

# Supply Chain Visibility: Envisioning the Broader Need

#### Volume 4 Issue 1

6 From the Gartner Files: 2014 Strategic Road Map for Supply Chain Visibility Initiatives

15 About Kinaxis Supply chains are now longer and more global, not only because of outsourcing, but also as a result of companies' broader market penetration and expansion.

The consequence has been a substantial increase in the number of products that need to be planned, the number of supply chain nodes that need to be connected, and the volume of data that is represented in multiple data systems among those nodes.

It is the complexity of this connectivity problem which is at the core of the visibility challenge and that is represented by Stage 3 (Integrate) of Gartner's demand-driven value network (DDVN) maturity model.



"Most supply chain organizations are at Stage 2 or 3 of supply chain maturity, and thus have an inside-out view of supply chain plans, events and data. Their current visibility capabilities are most likely departmental or functional and focus separately on data and processes for planning and execution."

Titze C., Payne T., Sarangdhar V., Devereux, P.; 2014 Strategic Road Map for Supply Chain Visibility Initiatives; Gartner; 8 September 2014



It is the integration of the various supply chain nodes - both internal and external to the organization - that acts as a barrier to achieving higher levels of supply chain maturity. By solving the connectivity challenge, you can solve the visibility challenge. But just as Stage 3 (Integrate) is not the end goal for a demand-driven supply chain, visibility should not be the end objective. If accomplished in the right manner, visibility becomes the precursor to enabling additional competencies that will propel companies farther along their supply chain maturity path.

#### Are We Stuck Because We Have Had **Short-Sighted Goals?**

To those seeking visibility, you have only to ask them what they are trying to accomplish to see the potential shortcoming in their ambition for visibility. If their answer demonstrates that their desire for better visibility lies in a need to manage the supply chain better, to make better decisions or to know sooner in order to be able to act faster, then visibility is but the first step in that journey.

Supply chain visibility alone won't yield effective supply chain orchestration; it is a prerequisite capability, among others.

While companies must have end-toend visibility, the ability to leverage that visibility for deep analysis and quick action is where true value is achieved.

Supply chain decision making is complex and must be supported by more than a series of status reports. It requires the ability to interact with data in a collaborative way, performing real-time calculations, data modeling, and simulations to project results. There must be the ability to alter and analyze data across the extended supply chain network, not iust see it.

Only when a definition of visibility is established that includes the requirements for associated data and analytical capabilities will a company achieve the capacity to:

- receive actionable and predictive insight,
- evaluate the impact of decisions across organizational boundaries,
- orchestrate a collaborative tradeoff analysis between several trading partners, and
- make enterprise-wide, risk-adjusted decisions quickly.

#### The Data Harmonization Problem

At the heart of the supply chain visibility and cross-functional (or multi-enterprise) connectivity problems, is the necessity for data harmonization across multiple systems of record.

Organizations need a solution that can be overlayed across systems versus filling the gaps in-between systems. This requires representing data within the nodes and running analytics all the way across the network, as opposed to trying to flow data through node-bynode and performing siloed analysis each step of the way.

#### The different types of visibility

#### "How I did"

This is the traditional domain of Business Intelligence and Data Warehouse tools focused on metrics such as supplier performance. This is what we typically get out of our ERP systems. It is of little help in situations of 'clear and imminent danger', but has great value in setting policies to improve performance over the longer term.

#### "How I am doing"

This is the focus of much of the current hype in supply chain visibility. However, this status report type view only provides visibility between business functions and/or organizations, not holistically across functions and/or organizations, and it does little to enable one to accurately see ahead.

