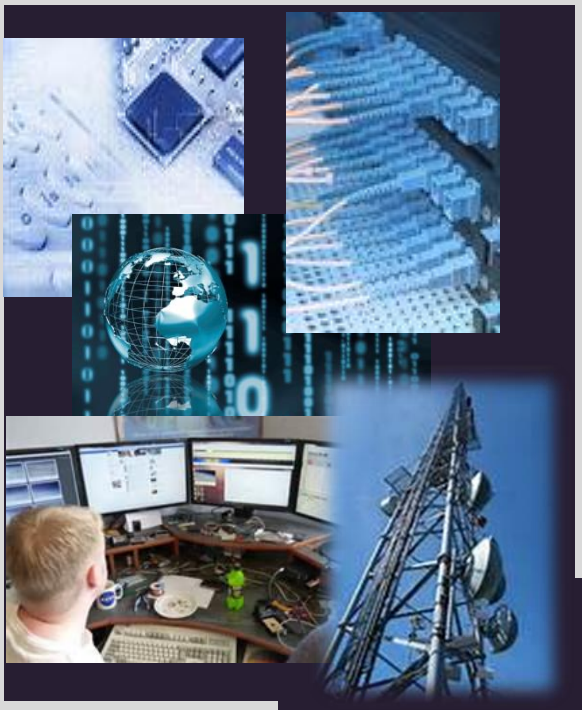

Consistency Starts at the Catalog

Implementing a Catalog Strategy at Teracom Boxer

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Consistency Starts at the Catalog

There are no more mass markets when it comes to digital communication services, yet the only way to generate revenue from a large menu of complex services is to establish repeatable processes that are consistently executed. Shipping and finance companies have figured this out. Every customer order is different, yet the process of getting product from seller to buyer relies on a common product catalog and processes that are well choreographed and intensely consistent. Likewise, in automotive and retail sectors, business leaders have abstracted the products from the customers and manufacturers into a centralized universal product catalog. With that completed, consistent processes are then optimized for sales, order management, and delivery.

The same opportunity exists for providers of connected digital services that can implement a Master Catalog and data-driven Order Management strategy. However, such a strategy requires a deliberate change in system requirements, planning, and deployment architecture. Even as the business organization was expanding and changing, the Teracom Boxer group was able to define and begin executing a roadmap that implements a centralized catalog and common information architecture.

This case study highlights some of the challenges, strategies, and results from the implementation of an integrated product catalog solution from Sigma Systems at Teracom Boxer.

Teracom is Sweden's first media operator. The company offers services in the areas of radio, TV, data communications, co-location and service using a nationwide infrastructure that provides coverage to 99.8% of Swedish households. The group consists of Teracom and Boxer. Via Boxer offers households pay-TV services in Sweden and Denmark. Teracom is a Swedish limited liability company wholly owned by the Swedish state and together, the Teracom Boxer Group represents a dominant television and broadband provider in both countries.

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Order Management Isn't Easy

The execution of a cohesive process that gets a customer from the point of receiving an offer to using a product is an unruly combination of disparate supply chains, partners, systems, and product offerings. As orders for digital services become more complex the likelihood of errors being introduced increases substantially. To date, management of complex orders has been addressed by applying expensive resources and manual processes to capture the unique requirements, prepare a customized offer, manage changes, and ensure that the proposed products and services are delivered as promised. Today's orders must more readily accommodate customer demands while accurately responding to changes. Specifically;

- Complexity – Numerous variations and instantiations of orders will exist, requiring a sophisticated catalog of product and service offerings that can be mixed and matched to effectively and efficiently deliver the final solution based on current rules and conditions.

- Partners – Customers, partners, suppliers, and internal resources must interact seamlessly to accurately and profitably fill an order. An interruption, delay or problem with any of them creates a problem for all. A common information model and the right rules combined with automation reduces errors and ensures that every partner, system, and user has valid and timely information.

- Change – The more complex the order, the more likely it is to be changed at some point during the process. In addition to knowing that a service can be delivered when the order is taken, changes must be accommodated as part of the process without necessitating a 'do over' scenario where the original order is cancelled and a new order starts again from the beginning.

As orders for digital services become more complex, changes become more frequent, and delivery schedules become more stringent; service providers must recognize the need for intelligent automation and tools that are driven by accurate, timely data. The capture and management of complex orders requires an agile, configurable solution that can be readily adjusted to changing customer needs.

