



## **Seranin's Motera Business Process Integration and Performance Measurement Workbench: Automating Supply Chain Metrics Using Process Performance Measurement**

Businesses are rapidly moving from a business model that builds products in advance of demand to a business model that creates customer products on demand.

It is the speed, ubiquity and standardization of business communications and business transactions that enables this new customer demand model. For an organization to successfully adapt to this new way of doing business, it must be able to measure in real time those business activities that create the greatest value for the organization, its customers and its trading partners. Such measures of value are generally defined in terms of reduced cycle times and reduced operating costs. These measures, well understood in the supply chain world, include:

### **Improved Asset Turns**

- Reduced cash-to-cash cycle time
- Reduced inventory days of supply
- Reduced repair and return inventory

### **Reduced Costs**

- Reduced supply chain transportation costs
- Reduced costs of goods sold
- Reduced warranty costs

### **Improved Responsiveness**

- Reduced order fulfillment lead time
- Proactive customer, operations and trading partner notification

### **Improved Reliability**

- Measurable service levels
- Improved fill rates
- Perfect order fulfillment

The measurement of cost and value can be either customer facing or internal to the business and its trading partners. In either case, the ability to capture business events as they occur and to place those events in the context of a unifying business process is critical. And just as critical is the need to do this in a way that is non-invasive - that requires little or no change to existing systems. Motera's Business Process Integration and Performance Measurement solutions allow organizations to capture events that span their entire supply chain, to place those events in the context of one or more business processes and to automatically generate performance-based measurements of those

processes in real time. These measurements in turn can be used to provide valuable input to all of the organization's applications including its ERP, CRM, SCM, business intelligence and digital dashboard applications.

The Supply Chain Council has defined supply chain event visibility and the measurement of supply chain operations as one of the leading initiatives in the supply chain industry today. Motera's business process measurement solutions provide a view that extends from one end of the supply chain to the other. Motera's automated business process measurement capabilities conform to best-practices measurements as defined by the Supply Chain Council. These measurements, sometimes referred to as Key Performance Indicators or KPIs, include:

- Delivery performance
- Perfect order fulfillment
- Fill rate
- Order fulfillment lead time
- Total supply chain management cost
- Cost of goods sold
- Cash-to-cash cycle time
- Inventory days of supply

Motera automatically generates measures of these performance indicators by tracking the sequence, duration, numbers of occurrences and relative dependencies of all the activities that occur in a business process. This information is used to create summary statistics and to provide detailed real time information on each and every supply chain transaction. Motera can store this data in multiple physical locations as well as communicate it to other applications using standard Internet and database connectivity protocols.

Managing a supply chain that spans internal operations, customers and networks of suppliers, warehouses and transportation suppliers is a complex balancing act. In the past, companies tended to place more emphasis on manufacturing and inventories – raw material, work-in-progress, finished goods, warehouse, and distributor stocks – as opposed to actual customer demand. This imbalance results in inefficiencies and increased costs. In order to maximize the efficiency, reliability and value of a supply chain, it is necessary to see business events as they are being created and to measure those events in relation to each other. This is another way of saying that business events make the most sense when they are both captured and measured in the context of a business process.

The major sources of events in a supply chain transaction are the buyer, the seller, the seller's suppliers and the seller's service providers. For example, when a buyer places a large order, the seller must often coordinate that information between its financial service providers (for purposes of payment reconciliation), its product manufacturers and wholesalers, its third party logistics providers (e.g. its 3PL warehouse vendor) and its transportation providers. The ability to see and to measure the business events among these participants translates directly into lower costs and higher profits. When the

participants cannot easily share the information about the order as it proceeds through its various stages, the resulting delays and inefficiencies translate directly into higher costs for the business and its customers.

Supply chain performance measurement allows businesses to capture operational data and use that data in their ERP, CRM, business intelligence and digital dashboard applications to decrease costs and cycle times and to measure the effectiveness of their business processes. The ability to see a business process in real time provides immediate cost saving opportunities for the business and its trading partners. For example, once an order is placed, information about the order can be immediately communicated by the seller to its suppliers who then know to increase their own inventories and work-in-progress and to its transportation and third-party logistics providers who can then plan for anticipated shipments. This allows the seller to maintain a high order fulfillment rate while at the same time decreasing its product inventories and order costs. Over time, these same measures of performance provide for the establishment and enforcement of service level agreements between the seller and its trading partners.

The ability to see and measure supply chain transactions from end-to-end also allows a business to gain strategic competitive advantages that would not otherwise be possible. Just-in-time and assembly-in-transit capabilities allow a business to defer ownership of inventory until such time as the inventory is needed. The ability to predict and discover product shortages allows manufacturers, suppliers and retailers to implement effective product allocation and substitution strategies. And the ability to tie repair and return data to customer sales and product manufacturing allows the seller to make better decisions with regard to its customer warranty policies and its trading partner service level agreements.

This is why real time business process measurement is so important. The ability to measure the flexibility and responsiveness of the various participants in a supply chain process allows a business to make the best possible choices with regard to its order and inventory management policies, its product pricing, its customer support and service and its supplier and service provider relations.