TELARIX

Innovation. Intelligence. Results.

SOLUTIONS

Global Carrier Interconnection Challenges

TELARIX

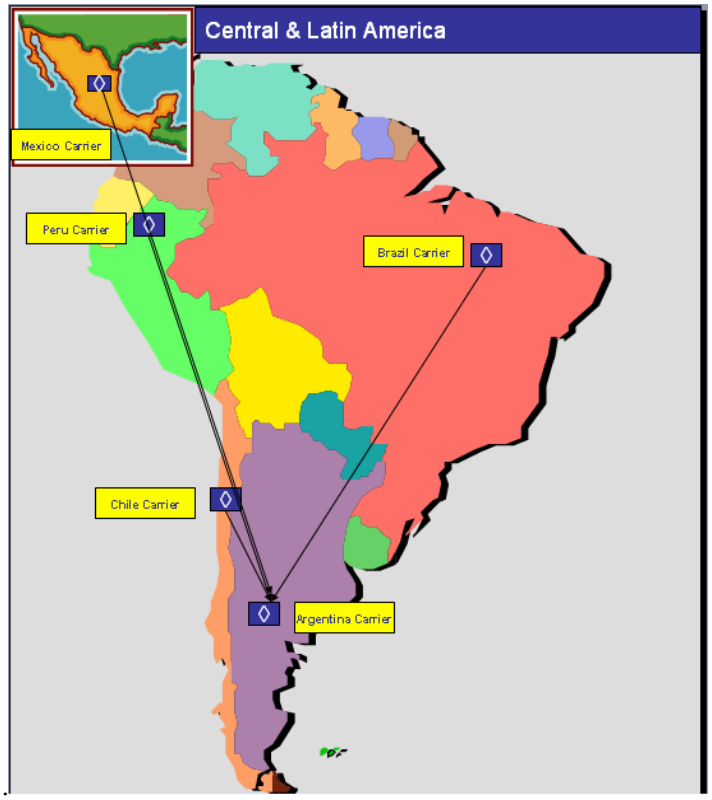
Innovation. Intelligence. Results.

SOLUTIONS

Global telecommunications carriers create billions of operational transactions - business events and service records - every day. Whether it's fixed or mobile, in-country or across the world, the telecommunications carriers are, in effect, huge transaction companies that must sort through every call record, termination charge, tariff change, and switch record in order to smoothly and efficiently interconnect the world's communications. When interconnect represents 40 to 60 percent of gross margin for a typical carrier, the failure to quickly and correctly process, analyze, and respond to ever-changing rates, routes, and regional requirements can very often be the key difference between profitability and loss for a carrier.

A More Complex Business Environment

An expanding array of services such as VoIP and mobile services, along with the exponential increase in the number of service providers have brought about a new set of challenges for international service providers including effective agreement management, optimized routing for IP/TDM networks, and enhanced revenue assurance. In addition, deregulation and regional consolidation between carriers across a geographical region has created the need to manage the interconnect business at local, regional and global level.

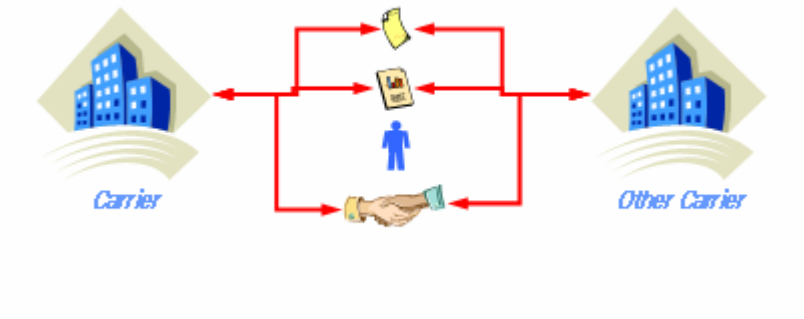


This changing telecom landscape is transforming the interconnect settlement process which has long relied on agreements with a limited number of other telecom carriers based on long-term agreements, predictable volumes and simple per minute pricing. Now, carriers are entering complex business agreements with multiple partners, each with a different settlement and rate plan. As a result, carriers are being forced to devote substantial resources to track and ensure that the financial obligations of each agreement are satisfied.

