IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

BLUE YONDER GROUP, INC.,	
Plaintiff,	**Civil Action No. 3:20-cv-3636**
v.	
KINAXIS INC. and KINAXIS CORP.	**JURY TRIAL**
Defendants.	

ORIGINAL COMPLAINT

Plaintiff Blue Yonder Group, Inc. ("Blue Yonder" or "Plaintiff") files this Original Complaint against Defendants Kinaxis Inc. and Kinaxis Corp. (collectively "Kinaxis" or "Defendants") and hereby allege as follows:

NATURE OF ACTION

1. Kinaxis has infringed and continues to infringe at least one claim of U.S. Patent Nos. 6,591,153 ("the '153 Patent"); 7,050,874 ("the '874 Patent"); 7,574,383 ("the '383 Patent"); 7,788,145 ("the '145 Patent"); 8,781,868 ("the '868 Patent"); and 10,572,856 ("the '856 Patent") (collectively, "Patents-in-Suit").

2. Blue Yonder has been an innovator in the supply chain management industry for decades, holding nearly 400 patents and pending applications relating to Blue Yonder's end-to-end digital supply chain platform.

3. Kinaxis, infringes directly, literally and/or by the doctrine of equivalents, contributes to the infringement of, and/or induces infringement of the Patents-in-Suit by making, using, selling, offering for sale, and/or importing into the United States the RapidResponse platform and related products and services (the "Accused Products").

PARTIES

4. Plaintiff Blue Yonder Group, Inc. is a corporation organized under the laws of the state of Delaware with its principal place of business at 15059 N. Scottsdale Rd., Suite 400, Scottsdale, AZ 85254-2666.

5. Blue Yonder maintains an office within the Northern District of Texas at 9001 Cypress Waters Blvd., 4th floor, Coppell, TX 75019.

6. On information and belief, Kinaxis Inc. is a corporation organized under the laws of Canada with its principal place of business at 700 Silver Seven Road, Ottawa, ON, Canada K2V 1C3.

7. On information and belief, Kinaxis Corp. is a corporation incorporated under the laws of Delaware with its principal place of business at 40 E. Chicago Avenue, Suite 391, Chicago, Illinois 60611-2012. Kinaxis Corp. is a wholly-owned subsidiary of Kinaxis Inc. that operates as Kinaxis Inc.'s sales and service center in the United States.

JURISDICTION AND VENUE

8. This Court has subject matter jurisdiction over the patent infringement claims asserted in this case under 28 U.S.C. §§ 1331 and 1338.

9. This Court has personal jurisdiction over each named Kinaxis entity.

10. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1391 and 1400 because Kinaxis has committed, and continues to commit, acts of infringement in this District and has a regular and established place of business in this District.

11. On information and belief, Kinaxis maintains a regular and established place of business in the District at 222 W Las Colinas Blvd, Suite 1650E, Irving, TX 75039 USA.

12. On information and belief, Kinaxis is the holder of the registered trademark for the Accused Products.

13. On information and belief, Kinaxis markets, advertises, develops, sells, and implements the Accused Products in the Northern District of Texas.

14. On information and belief, Kinaxis owns and operates sales and marketing websites that advertise and promote the Accused Products to customers in the United States, and in this District.

15. On information and belief, Kinaxis conducts business extensively within the Northern District of Texas. For example, Kinaxis employees within the Northern District of Texas manage the deployment of RapidResponse at client sites, implement supply chain planning solutions in Kinaxis's RapidResponse, and perform solution configuration in RapidResponse Software as well as train customer end users.

16. On information and belief, Kinaxis employs numerous individuals within the Northern District of Texas relating to its infringement, including at least Supply Chain Architects, Solution Consultants, Delivery Managers, a Strategy Director, a Director of Strategic Services, the Vice President of Industry and Solutions Marketing, and the Vice President of Professional Services/Head of Consulting for North America.

17. On information and belief, Kinaxis has created a manufacturing, sales, and distribution system comprising substantial resources within the Northern District of Texas. Through this distribution channel, Kinaxis introduces infringing products and services into the stream of commerce with the knowledge, expectation, and intent that they will be sold and used in the United States, including in the State of Texas and in this District. On information and belief, Kinaxis's customers use the Accused Products within the Northern District of Texas.

