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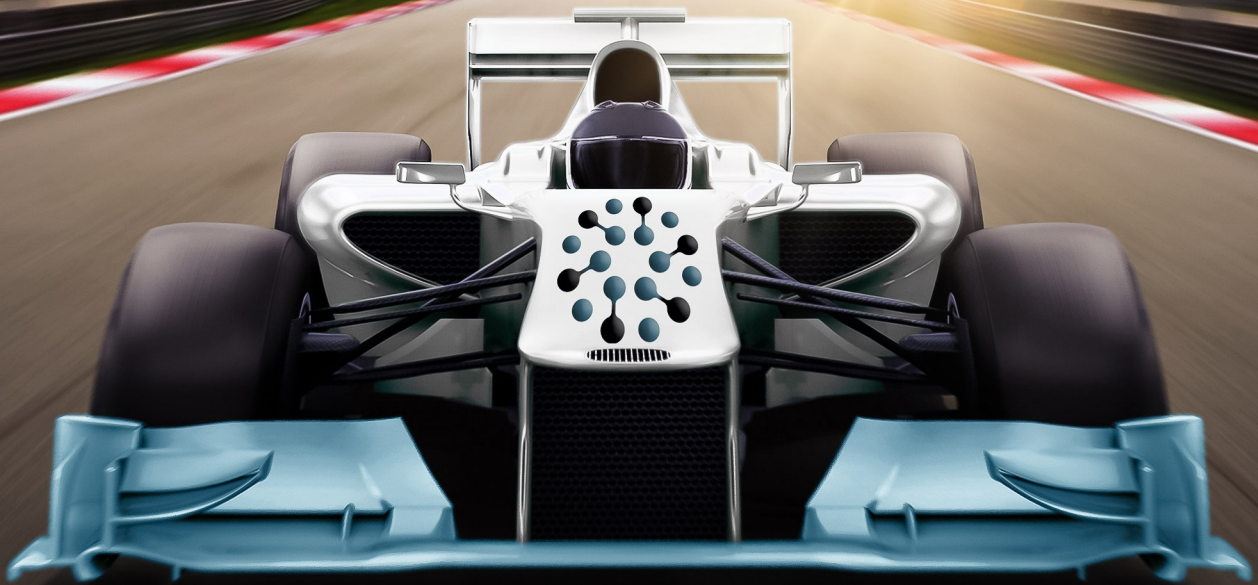
LINXA

BETTER, FASTER, SMARTER

Managing your wholesale business
better, faster, smarter

IT IS TIME TO JOIN SOME OF THE WORLD'S LARGEST CARRIERS AND INVEST IN A NEW SEAMLESS AND INTEGRATED WAY OF MANAGING YOUR BUSINESS. 🙶

Three common mistakes

Managing wholesale voice and messaging is increasingly becoming more challenging.

With continuously declining rates, increasing complexity and rapidly evolving technology, managing a profitable business is getting increasingly difficult as many are failing to successfully transform their business to keep up with today's reality.

Here are the top 3 common mistakes carriers are making, which is actually accelerating their demise:

1. Trust everyone, verify no one: Partnering with companies that are too good to be true.
2. You snooze you lose: Not keeping up with innovation.
3. Same old, same old: Using an in-house or legacy routing management system.

In global telecoms, both voice and messaging are immensely demanding and complex. New pricing, new codes, new approaches to tariffs are the one constant in the industry. So, a carrier needs to be flexible and quick on their feet to be able to firstly, avoid being taken advantage of, and critically, be able to identify and utilize the best and most profitable routing for every single call or message they want to terminate.

The key to all this is an effective management system covering all aspects of the business.

Carriers are often proud of their customized routing system tightly integrated with their switches and CDR processing systems.

However, the world is moving at such a pace that newer architectures, developed with the latest software technology, almost always have the edge. Not only do they bring that flexibility that comes from meeting the needs of all types and size of carrier, they also have the ability to integrate smoothly into any existing network.

Linxa, as a prime example, has taken this one step further by developing a complete stack of applications, from end-to-end BSS/OSS platforms all the way to network elements. Furthermore, they have capped that by covering both voice and messaging with OSS/BSS, Class 4 Switching and SMS Router products in one easy to use interface. So, carriers can now smoothly handle both voice and messaging through one interface, which gives them major efficiency and deal-making advantages.

The key benefits of having an entire network and systems stack from one vendor, such as Linxa, are multifold. Firstly, the vendor is able to completely integrate the system stacks, such that fundamental features, like the ability to recognize and kill a fraudulent call mid-stream, are easy to implement. Secondly, with such an architecture, reports on profitability are not just close to real-time, they are up to date with calls that are active at that point in time.

The best of all worlds

You are perhaps now thinking that this type of solution sounds interesting, but are wondering how an existing network can be transitioned to something completely new, however intriguing that might be. Current carrier customers are provisioned onto current network elements and the thoughts of changing that can be daunting.

However, the negative financial aspects of staying with longstanding network elements, which are not suited to today's rapidly evolving environment, can be equally daunting and costly. The cost of implementing new features, such as STIR/SHAKEN is perhaps the best recent example of some of the financial penalties of sticking with the old, even though it might be tried and tested.

So, it is time to take some bold decisions to evolve your voice and messaging operations to a seamless and integrated solution.

