The New Realities of Communications Drive Demand for Dynamic Order Management

A Stratecast Executive Brief
For the Communications Industry

October 2009

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EXECUTIVE SUMMARY

The relationship between Communication Service Providers (CSPs) and their customers is changing rapidly. Today’s consumers are accustomed to creating their own content, selecting their own features, and interacting across multiple networks and channels. They desire their own personalized experience to be seamless, effortless, and instantaneous. Customers want to select the method by which they communicate with the CSP, whether via the web, retail store representative, kiosk, or call center agent. These elevated expectations for more products, distributed across all channels, are driving a new reality for CSPs, causing them to re-evaluate their OSS/BSS investments as they seek the fastest path to new revenues with the greatest market longevity.

Today, customers expect CSPs to be driven by market demands, not network supply, and they want these new services now. Most OSS/BSS systems were not originally designed for this kind of speed and agility, and they are showing signs of stress. To meet these needs:

- CSPs can no longer take 12-18 months to create and deliver a product. Neither can they simply reconfigure the same old network services and features and bring them to market.
- CSPs must create more products faster by leveraging service delivery platforms; improving customer experience and interaction across the lifecycle of the service; providing more consistency across multiple channels of interaction; and enabling single-touch resolution of problems.
- CSPs must stop creating operational silos and developing costly, fragile environments.
- CSPs’ OSS/BSS systems must be able to quickly and efficiently support new
product/offer design and delivery.

The lack of a unified offer creation and delivery capability that allows any offer to be launched across all customer interface channels and have that order delivered across any involved systems is a critical gap in current CSP operations. Dynamic Order Management is the space that will rise to the challenge and unify offer design and order delivery. Many approaches have been taken to fill the order management gap including: custom development, leveraging middleware, and costly CRM extensions, but to date, these approaches have tended to favor business benefit at the expense of others.

_Stratecast believes it is time to recognize the central role of order management as a key enabler of the speed and flexibility required to meet customer expectations._

**INTRODUCTION - THE SERVICE PROVIDER’S NEW WORLD**

As communications service providers rotate their businesses to focus on the customer, many are tackling the fundamental problem of getting a larger number of products to market faster. For example, many service providers have projects underway to strengthen their offer design by implementing centralized, coordinated product catalog functions and automating the product lifecycle. Likewise, many are integrating their customer interaction channels across contact center CRM, web self-service portals and in-person interaction, and they are upgrading their back office systems to implement integrated fulfillment. These are all positive steps in the journey to a more responsive infrastructure.

Still, most CSPs suffer in two major areas of Order Management: **Design Time** and **Run Time**:

- **Design Time**, CSPs have slow offer design, cumbersome mapping and testing, sequential end-to-end order design processes, and synchronization issues between systems, to say nothing of differing development schedules per functional area, organizational politics and resource competition within and across projects.

- **Run Time** environments have their own set of problems, not the least of which is an extraordinarily high rate of order failure, known as “order fallout”. Coupled with impaired visibility into order progress, CRM systems are frequently stressed by adjunct modules written to allow users and customers detailed order status and coordination insight. This function, which is generally beyond the scope of most CRM systems, further elongates the already frustrating order cycle time and serves only to make the CSP less competitive.

What follows, then, is the need to improve the level of sophistication around unified order management to eliminate the time, errors, and confusion associated with creating an offer, capturing an order, and ultimately delivering products and services to customers.
Stratecast sees a new function – Dynamic Order Management – as the response to the business need for faster, more interactive, and more reliable offer design and order delivery.

There are certainly as many approaches to Order Management as there are solution providers in the industry. This paper defines the concept of Dynamic Order Management, discusses the reasons why the time is right to address it, and takes a closer look at the requirements to deliver results and the options available to CSPs.

MARKET FORCES AND LAGGING SYSTEMS DRIVE SIGNIFICANT PAIN

There has always been a divide between CSP customer-facing operations (BSS) and network-facing operations (OSS). As a result, CSPs of all varieties struggle with offer design and order delivery, one of the key interface points between OSS and BSS. Whether one is wired, wireless or cable; legacy or ‘greenfield’; incumbent or competitor; quickly launching offers with the appropriate order management capability is a struggle. Consider the circumstances:

- **Service Providers offering enterprise services** often have to deal with multiple operational ‘silos’. Each silo has its own set of ordering, fulfillment and billing applications, making it difficult to create complex services and bundled offers. The need to create offers based on a collection of service, feature and hardware ‘components’ means multiple orders are sent simultaneously down each serving silo, with no ability to communicate across the silos to recognize dependencies or ensure that these components work together. These CSPs often struggle with long order cycle times and order revisions.

