Pipeline

Knowledge Is Power

Rationalizing Sales Management to Improve Front-End Customer Experience
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The telecommunications industry's emphasis on customer experience derives from two sources. First, it is viewed by many as a necessary re-focusing of service assurance onto the customer: failures in the network are relevant to the extent that they impact customers, and a view through this lens places a CSP's priorities in the right place.

Second, the term "customer experience" derives from usage outside of telecom, where it means a broad focus for any company, in any industry, on every customer touchpoint.

Within telecom to date, the first definition has received the greatest emphasis. Partly as a result, and partly because of the sheer complexity of the problem, "front end" CEM suffers at many CSPs. Customers receive inconsistent product offers, prices, discounts, and bundles depending on whether they access a CSP through a retail outlet, call center, or web site. This inconsistent experience, forming the first impression for many customers, is difficult to overcome.

As described by Gartner research director Martina Kurth, **part of the solution to inconsistent offerings through multiple sales channels, and duplicate products and services in their respective catalogs, is for carriers to create end-to-end product and service catalogs that provide a single point of creation for new products and services. This approach also overcomes duplication, which is due to of lack of visibility to the product set.** Says Kurth, "…the awareness among carriers for the end-to-end product and service catalog issue is high. It is a vital pain point for many carriers which requires urgent resolution." (The Gartner: *Competitive*

Landscape: Product and Service Catalog Management Solutions, Worldwide. ID # G00168885, July 2009).

In this article, we describe how this can be accomplished. By deploying product and service catalogs, in combination with a platform explicitly designed to unify multiple sales channels during product and service creation as well as fulfillment, can create a more consistent user experience from one channel to the next. It can also provide a platform from which carriers can manage costs as well as revenues for a full picture of the profitability of products, services, and special offers. This approach also allows a service provider to automate much of the service creation process. Most importantly, the approach described here accelerates time-to-revenue while simultaneously controlling costs in a multiservice environment.

Challenges

Sales channel issues impact CSP product managers and marketing departments as well. Many CSPs are unable to obtain a clear view of existing products, and so are prone to create duplicates, further exacerbating already dauntingly large product catalogs and offer complexity.

The capability to provide a consistent experience to its customers regardless of sales channel, and to be able to reliably launch new services, strengthens another intangible: **the CSP's brand**. Some CSPs do not engender brand loyalty beyond the lock-in created by app stores, service contracts, and network coverage. But brand loyalty does exist in other industries, where it drives higher revenues based on the well-deserved trust of a consistent experience. By deploying a unified service management platform, CSPs can realize these brand benefits and more.

The challenge of providing a high-quality customer experience is greater than it was in the past for three primary reasons. First, CSPs are deploying a larger number of sales channels, especially self-care portals for both consumer and enterprise customers. Second, products, services and offerings themselves are more complex, as they are created from multiple services such as video, broadband, voice, IP, and data services. Third, competition and economic changes are forcing an increased focus on profitability—not simply revenue—of services. This means that cost data, which in the past was often overlooked, must be managed as well as revenue information.

Together, these sources of increased complexity explain the increase in order fallout and decreases in customer experience quality and consistency faced by many carriers. **Fortunately, recent technology advances have increased the sophistication of the systems that manage the "front end" of customer experience. When deployed correctly, they have been proven to solve many of these issues, even given the complexities of the sales process today.**

Definitions

A few definitions are helpful at this point:

Service: Functionality supported by a network. Examples: broadband, VOIP. In a mobile network, one type of service is called a *feature*, such as voice mail.

Product: A service to which pricing information has been added. Example: High-speed residential internet.

Offer: Special pricing or bundling of a product, sometimes offered on a limited-time basis. Example: Family Unlimited Plan

Given the above distinctions, a *Service Catalog* contains some or all services offered by a CSP. A *Product Catalog* contains versions of those services for which some or all pricing and/or bundling has been determined. It may also contain offer information. For instance, a residential product manager

may determine that offering $19.95 high-speed residential internet is a good idea, and may add it to the product catalog.

Finally, we use the term **Unified Sales Management** to refer to an approach that manages the entire sales process, including brand management, orders, offers, services, and products, offered through multiple channels, with a goal towards high quality and consistency of the customer's experiences. For the service provider, the goal of unified sales management is to be able to quickly offer high-revenue services at an acceptable cost, and to explicitly measure the profitability of those services to maximize stakeholder benefits.