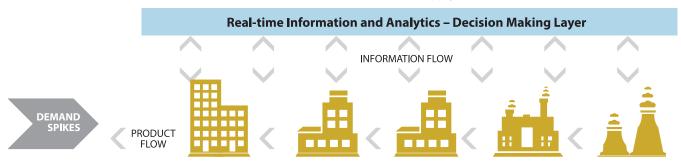
#### "How I will do"

This is where the true value of visibility becomes apparent. This end-to-end visibility gives advanced warning to future danger and provides a runway for course correction to avoid the risk or take advantage of an opportunity. This type of visibility inherently spans across organizations.

#### The Future Data Layer



#### **Demand-Driven Supply Chain**



Source: Kinaxis

In large part, the key to data harmonization is achieving consistency in:

- item identification
- unit of measures, and
- time buckets.

#### Can I do this with ERP?

Many companies cannot rely on ERP alone to solve this issue because it is infeasible or cost prohibitive, or both. Many companies have several instances of ERP, with each one containing and maintaining information in multiple formats. Frequently the manner in which the

ERP systems have been deployed or acquired is part of the problem. Often, organizations will employ 'shadow IT' as a means to gain the visibility they need. The planning layer, which is even less harmonized or standardized, only adds to the complexity. While consolidating down to one ERP instance can be a step forward, given the prominence of manufacturing outsourcing, global expansion and acquisition strategies in many industries, the reality is that heterogeneous data sources are, and will remain, unavoidable. Most business people consider this an issue for IT to solve, but it won't disappear until the business side of the organization makes solving the data issue their priority.

### What will the future data layer look like?

For most, the translation of a demand signal into an appropriate supply signal has to take place at one node of the supply chain before the signal can be propagated to the next node. It is difficult enough to do this with standard products at a finished goods level, let alone with a configurable product that is made up of hundreds of components, in a highly outsourced and distributed supply network. In such a complex environment, there are two layers that must be considered:



### The Information Layer

In today's supply chain networks, there is a need for a realtime information layer. For far too long, companies have tried to enable this layer with email and Excel. This is a clear indication that the core transactional layer is not satisfying the need. The dominant mechanism for moving data between functions and organizations is still overnight (at best) EDI between ERP systems. The use of email and Excel is merely a mechanism to try to overcome the limitations of operating an end-to-end supply chain with cascaded EDI transfers.



### The Analytical Layer

Even if one manages to get beyond email and Excel in creating an information gathering layer, the challenge then becomes ensuring any calculations performed on that data are consistent with the calculations performed by the respective ERP at each node. It defeats the whole purpose of the "realtime information" layer if at each level, the MRP or planning analytics have to be invoked in each of the ERP systems. Yet this is necessary to translate demand into required supply in a manner that is consistent with the underlying systems.

Bottom Line: A truly functional demand-driven value network must not just contain the data, but must also be able to emulate the respective policies, bills-of-material, routings, sourcing rules, lead times, capacities, and other aspects of the supply chain model.

#### The Ultimate Vision

The goal of supply chain visibility should lead you down a path to data connectivity, not just information gathering.

Ultimately, effective business orchestration requires companies to eliminate the need to tap into multiple systems or integrate data in various formats from several applications that each support only a single function or layer in the broader supply chain network.

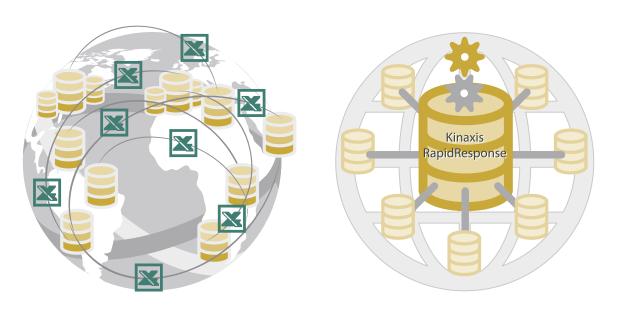
In the end, having quick access to multi-enterprise supply chain information and analytics can set the stage for more meaningful and effective interactions between functions and between partners based on informed decisions in which the impact of changes is understood and action plans are clearly defined.