INDUSTRY BACKGROUND

18. Every product that reaches an end user represents the cumulative result of the physical processes of multiple organizations. These processes can be collectively referred to as a "supply chain."

19. Managing supply chain processes in an efficient and cost-effective way is a complex task. The organizations and physical assets that make up a supply chain may be spread across the globe. Optimizing operations across the various links in a supply chain presents a vast number of difficulties. The complexity of managing a globalized supply chain is exacerbated by competing goals that different organizations in the supply chain may have and the tradeoffs that certain management decisions present.

20. Supply chain management computer systems address the problems posed by designing, planning, controlling, and executing complex supply chain processes by providing technological solutions to control and integrate disparate processes spread across organizations and geographies in real or near real time.

21. Blue Yonder is at the forefront of this field. For over 35 years, Blue Yonder has provided innovative solutions to optimize supply chain processes.

22. Blue Yonder invests heavily in the research and development of technological innovations in supply chain management computer systems that reimagine the way that computer and software systems can be built to solve enduring problems that plague supply chain engineering and management. Blue Yonder's team of over 5,500 employees work tirelessly on these innovative technologies.

23. Blue Yonder's intellectual property portfolio of nearly 400 granted and pending patents reflects the ways in which Blue Yonder has propelled the industry forward. Blue

Yonder's innovative technologies are employed by its over 3,000 worldwide customers and are recognized and lauded across the industry.

KINAXIS'S ACCUSED PRODUCTS

24. Kinaxis makes, imports, uses, sells, and/or offers for sale products and services related to supply chain management that infringe at least one claim of each of the Patents-in-Suit.

25. For example, on information and belief, Kinaxis makes, imports, uses, sells, and/or offers for sale a supply chain management platform called RapidResponse and related products and services ("Accused Products"). Information on RapidResponse is available on Kinaxis's website, https://www.kinaxis.com/en/solutions/platform (last visited 12/13/20).

26. On information and belief, Kinaxis markets, sells, and/or provides RapidResponse in the United States directly, or through sales representatives or distributors, and provides instructions on how to use RapidResponse. According to Kinaxis documents, "[i]nfrastructure and logical components utilized to deliver RapidResponse are physically hosted in secure, co-location data center facilities in the United States, Canada, the Netherlands and Japan." Kinaxis Inc. Annual Information Form, March 23, 2020 at p. 17, available at https://investors.kinaxis.com/financials/default.aspx (last visited 12/13/20).

27. A demonstration of Kinaxis RapidResponse is shown in a video titled "Kinaxis RapidResponse demo: See agile supply chain planning in action," available at https://www.youtube.com/watch?v=QIwpbCZi8iU&t=191s (last visited 12/13/20). This video presents an overview of the features of RapidResponse, some of which infringe Blue Yonder's patents, as will be discussed in detail below. This video also shows that companies located in the United States such as Ford, NCR, and Jabil, are Kinaxis customers that use RapidResponse. *Id.* at 4:15.

THE BLUE YONDER PATENTS

A. The '153 Patent

28. On July 8, 2003, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 6,591,153 ("the '153 Patent"), entitled "System and Methods for Scheduling Manufacturing Resources," to inventors Myrick Crampton and George Zdravecky. Blue Yonder owns all rights to the '153 Patent necessary to bring this action. A true and correct copy of the '153 Patent is attached hereto as Exhibit 1 and incorporated herein by reference.

29. The '153 Patent relates to a "system and method for solving manufacturing-scheduling (MS) problems." '153 Patent at 1:14-15. The '153 Patent explains that "[s]cheduling of manufacturing resources, for example, materials, machinery, man hours, and the like, in response to customer orders has been a significant concern and problem in the field of manufacturing for almost as long as products have been manufactured." *Id.* at 1:21-25.

30. The '153 Patent discusses the shortcomings of the state of the art techniques used in manufacturing-scheduling at the time of the invention and discloses a novel improvement to manufacturing-scheduling computer systems.

31. The inventors of the '153 Patent recognized that while "many businesses have multiple concurrent goals at any given time," the then-existing manufacturing-scheduling techniques were unable to effectively account for and resolve these conflicting goals. *Id.* at 2:6-21; *see also id.* at 2:51-55 ("[M]any of the MS systems currently available are at best ineffective because of the often complex nature of manufacturing facilities, the often conflicting goals concurrently sought by manufacturers, and the constraints typically associated with manufacturing resources.").

