Whitepaper

Encountering basic issues in the current carrier environment

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Industry
Telecommunication

Challenges

Today's telecoms carriers operate in an extremely tough market – one characterised by intense competition, high costs and shrinking margins.

This situation is unlikely to change anytime soon. In fact, in all likelyhood, competition in the wholesale telecoms market is set to intensify. Only those operators that are capable of boosting their revenues and reducing their operational costs by automating their business processes will survive and prosper.

Many operators have multiple billing, BSS and OSS systems and sprawling IT infrastructures that cover many territories. Data is not stored centrally, but is held in data silos across the organisation. Key business activities – such as the management of bilateral agreements – are frequently handled manually.

This situation is no longer sustainable. Operators are leaking revenue – by some accounts up to 15% of their income – due to administrative errors, high costs and inefficient processes.

Telecoms carriers are increasingly aware of this fact. They realise that there is no sense in maintaining a suite of disparate trading systems. Instead, there is a growing consensus amongst operators that they require a single trading platform – one that is capable of handling all of their wholesale business processes.

Solution

Carrier Call was founded in Switzerland in 2002 to fill this gap in the market. The company's award winning ***XCarrier*** platform enables operators to manage their inter-carrier trading relationships more effectively.

Every carrier knows that the systems which underpin the trading and exchange of international voice traffic are exceedingly complex. But few appreciate the deep linkages that exist between all these business processes and systems. Because these systems are so closely intertwined, a single error in one application can have serious implications further on down the line.

Carrier Call understands these linkages – the company is staffed with highly experienced telecoms software executives – and has developed from scratch a solution that can manage all voice traffic processes in one package.

Abstract

Telecommunications companies are under huge pressure to increase their bottom line. Operators realise that they need to increase their margins and boost their operational efficiency to achieve this objective. The problem is that current wholesale billing and provisioning systems are difficult to manage and expensive to operate. Unless these issues are resolved it will be hard for companies to improve their profitability.

At present, carriers buy and sell terminations to multiple carriers across a range of destinations. The agreements governing these transactions can be extremely complicated and cover financial, volume and quality aspects.

While negotiating termination agreements is complex, it is even harder to implement the contracts. Operational implementation has to guarantee that no contractual obligations are violated and that planned margins are achieved. Many carriers fail to realise that successful margin management involves matching agreed wholesale rates with actual invoices.

It takes time to generate invoices and verify the accuracy of bills from other carriers. The complexity doesn't just stop there - carriers have to promptly pay and collect money in various currencies. Not all carriers exhibit the same level of sophistication when it comes to global financial transactions.

Until now, the cost of this process has been accepted as unavoidable. In short, there has been no alternative.

Prior to global de-regulation, each country typically had one state-owned, monopoly operator. These companies exchanged off-net calls and settled any traffic imbalances with a single payment. In the industry, these arrangements are known as bilateral agreements. De-regulation resulted in a massive growth in the number of carriers. There are now estimated to be 4,000 operators worldwide. This growth has created a new segment in the wholesale International Long Distance (ILD) telephony sector - the market for competitive termination. Within this space, there has been a shift away from bilateral agreements to buying termination. A corresponding rise in mobile traffic has further fueled this shift.

Before the 1990s, buyers and sellers paid one price for termination calls to a specific country. This is termed 'country proper' termination. The first two or three digits of a dialed number contain the country code. The buying carrier's routing group only needed to read these digits to know where to send an international call. With the rise of competitive carriers and mobile traffic, more options became available to the buyer. New carriers deployed networks in major cities and sold these destinations at rates below the 'country proper' level. Calls destined for mobile termination were billed at a higher rate. In response to this development, a group of arbitrage resellers was created. These resellers bought and resold specific destinations. They also made a considerable amount of money selling lower blended proper rates to the world's largest carriers. Every time one of these resellers sold a rate they needed to check the first four to seven digits of an international phone number. They had to follow this procedure to correctly route the call to its destinations.

This trend towards buying and selling more targeted destinations continues today. It has also become more specialised. Today's mobile operators charge different termination rates and offer lower evening and weekend rates to subscribers. Savvy buyers purchase termination and change suppliers to take advantage of off-peak and weekend savings. Carriers now have to examine the entire code string to take advantage of potentially significant savings. Only by capturing these savings can they reduce their costs and remain competitive. But implementing a sophisticated routing strategy is no mean feat. It is administratively and technically difficult and takes time to execute.