#### The RapidResponse® Solution

Kinaxis® RapidResponse provides supply chain visibility, planning and analytics capabilities that create the foundation for managing the supply chain from a single environment and across business functions, and even trading partners. RapidResponse can enable everyone to work from a single platform to manage, link, align, share and collaborate with data across the supply chain network.

#### RapidResponse:

- provides a unified view across the enterprise regardless of the number and location of supply chain nodes and supporting data systems;
- integrates data and policies of ERP and other point systems, resulting in a complete representation of the supply chain;
- emulates the analytics used by the host ERP systems, so when there is a change in demand or supply at any level of the extended supply chain, it invokes all of the embedded ERP analytics of the respective host systems to provide immediate visibility into the impact across the organization;
- extends far beyond static input data to include calculated key performance outcomes (e.g. fill rates, shortages, excess and obsolete inventory, order actions, margin projections, revenue projection) so you can model and represent several states of the supply chain—historical, present, and future; and
- supports the configuration of departmental, functional, or user specific supply chain visibility, planning and analysis needs.



Source: Kinaxis

#### From the Gartner Files:

## 2014 Strategic Road Map for Supply Chain Visibility Initiatives

Senior supply chain business leaders at DDVN Stages 2 and 3 can use this SCV framework to prioritize steps that move their organizations from insideout to outside-in views of the extended value network that enables Stage 4 maturity.

#### **Key Findings**

- Global supply chain leaders are taking greater interest in E2ESCV because it can support initiatives such as supply network collaboration, which reduces risk while maintaining efficiency and improving business performance.
- Most supply chain organizations are at Stage 2 or 3 of supply chain maturity, and thus have an insideout view of supply chain plans, events and data. Their current visibility capabilities are most likely departmental or functional and focus separately on data and processes for planning and execution.
- Although SCV use cases and approaches will vary by company, supply chain business leaders must plan their SCV journeys in stages and integrate their SCV road maps with their plans for the overall supply chain maturity journey.

#### Recommendations

• Start building critical visibility capabilities along a two- to threeyear road map for achieving the anticipated maturity stage.

- Deploy multienterprise information hub solutions that provide visibility capabilities, even if scope and coverage is initially limited.
- Create a cross-functional SCV program that includes internal and external business partners. As you progress, work closely with your business partners to cultivate trust, and maximize the use of layered visibility solutions for execution and planning.

#### **Analysis**

Gaining end-to-end supply chain (SC) visibility (E2ESCV) of the value network is widely recognized as a prerequisite for making the supply chain and the business more agile, resilient, competitive and profitable. Naturally, the E2ESCV journey is complex. To cost-effectively guide the journey, senior supply chain executives must craft plans to manage changes in people, processes and technologies — inside the enterprise and with the extended network of trading partners.

Although every enterprise has unique needs, an effective supply chain visibility (SCV) road map must account for:

- The purpose of visibility: The use case and related processes that will provide and leverage the visibility capability.
- The type of visibility: Enterpriseonly, multienterprise end-to-end, planning-oriented or executionoriented.

- The level of process that will leverage visibility: Event, operational, tactical and/or strategic.
- The users of visibility: The different business partners involved along the extended value chain.
- The information to capture and evaluate: Plans, events and data transactions, content and relevant supply chain information — within and across organizations.
- The coverage of visibility: activities of capture, analyze; and then further leveraging visibility via respond.

E2ESCV (see Note 1) is a critical enabler on the supply chain organization's pathway through becoming demand-driven. Like the demand-driven value network (DDVN) maturity journey, the supply chain visibility journey progresses in five stages, as shown in Figure 1.