- **Triple- and Quadruple-Play Service Providers** must coordinate bundles across voice, video and data products, with skyrocketing costs for ‘truck rolls’ when technicians must be dispatched multiple times because of inaccurate, un-coordinated and/or changed orders. These CSPs struggle with creating consistency across multiple sales channels and struggle with order fallout.

- **Mobile providers** experiencing rapid market growth need extreme speed in offer design and release, with an equally rapid pace of order capture, verification, test and fulfillment. And all of this is complicated by the increasingly rapid technology evolution cycles of consumer handsets. Time is of the essence here and the traditional 9-18 month offer creation cycle is unacceptable.

- **For ‘Greenfield’ operators** with all new network, OSS/BSS and service environments, the issue is one of ‘avoiding mistakes of the past’ by not adding silos or extending applications beyond their core mission, and yet maintaining an infrastructure that can scale over time to serve multiple lines of business and network technologies. These service providers want to get to market with new and differentiating services and ‘ramp up’ their businesses as quickly as possible.
CIOs and CRM executives of CSPs worldwide are working feverishly to deliver against these new business objectives. Typically, their criteria for success include three primary measurements: **Offer Time-To-Market**, **Order Cycle Time** and **Operational Efficiency**.

**Offer Time to Market** is the period of time required to create an offer and make the service available for sale. Generally, this begins with some form of research into current offers and industry trends, which generates some ‘ideation’ activity. Once the business case for change is outlined, product executives seek clarity around the time and cost to deliver these capabilities. Improvements in Time-To-Market (TTM) are frequently thwarted by obstacles such as:

- Inconsistent product/service/offer definitions across the CSP enterprise
- Incomplete product information spread across multiple applications databases
- Limited ability to reuse existing work requiring new orchestration plans for each new offer
- The need to change multiple systems and work center processes
- Staff experience silos across lines of business require complex coordination efforts
- The legacy of products being equated only to network services and not expanded to third-party content or other offers.

**Order Cycle Time** is defined as the elapsed time from order submission to service ‘turn-up’ and availability to the customer. This includes all offer components such as access and transport, core services, features, hardware, software and digital content. Because of the system, process, staffing and ‘silo’ circumstances they face, CSPs have difficulty creating and delivering complete and accurate orders in a timely manner, often resulting in high order fallout and abandonment rates.

Even if the TTM challenge is side-stepped via patchwork solutions of ‘workaround’ processes, this is bound to cause problems in production. Once the offer is launched to the market, consider the day-to-day operations challenges, including:

- Conflicting service turn-up expectations across voice, data, video and wireless offers
- ‘One-way’ ordering and fulfillment processes that only consider ‘sunny day’ scenarios. For example, once a product is ‘bundled across voice, data, video and wireless lines of business and orders are captured, changes in one part of the order may reflect in other parts of the order, but are not visible across silos
- Changes cannot be inserted into ‘in-flight’ orders. Today they are often handled by “un-doing” all parts of the order and starting over
* No coordinated feedback loop from systems on delivery dates to allow consolidated order completion dates or order status to the customer

* No opportunity to manage dependencies between order tasks

* Virtually no ‘one-off’ capabilities to provide special activities for large enterprise customers.

Beyond these matters, consider some additional constraints on productivity:

- Different customer interfaces yield varying cycle time. Customer touch points such as call centers, retail stores and web self-service portals may vary widely with respect to their ability to handle orders speedily. The call center representative may have a high level of flexibility with respect to special circumstances, whereas an electronic interface such as the web requires standardized responses that have been cared for during the portal’s development.

- Varying sales channels - The need to capture orders from multiple sales channels such as retail, wholesale, channel partners and internal representatives to key global accounts drives complexity that standardized processes are unlikely to accommodate. This is particularly true in network service orders, where technical service qualification must take place before the order can even be accepted, and no one wants to spend an hour or more capturing a complex order only to find it can’t be supported at the customer’s location.

- Varying order types including new service, add-ons, changes/revisions, partial cancellations, and future dated orders. Each has its own set of process steps and idiosyncrasies, multiplied by the number of sales channels and offer components. For large operators, this multiplier effect can yield ordering processes numbering in the tens of thousands!

- Given the multiple OSS/BSS systems, interfaces, partners and people involved, CSPs often experience consumer service order fallout in the range of 15-25 percent and 40 percent or more for business orders, particularly when the offer is new.

**Operational Efficiency** is the measure of productivity related to the service provider’s operating expenditures including systems and people. To meet time to market needs, IT is often forced to build quick fix workaround solutions. These workarounds often become new silos that must be maintained, therefore increasing IT cost and complexity.

