

# OTT Voice in Western Europe - Carrier Trends and Insights

Industry Briefing



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## Background

During the past two years, a number of carriers have taken the plunge and introduced their own OTT service or added mobile VoIP as a new delivery mechanism for their existing services. This paper gives a snapshot of the current state of mobile VoIP in Western Europe and addresses the questions and challenges carriers face when planning to launch service.

Cicero Networks has been working with mobile VoIP since 2002 and has closely monitored market development over the past ten years. While individual services have been launched during that time, there is now real evidence that the technology is becoming mainstream. The number of product enquiries received by Cicero has reached a level not seen since 2006 and has prompted Cicero to conduct this market review.

The review examined the operations of 113 operators across 18 countries in Southern, Western and Northern Europe. It focuses on operators that operate their own transport network, whether fixed or mobile. While the data here relates to Western Europe, the pattern is not dissimilar to that observed in other regions. In considering OTT, each operator is presented with similar challenges and asks similar questions regarding the business opportunity and the approach to implementation.

The second part of this paper raises some of those questions and provides feedback based on our experience and that of our operator customers over the years.

## Market Trends

The following section highlights the key trends occurring among operators in Western Europe in terms of service launch, types of operators involved, geographic spread and range of services. The operators covered include MNOs, Cable, Fixed-line and Integrated.

### OTT Service Launch Increasing

The chart below in Figure 1 shows the growth of mobile VoIP since Q4 2011. As is clear from the chart, the rate at which services are being introduced is increasing from one per quarter in the first half of 2012 to three per quarter in the first half of 2013.

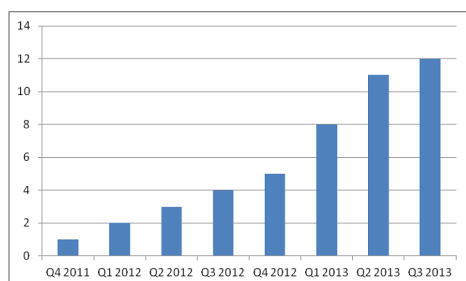
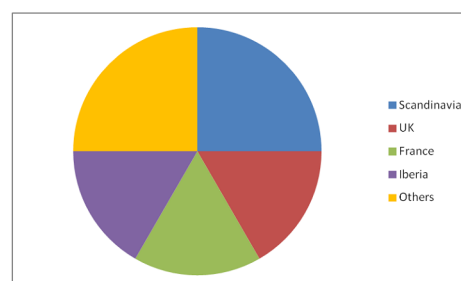


Fig 1: OTT mobile VoIP services launched by quarter.

### Broad Geographic Spread

There is a broad geographic spread across the region that we reviewed as shown in Figure 2. Scandinavia, France and the UK are all well-represented which is unsurprising given the long history of mobile VoIP innovation in those markets.

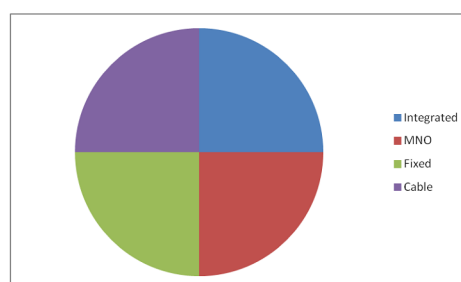
Fig 2: OTT mobile VoIP services launched by region.



### All Types of Carriers Involved

Assessing what types of carrier were launching service, the breakdown was a bit unexpected, with integrated incumbents and pure-play cellular operators representing half of all new services introduced.

Fig 3: OTT mobile VoIP services launched by operator type.



### Wide Range of Services

The types of mobile VoIP service introduced falls into four main types:

- Services that extend the home phone service (fixed and cable operators)
- Services offered to the world at large (integrated operators)
- Services that cut roaming costs (cellular operators)
- Services that extend cellular services to IP networks (integrated operators)

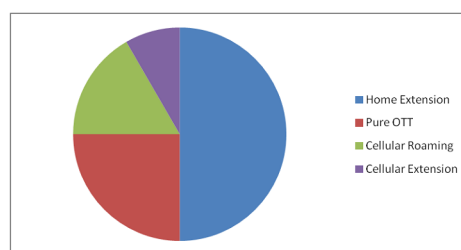


Fig 4: OTT mobile VoIP services launched by service type.