Those stages are:

- Stage 1 Visibility within a department
- Stage 2 Visibility within a function/process
- Stage 3 Visibility across an enterprise process (across departments and functions, certainly across regions, but still within the four walls of the company)
- Stage 4 Visibility across a multienterprise process (extended enterprise visibility outside the company's four walls, including a

"Internal" Focus "External" Focus Partner and **Optimize** Scale and Collaborate Extend and Visibility Communicate **Enablement: Standardize Maturity Stages** and Integrate Stage 5 Stage 4 Stage 3 Multienterprise Stage 2 Network + Multienterprise **SCP & SCE** Stage 1 **Enterprise** Supply Chain Convergence Supply Chain **Functional Departmental** 

Supply Chain Visibility Maturity

Source: Gartner (September 2014)

variety of business partners, but still having planning and executional visibility separately)

• Stage 5 — Visibility across a number of multienterprise network visibility processes spanning supply chain planning (SCP) and execution (SCE)

This research provides a road map1 for building critical SCV capabilities for companies during the next two to three years. The road map is appropriate for organizations currently at supply chain maturity Levels 2 (anticipate) or 3 (integrate) and striving toward supply chain maturity Level 4. These capabilities and associated actions will span across multiple roles within planning, sourcing, procurement, manufacturing and logistics functions, as well as multiple types and levels of visibility.

Multienterprise software that provides visibility capabilities and furthers the ability for collaboration (see the Appendix section) is essential to the E2ESCV journey. The market is quickly growing to offer many styles and approaches. Senior supply chain executives must help enterprise IT leaders (or supply chain IT managers) understand that the E2ESCV journey is incremental and can't be solved by technology alone. Each step requires attention to people, processes and technologies. Skipping steps will not yield sustainable results.

Although company size, portfolio diversity, organizational maturity, span of control and geographic regions may vary, this road map facilitates the engagement of multiple functions, roles and stakeholders to develop comprehensive SCV initiatives aligned

with your organization's other technology and process road maps. Figure 2 shows some key steps of the project plan.

#### **Future State**

SCV will enable programs that support business goals and guide decision processes in alignment with other DDVN Stage 4 attributes. Professionals in the supply chain's plan, make, source and deliver functions will use SCV in execution processes for short-term, executional tasks or responses. These professionals will also use visibility capabilities in planning processes at tactical or even strategic tasks, such as optimizing or configuring/designing value networks. Furthermore, trading partners throughout the extended value network will use SCV technologies for standard transactions and communication in their daily business.

Strategic Road Map Overview for Supply Chain Visibility

#### **Future State**

- SC organizations execute on a variety of cross-functional, multienterprise initiatives
- · SCs and business partners use SCV insights to optimize and integrate planning and execution, and work at DDVN Stage 4 collaboration level
- SCs use frameworks and solutions to capture, analyze, and costeffectively respond
- · SCs use SCV to make E2E trade-off decisions across value networks
- · SCs use SORs and SODs for planning and execution, with a focus on integration

#### **Current State**

- SC organizations at DDVN Stage 2 or 3 are not yet mature enough to take full advantage of technology
- SCs focus on internal. enterprise visibility
- SC leaders plan and implement visibility capabilities with a functional, siloed approach
- · SCs have limited planning and execution visibility capabilities; they might see data and receive alerts of disruptions, but are not equipped for scenario modeling and response
- · SCs mainly use SORs and limited SODs

#### Gap

- Low trust among partners blocks progress
- No clear link between SCV initiatives and expected maturity advancements/business results
- · Shift from departmental/functional to multienterprise processes, from only gaining visibility to utilizing value-add capabilities
- Shift from ERP to multienterprise technologies with integration of planning and execution

#### Migration Plan

- Set mindset with IT that E2ESCV enables integration and collaboration, and can't be done with ERP
- Select and link SCV use cases for pilot program to overall SC road map
- Deploy multienterprise information hub solutions, even if scope and coverage is initially limited
- Develop a change management plan for internal and external stakeholders

Source: Gartner (September 2014)

#### From a people perspective:

- The supply chain organization and its business partners use SCV insights to optimize and integrate planning and execution processes, and support the level of collaboration required of DDVN Stage 4 maturity. They function as a trusted community.
- To signal the importance of SCV in the DDVN journey, the enterprise commits regular investments in

- SCV software and tools, change management, and training and development.
- The supply chain and enterprise IT organizations work as allies in developing strategies, deploying SCV capabilities and managing associated risks.

