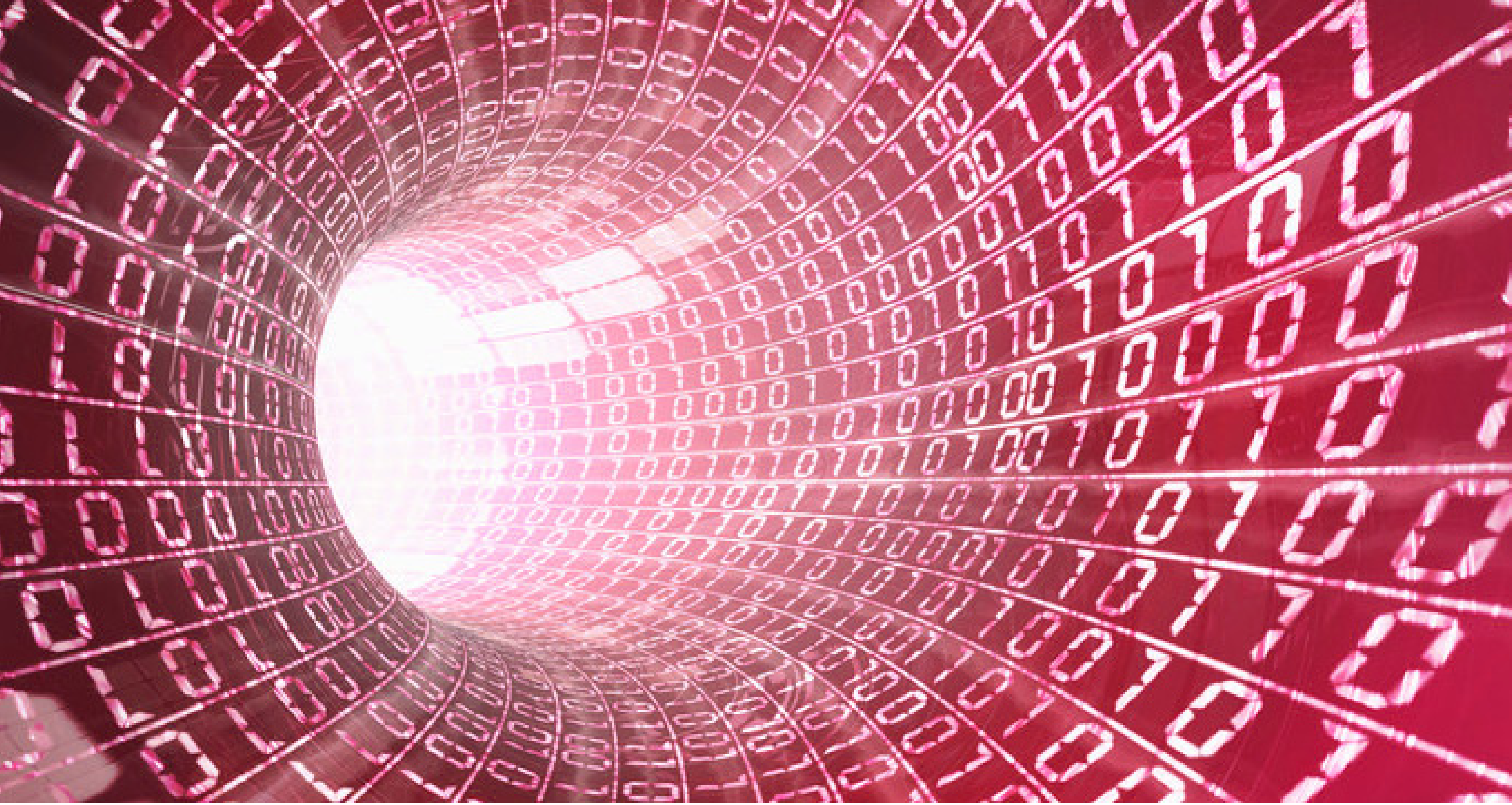


IPX - Trends, Key Players and Traffic

Executive Summary

December 2012

hot telecom
The International Expert

IPX Trends

Through the course of this report, we have conducted a number of interviews with IPX providers and customers. We have also carried out a survey with over **100 IPX communication service providers**. Some of the trends are:

- VoIPX generates the largest part of IPX revenue and should continue to do so for some time to come. Customers expect that the main use of IPX will continue to be for the transport of their voice traffic.
- LTE is seen as one of the main triggers for IPX migration and most IPX providers are in the trial phase to support LTE roaming, signalling and VoLTE. We expect LTE IPX services to be launched by larger IPX providers in 2013.
- OTT and content providers are expected to grow in popularity as target customers over the next 3-4 years to surpass fixed service providers.
- IPX providers are picking up the pace and focussing on building their global IPX networks. Many larger IPX providers are expected to be in a strong position to offer global hubbing solutions by 2015.
- Service providers are expected to migrate their smaller routes to IPX hubs, while continuing to control their major routes or partnerships directly.

