Interconnect Billing and Content Partner Management as a Managed Service

A Growing Need for Managed Services

Today's complex telecommunications environment requires operators to focus more and more on their core business competencies. As part of this, the traditional environment of voice interconnection is changing and will continue to evolve even further with the advent of new IP-based services. Additionally, wholesale competition is intensifying and short-term rate agreements are emerging, which require more rapid billing implementations and partner management, according to a 2009 Stratecast report.

At the same time, in the current economic climate, operators are challenged by the high cost of ownership of in-house interconnect billing software solutions and the resources allocated to these solutions. Lower cost of ownership and simpler integration options are driving a growth in SaaS propositions and managed services, according to a 2010 Shane report.

However, while the growing complexity of interconnection markets is putting increasing pressure on resources and costs for operators, new technology options also hold out the promise of new lower-cost solutions.

This paper describes Interconnect Services provided by Syniverse. Syniverse's Interconnect Partner Management realigns an operator's interconnect billing, interconnect partner reference data management, and settlement business as a managed service, where Syniverse processes all the records and maintains an operator's partner setups. This approach allows operators to focus more of their time on managing the fast-moving interconnect market and closing the best deals, while spending less time worrying about software systems and processes.

## Dealing with a Fast-Moving Interconnect Market

Wireless and wireline retail pricing is decreasing fast, as are wholesale prices. Interconnect and roaming margins are under constant pressure. This leads to more attention to cost prices, and in many call scenarios the cost price is (besides the cost of the internal network infrastructure) determined by the interconnect price for the call, text-message (SMS) transaction or other internetwork content transaction.

With a shift of focus to cost savings, including interconnection costs, this market starts behaving differently. Although some operators may not be actively transitioning traffic or trading minutes, this type of business is growing and affecting the way operators are exchanging offers, numbering plans and settlement among each other. Discount deals and volume commitments are the rule rather than the exception.

This leads to more frequent price, numbering plan and partner data updates, and it puts a high pressure on internal resources to update the interconnect billing and partner management systems – time that could be better spent on business analysis and negotiation of better deals.

Besides the fact that the pressure on internal resources is growing, the complexity of the business is also growing. Operators are adding more interconnect partners to their network in order to route their traffic to the most optimal path and are having multiple service agreements with the same partner.

With the advent of new IP and RCS services, interconnect-based services are growing, new business models are being introduced, and partner maintenance is becoming increasingly important.

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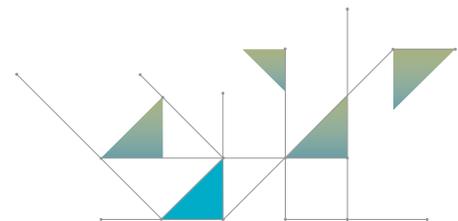
The interconnect billing and partner settlement systems needed to maintain all these relations are growing in importance, and the overhead costs associated with maintenance of these systems are increasing by the day.

With this growing market on one hand and growing complexity on the other, many operators are realizing that the management of their interconnect partners, wholesale rating, and settlement of all records for these partners no longer represents their core competence. For this reason, they are looking for new ways of managing this business while still being able to maintain commercial control.

Syniverse Interconnect Services

Syniverse operates an interconnect service that is already helping many operators with their complete interconnect billing processes. Within this service structure, Syniverse focuses on the partner management and call-detail record (CDR) processing, rating and reporting. This allows operators to focus on the commercial negotiations with their interconnect partners and to make sure that they have the best commercial agreements.

Low Cost of Ownership
Syniverse's Interconnect Partner Management is a managed service and comes without license, maintenance or hardware fees. The cost structure for the service is based on operational expenditures only relating to the number of transactions and agreements maintained. This results in a low total cost of ownership for an interconnect billing system.

Managed Service
The Interconnect Partner Management is run as a managed service, which means that Syniverse operates one centralized system where all the clients are connected. A dedicated Syniverse service team is available to help all customers to manage their

partners and to make sure that wholesale rating, billing and reporting are all completed without any errors.

Reference Data
One of the biggest challenges for any operator is maintaining all the changes in the reference data and successfully implementing these changes on time in the in-house billing system. This is a key advantage of the Syniverse solution. Syniverse implements all reference data on behalf of the operator and constantly monitors the correct processing of CDRs to make sure that the number of errors committed related to missing reference data or incorrect data is minimized.

