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Why are Billing and CRM Failing? There is a need to consolidate product and service catalogs

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Service Providers, who have to continuously stay ahead of the competition by introducing new Product Offerings to the market, have been turning to Product Catalogs and Service Catalogs to fulfill their rapid time-to-market requirements. By and large, this has been via either internally developed catalogs, or via extensions of ISV offerings. ISV CRM and Billing vendors have stretched their Product Catalogs to perform the role of a Service Catalog, while Service Catalog providers have moved into the Product Catalog space. These catalogs, with a bias introduced by their roots, are typically poorly suited to the combined task at hand.

Where disparate catalogs are employed, each with a focus on their own domains, seamless integration has not been achieved, resulting in both longer times to market, and in disconnects between what is sold and what can be fulfilled. A cohesive, centralized Product/Service Catalog approach is crucial in closing both of these gaps.



Is there a gap? Why do we need to bridge the gap?

Product catalogs contain the specification of the Product Offerings sold to the customers. Product catalogs must be able to offer multi-bundle offerings to diverse geographical sites using complex discounts, availability checks, contracts, service-level agreements, promotions, tax rates. They must

also manage product content such as images, terms and conditions, specification sheets and product collateral.

Service Catalogs contain specifications that define parameters and features of a service, such as bandwidth and speed. The service catalog describes product features in technical terms whereas the product catalog is the opposite. Service Catalogs focus on how the Product Offering is fulfilled, they are relatively more static in nature, less visual and content oriented, and are not burdened with the vagaries of imaginative pricing plans and promotions. Traditionally, these characteristics have led most organizations and software vendors to non-catalog based implementations, ranging from hard-coded to simple table-based look-ups. As the number of means of fulfilling the same service has increased, and the frequency / complexity of delivering Services over shared components has increased, the benefits of a Catalog based approach have become apparent.

A consolidated approach

Having independent product and service catalog offerings fails to meet the operational needs of Communication Service Providers (CSP). For example, let's examine the introduction of a higher bandwidth internet service offering. Ideally, the new product offerings should be able to be defined in one place, with the new Customer Facing Service (CFS) automatically exposed both upstream, to the customer via the product catalog, and downstream, to the service catalog, Network Element Managers (NEM), and ultimately, the network.

A model with an independent product catalog servicing the upstream systems and a service catalog servicing the downstream systems poses some challenges:



- The definition of a new QoS, with associated characteristics in the product catalog, requires knowledge of the network that more properly lies within the service catalog.
- To enable product catalog based management of QoS, these characteristics, and the associated rules and network knowledge, need to be replicated in the product catalog.
- Defining the availability rules for the new offering requires knowledge of network coverage, supporting technology, and available resources.
- Building all of this into the product catalog is not a viable alternative.

Conversely, if the QoS is more properly modelled in the service catalog, how does a QoS based CFS defined in the service catalog expose itself to the product catalog for use in the definition of new Product Offerings? How does the product catalog evaluate the availability rules? The answer lies in the tight integration of the product catalog and service catalogs. The product catalog must invoke availability queries into the service catalog for each request. Product catalogs must handle volumes generated by customer browsing, quotations and orders. This volume, in a service catalog scenario of tight integration, will be transferred to the service catalog. Service catalogs are engineered to handle order volumes, only a small portion of the browsing volumes handled by product catalogs.

Bridging the Gap

With these challenges in mind, the advantages of a solution that is able to support *both* product catalog and service catalog functionality is readily apparent:

- A single common data model ensures consistency in product models
- New CFSs are immediately available to be used in Product Offerings
- No replication of network knowledge across product catalog and service catalog as they share the same definitions.
- A holistic, end-to-end view of the Product Offerings is available, including a view into the underlying services.

Continuing with the example, the QoS capabilities of the network, availability rules, and quotas would be defined in the Service Catalog and exposed as a CFS. These CFSs would be immediately available to the Product Manager in his definition of the new Product Offering. The net result is the ability of a Product Manager to define a new Product Offering, on-the-fly, without requiring changes to be made within another catalog.

Essential Requirements of a Consolidated Product Catalog/ Service Catalog Solution

A consolidated solution does not obviate the need for sophisticated Product Lifecycle Management (PLM). The catalog solution needs to provide a full featured workflow engine to manage the PLM process across multiple functional organizations, and indeed across the full supply chain and all sales channels. The solution must be able to integrate with catalogs that will inevitably exist in other applications within the CSP, channels and supply chain. With integration comes fall out and the need for robust exception management capabilities. The catalog assumes a central role in the CSP's portfolio and needs to have the flexibility, robustness and performance of a purpose built enterprise application.

Extensibility of the catalog solution is critical. An ISV solution must be able to adapt to the unique categorization / tracking needs of the CSP with the addition of attributes that can support high-visibility placement in the user interface, full validation rules, easy filtering and reporting.

ConceptWave Order Care Catalog Management

ConceptWave is an independent software provider that is focused on the Telecom Service Provider market. It provides out-of- the box solutions to help facilitate and automate **the product life cycle** from the conception of a product or service, through the design and rollout, to the eventual retirement of the product and service as well as **the order fulfilment life cycle** from the order entry and multi-bundle offerings to diverse geographical sites using complex discounts, through to the product and service validation, order decomposition and orchestration, inventory allocation, delivery and billing.

ConceptWave Order Care contains the following solutions:

- 1. **Order Negotiations:** A fully customizable order entry system that validates every order prior to provisioning and enables CSRs (customer service representatives) to offer pricing, availability, multi-featured bundles, discounts etc.
- 2. **Order Management:** A real-time, scalable system that enables Service Providers to track, automate, notify, escalate and manage their orders from end-to-end. It includes the ability

- to decompose, orchestrate, synchronize and route the complex multi-part orders while handling order exceptions and jeopardies to ensure orders are clean and accurate.
- 3. **Order Analytics:** A module that provides management dashboards and reporting of order history, delays and escalations with providing in-depth analytics to help Service Providers understand which product or service offerings need to be retired changed or re-introduced.
- 4. Catalog Management: A centralized solution that consolidates product and service offerings including multi-part bundles while facilitating quick and easy administration of introducing or making changes to current offerings. All workflows, end-to-end mapping, rule engines is included to ensure that managing availability and the product lifecycle is consistent.

ConceptWave's competitive strategy is founded upon bridging the gap between customer-focused product catalogs and network-focused service catalogs. ConceptWave Catalog Management is based on a data model that supports multiple levels of object hierarchy to centrally manage the end-to-end definition of product offerings from the commercial view to the technical view, including the mapping between product offerings to customer-facing services and customer-facing services to resource-facing services. ConceptWave is uniquely positioned in providing a purpose-built Catalog Management product that provides the required end-to-end view across both Product and Service catalog domains. ConceptWave specializes in incremental rollouts enabling accelerated benefits realization.