## Market Analysis

While the sample remains small, there are a number of observations that can be made with reasonable confidence.

### 1. The rate of adoption is growing

While carriers have been experimenting with mobile VoIP for almost ten years, the past eighteen months has seen the first real trend towards general adoption. In addition, the experience of early adopters is encouraging other operators to follow suit. In addition, the services launched in the past eighteen months are demonstrating a durability that earlier deployments lacked.

### 2. Growth is fastest in Scandinavia but otherwise well-distributed

Operators in Norway and Sweden have been experimenting with mobile VoIP since 2005, so the strength of activity in that region reflects a long-term position. Outside of that, however, the spread of deployments is reasonably broad.

### 3. All types of operator are involved, fixed, mobile and cable

The risk of cannibalisation has presented a strong commercial bar to the adoption of mobile VoIP services since the introduction of open dual-mode handsets in 2003. It could be seen as surprising, therefore, to find that half of the services launched in the past eighteen months have come from operators that own and operate cellular networks.

### 4. Service design is strongly linked to operator type

Fixed and cable operators clearly see mobile VoIP as a means of extending the reach of their home phone service. In this respect, mobile VoIP may be viewed more as an access technology than as a service, per se. Calls originated from or terminated to the mobile VoIP client are generally handled in the same way as other calls from a rating and billing perspective.

The pattern among mobile operators is more diverse:

services designed to compete with non-telco OTT offerings  
services that allow their subscribers to reduce roaming costs  
services that extend the reach of core voice and messaging services

Most of the services fall into the first category, with the operators involved enjoying some success but not yet reaching subscriber levels that would represent serious competition for the larger OTT providers.

It is worth noting that, in every case, fixed, cable and mobile, the operators have launched service using a

branded app rather than by allowing end-users to configure their device or use an open client app. It is also worth noting that no operator has teamed up with an established OTT provider to offer a mobile VoIP service. The commercial basis for such partnerships remains very unclear.

## Q&A Time

There are a number of questions that keep coming up with operators that are considering the OTT opportunity. They fall into three main areas Service Design, Business Case and Implementation. Clearly, there is no single right answer to any of the questions, but the responses given below reflect our experience and that of our customers and partners.

### Service Design

#### Should we launch a mobile VoIP service?

The growth of OTT VoIP services has prompted many operators to consider whether how they should react. How can they compete with unregulated start-ups? How does it relate to RCS? Is there any money in it? Is it just a passing fad?

Multimedia communications are increasingly migrating to IP networks and the quality of OTT services is fast approaching those delivered by the carrier community. Only by starting to work in that domain will carriers develop the capability and knowledge needed to compete in the open communications marketplace. Given that people are increasingly using apps, it may be better to have your subscribers using your service rather than one offered by a competitor or a pure OTT provider.

#### What type of OTT service should we launch?

At its simplest, mobile VoIP can be deployed as an additional endpoint for an existing voice service. The effort involved depends somewhat on the availability of existing infrastructure, with extending existing SIP services being a particularly obvious use case.

If the experience of existing operators is a guide, then fixed and cable operators should consider using mobile VoIP to extend the reach of their home phone service. The picture for mobile operators is not as clear, with multinational operators offering pure OTT services and national MNOs offering services to cut roaming fees.

One type of operator that wasn't covered in our survey was the MVNO, for whom mobile VoIP offers the possibility of reducing network access fees.

## Should we do OTT or RCS?

This is clearly a question for GSM operators rather than operators in general, but it does keep coming up. Both RCS and pure OTT services present a similar challenge in that the prospects for and benefits of success are unclear. From a carrier's perspective, forming and implementing an OTT strategy is done alone and in competition with other providers. RCS will either succeed or fail based on its universal adoption. Whatever about its broader prospects, the case for any individual carrier making an investment in RCS is particularly unclear.

## What extra services can we offer?

There are a number of obvious add-on services for mobile VoIP, including video telephony and messaging or chat. Once the operator has launched an app, adding new features becomes easier and the app markets make the upgrade process relatively smooth. If there are services that you would like to deploy alongside mobile VoIP, we would be very happy to indicate how easy or difficult they would be to implement.