#### From a process perspective:

• The supply chain organization executes on a road map of crossfunctional, multienterprise SCV in

- concert with other DDVN Stage 4 maturity initiatives.
- SCV supports the convergence of various functional domains such as execution, respond, optimize and configure capabilities.
- Professionals within the supply chain organization's different functions and their external business partners are able to link their strategic road map — including E2ESCV — investments to key performance indicators for the business.

• The supply chain organization uses SCV to improve enhanced inventory and risk management, and to make trade-off decisions across the value network for better profitability.

#### From a technology perspective:

- The SC organization uses software to execute, respond, optimize and configure its supply chain in a profitable way. The organization uses execution and planning systems of record (SORs) and systems of differentiation (SODs), with a strong focus on integration.
- The supply chain organization has an outside-in view, and is positioned to orchestrate and participate in multienterprise collaboration because it has an E2ESCV technology infrastructure with these attributes:
  - An underlying architecture with a one-to-many or many-tomany model.
  - Software that allows multichannel integration along different media and different formats, and universal, reusable maps and standards for interoperability.
  - Software that includes core visibility capabilities — an information hub including connectivity, technology interoperability, master data management and event management — as well as valueadds such as respond, optimize and configure capabilities, which then leverages the improved visibility.

- A multienterprise implementation style mainly delivered on a shared, multitenancy environment in the cloud — to enable multienterprise collaboration.
- Workflow capabilities are utilized as critical instruments for interoperability and collaboration, driving value from information hub insight into visibility (for example, a workflow is used for business partner notification based on events, alerts and related tradeoff decisions).
- Software-embedded capabilities that support collaborative business functions, including embedded master data management (mapping of information from heterogeneous sources), document management (determine, generate, alert, distribute), cost management (capture of all related cost to data objects), or analytics and reporting.
- The supply chain organization can improve its decision making by leveraging different data sources, including structured, unstructured and public domain data.

#### **Current State**

Technology is outpacing organizational readiness. The supply chain organization at DDVN Stage 2 or 3 is not yet mature enough to take full advantage of all of the visibility capabilities available through the market's current software offerings. When implementing visibility solutions, the supply chain organization takes a more functionally siloed implementation approach, rather than executing on a road map of initiatives that leads to an end-toend visibility capability.

#### From a people perspective:

- The SC organization is not yet mature enough to take full advantage of available multienterprise communicating technology.
- The supply chain organization and its business partners exchange on a case-by-case situation and mainly one-to-one setup, but not like a community.
- Organizations in the extended value network lack the trust required to openly share data.

#### From a process perspective:

- The organization approach visibility capabilities with a functional, siloed perspective rather than an end-toend view.
- The organization has multiple, disconnected visibility solutions that each only address one or two visibility use cases for either SCP or SCE.
- SC professionals within the organization mainly focus on internal, functional/process visibility, rather than at an enterprise or multienterprise level. Some portal capabilities are established; however, only for limited Tier 1 partners in support of basic visibility.

- The organization has limited execution visibility capabilities; it might see data and receive alerts of executional disruptions, but it has not developed the necessary process capabilities to fully leverage that visibility (such as scenario modeling and response).
- The supply chain organization has some visibility in planning but is not equipped for E2E planning visibility.