The legacy interconnect and settlement systems which most service providers have relied upon in the past are struggling to meet today's dynamic requirements. These systems typically suffer from lack of functionality, are cumbersome to change and enhance and most importantly, expensive to maintain. As a result, the usage and rate information that is generated by these systems is often not accurate--resulting in significant vendor invoice reconciliation issues and lost revenue. To succeed in today's dynamic business environment, service providers must deploy a comprehensive interconnect OSS/BSS which provides effective agreement management, optimized routing for IP/TDM networks, and the ability to quickly and efficiently bill and audit payments from multiple partners.

Complex Agreement Tracking and Management

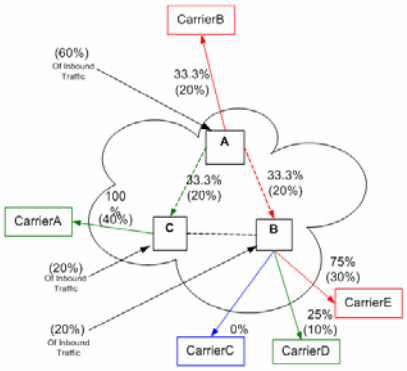
Today, a typical carrier is interconnected to between 40 and 200 carriers, each of which is sending multiple rate and dial-code change notifications each month. Each offer contains details ranging from two to as many as 1,000 international breakouts. As a result, a carrier may have to track between 40,000 and 300,000 offer details per month.



The increase in the number of fixed, mobile and VoIP carriers, as well as the tremendous volume of daily traffic that is routed on a carrier's network has compounded the complexity of managing this process. Typically tracking traffic, costs and revenue has been done manually using Microsoft Excel, disparate software solutions or even faxing price documents back and forth between carriers. The ability to quickly and correctly process, analyze, and respond to the ever changing rates, routes, and regional requirements are becoming the key difference between profitability and loss for a carrier.

Next Generation Optimized Routing is essential

To address the dynamic business demands associated with today's complex interconnect agreements, carriers will also need the ability to create and implement global routing strategies in near real time. Yet for many carriers, commercial routing and technical routing have long been operated as separate organizations, each with its own business objectives. This severely limits a carrier's ability to build global optimal route guides at the commercial as well as technical level. In addition, while some of the new softswitches provide better routing capabilities and some basic LCR support, they are unable to manage the financial optimization of the network or define quality, margin and other benchmarks for each switch, service, and destination. As a result, a carrier's ability to react quickly to financial risks and changing network conditions associated with commercial agreements is severely limited.



The Financial Risks Associated with Dial Codes

Another challenge in the current interconnect structure is due to the fact that carriers receive international termination rates that are based on their vendors' destination and dial code number plans. These number plans are typically different from the carrier's own number plan and this discrepancy results in ambiguity around a carrier's cost of termination to their interconnect partners.

Traditionally, interconnected carriers conducted business by exchanging termination rates to specific countries or geographic locations such as city or region. The locations are defined by dial-code details. It is this detail that can provide each carrier with significant risk and opportunity. A major industry-wide challenge is that there is no single standard for international numbering plans. Niche international markets evolve seemingly overnight. This rapid fluctuation makes ITU dial-codes inherently outdated and non-reflective of how business is actually transacted. With the rapid expansion of mobile services such as paging, GPRS and an increased use of number translation services that are geared to both public and private use, a continuous pattern of number plans and change band breakouts is developed.

This industry-wide problem translates into carrier risk because each carrier is defining their "view" of the world in the form of their dial-codes. A carrier's dial-codes drive their cost, routing, pricing, and billing operations. The carrier risk comes from the differences in how each carrier defines the dial-codes and the pricing associated with those differences. As a result, it is common to have a carrier send traffic to a country assuming it is being terminated and charged as "landline" traffic when it reality (due to the dial code in use by the other carrier) the traffic is actually routed and terminated as mobile traffic, at a significantly higher cost.