Linxa has such a solution, as it succeeded in developing a complete stack of network and system components using the latest software techniques. To achieve this, it chose to develop every component in a way that they interwork seamlessly, while also benefiting from flexible deployment options.

Each application can therefore be run either within an existing multi-vendor network or as part of a single integrated platform. This gives you options as to whether to simply grow into a new solution or take a broader approach to gain maximum benefits immediately.

The applications then run either in virtual environments or on off-the-shelf hardware and as a result can be either hosted or installed in the carrier's environment so that every component is fully redundant to enhance reliability.

Broad applicability

Of course, most carriers aim to meet their customers' broadest needs, so having the ability to combine deals across multiple services can provide a unique differentiator. Linxa's solution achieves just that.

With a framework to handle the main communications services of voice and SMS from a single stack using a single management environment with a single interface, its solution can also minimize training and other specialization costs.

This also allows a flexible and real-time overview of the financial and operational health of all your services through one window.

The integration does not stop there, however.

- Solutions are integrated for the many choke-points that carriers currently struggle with. For example, importing rate sheets from vendors in automated and flexible ways including handling traditional rate structures as well as the newer and more complex rates that vary depending on the origin of the call.

- Rate sheets are also automatically validated against business rules with the results provided to both the supplier and account managers.

- Routing plans for both voice and SMS are able to manage the complex interworking of bilateral deals, quality-based routing, cost-based routing and lossless routing are all integrated into the products.

- Deals management in particular can be a complex part of any account management role and so rules can be established to ensure that the deal is fulfilled in a smooth manner so that profits are assured.

- The management of invoices has always been complex and time consuming, and, again, the solution automates that process by creating those invoices accurately, of course, but then importing invoices from others and comparing down to the CDR level to validate that they meet the business tolerances.

Flexible integration options

In an ideal world, installing the latest technology would be the choice of all, but in reality, every carrier already has networks for voice and SMS and management environments to control them. The optimal approach is therefore to take advantage of the latest enhancements in routing and rating, for example, while minimizing the operational costs of the upgrades. And SIP solutions, such as the use of SIP Redirect and SIP Proxy, are options to consider to address this challenge.

SIP Redirect solutions, enable existing elements to query an external routing server for the best routing choice for each individual call or message. But unfortunately this solution is not a well-standardized option. Implementations can vary from one switch vendor to another, which makes the approach useful but not always the best.

SIP Proxy on the other hand, is a well-standardized approach, where the signaling of the call attempt is passed to a dedicated external SIP Proxy device which makes use of fully compliant signaling protocols and provides a fully integrated stream of CDRs for real-time processing. The media (the voice or message component) can in turn be routed directly to the destination for maximum efficiency.

With the SIP Proxy approach, carriers can simplify

" YOU SNOOZE YOU LOSE IF YOU DON'T KEEP UP WITH INNOVATION

operations and minimize costs of transition for both the network and the CDR mediation flow, while sticking strictly to standardized signaling standards.

As the Linxa SIP Proxy is itself a fully capable Class 4 switch, this also allows a seamless approach to transitioning away from the old network and onto the new at whatever time suits the carrier, its customers and suppliers.

SMS integration follows a similar path, using SMPP integration. As the CDRs are always generated by the new Linxa SMS Router, real-time reporting on network and financial performance is always available in the OSS/BSS system.

It gets even better

While the financial benefits of routing every call or message in such a way that deals are automatically fulfilled and calls are routed to the most profitable or highest quality option are clear, the full integration provides other less obvious but crucial benefits.

For example, although SIP protocols have been standardized for years, different implementations still result in errors, lost calls and therefore loss in revenue. The Linxa integrated solution can analyze that in real time and make choices to avoid those errors, enhancing revenue that otherwise would be lost.

In a similar way, transcoding between different codecs is another of those hidden costs as a fully integrated stack of components can manage the choices of codec to still

establish perfectly acceptable calls, while minimizing those hidden network costs.

At every turn, the Linxa solution can provide the ongoing benefits that allow carriers to always avoid the "Top three mistakes carriers are making to accelerate their demise".

So, if this sounds like an intriguing way to improve efficiencies, be more creative and flexibly enhance margin and increase revenues, then perhaps it is time to join some of the world's largest carriers in investing in a new seamless and integrated way of managing your wholesale business.

the **author**

Steve has a lifetime of experience in designing, engineering and operating networks, both domestic and international.

With leadership experience in small technology start-ups through to global service providers, he has deep experience in a wide range of products, technologies and geographies.

He has the rare skill of being able to explain complex technical issues in easily understood concepts and uses that extensively in his consulting work with HOT TELECOM.

Steve Heap
CTO, HOT TELECOM

about **Linxa**

Linxa delivers telecom software platforms for voice and messaging, designed to make it simpler and faster to grow profitability and capture new revenue in the complex telecom market.

Along with high performance switching and network products, we offer tools and support to efficiently manage rating, pricing, routing, real-time monitoring / reporting and invoicing with high levels of automation.

This enables telecom providers to focus on their core business, reduce fraud and disputes, while optimizing routing and making real-time decisions based on price and quality.

Linxa has offices in the UK and Turkey with local presence in USA, Sweden, Netherlands, Germany, Greece, Croatia, Romania, Tunisia, South Africa and Australia.

If you want to talk about how we can help you build a future-proof voice and messaging business, contact us at: **info@linxa.com**

or visit **www.linxa.com**