Software is now required to understand the true cost of service and to establish pricing when these targeted destinations are aggregated into larger blended markets for resale to wholesale or retail customers

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In a regulated environment the purchase and sale of wholesale services took place infrequently. Most agreements were based on industry relationships formed at major industry gatherings and conferences. As the markets became more complex, and the rate of change in the industry accelerated, new practices were introduced. These practices were based on the trading techniques used in financial markets.

Success in minutes trading today is based on two factors – the ability to analyse up-to-date information and the capacity to react quickly to market opportunities

In the past, a carrier's buyer and seller groups would manage cost of service and pricing. The network operations group would manage the quality on the various routes bought and sold. Now carriers can only survive if they make the most on their margins. The margin on a route is determined by the margin per call multiplied by the number of calls completed. Therefore, a route with a poor call completion ratio does not generate much gross profit. This is because most of the buying carrier's calls must be routed elsewhere for completion. Buyers increasingly consider Answer Seisure Ratio (ASR) when buying routes because more expensive but reliable routes generate a better return. Overall margin optimisation is not only based on financial but also quality factors.

Margin optimisation at a sophisticated carrier requires advanced Least Cost Routing (LCR) software applications. These applications allow buying groups to match code and rate information with real-time network performance data from switches.

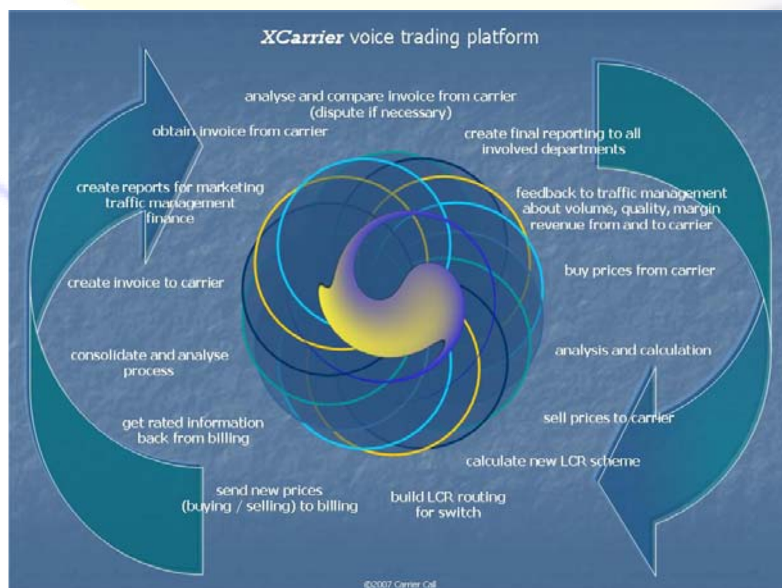
The past two years have seen more than 80 bankruptcies in the carrier world. Financial problems have spread to some of the industry's largest companies. A customer's size or reputation is no longer an indicator of financial stability. The emphasis is on credit terms, payment periods and other risk management tools to limit exposure to losses.

Over the past year the industry has found a way to reduce exposure in the current market. Operators are reducing their purchase and sales balances and introducing shorter 15 day payment cycles. Carriers are also rolling out automated risk management systems. These applications are linked into back office wholesale Operational Support Systems (OSS).

The wholesale market has become vastly more complex and more sophisticated practices are required to optimise margins. Carriers have been forced to reorganise and integrate their buying, selling, routing and billing operations to meet these new challenges. They have no choice but to implement new processes to survive

New processes include improved segmentation of minutes sent through bilateral agreements; finer granularity of analysis of codes and related rates; mitigation of credit risk; quality-based routing and automatic switch provisioning. Most carriers have implemented some of these processes. However, they have not developed end-to-end automated systems to tie trading, routing and settlement together. Early adopters of these next generation platforms will gain a critical advantage in an increasingly challenging market.

Carrier Call delivers a complete end-to-end solution which helps every carrier immediately boost margins. The solution also allows operators to increase their traffic flow with the aid of sophisticated tools and up-to-date price lists.



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