Diagram 1: International Dial Code Risk

For example, assume an operating carrier (Carrier A) routed 1,000,000 France minutes (50% proper, 50% mobile) to a vendor (Carrier X) in a month. 50% of the France Proper minutes (250,000) were treated by Carrier X as France-Mobile. This results in an unexpected billing of an extra $0.1350 per minute (the difference between the $0.1925 mobile rate and the $0.0575 proper rate) for each of these 250,000 minutes. A total unexpected cost of $33,750.

The Importance of Interconnect Business Optimization

To address these challenges and capitalize on the reduced costs associated with IP centric networks, many forward thinking carriers are deploying Interconnect Business Optimization solutions. Interconnect business optimization, or IBO, is focused on improving processes within carrier operations as well as providing the analysis tools necessary to detect and remedy areas of potential revenue leakage or cost inefficiency. Interconnect Business Optimization enables carriers to more optimally leverage their operational intelligence to manage, route, bill and audit their interconnect traffic. These innovative solutions are able to define and manage an infinite number of interconnect agreements with other carriers and content partners, regardless of the level of complexity. This level of flexibility enables a carrier to support a variety of agreement types and rating scenarios including multi-party settlements and sophisticated revenue sharing partnerships.

By incorporating the cost and margin associated with each partner agreement, current network conditions and user defined quality of service benchmarks, carriers can produce optimal route suggestions at both the commercial as well as the technical level. Carriers can also automate their entire global routing process so that optimized network route guides can activate routing changes directly through both TDM and IP switches, without any user intervention.

Enhanced Revenue Assurance

Interconnect Business Optimization solutions also provide carriers with ability to detect and eliminate areas of potential revenue leakage. This capability will become even more essential as carriers interconnect with multiple carriers and other solution providers, each one providing a unique product or service which must be tracked and billed. By leveraging a highly flexible interconnect billing system, a carrier can eliminate revenue leakage by ensuring that every call is captured, rated and invoiced correctly, regardless of which type of network the call originated

and terminated on. Combined with a end-to-end audit and dispute management system, carriers will also be able to effectively manage the countless interconnect invoices received as well as streamline the validation process, reconcile charges and manage settlements between multiple partners.

Succeeding in Today's Telecom Environment

Over the next few years, more and more carriers will be migrating away from traditional PSTN to an IP-centric networks. The lower costs, increased network efficiencies and the ability to develop and deploy new revenue generating services on an IP centric network has made relying on traditional TDM technologies a losing proposition for most carriers. Yet, the promise of reduced costs and greater operational efficiencies associated with these new networks will not be realized unless carriers also optimize their entire interconnect business. Only by deploying interconnect business optimization solutions that can manage complex business agreements, optimize the routing of traffic, reduce dial code risk and eliminate revenue leakage will carriers be able to enjoy the benefits that IP centric networks provide.

For more information:

Telarix, Inc.		
8065 Leesburg Pike Suite 600 Vienna, VA 22182 www.telarix.com	Lisa Perez lperez@telarix.com + 1 (703) 564 9626	Thomas D. Do tdo@telarix.com + 1 (312) 265 8330

Telarix, Inc. proporciona una solución de software de optimización del negocio de interconexión, ofreciendo a las empresas de telecomunicaciones la capacidad de gestionar fácilmente los costes y generar rentabilidad en sus redes de interconexión. La plataforma innovadora de Telarix, iXTools, maximiza la rentabilidad del operador de telecomunicaciones, potenciando la inteligencia operacional para permitir tomar decisiones sobre las actividad empresarial en tiempo real. Las herramientas basadas en web de la empresa analizan e informan sobre el tráfico, las tarifas y los destinos casi tan rápidamente como se mueven las llamadas por la red global. www.telarix.com