



## Collaborative Supply Execution

Global outsourcing has left companies facing several challenges related to procurement, lead times, and material supply reliability. On the other hand, margin pressures require companies to react much quicker to demand. It is this unique dichotomy that has led companies to take a closer look at their sourcing strategies, procurement processes, supplier relationships, and material management processes. Supply-related issues have once again become a key factor in profitability for companies in most major industry sectors.

Companies must deal with efficient procurement across multiple geographically distributed divisions with different IT systems and a variety of replenishment modes—as well as a multi-tier global supply network with a host of different kinds of relationships. Outsourcing has also led to companies procuring more and more critical parts, which has resulted in closer relationships with certain suppliers.

As companies look to expand their productivity by collaborating with suppliers at different levels, they are faced with the challenges of dealing with very diverse groups with significantly varied degrees of technology sophistication and disparate business processes.

Companies are also looking at lean replenishment processes such as vendor-managed inventory (VMI) and just-in-time (JIT). A need has emerged for companies to use a single system to coordinate their supply relationships—including everything from sophisticated lean replenishment workflows and discrete purchase order workflows, to collaboration on forecasts, delivery schedules, orders, and inventory.

In addition to being able to collaboratively resolve supply-demand mismatches, companies need the ability to seamlessly manage the entire execution process. Key execution questions need to be answered during replenishment, including:

- What to buy?
- When and how much to order?
- What alternates are available as substitutes?
- Can the parts be sourced internally from other divisions?
- What shipment methods should be used?

Companies faced with such decisions must incorporate automated contract and price terms, have visibility into inventory across the end-to-end supply chain, and have access to up-to-date order and shipment statuses. Coordinating the procurement process across the enterprise reduces maverick spend and can enable the creation of accurate supplier scorecards.

### i2 Collaborative Supply Execution

i2 Collaborative Supply Execution™ is a comprehensive suite of capabilities to address supply management objectives that can be flexibly deployed to meet specific business priorities.

Solutions that comprise the i2 Collaborative Supply Execution suite include:

- i2 Consolidated Procurement™, which provides global visibility and tracking of all purchasing
- i2 Supplier Collaboration/Lean Replenishment™, which allows companies to manage multiple replenishment modes including lean supply strategies
- i2 Collaborative Material Management, which synchronizes and automates material planning and procurement processes

### i2 Platform

The i2 platform, a unique service-oriented architecture, is designed specifically to meet the requirements of supply chain management. The platform includes a layer of technology services such as XML data modeling, a business process workflow engine, and a rules-based programming language.

In addition, supply planning, procurement, and collaboration can no longer work in separate system and functional silos if they are to achieve long-term value. It will become imperative to tie these systems together to enable true collaboration of demand, supply, and capacity to attain supply continuity, reliable supply commit and effectively drive direct material procurement decisions.

### Collaborative Supply Execution

Allowing companies to manage their supplier interactions in the same system, i2 Collaborative Supply Execution is a comprehensive suite that enables companies to address three major business objectives:

- **i2 Consolidated Procurement** provides a single system of reference—across multiple divisions, outsourced business, suppliers, and different material types (direct and MRO)—and can link to multiple back-end systems for local processing. The solution allows for easier rescheduling, substitution, and transfer of inventory from other locations to meet exception conditions. It also can provide companies with global visibility and tracking of all purchasing, as well as project-based purchasing.
- **i2 Supplier Collaboration/Lean Replenishment** allows companies to manage multiple replenishment modes, including lean supply strategies across their supplier base—regardless of size, relationship, or technological sophistication. The solution allows companies to enable mid-term (1–6 months) and long-term (6–24 months) collaboration of supply chain plans, primarily around forecast and capacity coordination, as well as short-term (0–30 days) order execution, shipment, and inventory tracking. It enables companies to implement and automate lean supply processes such as VMI, pull-based (kanban) replenishment, and other JIT programs. The solution can enforce process discipline through business rules and enables visibility into complete purchase order lifecycle management.
- **i2 Collaborative Material Management** helps companies gain greater efficiency by synchronizing and automating the material planning and procurement processes, which can help them react more quickly to changes in demand and supply through rapid “what-if” analysis and “incremental planning.” The solution is tied with supply planning solutions to automatically execute on recommended schedules and make expedite, de-expedite, cancel (EDC) recommendations, thereby removing the latency, errors, and grief in synchronizing planning recommendations with actual execution.