32. For example, a manufacturer may want to simultaneously "minimize inventory reducing manufacturing and storage costs" while also "minimiz[ing] the idle time of their

equipment and resources". *Id.* at 2:12-17. However, the state of the art manufacturing-scheduling techniques could not adequately balance these conflicting goals because, among other reasons, they used models that "did not accurately represent the unique characteristic of resources" used in the manufacturing process. *Id.* at 2:26-27.

33. Moreover, the inventors recognized that "manufacturers sometimes strongly prefer that certain groups of products be produced by the same resource or resources in a particular sequential order . . . because there may be certain cost, operational or time advantages in doing so." *Id.* at 2:44-48. Manufacturing-scheduling techniques at the time of the invention were ineffective at incorporating these sequencing preferences (or "product wheels") into a schedule that also accounted for the manufacturer's other scheduling goals. *See id.* at 2:43-50.

34. Unlike the prior art systems and methods, the invention of the '153 Patent is a "robust MS system and method capable of scheduling manufacturing processes in real time". *Id.* at 2:57-59. The invention takes into account the "conflicting manufacturing goals, the complex relations between resources, and the resource constraints typically associated with a manufacturing facility." *Id.* at 2:61-63.

35. Traditionally, manufacturers have followed a sequential, multistep process to generate a manufacturing schedule, but these attempts failed to resolve conflicting goals and often produced "mixed results." *Id.* at 2:20-21.

36. Before the invention of the '153 Patent, the detailed implementation of manufacturing-scheduling at the plant level was done without taking into account broader constraints and potential inefficiencies in the manufacturing process. It was not possible for decision-makers to adequately consider all of these factors when implementing a detailed, low-level manufacturing schedule. The inventors recognized that "because of the extremely tight

timeline that many manufacturers face daily" at this granular implementation stage, "a robust MS system and method capable of scheduling manufacturing processes in real time would be highly desirable." *Id*. at 2:56-59.

37. The '153 Patent explains that the prior art manufacturing-scheduling software was "extremely complex to use and understand[,] [did] not adapt conveniently to a variety of different businesses in an efficient way to address all of the specific issues particular to each individual business[,]" and "lack[ed] the capability of recognizing and adapting to the specific needs of individual businesses." *Id*. at 1:41-46.

38. The invention of the '153 Patent improves the functionality of computer systems in the manufacturing-scheduling process. The '153 Patent discloses a novel way to bridge the gap between the high-level and execution-oriented steps of the manufacturing-scheduling process, whereby a manufacturer's real-world constraints, preferences, and conflicting goals can be accounted for and implemented in real time. The systems and methods claimed in the '153 Patent generate these schedules with specific steps to incorporate a manufacturer's existing resources, objectives, constraints, preferences, and capabilities into the manufacturing-scheduling process. *See generally id*. 6:54-8:23. More particularly, the claims recite ordered combinations of elements that incorporate a specified objective for a manufacturing order, as well as a scheduling goal and a routing goal.

39. The claims of the '153 Patent recite one or more inventive concepts rooted in computerized technology and overcome technical problems in that field. A person of ordinary skill in the art reading the '153 Patent and its claims would understand that the patent's disclosure and claims are drawn to solving specific, technical problems arising in manufacturing-scheduling computer systems and provide for advancements in the field that were not routine,

well-understood or conventional. Accordingly, each claim of the '153 Patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent claiming an abstract concept. A person of ordinary skill in the art would understand that the ordered combination of claim elements is inventive. Further, the claimed improvements over prior art manufacturing-scheduling computer systems are concrete and improve the capabilities of existing manufacturing-scheduling systems.

40. A person of ordinary skill in the art reviewing the specification of the '153 Patent would understand that the inventors had possession of the claimed subject matter and would know how to practice the claimed invention without undue experimentation.

B. The '874 Patent

41. On May 23, 2006, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 7,050,874 ("the '874 Patent"), entitled "Sourcing of Bills of Materials," to inventor Manoel Tenorio. Blue Yonder owns all rights to the '874 Patent necessary to bring this action. A true and correct copy of the '874 Patent is attached hereto as Exhibit 2 and incorporated herein by reference.