Today's Barriers to Unified Sales Management

To understand how to achieve the improvements in customer experience described above, it is important to first understand the barriers in place today that must be overcome.   These include:

- **Product, service, and offer complexity:** As illustrated below, a typical product offering has many moving parts, including (in this example of a mobile offering) management of multiple contracts, handsets, rate plans, and features. In this figure, products (shown in green, example: $20 postpaid plan) are assembled from a number of service components (shown in blue, example: call waiting feature) and sold to market through offers (shown in yellow, example: 2 line family plan).   To create a new product or offer, and then to activate it on the network, requires interfaces to dozens of systems, including billing and CRM as well as the network itself (blue boxes to the side).
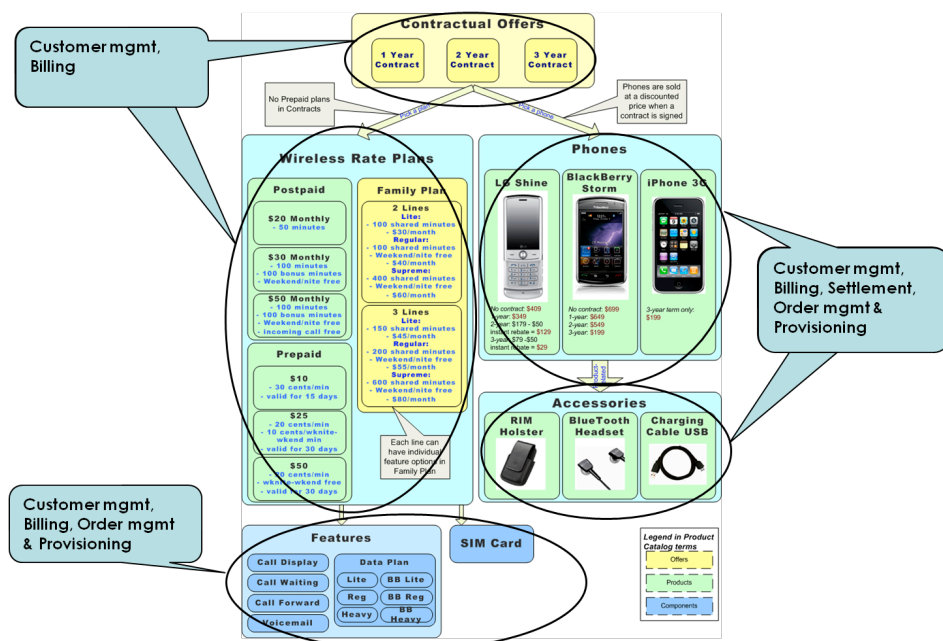

- **Lack of update synchronization:** Typically, different systems (like Billing and CRM in the diagram above) are updated separately (often with considerable manual input) when new products are created.

- **Lack of channel synchronization:** There is no mechanism in place that ensures that all sales channels (in-house and outsourced customer care representatives, the company's web site and mobile portals, in-house and partner retail stores, and so on) receive consistent information about the company's products.

- **Size and rate of growth of the product and catalogs:** The rate of product and service creation and the size of catalogs in most CSPs is enormous, and growing rapidly. Non-automated methods of synchronizing product and offer information among multiple systems are simply overwhelmed by the volume and rate of change they must manage.

- **Personalization and customization requirements:** Personalization of both products, and the user interfaces by which subscribers configure them, adds further complexity that must be managed . This is true both for business customers, who increasingly demand custom-designed products, services, and offers; as well as residential customers, who are attracted to personalized services that meet their particular needs.

There are also a number of strategic issues that CSPs must address:

- **Multiple systems / no single view of product and service catalogs:** Product and service information is distributed through multiple systems – the lack of centralized catalogs means that there is limited visibility into products and services that have already been created, leading to duplication and wasted effort. There is no timely or accurate global view of the product and service range offered by the company, denying strategic planning efforts of an important data source.

