Whitepaper
Telecommunications

COMARCH
INFORMATION TECHNOLOGY

OSS and CRM – integration that pays

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Introduction

The telecommunications industry, although still technology-driven to a great extent, is no different from any other in terms of what customers basically ask for. They look for products that fulfill their needs conveniently, for a fair price, and if something goes wrong, they want the problem to be solved reasonably and fast. Unfortunately, in reality, suboptimal processes in the areas of sales, order fulfillment and trouble ticket management too often negatively impact customer satisfaction and, eventually, the bottom line. It has frequently been said that lack of genuine customer focus or constant process improvement largely contribute to poor results, so it won't be discussed here again. What is truly worth attention, though, is how much can be done for profitability just through tighter integration of CRM and OSS.

There have always been two camps on the operator's systems map: BSS - customer-facing business support systems (normally covering billing and CRM) and OSS - network-facing operations support systems (for instance: network inventory, fault management, provisioning). This has also been reflected in the organizational schemes – there is traditionally the network operations department taking care of the cost-oriented OSS, and the IT department taking care of the revenue-oriented BSS. The different perspectives have resulted in limited systems integration, as well as multiple disconnected data repositories and processes. These issues, while technical at first glance, have a real business impact and have led to different initiatives, such as attempts at achieving a 360 degree view of customer data, where carriers could view those pieces of physical and logical network inventory that are related to a given customer service. However, the real benefit of bridging the gap between CRM (the part of BSS we focus on in this article) and OSS lies elsewhere.

When customer orientation meets thinking in circuits

Most processes have their "moments of truth", when only combined CRM and OSS effort is necessary. Imagine an ongoing sales process aimed at winning a new business customer. What we generally know about business customers is that although they tend to have higher expectations and more complex problems taking a good deal of organizational effort to handle, they also tend to be more profitable. At some point, our prospective customer will ask a simple question, like: "How much will this T1 link cost me per month?". When a price is quoted to the customer (whose data is stored in the customer-centric CRM) and the costs of the service (based on data from the network-centric OSS) cannot be well defined on a per-customer basis at this early stage, profitability is at risk. Carriers selling services that are provided to them by external providers know this situation well, especially in markets where local-loop unbundling regulation has been implemented and local loop costs vary depending on concrete physical location.

When a contract is signed and an order is placed, order fulfillment and provisioning actions take place, and they are often pretty complicated and time consuming. The customer may ask for the current status of his order. Once it has passed from the customer-focused CRM to the network-oriented OSS, many providers can only give a laconic "in progress" answer, because they are not able to relate an order back to a customer. Sometimes problems with provisioning may occur on the side of the external provider, which may not necessarily be reflected in order status. The same information gap exists for fault management and trouble ticketing. Let's imagine that the customer is happily making use of the newly configured T1 link, and suddenly a circuit goes down. OSS systems produce tons of valuable

information about the status of the network. When such a fault occurs, the location, possible causes and correlated events may quickly be identified, yet associating this data with the customers who may be affected tends to be more challenging, making customer notification and pro-active assistance even more difficult to achieve.