Operational efficiencies are further compromised when CSPs don’t consider the effects of physical and logical integration. CSPs often insert business logic into their middleware service bus, thus creating additional silos and a more rigid environment. *A Stratecast survey revealed CSPs often spend between two-thirds and three-quarters of their IT budgets supporting maintenance and integration activities.*

Automation of the individual Order Management, Provisioning, and CRM processes within each service silo does enhance productivity and reduce errors, and, while this is
noteworthy, it may also be a case of too little, too late. CSPs must continue to integrate and automate Order Management, CRM, and Provisioning functions to drive both time and cost out of the definition and delivery of customized service bundles and customer self-service to enable a unified process across the business. This is less a physical integration problem, and more logical and functional integration is required to operate across all functions and systems.

THE EVOLVING RESPONSE TO MEET THE NEED

It is unlikely CSPs will ever have a completely unified and flexible operational environment. There will always be some part of the back office in transition between states of technology, efficiency and flexibility. Given this is true, Dynamic Order Management serves as a key element to bind OSS and BSS environments together when combined with a product catalog, a unified customer view and, in some cases, integrated customer channels. It is the business logic that allows a customer to view and purchase products from the CSP in a manner that is seamlessly integrated with the way the CSP ‘factory’ must design, install and operate the individual offer components. Further, an integrated Dynamic Order Management function addresses the unacceptable order delivery time and cost resulting from:

- Order volume
- Incompatible order processes
- Order workarounds
- OSS/BSS silos.

The ‘orchestration’ delivered by Dynamic Order Management coordinates the complex web of tasks and dependencies across the environment for each offer component. Without a Dynamic Order Management function, CSPs have resorted to a number of strategies:

- **Expanding applications beyond core capabilities**: The scope of existing CRM and ordering applications are extended to bridge the OSS/BSS interaction gap. This is a short-term fix, but clearly sub-optimal. These extensions support only a single instance of a product/service and are neither flexible nor dynamic enough to be sustained as products and services change. Moreover, it doesn’t address the emerging need of order channel integration, whereby a customer can start an order online and then complete it via a contact center, with no need to rework any part of the order.

- **Custom development**: ‘Force-fitting’ offer design and order delivery into existing systems and processes by writing additional software and process steps each time a new offer is created is not sustainable. Not only is it expensive to build and maintain, causing increased cost, but it does little to solve the ‘time to
market’ burden, because the offer must be channeled through the service provider’s lengthy software development process.

- **Leverage Middleware:** Applications are able to ‘communicate’ across a common ‘bus’ and processes can be quickly designed and released. While Stratecast is convinced of the inherent viability and applicability of the approach, the ‘bus’ is most often a pipeline for data. The bus does not usually apply nor is it generally capable of applying intelligence to the order and can not correlate information unique to the customer, product offering, or service infrastructure. The alternative of writing logic into the middleware to compensate for this gap is yet another case of stretching a tool past its core competency - not a good idea.

- **New integrated or transformed OSS/BSS platforms:** The cost alone is a deterrent for many, to say nothing of the years required to migrate from old systems to new ones. While this is not an inherently bad idea, it is incredibly disruptive to transform one’s entire OSS/BSS, and new platforms are really just another silo.

**A NEW DAY - A NEW WAY**

Short of replacing all OSS/BSS and IT infrastructure, service providers are evaluating ways to simplify operational processes; coordinate or consolidate existing functionality; and improve productivity while reducing costs. To solve the complexities of offer design and order delivery, several requirements emerge. Among them are:

- Quickly define and synchronize offers across all systems
- Verify that a particular offer, as imagined by the product manager, can actually be ordered and delivered by the CSP, prior to offer launch
- Centralize the mapping and testing capabilities for any offer to improve offer design time
- Remove the need to rebuild order fulfillment plans for every new product and offer
- Enrich orders to ensure accurate capture and validation and provide a more reliable completion date
- Decompose sales orders into multiple fulfillment plans, recognizing order dependencies across components and operational silos
- Allow customers to make changes to in-flight orders
- Automatically adjust orchestration plans to meet in-flight change requests, including ability to manage the ‘point of no return’ in the delivery cycle
- Provide visibility of order status across all customer interface points
Instead of manually orchestrating all that must go into offer delivery across offer components and line of business silos, Dynamic Order Management serves that central coordination and status role for all orders, systems, processes and work centers, irrespective of the current infrastructure. Moreover, it facilitates all of the requirements listed above such as order changes and rapid design and verification of new offers.

To be sure, this is a tall order, but a well-conceived Dynamic Order Management capability provides the coordination between the design of an offer (using a common product catalog) and the functional and technical realities of quickly delivering that same offer to the customer.

Service providers recognize the need to accelerate time-to-market for new offers as well as the need to “get it right the first time.” Vendors who create operating efficiencies while improving speed and accuracy using existing systems are in a unique position to partner with service providers to solve the offer design and order delivery dilemma.