- **Lack of network asset visibility:** Product and service design and launch is done without visibility into the network assets and the impact upon them that the launch would create: there is only one-way communication from the product management group to operations, instead of an interactive two-way communication process between products and service capabilities (see below):
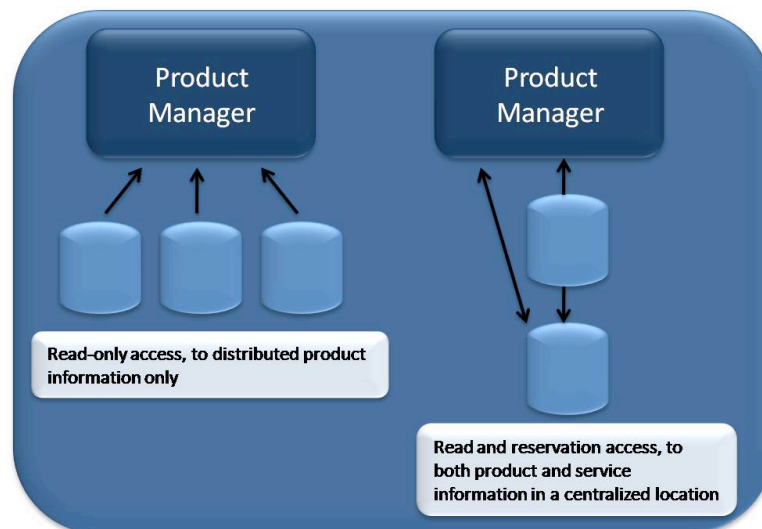

- **Slow time-to-market:** The creation of product catalog items along with the corresponding order entry software that is required to support these on each of the sales platforms is very time consuming. This in turn leads to significant time-to-market delays for new products.

- **Fallout:** The inconsistencies between various systems lead to fulfillment failures, undermining customer experience, and incurring cost as these are rectified.

The Solution: Unified Sales Management Based on unified Product and Service Catalogs

Independent software vendor ConceptWave offers a solution to the above problems, which uses a centralized product and service catalog, along with a solution architecture that supports rapid configuration and deployment of new products, offers, and services, to offer a rapid-deployment, low-TCO solution to the problems described above.

ConceptWave deploys Unified Sales Management as illustrated below:
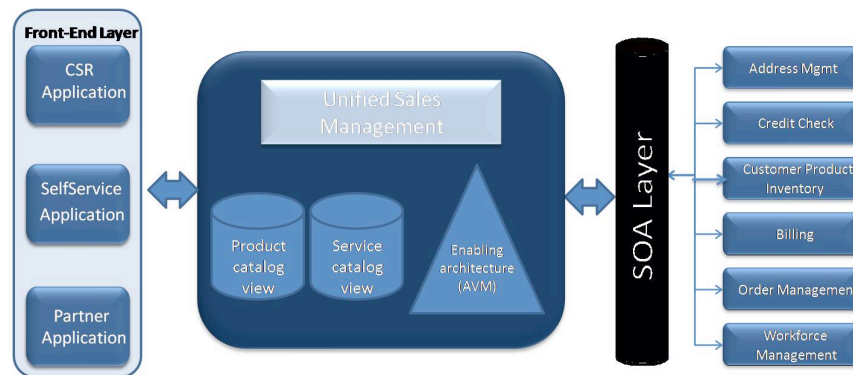
As shown here, ConceptWave uses a SOA layer to create a common interface to a number of back-end systems. On the front end, ConceptWave's unified transaction processing and rules engine creates a single product catalog and service catalog view, including catalog management functionality. **Importantly, the same unified view can be used for many purposes: personalization on the retail side, customized offers for enterprise customers, as well as unifying multiple services into a single offer or product.** Not shown explicitly here are a number of enabling architectural components, including ConceptWave's unique "AVM" architecture, which supports the use of templates, configuration components, SOA integration, performance requirements, and other features discussed below.

ConceptWave Internals

Internal to ConceptWave's solution is **metadata application** leveraging a SOA bus, along with enabling components that allow rapid configuration of enterprise systems. **Importantly, this architecture replaces integration and customization activities that would otherwise require developing new software—a time-consuming and risk-prone activity that requires specialized resources—with configuration using a simplified language and/or a GUI tool.**

This move towards configuration is an important trend in enterprise systems in many different verticals; ConceptWave is pioneering this configuration-centric approach in the telecommunications market.

This approach removes complexity and inaccuracy from both supplying the customer-facing systems with accurate data for both the chosen product and for the order itself, and ensuring that data collected in orders is easily and accurately passed to the back-office systems required to fulfill an order.

**Pre-Defined Functionality Speeds Deployment, Increases Consistency**

Both the front- and back-end solutions can benefit further if best-practices experience from other implementations can be propagated to new deployments and improved upon. Ideally, on the "back end", an existing, documented, supported SOA query interface is made available and need only be integrated with the other systems with which it is communicating, saving months, if not years, of development work.

Similarly, on the front end, rather than have to construct and then QA a vast amount of content for CSRs, direct customers, partners, personalized viewers, and so on, presentation layer content can be created nearly automatically from pre-defined "templates", which are then filled in with the comprehensive catalog, and business rules, again saving considerable time and dramatically reducing the need for custom programming.   **Under this approach, creating an order entry and product / service catalog system that is highly customized to meet a given operator's specific needs is reduced from a months-to-years scale task, to a weeks-to-months task.** Furthermore, the open nature of the templates makes their configuration a task well suited to in-house resources, rather than mandating the participation of the software vendor. Again, ConceptWave's architecture provides a mechanism that allows such pre-defined templates to be used.