### Solution Capabilities

#### *Leverage Planning, Distributed Execution, Collaboration, and Event Management*

The solution closes the loop between planning and execution by leveraging rapid re-planning capabilities in advanced planning systems, enabling real-time collaboration with suppliers, providing tools to execute over the web, and monitoring events for proactive problem notification.

***Packaged and Customizable Workflows***

The solution comes packaged with a number of workflows (such as VMI, kanban, customer-scheduled shipment), which can be easily customized, as well as new workflows that can be deployed through a visual design “studio.”

***Flexibility and Extensibility***

The solution is designed to evolve as business processes evolve. The solution is built on a very flexible and configurable technology platform that allows companies to re-configure their business processes as they go along using a visual design studio.

***Multiple Processes and Replenishment Modes***

The solution is designed so that the underlying data model, business workflows, rules, user interface, and events can support multiple replenishment or supply strategies in the same system.

***Ease of Integration***

The solution is architected for ease of integration with external and internal systems; the solution is through-and-through XML, supports web services, and leverages EAI and ETL capabilities.

***Lower Total Cost of Ownership***

The solution is built on open standards (XML, WSDL) and has reduced risk of proprietary legacy support. It also has much less memory requirement compared to standard application servers. It has a unique way of separating customization code from the core code base, thereby easing software upgrades.

**Key Features**

- Multiple program set up including forecast policies, flex, and inventory policies, as well as visibility into data, forecasts, and inventory at aggregate levels (suppliers, locations)
- Forecast analysis and collaboration including aggregate views across suppliers and items, as well as exception resolution
- Order collaboration and execution including approval workflows and ASN, goods receipt, and invoice processing
- Inventory visibility and event management
- Collaborative material management including gross forecast for VMI suppliers and netted forecast for MRP suppliers

**Benefits**

i2 Collaborative Supply Execution can help customers potentially:

- Reduce response time to demand changes by more than 50 percent
- Reduce time spent by procurement personnel by 50–75 percent
- Reduce inventory (raw, WIP, FG) by 10–15 percent
- Reduce logistics expense by 3–4 percent
- Increase visibility of supply, demand, and inventory, as well as status of orders and shipments
- Coordinate with multiple tiers of trading partners
- Rapidly resolve problems before they become customer issues
- Reduce supplier stock-outs and excess supplier inventory

Each of the CSE capabilities are designed to address specific business needs and can deliver unique benefits:

### ***i2 Consolidated Procurement***

Reduced purchasing costs due to:

- Rationalized supplier base and consolidated number of unique parts
- Better price leverage through volumes and spend analysis
- Reduced expedited freight
- Compliance—use preferred parts and suppliers
- Reduced inventory and material shortages
- Lower safety stocks
- Increased reuse of existing inventory in other locations

### ***i2 Supplier Collaboration/Lean Replenishment***

Lower operational costs and continuity risks due to:

- Reduced grief resolution costs and expedited freight
- Reduced stock-outs and order processing errors
- Better supplier negotiation through supplier performance scorecarding
- Improved productivity
- Single view of all procurements
- Automated processing of large portions of the workflow through business rules
- Exception-driven workflows

### ***i2 Collaborative Material Management***

Improved execution visibility and exception handling due to:

- Proactive visibility into supply changes on demand and vice versa
- Reduced inventory due to lower safety stocks and capacity
- Improved productivity
- Automated processing of material requirement plans to purchase orders and requisitions depending on business rules
- Exception handling of EDC

## **Summary**

i2 Collaborative Supply Execution is a comprehensive material flow management, procurement, and supplier collaboration suite that enables companies to interact with their suppliers and manage different kinds of relationships and replenishment strategies. It also can enable companies to break down the barriers between material planning and procurement with proactive visibility into exceptions, what-if analysis, and resolution workflows to react to changes in supply.

For more information on i2 Collaborative Supply Execution and other i2 solutions, visit [www.i2.com](http://www.i2.com).



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