42. The '874 Patent concerns "improved sourcing of bills of materials." '874 Patent at 1:6-7. The '874 Patent explains that a bill of materials (BOM) is "a document or other data file that often includes a list of parts (or components) and sub-parts that are included in one or more products." *Id.* at 2:36-38. "Since BOMs may be used to identify all the parts of a product, a BOM is a useful method of conveying the information about what parts are needed to manufacture or otherwise create a product." *Id.* at 2:55-58.

43. The '874 Patent discusses the shortcomings of the state of the art techniques used for BOM sourcing at the time of the invention and discloses novel BOM sourcing computer systems.

44. Traditionally, an original equipment manufacturer (OEM) would send out a BOM to its suppliers, and the suppliers would use the BOM to "provide a quote to the OEM regarding the cost of providing one or more parts, or producing the product or the relevant portions of the product." *Id*. at 2:67-3:3. "This process may be referred to as 'sourcing' a BOM." *Id*. at 3:3-4.

45. After receiving the pricing and other relevant information from its suppliers, an OEM would then decide how to distribute its requirements and orders across suppliers. *See id*. at 3:5-12. For example, an OEM may choose to source 100% of a certain component from a single supplier, or distribute its orders for that component across multiple suppliers.

46. In deciding how to source the components that it needs, an OEM would typically consider the pricing information that it received from its suppliers. *See id*. Additionally, the '874 Patent explains that an OEM may also consider a number of other constraints, including, for example, whether the OEM has relevant "contractual requirements or limitations from contracts with suppliers" that may affect how it chooses to source the BOM. *Id.* at 3:37-42. *See generally id*. at 3:13-42. These constraints are known as "sourcing criteria." *Id.* at 3:35-36. "Once the BOM originator has determined how to source the BOM, the BOM originator may then communicate purchase orders or other appropriate documents to the suppliers." *Id*. at 3:18-21

47. The '874 Patent explains that this traditional method of sourcing BOMs was "inefficient" because OEMs had to "wait on the suppliers for responses and then ha[d] to analyze the responses before orders can be placed." *Id*. at 1:30-44. This process was inefficient and took "too long for certain circumstances." *Id*.

48. Moreover, the state of the art techniques at the time of the invention were limited, and were only able to accommodate sourcing criteria up to a certain level of complexity.

49. To solve these problems, the '874 Patent improves the operations of computer systems used in the BOM sourcing process and discloses an improved and novel technique for sourcing BOMs. *See id*. at 3:22-23.

50. The system of the '874 Patent sources BOMs without having to send them out to suppliers. Rather, the system stores supplier information and can efficiently optimize BOM sourcing by searching for appropriate suppliers of the necessary parts. The system of the '874 Patent also stores sourcing rules (included among sourcing criteria) representing constraints or preferences for sourcing. The system enforces those rules when sourcing the BOMs. *See id*. at 3:22-29. The system analyzes the BOM along with specified sourcing criteria and pricing information, in order to "determine which supplier [] should be used to obtain which parts or products included in [the] BOM." *Id*. at 4:31-34; *see also id*. at 3:22-42. The system may also include a "transaction execution module" that can implement sourcing decisions by automatically generating and communicating purchase orders based on sourcing determinations. *See id.* at 4:35-52.

51. The novel BOM sourcing computer system of the '874 Patent allows OEMs to introduce more complex sourcing criteria than could be previously used and to benefit from greater efficiency gains than was available with prior systems. *See generally id*. at 3:43-57; 2:12-17 ("[T]he system includes the intelligence needed to select from the various suppliers . . . [t]herefore, BOMs may be sourced in a much quicker and more efficient manner than with previous BOM sourcing techniques."). The claimed system receives a BOM and determines which suppliers should be used to supply each part based on price information and sourcing criteria. The system generates transaction documents requesting suppliers to provide the identified parts.

52. The claims of the '874 Patent recite one or more inventive concepts rooted in computerized technology and overcome technical problems in that field. A person of ordinary skill in the art reading the '874 Patent and its claims would understand that the patent's disclosure and claims are drawn to solving specific, technical problems arising in BOM sourcing computer systems and provide for advancements in the field that were not routine, well-understood or conventional. Accordingly, each claim of the '874 Patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent claiming an abstract concept. A person of ordinary skill in the art would understand that the ordered combination of claim elements is inventive. Further, the claimed improvements over prior art sourcing systems are concrete and improve the capabilities of existing BOM-sourcing computer systems.

