Pipeline

Knowledge Is Power

Product, by Product, by Product:
An OSS/BSS Transformation Strategy

by Barbara Lancaster

Back in 1987, some creative telecommunications IT types, and one very frustrated DBA, had an idea: what if we designed a corporate Product Catalog, sat it in the middle of a suite of OSS/BSS application modules, and only allowed communication between those modules *through* the Product Catalog data base? Every customer request would pick up only the parameters that existed in the Product Catalog to create Customer Product; Provisioning would see exactly which components from which vendors were required to fulfill the customer's request, to create Service Product and Billing could look up exactly what it needed to get the invoices calculated accurately – no out of date rates, no bundling errors, to create Customer Billed Product.

This small group was able to build that vision for a Greenfield implementation in a far off land. And it worked – each business functional team was happy to be able to specify the data that they needed to get their jobs done, yet not having to be responsible for the data that other groups needed. Sure there were some heated debates as definitions of commonly-required data elements were wrestled to the ground, but in less than eighteen months, an entirely new OSS/BSS environment was defined, built, and in production.

With this positive experience under their belts, the little team was back home in North America and thought "there must be a way to use the same philosophy to make things work better here." They were once again trying to find a way out of always being seen as the bottleneck. You know, being that one group Product Managers could point to every time and say, "They can't get my new mega profit generator to market for at least a year!" These courageous OSS/BSS veterans knew that the bottleneck was not really all their fault, but rather a complicated mess, and an ironic one at that: the combination of stove pipe systems and mammoth monolithic systems, neither of which could easily be made to accept changes quickly, coherently, and accurately. And so, they came up with the idea of building and implementing the Product Catalog as a separate, stand alone module, and letting each upstream and downstream application use the Catalog essentially as a look-up table.

This didn't work so well. In the early 1990s, customer service representatives at the major carriers tended to be seasoned experts who yielded a mean pencil and paper. They knew who to call to get any customer problem fixed and relied on relationships to make things work, rather than on computer systems. They loved their Product Handbook, a book with dozens of tabs organizing hundreds of pages listing thousands of products, with enough asterisks and foot notes to make a normal person's head spin. But…these were no normal people; they were extreme subject matter experts. So, they rejected the stand alone computerized Product Catalog, simply refusing to use it. And they were right to do so. The tool simply did not have sufficient functionality to be the comprehensive active master data store that was needed to improve accuracy and productivity.

The intrepid IT team and their frustrated DBA moved on to another task and hoped that one day the technology would become available to make their vision a viable reality.

Fast forward twenty years…By now, we've tried the Best of Breed, and the Best of Suite, Middle Ware, and Enterprise Buses, with not a lot of success. The system integration tax is still too high, too much money is spent on maintenance and not

enough on innovation, and individual business units still spend too much time and money trying to keep duplicate views of information current and accurate. A few brave carriers have even tried to rebuild from scratch, but overall, few CIOs that I know are happy with how their OSS/BSS environments work.

Much has changed however in that we do have new technologies and new tools that can usher in the era of "loosely coupled," "data driven," "plug and play" that so many have been waiting for. SOA appears to be making a real difference. XML is definitely making a big difference. Low cost memory and processing power is certainly making a big difference. In this new world, Product Catalog can flourish – as a standalone electronic reference for all to use, and as an integrated element of a comprehensive and coherent set of 21st century business processes and policies.

Carriers like Telstra and Telekom Austria have tested the concept that Product Catalog is an excellent first step in the journey to Transformation of the OSS/BSS infrastructure (and of the business processes and policies they support). They are beginning to achieve the benefits anticipated from breaking up monolithic and inflexible OSS/BSS environments by inserting a centralized active Product Catalog, and found that it delivers some important benefits, like:

- Faster time to market for new services. The majority of new services introduced today are billing-based. New bundles that attract new discounts, or new usage-based or content-based services that don't need new hardware rolled out into the network can be defined, tested, and launched in days, not months, because Product Managers can access the Product Catalog and see exactly which products and product components exist, which rating parameters exist, which OSS/BSS applications are involved and they can then put together the best possible package available.
- Lower cost of ownership. Every group involved in delivering service to customers can pull the information they need from the Product Catalog. They don't need to maintain their own analysis and enhancement process; they can simply get what they need from the common centralized repository.
- Improved customer satisfaction. When the Product Catalog is linked to the Customer Self Service environment, customers can put together packages of service components to meet their needs – and can choose only from valid components. That means that when they finish building their product and hit "Order," their order is accepted, because only acceptable product models are presented to them.
- Accelerated Transformation. With the Product Catalog in place, the carrier can decide which systems to integrate with the Catalog based on pragmatic business drivers, since the Catalog can deliver immediate benefits even when standing alone. Logical projects to align with the Product Catalog implementation are changes to the CRM, especially customer self-serve functionality, as well as Network Inventory, Rating, Settlement, and Invoicing.
- When coupled with a SOA orientation, the acceleration can be achieved even more quickly.