## Who should we target?

The principal target markets available for carriers are (a) their own subscribers, (b) subscribers of competing operators and (c) the world at large. Carriers appear to focus their efforts on either (a) or (c), though mobile VoIP could clearly be used to offer revenue-generating services to subscribers of other networks.

## Business Case

### Is there money in it?

A well-designed OTT voice service will not only improve retention, but it can boost subscriber numbers, increase origination/termination revenues and reduce access/termination fees. While the technology is broadly the same, the business case and approach is quite different for fixed operators, cable operators, mobile operators and MVNOs. In addition, the business case and approach will be quite different from one country to the next. If you would like to explore your own particular case in more detail, Cicero would be very happy to contribute to that effort.

Where mobile VoIP technologies are introduced as an extension for existing paid services, there are clear prospects for growing traffic and increasing revenues through its adoption. In addition, mobile VoIP represents a material differentiator when comparing your services with those of alternative providers.

Where mobile VoIP is introduced as an OTT service targeting the world at large, the capital requirement is greater and path to profit is less clear.

## How should we price it?

While there may be a model that allows operators to charge for mobile VoIP services, this has not yet been successfully shown. Rather, the service is typically offered for free, with the operator benefiting through increased origination/termination revenues, reduced termination/access fees and improved customer acquisition/retention. Depending on the operator, there may be a case for offering the end-user a price incentive to route traffic over mobile VoIP instead of over the cellular RAN.

## How much will it cost?

The external costs consist of software license fees to cover the client application and, in most cases, the provisioning server, plus associated integration fees. It would be unusual for a large operator to reach service launch without making a six-figure euro investment.

## What effect will it have on existing revenues?

A well-designed mobile VoIP offering should both protect and enhance existing revenue streams. For cellular operators, the risk of cannibalisation is greater than for cable or fixed providers, even though the actual evidence of cannibalisation is unclear. There are methods that can be used to limit the risk of cannibalisation, such as through an in-house MVNO, though this is largely untested.

## Implementation

### How long will it take?

When operators decide to take the plunge, the eagerness to reach service launch can result in unachievable deadlines being set. Regrettably, some vendors will sign up to unachievable deadlines on the understanding that they may be able to hide their delays behind those incurred by the operator. At a minimum, operators should allow three months to reach service launch, assuming no new development. For most operators, six months is a more reasonable target.

It is possible to develop your own soft client or to commission the development from another company. The arguments for and against doing this are well-understood. It would be a mistake to assume that development is somehow easier to do for Android or iOS than it is for Linux or Windows. If you do develop your own client, remember that there is a constant stream of OS upgrades to be handled for as long as the service remains in place.

## How will we authenticate users?

The approach to user authentication is one of the main areas where custom development is usually required in an OTT deployment. Large carriers do not make SIP credentials available to subscribers, for good reason,

preferring to use alternative customer identities to generate SIP the account details and provision them automatically to the client. Use of SIM data is not generally an option on Android or iOS, with the smoothest path available to carriers that already operate a self-care portal.

### How will we distribute the app?

The app is distributed through the on-line app markets. While Android supports other methods of distribution, the ease with which apps can be delivered on-line makes that the obvious route. Some operators have experimented with pre-provisioning OTT services on operator-subsidised handsets and the subscriber reaction has been mixed.

### What devices will it run on?

A well-designed app should run on a broad range of devices and offer the same user experience across different platforms. The previous practice of pre-qualifying applications on each device has been overtaken by market developments, at least on Android, where the sheer number and variety of devices makes that impractical from both a cost and a timing perspective.

### How will we manage the service?

Provided that the right soft client has been selected, the effort involved in managing OTT voice is no greater than that of any other service enhancement. The soft client should be able to handle most common error scenarios and make the user feel comfortable with the service. There is initial up-front effort involved with training call-centre personnel, though again no more than with other service enhancements.

While client upgrades can be delivered through the app store, implementing a client provisioning and management system helps with both service enablement and with management of the client population.

### Who should we work with?

As a company that develops both, we know that VoIP client software is much harder to develop than the server-side software that supports it. In addition, achieving consistent levels of quality and stability is much harder than adding a large number of ancillary features. While all clients may look the same, they are not all of the quality needed to support a large carrier's service.

To find out more, contact us at [info@ciceronetworks.com](mailto:info@ciceronetworks.com) or visit us on-line at [www.ciceronetworks.com](http://www.ciceronetworks.com).