53. A person of ordinary skill in the art reviewing the specification of the '874 Patent would understand that the inventors had possession of the claimed subject matter and would know how to practice the claimed invention without undue experimentation.

C. The '383 Patent

54. On August 11, 2009, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 7,574,383 ("the '383 Patent"), entitled "System and Method for Providing Distributed Inventory Management," to inventors Abhay Vinayak Parasnis, Ashish Bharara, Mark Hanson, and Ganesh Wadawadigi. Blue Yonder owns all rights to the '383 Patent necessary to bring this action. A true and correct copy of the '383 Patent is attached hereto as Exhibit 3 and incorporated herein by reference.

55. The '383 Patent concerns "distributed inventory management" computer systems. '383 Patent at 1:16-17. The '383 Patent explains that a supply chain may include many participants, including suppliers of components, sellers that manufacture certain products, buyers

that purchase those products, and service providers that may serve as intermediaries between suppliers or buyers and sellers. *See id*. at 2:67-3:7.

56. In prior siloed systems, there was no notion of distributed inventory management as disclosed by the '383 Patent. Inventory was generally managed at a single organization or node of the supply chain, and one participant interacted with another using different "inventory replenishment policies" in order to "fulfill orders and manage inventory." *Id*. at 1:21-23; *see also id.* at 4:16-18 ("In many value chains, different replenishment programs and policies are used in different tiers of the value chain").

57. As the '383 Patent discusses, there were a number of exemplary inventory replenishment policies that participants in a value chain may use, including Vendor-Managed Inventory (VMI) programs, Supplier-Managed Inventory (SMI) programs, and Just in Time (JIT) programs. *See id*. at 1:21-27.

58. The '383 Patent explains that while "these various replenishment processes provide adequate inventory management, problems arise when multiple entities are involved in a value chain and especially when these multiple entities carry out different types of replenishment programs between one another." *Id*. at 1:51-55; *see also id.* at 4:13-16 ("Although current techniques for implementing replenishment processes (such as VMI, SMI, and JIT) are suitable for the needs of some businesses, these techniques include several disadvantages.").

59. The use of different replenishment policies across different participants and tiers of a supply chain introduces certain "disconnect[s]" and other "inefficiencies." *Id*. at 4:21; 4:33. At the time of the invention of the '383 Patent, one such disconnect and cause of inefficiency was that existing "inventory management systems lack[ed] connectivity between participants []

and [did] not provide adequate visibility into inventory information of the participants [] in the value chain." *Id*. at 4:47-50.

60. For example, the '383 Patent explains that each participant in a supply chain may generate information such as "which products are in which warehouse of a participant" or "which orders map to which lots on a particular truck of a participant," and that this information may be useful for other participants to have insight into in real time. *Id*. at 5:9-11. However, using prior art inventory management techniques, this information was "often not available throughout the value chain" or accessible to other participants in a timely or useful manner. *See id*. at 5:15-16.

61. The lack of connectivity, visibility, and real-time data exchange between participants that used different replenishment policies led to "increased production costs and reduced profits through the value chain due to problems such as unanticipated stock-outs, decreased production efficiency, higher investment in safety stock, increased obsolete and excess inventory, and inventory being in the wrong locations in the value chain." *Id*. at 4:50-55.

62. To solve these problems, the '383 Patent describes an improved inventory management computer system with connectivity, visibility and real-time data exchange across multiple, distributed participants in a value chain. The described system provides "one logical distributed inventory 'backplane'" (*id*. at 4:62-63) and "a framework to construct and maintain a virtual unification" (*id*. at 5:1-3) across participants using different replenishment policies. It provides participants with "real-time visibility into the inventory information associated with distributed participants in multiple tiers of the value chain." *Id*. at 2:15-17. In this way, multiple participants are integrated into a connected, consistent framework that allows for greater control and efficiency in inventory processes.