Creating a Unified Product Catalog from Multiple Distributed Systems

As shown above, ConceptWave's architecture supporting unified sales management connects to multiple systems containing product and service catalog data, resulting in a centralized view of the catalog, which is based on data that remains distributed in several systems. Conceptually, instead of having to access this data from multiple systems built by different vendors, it is now centralized, as illustrated below:
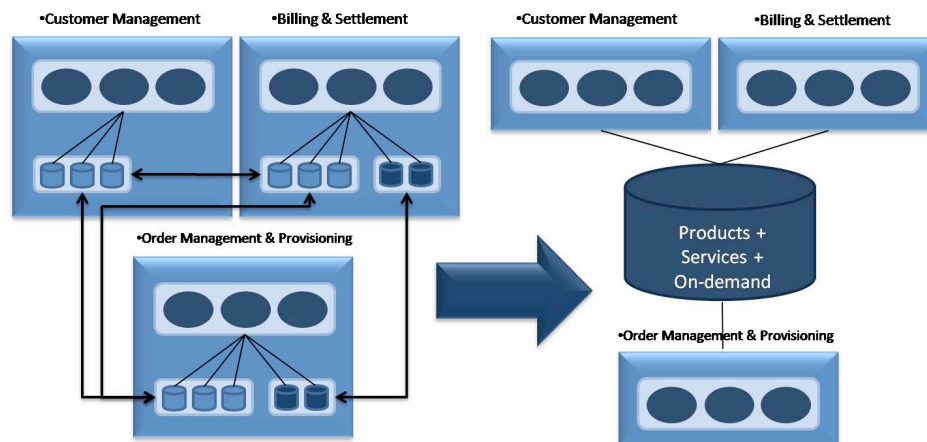
The above illustration implies that distributed data is simply migrated to a centralized location, called an "Enterprise Product catalog"**. However, it is impractical to create a single database containing all product and service information in a single master.** Therefore, CSPs deploy a number of alternatives:

1. **Master-Slave configuration:** Here, the master database feeds data to "slave" copies within individual systems like CRM or billing.
2. **Slave-Master configuration:** Again, here there are two copies of the data. However, in this approach, if there is a data conflict, the individual systems are considered to contain "true" data sources, so a central data store is a duplicated "slave". In this approach, the

centralized slave can also extend existing catalogs to add new products and services, or to manage a service catalog, while leaving product catalogs distributed.

3. **Federated configuration:** In this approach, the central catalog is only an intermediate view that synchronizes to different product catalogs. Metadata and workflow-driven synchronization drive the coordination of the centralized view.

New Functionality Enabled by a Product Catalog and Unified Sales Management System

ConceptWave's solution not only resolves the problems described above, but also supports new functionality, as follows:

Resolving Inconsistencies / Revenue Assurance: In addition to controlling information flow, ConceptWave's architecture includes functionality to help to resolve inconsistencies. Business rules in ConceptWave's architecture govern inconsistency resolution, leading to fewer errors and less fallout downstream.

Product Visibility: Whichever approach it selects, with a centralized product catalog in place, a service provider now benefits from a two-way flow of information. Product managers have full visibility into existing products, and can reason about the revenues and margins they can obtain from product launches.

Reduced Fallout through Two-Way Communication and Resource Reservation: Because product managers are able to view existing products and services, as well as the services that support them, they can reserve network resources in advance. This remedies a source of product fulfillment fallout today, which is that the network assets that were expected to be in place during product creation are no longer in place once subscribers start to order it.

Automated GUI generation: Providing automation tools to generate appropriate user interfaces from product catalog and other dynamically available data.

Eligibility Analysis: Providing business rule automation so that prospective customers are offered the right product set (e.g. based on their location, handset capabilities, customer type, rate plan, current promotions, capabilities of the network supplying the customers, etc.).

Offer Management: More complex offers can be managed, and at least some quotations that once necessitated engineering, costing and ROI analysis can now be generated by executing business rules.

Up- and Cross-selling: Defining up-sell and cross-sell rules once, but allowing them to be automatically (and *consistently*) incorporated into all customer-facing systems.

Personalization / Customization: Easily creating distinct views, for example, personalized views for individuals, company branded views for re-sellers of the network providers services (e.g. a large MDU operator, who wishes to on-sell a cable company's product under its own brand).