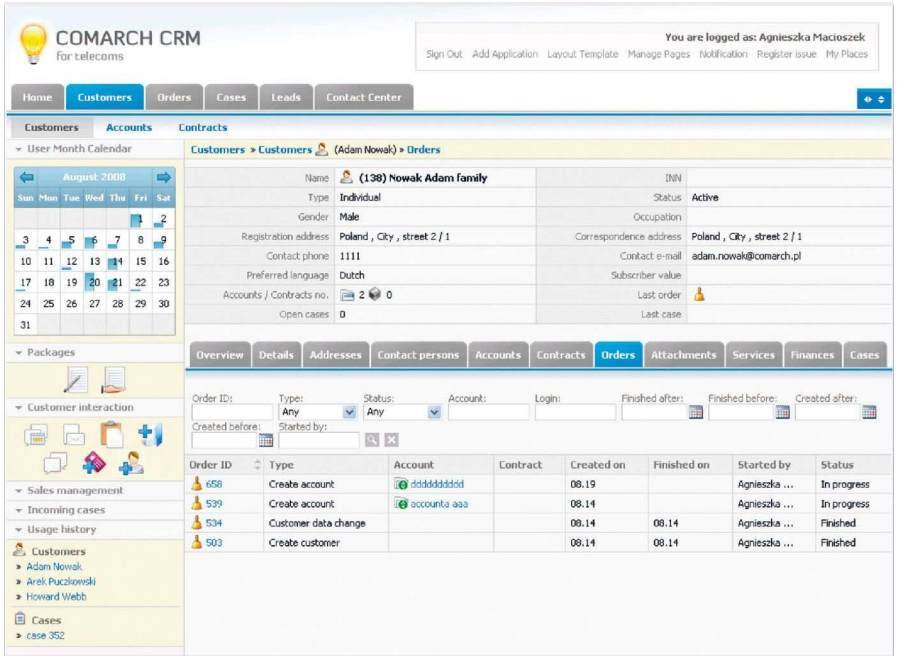

Figure 1. Comarch CRM for Telecoms – Customer Orders View

How many product catalogs does it take?

The true value lies in sales, order fulfillment and trouble ticketing processes effectively spanned across CRM and OSS modules, supported by a shared product catalog and workflow engine. As in our example, knowing costs prior to quoting the price is crucial in achieving desired profitability, but to know the costs and later to be able to activate the product, it has to be clear what exactly this particular “T1 link” looks like from the logical and physical network point of view. In other words, there has to be logic translating the “business product”, with all its parameters collected as part of the sales and ordering, into to the underlying “network product”, with all the necessary provisioning actions. It is usually harder when there are multiple local, disconnected product catalogs disseminated among different best of breed and home-grown OSS and BSS systems.

A unified product catalog acting as a master and central database for products and offers to be found in the service provider’s systems not only eliminates the error prone processes of manual reconfiguration and synchronization of catalogs, but also reduces the time to market of new products and the customization of products for business customers (e.g. the setup of a dedicated T1 link with a variable billing cycle, or an advanced VoIP configuration). All sales and marketing activity could be driven by the centralized product repository, with corresponding target segments, geographies, bundles, tariff plans, and variants. Of course, not all difficulties can be eliminated – adding new products will remain difficult per se – adding a product to the catalog must be accompanied by setting

up all the necessary quoting, ordering and post-sales processes, as well as anything else that is affected by products.

Similarly, with a common workflow engine being the central point for all ordering and ticketing processes, it would be possible to design and execute processes transparently across CRM and OSS layers with a single tool. Not having to configure duplicate procedures and integration logic in both systems enforced by consistent versioning would definitely increase the ease of adapting the business process management environment to changing business needs. Other advantages worth mentioning include common access to order attachments, better handling of provisioning errors, full visibility from CRM into OSS order history (and vice versa) and more possibilities in managing orders in jeopardy.