63. Because the system of the '383 Patent gives participants far greater and more up-to-date insights on relevant information across the supply chain, participants can now "collectively understand how relationships and interactions need to be modified in order to achieve or improve on desired objectives." *Id*. at 4:59-61. The novel system disclosed in the '383 Patent "reduces or eliminates" the inefficiencies inherent to the prior art techniques "and allows each participant [] in a value chain to simultaneously lower inventory, improve responsiveness, and lower costs." *Id*. at 4:56-59.

64. The system of the '383 Patent enables participants to achieve these efficiencies through novel techniques and technical improvements that provide a "unified and normalized data model of the inventory information available at all participants," *id*. at 5:17-20, and visibility "into inventory information of any other participant." *Id*. at 5:25-26.

65. The claims of the '383 Patent recite one or more inventive concepts rooted in computerized technology and overcome technical problems in that field. A person of ordinary skill in the art reading the '383 Patent and its claims would understand that the patent's disclosure and claims are drawn to solving specific, technical problems arising in inventory management computer systems and provide for advancements in the field that were not routine, well-understood or conventional. Accordingly, each claim of the '383 Patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent claiming an abstract concept. A person of ordinary skill in the art would understand that the ordered combination of claim elements is inventive. Further, the claimed improvements over prior art inventory management computer systems are concrete and improve the capabilities of existing systems.

66. A person of ordinary skill in the art reviewing the specification of the '383 Patent would understand that the inventors had possession of the claimed subject matter and would know how to practice the claimed invention without undue experimentation.

D. The '145 Patent

67. On August 31, 2010, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 7,788,145 ("the '145 Patent"), entitled "Intelligent Fulfillment Agents," to inventors Ganesh Wadawadigi, Ajay Jain, Deepak Mohapatra, and Sivakumar Balakrishnan. Blue Yonder owns all rights to the '145 Patent necessary to bring this action. A true and correct copy of the '145 Patent is attached hereto as Exhibit 4 and incorporated herein by reference.

68. The '145 Patent concerns "intelligent fulfillment agent[]" computer systems. '145 Patent at 1:28-29. The '145 Patent explains that a supply chain may include many participants, including suppliers of components, sellers that manufacture certain products, buyers that purchase those products, and service providers that may serve as intermediaries between suppliers or buyers and sellers. *See id*. at 3:9-17.

69. In prior siloed systems, there was no notion of distributed inventory management as disclosed by the '145 Patent. Inventory was generally managed at a single organization or node of the supply chain, and one participant interacted with another using different "inventory replenishment policies" in order to "fulfill orders and manage inventory." *Id*. at 1:31-33; *see also id*. at 4:25-27 ("In many value chains, different replenishment programs and policies are used in different tiers of the value chain.").

70. As the '145 Patent discusses, there were a number of exemplary inventory replenishment policies that participants in a value chain may use, including Vendor-Managed Inventory (VMI) programs, Supplier-Managed Inventory (SMI) programs, and Just in Time (JIT) programs. *See id*. at 1:33-38.

71. The '145 Patent explains that while "these various replenishment processes provide adequate inventory management, problems arise when multiple entities are involved in a value chain and especially when these multiple entities carry out different types of replenishment programs between one another." *Id.* at 1:63-67; *see also id.* at 4:22-25 ("Although current techniques for implementing replenishment processes (such as VMI, SMI, and JIT) are suitable for the needs of some businesses, these techniques include several disadvantages.").

72. The use of different replenishment policies across different participants and tiers of a supply chain introduces certain "disconnect[s]," *id.* at 4:30, and other "inefficiencies." *Id.* at 4:42. At the time of the invention of the '145 Patent, one such disconnect and cause of inefficiency was that existing "inventory management systems lack[ed] connectivity between participants [] and [did] not provide adequate visibility into inventory information of the participants [] in the value chain." *Id.* at 4:56-59.

73. For example, the '145 Patent explains that each participant in a supply chain may generate information such as "which products are in which warehouse of a participant" or "which orders map to which lots on a particular truck of a participant," and that this information may be useful for other participants to have insight into in real time. *Id.* at 5:18-20. However, using prior art inventory management techniques, this information was "often not available throughout the value chain" or accessible to other participants in a timely or useful manner. *See id.* at 5:24-25.