Flexible Product Configuration: Ability to have one product to be composed of another through a hierarchical relationship, and reuse of product elements.

Product Lifecycle Management: Ability to manage products and services from cradle to grave, including the use of predefined lifecycle states and transition rules defined through metadata, as well as version control.

Pricing and Taxation rules: Product catalog metadata is a natural repository for pricing rules, whether they are simple look-up rules or more complex formula-based pricing models (stepped, banded, formula etc.). Rules can be defined flexibly for dynamic enforcement of availability, eligibility, ranking, and validation; and can also access a 3rd party pricing engine.

Videotron Deployment

Canadian CSP Videotron's experience deploying ConceptWave solutions is a case in point. With a growing base of more than 1.7 million subscribers, and in an increasingly competitive environment, Videotron—an integrated communication service provider—needed to improve its customer-facing ordering processes, CSR training time and cost structure. It also needed to decrease time-to-market for new products. The company's goal: to transition CSRs from order takers into sellers by providing them with tools to interact with the company's residential and business customers in more knowledgeable and engaging ways than before.

Prior to engaging ConceptWave, Videotron's 1200 CSRs depended on Excel spreadsheets and Lotus Notes to explain and sell the company's products. Without more automated and informative tools, Videotron's customers were burdened with having to understand the many service options and choices available. CSRs used a mainframe-based ordering system, unable to clearly match their very specific needs with Videotron's many service options, packages and promotions based upon location as well as seasonality. As a result, CSRs were filling orders but not doing enough in the way of proactive selling to meet Videotron's goals to support its quad play offerings.

In response, Videotron created a multi-phase project in which it engaged ConceptWave to provide a product-catalog based solution to meet its needs. ConceptWave built a productized API to the billing system to obtain product information.   This new capability also supports new CSR functionality for cross- and up-selling.

In addition, Videotron product managers and marketing teams are able to access the same information as they create new offerings and products, and to progress them through a validation, testing, and approval phase that ensures there is no fallout following introduction.

Finally, in a system where revenue leakage was an issue in the past, a single source of product information created a location where over 1200 business rules could be added to ensure that manual order errors are eliminated.

Deployment at a Large North American Cable Operator

The benefits described above were realized by another large North American cable operator, which uses ConceptWave's solution in its order-to-cash process.

Prior to engaging ConceptWave, this MSO faced a number of challenges. Software systems were cumbersome to modify and use, and there were different systems built for different channels, each of which supported a separate product set. This meant that customers who purchased through several channels left separate, unreconciled, data footprints. The operator was not able to obtain a "360 degree" view of a single customer: a single screen showing all products owned along with current status.

Product management for this MSO was also difficult: products were defined in flat files, which were imported into the various systems supporting sales channels. This meant that both changes to products as well as new product definition was slow and costly.   Furthermore, there was no support for customer up-sell.

Using ConceptWave's platform, along with a SOA layer, this MSO has implemented an end-to-end order-to-cash solution that is channel agnostic. The ConceptWave solution uses a common order model across several source channels, which means that orders can be viewed in a common format.

ConceptWave's solution has also helped in the handling and minimization of downstream issues by handling front end validations. In addition ConceptWave's platform is the record keeper of the client's installed base, proving the MSO with a 360 degree view and the ability to up-sell for the first time.

Conclusion

Compared to tangible measures like revenue and cost, "customer experience" is difficult to measure. Nonetheless, as service providers enter a more competitive market, and seek to act more like retailers, they are—as other industries have done in the past—beginning to understand its critical value in maximizing profits. **Given its importance, service providers ignore customer experience at their peril: first impressions matter.** Despite this fact, however, the "front end" of the customer experience process has often been neglected, partly due to its large—and increasing—complexity.

Finally, the profitability of new products, services, special offers, and customized bundles to enterprise customers has often been overlooked by service providers, simply because of the sheer complexity of effectively measuring their costs. By automating the tracking of cost and other critical information, a unified service management strategy allows CSPs to move beyond simple ARPU or other revenue measures towards a crisper understanding of profitability. **By making smart decisions based on profitability, CSPs can provide greater shareholder and customer value alike.**

In this article, we have described how ConceptWave technology provides a highly versatile solution to the dual problems of inconsistent user experience and inability for product managers to launch products quickly and easily and with a view to profitability, slowing down time to revenue. ConceptWave's Unified Sales Management solution sets a new bar in the ability to solve these problems in a rapid-deployment model with low incremental cost.