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Catalog as an Agent of Change

Teracom Boxer faces many of the same challenges as other service providers preparing to offer and monetize new digital services. The first major realization was that new market offerings, pricing, and product bundles are created much more frequently than entirely new services that require modification to physical infrastructure or fulfillment processes. At Teracom Boxer Group the order management process was hardcoded into its OSS/BSS solutions such that every affected system was subject to the same extensive, expensive, and time consuming change process whether the business wanted to add an entirely new service or a holiday discount.

As the combined company looked toward offering complex products including broadband, pay-per-view, on-demand, and voice services; the need for a foundational information management strategy became apparent. The company wanted an architecture that supports complex products and rules without increasing the likelihood of mistakes, the need for expensive training, or lengthy IT efforts. The company realized that it needed an enterprise architecture that was driven by data and not just systems.

Betting the Business on Every Order

- *Put business rules in the tools*
- *Implement guided selling*
- *Reduce agent training*
- *Automatically update BSS*
- *Make self-care a viable sales channel*
- *Define a unified information model*

The complexity of products and bundles was regularly tripping up customer care agents and changes in pricing were often wrong when it came time to bill for services. Correlation of data and alignment of the order management process with billing and fulfillment was being done manually and as volume increased so did the errors.

Joining Teracom Boxer from the insurance industry, enterprise architect Martin Carlsson recognized the similarities between the complex products and offers put together for insurance providers and the complex products and offers that digital services providers want to deliver. While the applications and infrastructure in use are regularly changed and

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modernized the data relating to customers and the products they are using must remain relatively constant across business units, operations, and systems. Managing that data in a single trusted data source using a common information model enables consistent and reliable operations, accelerates revenue generation, improves the customer experience, and reduces costs.

The new product management and product lifecycle architecture being implemented by Teracom Boxer reflects several key business requirements:

- Put business rules in the tools – Much of the complexity encountered by customer care agents revolved around the rules that needed to be applied to specific offers. Expiration dates, products being purchased, equipment required, contracts, and specific billing rules had to be enforced manually at the time the order was taken and were often missed or mistaken.
- Implement guided selling – Agents can be more productive sooner and with less training if the system can lead them through the selling process and correlate the business and product rules with customer and billing data.
- Reduce the length and complexity of agent training – New products, devices, and pricing plans required extensive training of agents to ensure that each understood the business and product rules associated with each new offering. There was also different training for on-line versus live sales and support.
- Automatically update billing and CRM – As products and offers change, those changes were subsequently manually added to billing and CRM solutions. The increased volume of products combined with the time required to complete the changes and the frequency of errors make automatic updates to those systems from the product catalog absolutely necessary.
- Make self-care a viable sales channel – Customer self-care and on-line support were primarily used for customers wanting to check their bill. Offers could be posted but required additional updates to a separate catalog that supports the on-line channels and subsequent integration with billing and CRM to enable on-line ordering. Often, those orders required manual verification of rules and processing.
- Define a unified information model for the future – Previous BSS transformation efforts had been stalled by upgrades that failed to adequately integrate with existing systems and data due to the large and varied number of sources. Subsequent system upgrades are to be based on a single, unified information model that can be applied consistently across all OSS/BSS.

Achieving these important goals is part of a larger, multi-year roadmap for change that starts with the data, rather than the systems. Implementing a Master Catalog and data-driven Order Management strategy requires an important adjustment to systems planning and deployment architectures.

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While readily available data-driven solutions can accommodate existing systems and data, service providers also require strategies that force people, processes, and systems to align around the critical data that enables day-to-day operations, revenue generation, and differentiation. The best way to ensure that the data is reliable, available, and accurate is to commit to a single Master Catalog that is federated from existing sources and used by all relevant systems.

The Solution

Driven by a centralized product and service catalog that is the single, federated source of truth for customer, product, service and resource data; products are rapidly defined, offers are created, orders taken and services activated. Workflow is orchestrated across existing OSS/BSS and automation is introduced to save time and reduce errors. Using an integrated master data management strategy, service providers see results in weeks, not years, and can incrementally implement and adjust the solution to meet changing customer needs. As the customer buying experience is improved, service providers realize more revenue and customers are more satisfied.

After a three month trial of Sigma Catalog to start modeling products and rules in the catalog and enable IT to understand how a catalog-driven solution would fit in with both the new data-driven architecture and existing OSS/BSS solutions and workflow; Teracom Boxer proceeded to deploy the full Sigma Catalog solution first in Sweden and then Denmark.

