenue management to ensure minimum losses due to bad debt and fraud.

There is also no second chance get it wrong and you risk alienating the customer, as clearly shown by the WiFi experience. While WiFi roaming is working well now, the early hotspot model suffered from a lack of interoperability and service consistency. This is the mistake that WiMAX must not make.

It is also a mistake we should not make. The implementation of other mobile technologies and in particular WiFi - as it is based on IP sessions using RADIUS for Authentication, Authorisation and Access with many similarities - have provided many valuable learnings. We should also know by now what the customer wants, and there is already a considerable level of end-user demand for hotspot and mobile services.

Consequently, I foresee that WiMAX implementations will achieve a quicker return on investment (ROI) and go to market. WiMAX also has the benefit that it will be able to interconnect with existing global WiFi hotspot networks, meaning players can 'go global' immediately from day one. All this puts WiMAX in a great position for the future, if we can just get the roaming element right.

I believe that central to achieving WiMAX roaming is the emergence of the wireless IP clearinghouse.

This is because wireless IP clearinghouses take care of all billing, clearing and settlement processes, thereby allowing partners to focus on managing their customer relationships - traditionally a tricky area for subscriber owners. The clearinghouse also settles the accounts with all the network providers involved in the service on a regular basis. As a result, the wholesale providers can deal with just one point of contact and one invoice, rather than having to settle separately with all those parties involved. Trustive, through its role as a global hotspot operator already provides WiFi clearing to the likes of Telefonica, Vodafone and over 70 other hotspot operators.

The importance of IP clearinghouses has also been recognised by the WiMAX Spectrum Owners Alliance (WiSOA), who in March this year selected Trustive, for its experience, as the IP partner to provide a turn-key solution to allow WiMAX users to roam to other networks. This partnership was part of the world's first roaming agreement to provide seamless 'GSM-like' roaming amongst WiMAX networks and with global WiFi networks.

Through the partnership, Trustive will provide services for unified clearance, billing and interconnection. These services will provide roaming amongst WiMAX networks, as well as interconnection with the Trustive Network, an aggregated global WiFi network of over 32,000 hotspots, creating one global wireless IP clearing and roaming platform.

Another key role wireless IP clearinghouses are playing is to push operators to follow specifications that will facilitate and accelerate roaming agreements. One example of this is the WISPr (Wireless Internet Service Provider roaming) specification that aims to make it easier for operators to establish roaming agreements with one another and facilitate simple, one-click access (smart client) to wireless networks. Adherence to the specification obviously makes it easier for clearinghouses to integrate partner networks into the virtual network they are creating through roaming agreements.

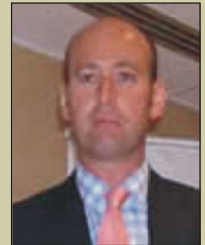
To summarise, I believe successful roaming is central to the future success of WiMAX. Wireless IP clearinghouses will play a key part in this by using their learnings to date and the practices developed from the WiFi experience. ■



# BGAN plays key supporting role

## in CNN's TV award

CNN has won a prestigious Technology & Engineering Emmy Award for its IP-based newsgathering system that uses Inmarsat BGAN.



**James Collett**  
Inmarsat's Director  
commercial solutions

The global news broadcaster won the TV industry's top accolade for 'development and implementation of an integrated and portable IP-based live, edit and store-and-forward digital newsgathering system'. The award, made by the US National Academy of Television Arts and Science, was presented at the International Consumer Electronics Show in Las Vegas.

CNN is among a number to have been chosen by a panel of experts for a Technology & Engineering Emmy in twelve achievement categories. CNN was the single nominee in its category.

### Live reports

CNN's newsgathering system was previously recognised by the International Broadcasting Convention (IBC) receiving two top innovations awards, one for Content Creation and also the select Judges Prize for the top entry of the year. The broadcaster has harnessed the expertise of a range of suppliers - including BGAN terminal manufacturer Hughes Network Systems, Inmarsat distribution partner Vizada, solutions provider Streambox and several other equipment and service providers - to deliver the digital newsgathering operation that went live during the conflict in the Lebanon last year. Its journalists were able to file hundreds of live reports via laptops connected to BGAN terminals, which they carried in backpacks into the conflict zones.

### Huge endorsement

The National Academy of Television Arts and Sciences Emmy Awards for news, sports, daytime, public service and technology are regarded as the most prestigious awards for the television industry. While CNN has won a number of awards for news coverage and programmes, this is only its second technology award.

James Collett, Inmarsat's director of commercial solutions said: "We were delighted to be so closely associated with CNN's recent IBC award and some would argue that this is an even greater accolade. It's a huge endorsement of the technological advancement and business benefit we bring to our users with BGAN." ■