What choices does today's carrier have to accelerate achievement of their Transformation objectives? ISVs, like Tribold, offer a Product Catalog suite designed for getting started in a stand alone mode and then integrating into the OSS/BSS environment based on well defined and measurable business goals. Billing specialists like MetraTech offer a flexible combination of Service Definition and Dynamic Business Modeling to get at a balance of rapid time to market and controlled evolution. Still more solution options exist from companies like Progress, whose DataXtend makes it possible for carriers to implement their own TMForum Shared Information Database (SID)-driven solution to serve the data demands of the entire carrier organization.

It is now possible to choose one of several ways forward that each can lead to success. Getting a firm grip on your current products and services, rationalizing the Service Definition process while you organize your thousands of product components and pricing combinations appears to be a solid place to start, yielding some highly-visible, quick wins. Quick wins are always a great way to defuse that other alligator lurking in the swamp that kills projects: resistance to change. Involving people in bringing themselves new tools that actually help them do their jobs will set the stage for a much more successful Transformation program.

For carriers like Telstra and Telekom Austria, a decision to proceed with a Product Catalog-centric Transformation is already yielding benefits. Yet, let's be clear: this is not magic. Much hard work is required to get the product data into a format that can be used to build the Product Catalog and drive the transformation. It took years to create the chaos; we have to realistically expect it to take a few months to unwind and rebuild.

"How many Day Jobs can one person have?" was the question posed in a recent interview with a Director of IT for the Enterprise Services group of a major carrier. Her question lies at the heart of why so many well-reasoned, and even well-funded, Transformation programs are just not getting done. We were talking specifically about how to begin reaping the benefits of a stand alone Product Catalog as the first step in the Transformation when you simply don't have the people to assign to the project.

There was absolutely no doubt in the IT Director's mind that one single application managing one consistent view of the information needed by Marketing, Sales, Customer Care, and Billing would begin delivering benefits from its first day in production. She already had the agreement of the Product Managers, the Customer Care team and the Billing group that even in its initial implementation, simply pushing data to other systems, the centralized Product Catalog would yield tangible benefits to each of them. They all agreed that those benefits would grow as the Catalog gradually was integrated into the end-to-end OSS/BSS environment. Benefits already quantified include:

- Higher profit margins because fewer enterprise customer contracts would be labor intensive "one offs."
- Lower cost of Billing, because bill close would be cleaner, with far fewer held accounts and re-rates.

- Improved customer satisfaction as they build and order their own packages with no order rejections.
- Reduced frustration across the organization as everyone worked from the same, up-to-date view of what was possible to order, implement, and bill.

That strong business case had been sufficient to gain executive approval, and project funding, even in these difficult financial times. But every person on her team was more than fully occupied already, so just how was this project to be initiated? "Turn Key" contracts from the vendor rarely work out as planned, so that was not an option she was willing to consider. Similarly, Systems Integrators usually lack the carrier business operations and Marketing expertise to rationalize the product portfolio, business processes, and policies, so that isn't a viable option for her either.

Another leap of faith is therefore required to get started: if carriers cannot dedicate their own subject matter experts to the task, then they must engage subject matter experts who are contracted specifically to enable the carrier's success. Having a small team of highly experienced consultants who have "been there before" and can drive both the carrier and the vendor towards the goal is a comfortable, logical, and very cost-effective way forward. Cost-effective? How can that be when you're talking about adding several more people to the project? The answer is rather straightforward: with OSS/BSS projects failing much more often than they succeed, the cost of SME "insurance" is small, indeed. With well-crafted contract terms expressed in measurable outcomes, the SME team knows exactly what is required for success and has the expertise required to get it done.

So, it's not surprising that when asked "if you could bang your shoe on the desk, and demand anything that you needed to succeed, what would it be?" the immediate answer from the IT Director was: "[bring] me the total package: Business Transformation, optimized business processes, what have you done for other service providers, and tell me exactly how will I succeed." For the ISV who puts together that total package, each component delivered by real experts, the projects are out there to be won.

Based on my personal experience with the Greenfield system that had all business functions communicating through the central data store, I know that highly efficient OSS/BSS environments can be defined and implemented. Being one of those SMEs focused on ensuring the carrier's success, I know that a Product Catalog-centric approach can be one key to unlocking the legacy OSS/BSS log jam for many carriers. The base of success stories is out there, and growing every quarter. While my DBA colleague has long since retired, I'm sure he'll be watching this space with interest.

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