Proactive Error Detection
With margins getting thinner every day, particularly for voice services, an operator must ensure that the rating and billing system is as accurate as possible. Most prominent of the irregularities encountered with in-house systems is that price updates or network changes are configured too late, or never at all, resulting in an inaccurate bill.

To this end, Syniverse's Interconnect support team monitors all errors continuously and informs the operator immediately if error rates exceed a previously agreed threshold. The operator can send updated or missing reference data to Syniverse, which will then update the system to correct and recycle the CDRs to ensure their correct processing and rating.

Syniverse understands that partners will sometimes send their pricing too late to the operators and that the rating may have already taken place in the system. For this reason, Syniverse has developed its Interconnect Partner Management system in such a way that prices can always be adjusted without any impact on the processing of CDRs. Price updates configured by Syniverse are effective immediately and become visible in all reporting systems as well, even if the price changes are retrospectively applied.

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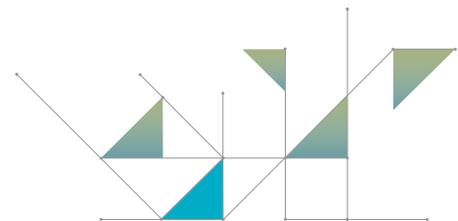
End-to-End Processing

The Syniverse Interconnect Partner Management system works according to the "CDR-to-Cash" principle, which in short means that a client only needs to send the CDRs and forward the reference data to Syniverse, which will maintain the partner tariffs on the operator's behalf and the CDR rating and billing.

Syniverse Interconnect Partner Management uses the following steps to process CDRs:

1. Mediation
In this step, Syniverse-billing-format (SBF) CDRs are processed. Operators can then send raw CDRs coming from their switches to Syniverse, which will implement a converter for its specific CDR format to translate the raw CDR into SBF records. Syniverse processes the traffic for its entire customer base through the same system with the same CDR format.

2. Rating
Syniverse's team constantly monitors all price updates, network changes or numbering plan updates to make sure that all data is processed correctly. The complete reference data is inserted into the system by our experts. Syniverse's interconnect system processes the CDRs, manages the correct agreement tracking, and assigns the correct price to the CDR.

3. Traffic Reporting
Syniverse provides a flexible reporting and business intelligence solution, which supports an online interface, where operators are able to access their data and review and analyze their rated interconnect traffic. Users are able to create their own reports based on the parameters they want to see (for example national versus international usage, traffic per trunk, traffic per interconnect partner per day, downloads per day per partner, etc.). Reporting for traffic is available as soon as the traffic has been processed in Syniverse's systems.

Business Advisory Reporting

In addition to agreement tracking and rating of interconnect events, Syniverse also provides business advisory services, helping operators identify the most optimal routes they should choose for their voice services, offering them the possibility to compare traffic sent and received to and from different partners. The main processes that are managed within Interconnect Partner Management are represented in the figure below.

Syniverse's business advisory service changes the reporting system from a reactive reporting tool to a proactive business-decision-support solution. If an operator is connected to multiple international long-distance carriers, the operator continuously updates its pricing and prefixes for all its international destinations. Syniverse business advisory services compare all the different offers based on the standard numbering plan that can be chosen by the operator and advises each operator

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on the best way to route traffic. Based on the routing of traffic, Syniverse provides each operator with trading reports that show how the traffic was actually routed, by showing which carrier and what the cost per carrier is for a particular destination.

Comparing carriers is difficult, because each carrier uses a different numbering plan. Syniverse's advisory services allow operators to choose a reporting numbering plan and map the destinations of all the different carriers to this numbering plan. This allows operators to make a more valid traffic comparison.

Save Cost, Time and Effort with Syniverse Interconnect Services

Syniverse's Interconnect Partner Management offers a team of experts that helps each operator run its business and makes sure that operators are free to focus on the commercial and strategic side of the business, while Syniverse maintains the systems and runs all the processes. Syniverse's Interconnect Partner Management comes with a full set of business advisory tools, low risk and low total cost of ownership.

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