#### From a technology perspective:

- The supply chain organization uses software to capture data, but not to model and respond. It mainly uses internal execution and planning SORs and very limited SODs.
- The organization uses completely different technologies for SCP and SCE.
- The organization's software does not provide necessary embedded capabilities, such as master data management, in support of collaborative business functions, nor does it have workflow features.
- The organization utilizes only structured data and limited formats for integration.
- The organization uses an underlying architecture of one-to-one direct partner connectivity via electronic data interchange (EDI).
- The organization uses a traditional delivery model (on-premises or hosted) on a dedicated environment. with an internal or dominant partner implementation style.

#### Gap Analysis and Interdependencies

To take full advantage of SCV, enterprises must address these deficiencies:

#### From a people perspective:

- Limited understanding among supply chain and business executives of how SCV fits within the business strategy, supply chain strategy or DDVN maturity journey.
- Lack of agreements/trust with business partners in regard to an outside-in collaborative mindset.
- Limited commitment to invest human, financial and risk management resources to visibilityenabled initiatives.

#### From a process perspective:

- View that is limited to departmental/ functional visibility.
- Inability to unite a variety of SCV use cases into a holistic, E2ESCV initiative.
- Disconnect between processes for SCP and SCE.

#### From a technology perspective:

- Attempts to achieve visibility with enterprise systems of record (such as ERP) are not leveraging multienterprise solutions.
- Lack of leveraging visibility to support collaborative multienterprise execution solutions.
- Lack of leveraging visibility to support collaborative multienterprise planning solutions across the supply chain.

- Lack of ability to have multichannel integration along different media and different formats, and ability to utilize different data sources.
- SCP and SCE visibility technologies are deployed separately.

Supply chain executives must recognize these interdependencies as they prepare to execute the road map:

- E2ESCV is a foundational capability that enables advancements in the DDVN maturity journey. It's imperative to link plans and target outcomes for incremental improvements in SCV to the organization's plans and targeted outcomes for DDVN maturity. To gain support for and to demonstrate the value of these efforts, supply chain executives must link these advancements to business performance goals.
- Trust among trading partners is essential to achieving E2ESCV. Trading partners' willingness to share information may be affected by industry, geography and other factors.
- The organization's ability to reach two key goals — achieving E2ESCV to support execute, respond, optimize, and configure activities in the planning and transaction processes; and converging SCP and SCE processes and technologies — is ultimately dependent on the availability of suitable software products. Today's marketing offerings are not yet ready to support these goals, but we expect the market to sufficiently evolve during the next two or three years.

#### Migration Plan

Senior supply chain business leaders can plot out their supply chain visibility road map using our priorities. These priorities generally apply to organizations at DDVN Stage 2 or 3, but the needs may vary by individual enterprise. For example, an enterprise that wants to optimize upstream supplier risk may put a higher priority on leveraging external unstructured data out of publicly available domains.

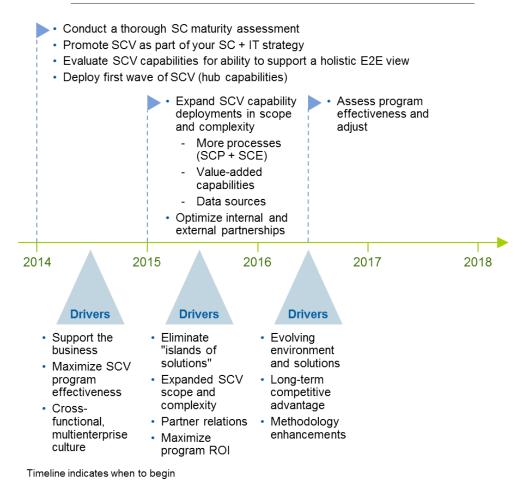
Figure 3 shows a sample timeline for these projects.

#### **Higher Priority**

High-priority business projects for this initiative focus on laying a foundation for the people, process and technology changes to come. Review these priorities in the context of your DDVN road map so you can execute these actions within the context of your other efforts to strengthen links between functions within your supply chain organization and between supply chain and adjacent business functions, such as IT, marketing, sales, operations and finance.