IPX Drivers and Inhibitors

When asked what they thought the main driver to migrate to IPX was, the majority of **customers** we interviewed or who participated in our survey agreed that it was the need for LTE support. The second driver for IPX customers was that IPX helped them improve profitability and enabled features such as interworking, quality of service guarantee and gave them access to an all-IP network. From the **providers'** point of view, drivers to start offering IPX come from a slightly different direction. Yes the main driver to offer IPX was to be able to support LTE, but it was also to be able to offer an all-IP network and to capture new types of customers such as OTTs and application/content providers.

A number of factors have contributed to inhibit a large number of providers and customers from rapidly migrating to IPX. The one that most mention is the lack of understanding of what IPX really is, what it can offer and how providers and customers can benefit from it. Customers on the other hand say that the main inhibitor to migrate their traffic to IPX up to now has been their desire to continue interconnecting with their major partners.

IPX Evolution 2013-2015

IPX has been evolving slowly but realistically, it has come a long way from its conceptualization by the GSMA to a fully operational portfolio of services within only 5 years. The service portfolio is now growing and technicalities are being ironed out. It will still take considerable time for the world's telecom network to migrate to full IP, so we can expect both TDM and IP to be offered side by side to meet different customers' needs in different regions for the foreseeable future. Looking ahead, we expect IPX to continue evolving from the adoption phase that we saw in 2012 to an actual growth phase, which we anticipate to start in 2013. The different IPX evolution phases we expect over the next 3 years are:

- Growth phase - Multi-services (2013)
- Growth phase - LTE (2014)
- Growth phase – Hubbing (2015)

IPX Survey Results

During the month of November 2012, HOT TELECOM invited IPX customers and providers to participate in an online survey focussed on determining their opinion on the current IPX ecosystem. A total of **112 companies** participated in our survey. Key findings from the survey are:

- The large majority of customers say that they use IPX mainly to transport VoIP and HD Voice traffic and that will still be the case in 3-4 years. The third most popular retail service offered over IPX in 3-4 years is expected to be RCS.
- IPX providers think that in 3-4 years IPX will be mainly used to transport data services such as video, content and RCS.
- All types of customers think that the fact that IPX is an efficient way to interconnect is currently the most useful feature, followed by service interworking.
- The majority of surveyed customers said that the main inhibitor for migrating was that they wanted to continue interconnecting directly with their major partners, as well as their poor understanding of what IPX entailed. Some customers also said that there is still a lack of IPX community scale which means that there are not enough IPX destinations and partners reachable.

IPX Competitive Analysis

The IPX market is populated by an increasing number of players, including many of the large international network operators. Many of the leading providers of IPX-based services are also leading providers in the GRX market. GRX providers had an existing customer base of mobile operators to which they sell GRX and usually, a range of other international wholesale roaming, signalling, inter-working and transport services. The list of key companies offering IPX services can be found below:

Key IPX providers by category

Wholesale market		Mobile data market
AT&T	Tata Communications	Aicent
BICS	TI Sparkle	Syniverse
BT Wholesale	TNZI	Sybase 365
Citic Telecom	Telefonica Wholesale	Comfone
Deutsche Telekom ICSS	Telekom Austria	TNS
Etisalat	Telenor	
iBasis	TeliaSonera ICS	
Orange	Telstra	
PCCW	Verizon	
Telstra Global		

All the main wholesalers have now launched some form of IPX service offering, with most now in a position to support both voice and data over IPX with end-to-end quality of service for specific applications and services, and with guarantees for those service levels across network boundaries with interconnect partners.

Detailed profiles of the top 11 IPX providers can be found in our report.

IPX Traffic Forecast

International VoIPX traffic is expected to grow by 47.4% in 2012 and looking ahead, we are forecasting that int'l VoIPX traffic will grow by a CAGR of 39.4% between 2012-2015. ***It is important to note that a portion of this traffic is generated by break-in and break-out destinations and is not end-to-end IP traffic.*** VoIPX traffic is therefore expected to at least double, if not triple over the next 3 years and one of the catalysts will be the introduction of VoLTE and HD Voice, as discussed earlier in this report.

