Sell-side Channel Integration - Tavant's Approach

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Abstract

This paper describes the challenges in building a next generation e-business solution that allows businesses to manage their sell-side distribution channels especially when the channels involve intermediaries such as dealers. We present the Tavant platform that provides a solution to this complex problem and discuss some of its main features and components. We describe the Channel Configurator component that provides a framework to support the high-configurability requirements of the channel. We also discuss the platform's support for time-based transactions such as rentals which is becoming a prominent transaction model in the sell-side channel.

1 Introduction

Over the past few years, the web has revolutionized the way corporations conduct their businesses. From allowing companies to deal directly with customers, to enabling businesses to interact with one another in an efficient way, the web has impacted the functioning of businesses in a hitherto unprecedented manner. In this paper, we discuss the challenges in building a next generation e-business solution that allows corporations to manage their sell-side distribution channels. We discuss the dynamics of complex, fragmented and multi-brand distribution channels that involve various intermediaries (such as dealers, large buyers, etc.), and Tavant's unique approach to addressing its needs.

Manufacturers sell products in different ways - some sell directly to customers, while others develop extensive, and sometimes exclusive, distribution channels to sell their products. The sell-side solutions being built today are focused largely on enabling manufacturers to establish direct relationships with customers and do not cater to the needs of the various partners in the distribution channel. Tavant's sell-side channel integration solution focuses on maximizing the economic value of sell-side distribution channels by making it easier for all participants to interact, leverage each others knowledge and customers, and gain transparency in the channel.

Figure 1 illustrates an example sell-side distribution channel for a construction equipment manufacturer. The channel partners include dealers, distributors, and national chains. The channel partners usually are independent, have their own geographically localized brands, and have relationships with multiple brands and/or manufacturers that may compete with each other. The channel partners are an essential part of the manufacturer's

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*see http://www.tavant.com

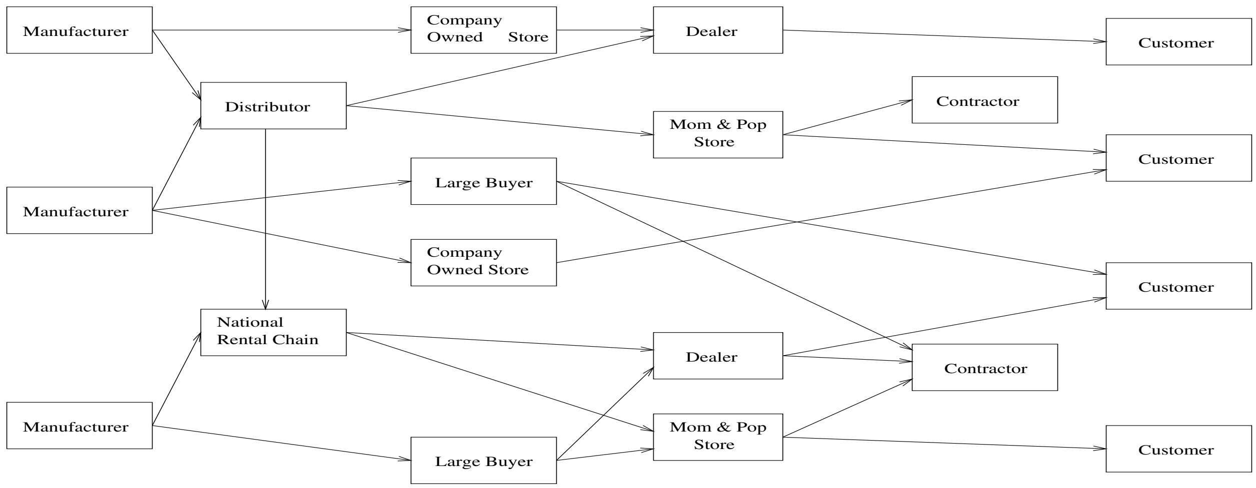

Figure 1: Example Sell-side picture for a construction equipment manufacturer

distribution strategy because they provide value added services like helping in product selection and configuration, supporting the after-sales needs of customers, managing the lifecycle of the products, and enhancing the value of the manufacturer's brand. Contrary to popular belief, the Internet will not dis-intermediate these critical cogs in the distribution wheel.

While the channel partners add great value and are critical to the success of a business, currently there exist no tools that help the manufacturer leverage the strength of the channel partners in an efficient way. On the contrary, several channel factors have an adverse affect on the manufacturer.

- *Brand confusion/dilution*: Channel partners participate in the distribution channels of several different manufacturers. The presence of several conflicting brands makes it hard for the manufacturer to establish a strong brand presence in the channel.