- Set the mindset with your enterprise IT business partner (CIO or senior IT business leader) that the enterprise and its trading partners can't achieve E2ESCV with enterprise SORs such as ERP.
- Select cross-functional business processes that include internal business partners with the declared aim of recognizing visibility as an E2E capability that enables business processes for scalable integration, collaboration and orchestration to support better business performance.

Strategic Road Map Timeline for Supply Chain Visibility Figure 3



Source: Gartner (September 2014)

- Reorient the company to recognize that initial visibility efforts are about delivering information, but subsequently they can support business activities, such as decision making in respond, optimize and configure activities across numerous business processes. Work to get a consensus across the enterprise as to what the technology architecture needs to look like to support the company's effort to mature its supply chain. Work to understand the role E2ESCV plays in supporting that architecture.
- Brief or include your enterprise IT business partner in these conversations.
- Work with business process managers to determine how best to integrate visibility applications along the multiple use cases applicable for SCV. Link these use cases to the overall supply chain strategic road map from a process and a technology perspective. Understand how the jigsaw pieces need to fit together.
- Explore the market for solutions that leverage SCV, getting a better understanding on available solutions.
- Begin deployment of multienterprise information hub capabilities, even with limited breadth, and scope to gain benefits quickly.
- Work with the data management team to ensure that master data is harmonized and standardized across the multiple enterprise systems in place.

• Develop a change management plan that addresses all stakeholder groups affected by these initiatives, internal and external.

#### **Medium Priority**

After your limited-scope SCV software deployment, you can address these medium-priority projects to expand or optimize your SCV initiatives. Again, it is important to review these priorities in the context of your DDVN road map so you can leverage the value of your SCV investments and reach toward E2ESCV.

- Work with the business to expand the scope (that is, including more business processes supported with SCV — such as logistics, sourcing, manufacturing, planning) and complexity (that is, more business processes touching/converging supported SCV, for example, warehousing/transportation or execution/planning) of your SCV initiative as the organization learns more.
- As you make progress, work closely with your internal and external business partners to optimize the use of solutions, building trust in the partner relationships.
- Ensure your SCV technology road map covers SCP and SCE processes appropriately supported by SCV, and that the other capabilities are made available to build E2E orchestration capabilities.

- Evaluate and include cloud and SaaS for delivery model options, where appropriate, especially for business processes that are/will be multienterprise in dimension.
- Establish "capture-analyze-respond" mechanisms in support of valueadded capabilities.
- Consider unstructured, public domain data as additional data elements and sources for enhanced SC information input.
- Work with the data management team to revise the necessary data quality procedures and data integration. If relevant for multienterprise processes, work with the service provider/software vendor on those aspects.
- Have people on the change management or enterprise architecture team educate small groups of users in SC about easy-touse SCV tools.
- Implement E2E metrics, such as order fulfillment rate or on-time delivery, to measure progress/ improvements of your SCV initiative; to prove business value, link any SCV metrics closely to business metrics.
- Question SCV solution providers on their take of a single presentation layer, combining multiple sources of SCV information.
- Review the pricing model with your SCV solution provider.

#### **Lower Priority**

These low-priority projects can optimize or extend the value of your SCV initiatives.

- Identify additional business areas that can also benefit from insights derived from improved visibility.
- Look for further external data sources that can add value to the business processes.

#### **Appendix**

#### Supply Chain Visibility Layers

E2ESCV technology connects internal and external business partners in the networkwide value chain,

allowing integration and collaboration among all of the players. It requires capabilities that are beyond the established ones found in business applications. It is the architectural transformation from simple, traditional point-to-point data exchange to a multienterprise collaboration platform with five layers or capabilities necessary to gain the full benefits of SCV.

Initially published in "Use Cases for Supply Chain Visibility," Gartner recently updated this framework to better outline the differences between visibility and collaboration (see Figure 4).