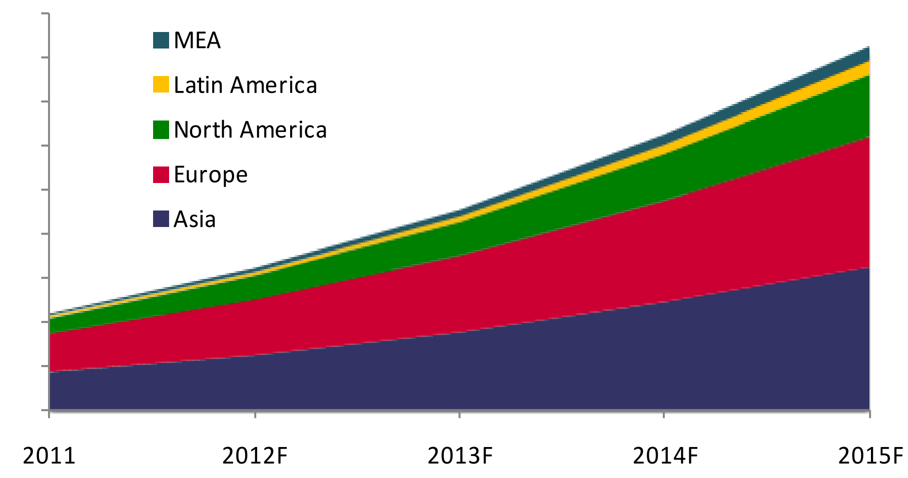
We can expect VoLTE to start having an impact on VoIPX growth rates starting in 2013, however the largest impact will be felt in 2014-2015, once a critical mass of mobile operators will have launched their VoLTE offering and will have migrated to IPX to transport this service.

Europe and Asia are and should continue to be the largest markets for IPX services (based on location of traffic origination) over the next 3 years. Asia is estimated to account for 40.6% of the world VoIPX traffic in 2011

In addition to voice traffic, there is also a growing market opportunity to provide data services over IPX networks. Total global international sustained IPX data traffic is expected to grow by 98.2% in 2012 and looking ahead, we are forecasting that IPX data traffic will grow by a CAGR of 97.3% between 2012-2015. We can expect LTE Roaming to start having an impact on IPX data traffic growth rates starting in 2013, however the largest impact will be felt in 2014-2015, once a critical mass of mobile operators will have launched their LTE offering and will have migrated to IPX to transport this service.

Europe as a whole is the largest market for IPX data traffic. The region accounted for 49.3% of the world's total in 2011 and is expected to grow by a CAGR of 75.3% over 2012-2015.

Forecasted International IPX voice traffic by region (billion minutes)



IPX – Who, What, Where, When and Why

This 126-page report will give telecom managers and consultants around the world the information they need to develop winning and informed strategies to compete and succeed in the IPX market. This exclusive report provides you with an in-depth analysis of:

- What is IPX (network, services, infrastructure)
- What are the different IPX flavours and how do they compare
- What IPX services and features are offered and how will they evolve
- What is preventing or driving IPX customers and providers to migrate to IPX
- What are the potential business model strategies to compete
- How big is the market
- What are IPX voice and data traffics expected to grow over the next 3 years
- Who are the top 11 IPX providers, what they offer and how they compare

Who should purchase this report?

- IPX providers seeking to understand how the segment is evolving in terms of service, customer, competitor, traffic and how they should position themselves in the IPX ecosystem

- IPX customers seeking to understand the different service offerings and providers to define how you can benefit from IPX, who to buy it from and how it can help you grow your business

- IPX vendors seeking to understand the needs of IPX providers and customers and where new opportunities will come from

The Telecom IPX Trends, Key Players and Traffic analysis is a 126-page report supported by 24 data-rich tables and charts.

More information

Report price:	US$2,000
Publishing date:	December 2012
Number of pages:	126
Format:	pdf

For more information or to order this report, please contact us at:

Tel: +1 514 270 1636
e-mail: sales@hottelecoms.com

or visit the following page: http://www.hottelecom.com/ipx-traffic-analysis.html

Also of interest:

International IPX Market Revenue Analysis and Forecast 2011-2015
http://www.hottelecom.com/ipx-revenue-analysis.html

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Other report of interest:

International IPX Market Revenue Analysis and Forecast 2011-2015
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HOT TELECOM verified all information in this report to the best of its ability. The information contained herein has been obtained from sources believed to be reliable. However, as the information is based on interviews and secondary information provided by operators, regulators and other companies outside of our control, we cannot guarantee that the information provided is free of inaccuracies and/or fluctuations.

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