- *Fragmentation*: Most channel partners (e.g., dealers) are localized, independently owned, and have a limited number of locations. This makes it difficult for the manufacturer to obtain an integrated and up-to-date knowledge of their operations (e.g., inventory, sales data, demand forecasting).

- *Lack of knowledge of the customer*: The customers mostly interact with the channel partners and do not interact with the manufacturer. Thus, it is difficult for the manufacturer to understand the most important asset of their business - the customer.

- *Varied transaction models*: Transaction models such as rentals and leasing are becoming increasingly common. Manufacturers and channel partners have to adapt themselves to deal with the impact of these models on their businesses.

Channel partners also face several difficulties that adversely affect their productivity.

- *Insufficient liquidity of inventory*: Most channel partners suffer from an inability to share resources such as inventory and customer information with their peers. Sharing these resources can lead to tremendous benefits to the channel partners including better utilization of inventory and increased customer satisfaction.

- *Poor inventory planning*: For most channel partners, efficient management of the inventory is critical to the success of their business. The inability to communicate inventory supply and demand information with manufacturers leads to poor utilization of inventory. Manufacturers also face a similar problem due to their inability to access the inventory levels of channel partners such as dealers and distributors.

Finally, from the perspective of the customers, a complex distribution channel consisting of a variety of independent, autonomous channel partners ultimately leads to confusion and poor buying experience.

- *No single point of contact for after-sale needs*: Ideally, customers should be only aware of a single entity for their after-sales and service needs. Fragmented and loosely coupled distribution channel can lead to multiple points of contact for these needs leading to customer confusion.
- *No single point of contact for related product needs*: In order to get a seamless buying experience, customers should not have to deal with multiple sellers to obtain related products and services. A distribution channel that does not allow for sharing of resources and information among the partners will deprive the customers of their preferred "single point of contact" customer experience.
- *No unified account management*: Large national customers would like to have a single account that works across channel members belonging to different geographic locations with portable credit across these members.

Tavant has built a sell-side commerce platform to specifically address the above needs by enabling manufacturers as well as the channel partners to better manage the channel by improving communication between each other and with the end-customers. Tavant's solution gives manufacturers more visibility into the channel, enables them to extend the reach of their brands, and allows them to participate in downstream revenues[1]. Channel partners, in turn, gets a solution that gives them access to the manufacturers resources such as inventory, allows them to participate in multiple networks where they can cross-sell complementary inventory to customers, and lets them manage their existing business relationships more efficiently.

As mentioned earlier, current sell-side solutions are focused on enabling manufacturers to establish direct relationships with customers. These attempts have not been well-received by the channel partners and have created channel conflict, resulting in limited success. Tavant's solution, on the other hand, is architected to address the challenges in integrating complex distribution channels and is designed to empower the channel partners.

In Section 2, we present the *Tavant Platform* and provide an overview of a few important components of the platform. In Section 3, we discuss an important feature of the platform that allows channel members[2] to tailor their experience based on their individual preferences. We discuss the unique time-based transaction component in Section 4 and conclude in Section 5.

2 Tavant Platform

One of the challenges in building a channel integration platform is to develop a core set of concepts - i.e. a *model*, that supports the diverse needs of the channel and is able to adapt to its evolving needs. The Tavant platform consists of a flexible model and a variety of features to integrate and manage channel partners. These include:

- **Network and Website Management** : Allows manufacturers to create networks to aggregate the various partners in their sell-side channel and their assets (such as inventory) into a logical unit. Channel members can create customized websites which act as access points into the networks.
- **Custom Channel Views** : Offers customized views of the various types of channel members to other channel members. These views bring true transparency and integrity to a fragmented distribution channel. We list a few examples below and mention some of the benefits they bring to the channel members :

[1] Revenues generated after initial sale through services, parts sale, etc.

[2] All the players in a channel - including the manufacturer, channel partners, and customers.