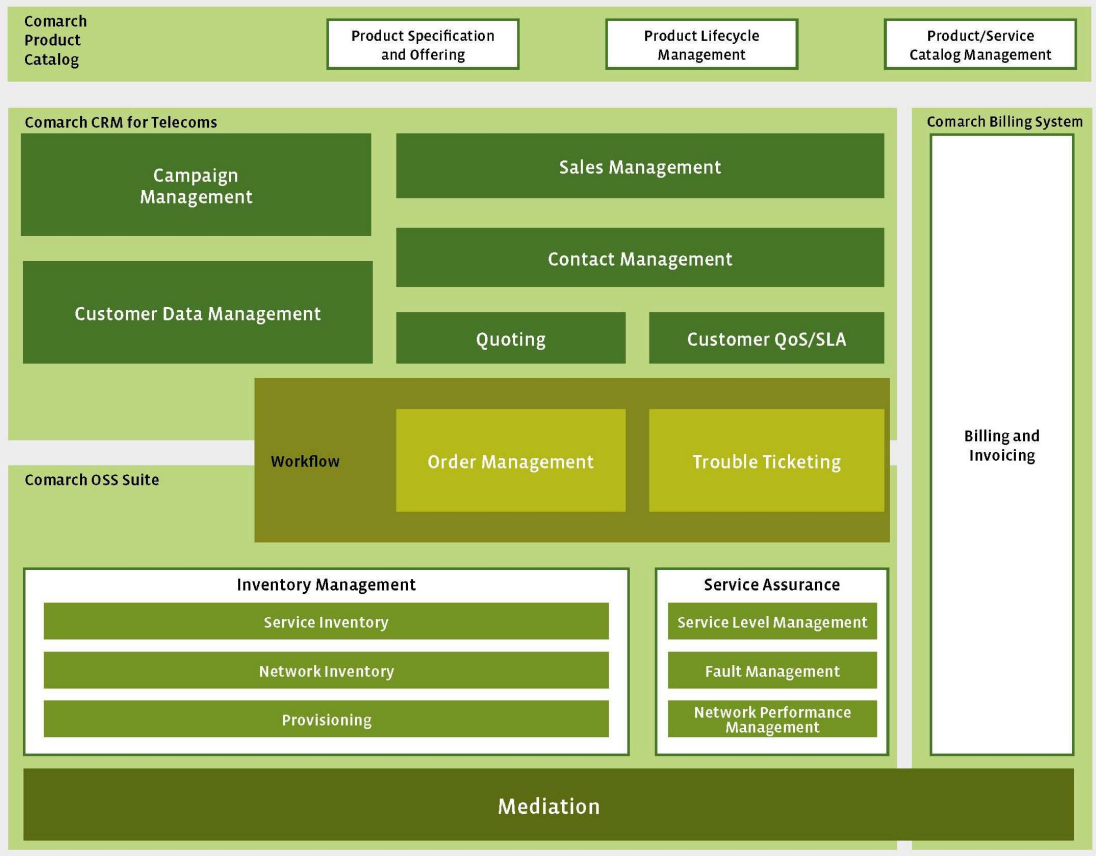

Figure 2. Order Management and Trouble Ticketing spanned cross OSS and CRM

An integrated CRM-OSS solution

There are generally two notable ways to close the CRM/OSS gap. The first is to use an open architecture based on standards. Use TMF eTom and ITIL as guidelines for (re-)defining business processes, use the Shared Information/Data (SID) model for having common terms and relations between business objects in different layers, and OSS/J for interfaces. In theory, an operator could pick best-of-breed products for every functional area of OSS and BSS (for instance defined by the NGOSS Telecom Applications Map, another TMF standard) and integrate them, trying to adhere to the

mentioned standards, but in practice these standards are still evolving, and not all vendors provide current implementations.

The second approach for a service provider would be to diligently pick an end-to-end suite encompassing CRM, BSS and OSS modules, with a shared product catalog, workflow, and integration layer in order to strategically focus the architecture around it, adding a limited number of systems from other vendors to the mix. This approach may be more cost effective, faster and easier to maintain than the other – there is no overhead in managing multiple suppliers, a smaller functionality overlap between modules (not all best-of-breed modules are carved precisely along TAM guidelines), and most interfaces are set up between the suite's internal modules (vs. interfaces between systems from different vendors, sometimes implemented by different System Integrators). Unfortunately, there is also a considerable drawback. Many companies find it risky, if not plain dangerous, to become too dependant on one given vendor, proprietary interfaces and technology. No risk, no gain – here the gain is lower TCO of the solution.

Regardless of which approach fits a service provider better under given circumstances, both are just different methods for achieving the same effect. In the end, what really matters is to be focused on the assumed business outcomes of the initiative, while remaining compliant with corporate policy and architecture standards.

Summary

Previously, putting up with the gap between CRM and OSS worlds has been a viable - though not optimal - strategy for most operators. But now that the telecommunications industry is undergoing the "communications and content over IP" transformation, service providers are starting to redesign their business models and to rethink the infrastructure. It looks like a great opportunity for bringing CRM and OSS systems, processes and data closer together. Conducting the architectural change with a pragmatic, modular approach is crucial to deeper OSS and CRM integration paying with increased profitability.

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