**ORACLE’S RAPID OFFER DESIGN AND ORDER DELIVERY**

Oracle Communications’ approach to rapid offer design and order delivery focuses on providing a solution to fill the void in the current OSS/BSS environments while still remaining flexible and adaptive to the CSP’s current environment. Oracle provides the ability to manage orders throughout the entire creation process and order-to-activate lifecycle. By delivering a real-time communications capability between its Oracle Siebel CRM, Oracle Communications Order & Service Management and Oracle Product Hub for Communications applications, along with pre-integrated and defined processes via its Oracle Application Integration Architecture for Communications, this Dynamic Order Management requirement is filled. This approach facilitates informed communication across applications and delivery silos, moving CSPs toward their goals of:

1. **Faster offer design and implementation**
   - Design time integration with order management provides an end-to-end view required to create and test offers
   - Zero configuration/development offer introduction for new services

2. **Shorter order cycle time**
   - Technical service qualification to improve order accuracy across all channels for all types of orders
   - Automatic decomposition of sales orders that generate unique orchestration plans for any offer or bundle
   - On-demand order status visibility for all channels across the order lifecycle, including jeopardy and exception management
• Compensation plans that are automatically generated to handle in-flight order revisions and cancellations

3. **Lower OPEX through retirement of service-based silos**

  • Solution orchestrates across existing systems, preventing the need for costly new silos
  • Productized integrations help reduce ongoing support costs.

It is important to note that this in no way invalidates or replaces the use of an Enterprise Service Bus, business process management tool or a commitment to a Service Oriented Architecture. The need for Dynamic Order Management exists as a business function, whether or not these technology enablers are part of the overall OSS/BSS strategy. What the adoption of this approach provides is a means to address the design and run time requirements, while the orchestration activities and the real-time nature of the communication position the CSP for the desired business benefits.

While the bulk of the functionality resides in Oracle Communications Order & Service Management, Oracle executives explained to Stratecast that any combination of Oracle Siebel CRM, Oracle Product Hub for Communications and Oracle Communications Service Delivery may be employed, along with in-house, custom and third-party products.

Of course, the real proof of any solution’s value is its acceptance by the market. Some of Oracle’s customers have implemented it for a variety of purposes, including the following:

- BT Group restructured its enterprise offer delivery process, reducing cycle time on complex offers from six days to six minutes, while reducing associated development costs by 80 percent
- China Telecom in Shanghai replaced more than ten legacy applications with this solution for order capture
- Brasil Telecom standardized on the approach for all consumer and enterprise wireline and wireless voice, data and video services. Order fallout rates of 30-45 percent were reduced to 1 percent, improving offer profitability.
Communication technology, by itself, is no longer seen as the source of competitive advantage for CSPs. Rather, they are increasingly focusing on customer metrics, including speed of delivery, accuracy of order processing, and performance to differentiate themselves from their competitors. At the same time, as mass market communication services fade into the sunset, the demands on operators increase. Each offer has the potential to be a unique combination of numerous complex services, features, and functions. Each offer, then, also has unique requirements for order decomposition and delivery. As service providers begin to rotate their businesses to focus on the customer, order design and delivery processes are required to be automated, integrated, easily configurable, and consistent rather than exact and exclusive. In short, the traditional gaps between the OSS and BSS must be bridged via active inter-application and inter-process communication.

To help operators improve time to market while reducing the costs, Oracle provides a COTS-based approach to orchestrate the offer design and order delivery functions to determine the sequence of tasks and dependencies to be performed by the order management process. Much as a product catalog contains the inventory of product feature and option components, this ‘rapid offer design and order delivery’ function assembles the correct steps and associated rules to fill each of those offer components. By doing so, CSPs can determine the feasibility of an offer before it is released for sale, assemble the delivery tasks, dependencies and checkpoints across all the offer components quickly, and then re-assemble a new set of tasks ‘on the fly’ when an error or change order is encountered. And it can do so both within and across a CSP’s entire enterprise of offers, products, services and features. Finally, the adoption of this approach does not require a large scale transformation, as applications may also be implemented incrementally.

While nothing is a panacea to all the industry’s ills, this approach has merit, as it satisfies the ‘reality check’ step of offer definition, while also allowing near-real-time establishment of steps necessary to satisfy changes without the cost, pain and customer irritation associated with rework.

One has to wonder what took us so long.

Susan McNeice
Global Director
Communications Infrastructure & OSS/BSS
Stratecast (a Division of Frost & Sullivan)
smcneice@stratecast.com

Nancee Ruzicka
Senior Research Analyst
OSS/BSS Global Competitive Strategies
Stratecast (a Division of Frost & Sullivan)
nruzicka@stratecast.com
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