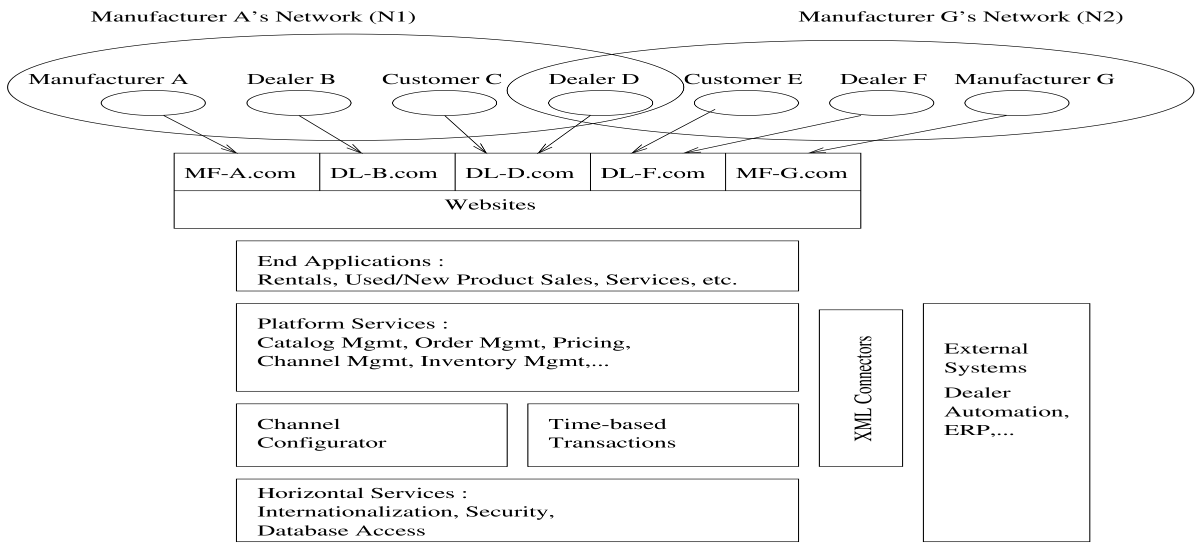

Figure 2: Tavant platform - Application Architecture

- M2D : Manufacturer's view of Dealers. Gives the manufacturer access to the dealers' inventory, and sales and rental data. This helps them in demand forecasting and planning production operations.
- D2M : Dealer's view of Manufacturers. Helps the dealer to access product information and production capacities of the manufacturers which can help them improve their inventory utilization.
- D2D : Dealer's view of other Dealers. Enables the dealer to share inventory with other dealers to increase their inventory liquidity, and also enables them to communicate product and customer information with other dealers in an efficient way.
- C2D : Customer's view of Dealer. Provides the customer with commerce facilities (product search, order management etc.) on a dealer's website. If the dealer shares inventory of other channel members, the customer can get a wider selection of similar and related products on the same dealer's site. The customer can thus have a single point of contact for most of his product needs.

* **Micro-channels** : Channel partners such as dealers can create sub-networks consisting of partners that don't belong to the original network. For example, a dealer can create a micro-channel consisting of the various independent retail stores that he deals with. The sub-network adds utility to and derives benefit from the main network. The ability of channel partners to create micro-channels helps the networks and sub-networks expand their scope in an easy and scalable way.

* **Multi-network membership** : A channel partner can belong to multiple networks. This provides greater visibility to the partner, brings more customers and revenue opportunities, and increases the number of members whom they can partner with.

* **Integrated login** : A customer in a network can use their login, account, and credit in all the websites of the various members of the network.

* **Multiple transaction models** : Supports various kinds of transactions that happen in the channel such as New Product Sales, Used Product Sales, Rentals, and Services.

The Tavant platform is offered as a hosted service (ASP) to its customers. Figure 2 illustrates the application architecture of the platform. It consists of a variety of core sell-side e-commerce services like Catalog Management, Product Search, Pricing, and Order Management. These commerce services can be integrated to create specific end applications like Rentals, New/Used Product Sales, and Services. The *Order Management* service supports multiple kinds of workflows through which an order can be submitted. These include *Instant*, in which the order is completed in real-time and in sync with the user's action, *Request-Response-Confirm*, in which the user requests for price, availability or other information from the supplier and then confirms the order when he gets a response, and *Request for Quotes (RFQ)*, in which a user sends a request to many suppliers and accepts the most favorable quote(s). Another platform service, namely the *Channel Management* service, supports most of the channel integration features described earlier. The platform also provides XML based connectors to integrate with external systems such as dealer automation software, ERP applications and legacy systems. This allows channel members to continue to use their existing systems for their regular operations.

The platform also contains two core components, *Channel Configurator* and *Time-based Transactions*, that provide infrastructure for the various platform services. *Channel Configurator* provides a framework to support the extensive customization needs of the various channel integration features. The *Time-based Transactions* component provides services to support time-based transaction models such as rentals and service-scheduling (e.g., scheduling repairs and inspections). We discuss these components in the next two sections.