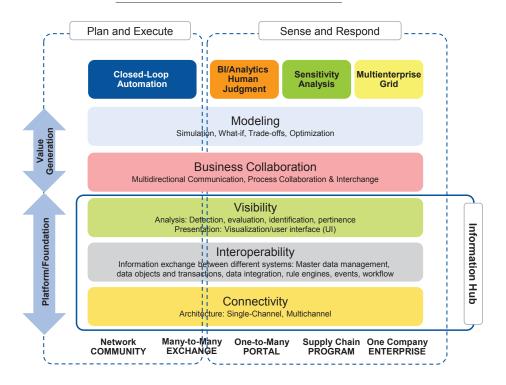
The information hub provides visibility capabilities, also referred to as "capture and analyze" activities. The information hub:

- Provides the architectural setup, connecting the company with its many business partners and systems in their networks.
- Provides interoperability, the information exchange between different systems, setting the stage for partner/system interactions, along with rules, events and workflows.
- Facilitates the analysis of captured plans, events and data, and their presentation.

Collaboration then leverages on the visibility gathered, also referred to as "respond" activity. It allows modeling and then the collaboration per se, the multidirectional business partner and process collaboration, communication, and interchange. This layer is where business value begins to be created based on the visibility.

Further enhancements are the addition of the term "network community," an extension to manyto-many exchange, the one-to-many portal; and the multienterprise grid, recognizing the importance to bring together the visibility provisions of multiple information hubs (for multiple use cases of SCV capabilities) to a single, enterprisewide layer of information.

Figure 4 Visibility Layers, Updated



Source: Gartner (September 2014)

#### Evidence

<sup>1</sup>This road map is a result of nearly two years of research of end-user organizations, including formal and informal interactions, client interviews, software vendor briefings and Gartner analyst insights.

#### Note 1

#### Supply Chain Visibility

Notably, E2ESCV needs some further clarification, because the term often is used differently:

- Sphere: E2ESCV is "multienterprise" by definition. Ultimately, the visibility goal is to gain a view not only within an organization's four walls, but also connecting with its many business partners. This is demonstrated by the advancement from visibility maturity Stage 3 (enterprise) to Stage 4 (multienterprise).
- Borderline: It's only about the capture-analyze mechanism, sensing the relevant plans, events and data — transactions, content and relevant SC information; but not what to do with this insight, sense and respond, which will then be leveraged through value-added capabilities (see "Use Cases for Supply Chain Visibility") within domain-specific applications.
- SC Domain: Although SCP and SCE allow visibility and follow the stated maturity stages (departmental/functional/enterprise/ multienterprise/multienterprise network), capabilities and applications vary along the journey. Therefore, we see two road maps emerging, and then converging at Stage 5 supply chain maturity.
- Use Case: There are a variety of use cases applicable for E2ESCV, nameable along the Supply Chain Operations Reference (SCOR) model domains. However, many visibility solutions and functions are siloed, not cross-functional and span multiple use cases. Here, E2ESCV means cross-functional and multiuse cases.
- Pace Layer: Achieving E2ESCV needs a separate layer than the core enterprise system, namely, a collaborative, multienterprise platform, which we refer to as an executional SOR and/or a planning SOR. The value-added capabilities, where the achieved visibility is leveraged, is then mainly represented by a SOD, or even a system of innovation (SOI).

Source: Gartner Research, G00262058, Christian Titze, Tim Payne, Pam Devereux, Vikas Sarangdhar, 08 September 2014

### **About Kinaxis**

Kinaxis is a leading provider of cloud-based subscription software applications that enable our customers to improve and accelerate analysis and decision-making across their supply chain operations. The supply chain planning and analytics capabilities of our product, RapidResponse, create the foundation for managing multiple, interconnected supply chain management processes. By using the single RapidResponse product instead of combining individual disparate software solutions, our customers gain visibility across their supply chains, can respond quickly to changing conditions, and ultimately realize significant operating efficiencies.

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