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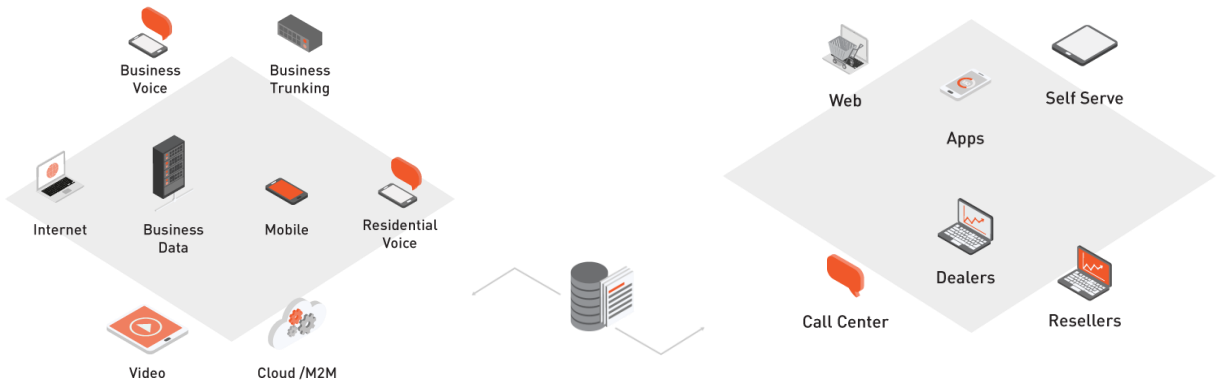

Your Products Sigma Catalog Your Channels

The Sigma Catalog is at the heart of the Teracom Boxer architecture and includes:

- Master Data Management – Manages commercial, functional, and technical component specifications and component reuse
- Product Rules – Enforces rules for service bundling, offer eligibility and up-sell. Maintains technical compatibility and manages dependencies.
- Product Life-cycle Management – Using role-based catalog access and management, version control, change management and workflows; all of the offer, pricing, and product lifecycle functionality is controlled in one place.
- Order Decomposition – Fully composed product, service, and resource view of existing and offered customer configuration.
- Pricing & Promotions – Rates and discounts are rapidly specified and easily modified for special pricing or promotions.
- Offers & Bundles – Offers and bundles are assembled from components across the product lines and validated against business, marketing, service, and sales rules.

Rapid, automated offer creation and order processing combined with rule validations ensure accurate and concise orders from capture through decomposition and fulfillment. Standardized data references and workflows eliminate errors and minimize fallout.

The translations and relationships defined in the catalog eliminate the need to modify the technical components of the fulfillment process when making a change to the pricing or

bundling features of a product. Likewise, centralized enforcement of business rules prevents users from defining products that cannot be delivered or may be unprofitable which reduces order fallout and prevents customer frustration.

The Results

The Teracom Boxer/Sigma team worked with the business units for just over six months to rationalize nearly 600 products and more than 40,000 offer combinations involving those products. The rationalization of products required to create a single, unified product catalog included definition of product and information models, structures, and behavior that is maintained for each service component in the catalog. Additional work with the business units produced new products and prioritized upcoming campaigns and service announcements.

> *After less than 18 months, Teracom Boxer has realized a positive return on its investment in Sigma Catalog. Most significantly, 80% of orders are now flowing through…*

While the Denmark deployment has only recently gone live, the Teracom Boxer group is already seeing positive returns on their investments of time and resources. Although the deployment had some challenges, including reconciliation of legacy products and cultivating an understanding of the approach within the business, after less than 18 months Teracom Boxer has realized a positive return on its investment in Sigma Catalog. Most significantly, 80% of orders are now flowing through, dramatically decreasing handling time and errors. Orders that fell out of the process due to billing rules are now automatically validated during order offer and capture.

Next up is the inclusion of retail partners and resellers into the channel strategy so that they too will be supported by the centralized catalog and the customer experience and the quality of that experience will be consistent regardless of sales channel. Consultative selling will be enabled by the system to suggest offers and products based on existing customer configurations and usage.

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Conclusions

To establish leadership in a competitive market, digital services providers want to deliver a unique offer of products and features to each customer. However, that approach could potentially result in millions of unique product bundles putting further pressure on operating costs. Existing OSS/BSS solution silos are not well-integrated and creating offers or quotes across product lines is difficult, time consuming, and error-prone.

Competitive advantage for operators is now being determined by the way that customers are treated, the usability of products, and the reliability of the underlying infrastructure and applications. Profitability, however, comes from the ability to simplify the product lifecycle and make the process consistent and automated from product definition through order capture and fulfillment. With a federated master catalog driving the order management process, workflows are minimized when making changes or adjustments and new offers can be created without complex software modifications

Between the customer and the product lies the catalog.

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