3 Channel Configurator

As discussed earlier, the requirements of sell-side channels are varied and dynamic. Hence, the channel integration features supported by the platform need to be highly configurable. The Channel Configurator provides a framework to address these configurability requirements. A website that is created to access a network can customize the site along various dimensions such as

- **Data** : Select from available product categories; filter products based on attributes such as manufacturer.
- **Operations** : Choose from available applications such as Sales (New/Used), Rentals; choose from various workflow models such as *Instant*, *Request-Response-Confirm*, and *RFQ*.
- **Presentation (Look-and-Feel)** : Choose from a set of UI styles; pick branding, logo, and colors.

The Channel Configurator also provides a mechanism for channel members to (a) specify the parts of their data they wish to expose to other members, and (b) to specify, from the parts exposed by other members, the parts of data they wish to access. This allows the channel members to retain the security and confidentiality of their data, and at the same time allow for greater channel transparency and information exchange between the members. This mechanism forms an important part of the Custom Channel Views functionality described in section 2.

We now illustrate some of the configurability choices with an example based on figure 2. Manufacturers *A* and *G* have created networks - Network N1 and Network N2 respectively, to integrate their sell-side channel, and created websites MF-A.com and MF-G.com to access the network. Other channel partners - Dealer *B*, Dealer *D* and Dealer *F*, have also created websites (namely, DL-B.com, DL-D.com, and DL-F.com) to access the networks. Dealer *D* carries products manufactured by both *A* and *G* and is a member of both networks. As an example of selecting what data to expose, dealers *B* and *D* may not share inventory with each other, but *D* can share inventory with both *A* and *G*. To preserve their branding, *A* can filter the products listed on MF-A.com to the product categories relevant to *A*, and within those categories restrict them to only those manufactured by *A*. Hence, when a user visits MF-A.com, he can see products carried by *D* that are manufactured by *A* but cannot see products of *D* that are manufactured by *G*. As an example of an operation filter, manufacturer *A* who may only sell new products to its customers, can choose to expose only the new sales application on MF-A.com. On the other hand, Dealer *D* may sell and rent products, and hence can decide to expose new sales, used sales, and rentals on DL-D.com. As another operation customization, *A* can enable *RFQ's* on MF-A.com to help customers request quotes from multiple dealers - dealers *B* and *D* for example. On the other hand, *D* may have no need for such a functionality, and hence disable *RFQ's* on DL-D.com.

One of the important challenges in architecting the Channel Configurator component is to support these high-configurability requirements in a single platform. Further, the interplay between the various functionalities and the variety of configuration knobs also pose special challenges - for example, supporting keyword based product search on a large number of channel websites with varying data filters on each website. The Channel Configurator has been architected with the aim of enabling our solution for "*configurability without custom programming*". This approach, unlike many ERP solutions that require programming and huge deployment costs for client-side customization, allows for easy and rapid customization of Tavant's solution.

4 Time-based Transactions

Renting is a common transaction model that occurs frequently in the real world. One of the unique features of the Tavant platform is its support for rentals and other time-based transactions such as service scheduling. With it, the platform can support networks consisting of rental stores, and dealers and manufacturers of rental products.

Most of the current e-commerce systems only enable buy/sell transactions and these systems do not have a fundamental notion of time. The few existing solutions that deal with the concept of time are very domain-specific (e.g., SABRE platform in the travel industry). We now look at some of the necessary and useful services needed to support time-based transactions in an e-commerce system.

- Availability : The system has to check whether the required quantity of the resource is available for the requested time period. The availability computation unit has to check all existing orders and ensure that the requested quantity is available at all times during the requested time period. The challenge is in developing an efficient method to answer this complex query with low response time.

- Alternatives : If the resource is not available, the system can suggest "close" alternatives. The challenge is to determine what is "close" - partial quantity, a different time-period, a different provider of that resource or a similar resource.

- Complex transaction requests : A customer may want certain units of a resource at the "earliest possible time".

- Dynamic pricing : Pricing could be based not just on when the transaction occurs (weekends/weekdays, holidays, seasons etc.), but also on duration of the transaction.

The *Time-based Transactions* component incorporates the concept of time in a fundamental way and is designed to cater to the above challenges.

5 Conclusion

Integrating the sell-side channel of a business greatly improves the efficiency and economic value of the channel. The Tavant platform provides a solution to address the integration needs of channels that involve various intermediaries (such as dealers, large buyers, etc.). The platform contains a core set of concepts to model this complex problem, and provides features such as Network and Website creation, and Custom Channel Views to integrate the channel and improve its transparency. The solution needs extensive configurability to support the diverse needs of the channel, which creates significant engineering challenges. The Channel Configurator is a configuration framework that is designed to handle these challenges. With its support for time-based transactions, the Tavant platform has the unique ability to integrate sell-side channels involving rental stores, and dealers and manufacturers of rental products.