74. The lack of connectivity, visibility, and real-time data exchange between participants who used different replenishment policies lead to "increased production costs and reduced profits through the value chain due to problems such as unanticipated stock-outs,

decreased production efficiency, higher investment in safety stock, increased obsolete and excess inventory, and inventory being in the wrong locations in the value chain." *Id*. at 4:59-64.

75. To solve these problems, the '145 Patent describes an improved inventory management computer system with connectivity, visibility and real-time data exchange across multiple, distributed participants in a value chain. The described system provides "one logical distributed inventory 'backplane'" (*id*. at 5:4-5) and "a framework to construct and maintain a virtual unification" (*id*. at 5:10-11) across participants using different replenishment policies. It provides participants with "real-time visibility into the inventory information associated with distributed participants in multiple tiers of the value chain". *Id*. at 2:24-26. In this way, multiple participants are integrated into a connected, consistent framework that allows for greater control and efficiency in inventory processes.

76. Because the system of the '145 Patent gives participants far greater and more up-to-date insights on relevant information across the supply chain, participants can now "collectively understand how relationships and interactions need to be modified in order to achieve or improve on desired objectives." *Id*. at 5:1-3. The novel system disclosed in the '145 Patent "reduces or eliminates" the inefficiencies inherent to the prior art techniques "and allows each participant [] in a value chain to simultaneously lower inventory, improve responsiveness, and lower costs." *Id*. at 4:65-5:1.

77. The '145 Patent describes an unconventional system incorporating intelligent fulfillment agents. In the system of the '145 Patent, "fulfillment agents facilitate the triangulation of relevant participants [] in the context of the various fulfillment and replenishment workflows that occur between the participants." *Id*. at 11:29-33. Among other

things, these intelligent fulfillment agents can identify issues that cause inefficiencies in the supply chain and proactively alert participants of the need for corrective action. *Id.* at 11:29-36.

78. More particularly, the '145 Patent claims a system that evaluates inventory data received from participating computers and generates alerts when participants are using different inventory replenishment policies. *Id.* at 23:20-40. This allows users to determine whether steps need to be taken to address inconsistent inventory replenishment policies within the supply chain.

79. The claims of the '145 Patent recite one or more inventive concepts rooted in computerized technology and overcome technical problems in that field. A person of ordinary skill in the art reading the '145 Patent and its claims would understand that the patent's disclosure and claims are drawn to solving specific, technical problems arising in supply chain management systems and provide for advancements in the field that were not routine, well-understood or conventional. Accordingly, each claim of the '145 Patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent claiming an abstract concept. A person of ordinary skill in the art would understand that the ordered combination of claim elements is inventive. Further, the claimed improvements over prior art supply chain management computer systems are concrete and improve the capabilities of existing supply management computer systems.

80. A person of ordinary skill in the art reviewing the specification of the '145 Patent would understand that the inventors had possession of the claimed subject matter and would know how to practice the claimed invention without undue experimentation.

E. The '868 Patent

81. On July 15, 2014, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 8,781,868 ("the '868 Patent"), entitled "Determining an Inventory Target for a

Node of a Supply Chain," to inventors Koray Dogan, Adeel Najmi, Mehdi Sheikhzadeh, and Ramesh Raman. Blue Yonder owns all rights to the '868 Patent necessary to bring this action. A true and correct copy of the '868 Patent is attached hereto as Exhibit 5 and incorporated herein by reference.

82. The '868 Patent concerns "determining an inventory target for a node of a supply chain." '868 Patent at 1:25-26.

83. The '868 Patent discusses the shortcomings of the state of the art techniques used for determining an inventory target for a node of a supply chain at the time of the invention and discloses a novel and unconventional computer system for determining an optimized inventory target for a supply chain node.

84. The '868 Patent explains that a supply chain "may include nodes that store inventory such as parts needed to produce the product." *Id*. at 1:28-30. One difficult issue in supply chain management is how much inventory should be stored at each node in a supply chain.

85. This is an important decision because a manufacturer may incur various costs if inventory is misallocated across the supply chain nodes. If there is not enough inventory stored at a certain node, then the entire production process could be delayed, and a manufacturer may have to resort to costly, last minute solutions to ensure that demand for inventory at a certain node is met. On the other hand, as the '868 Patent recognizes, if there is too much inventory stored at a certain node, a manufacturer may needlessly incur increased inventory costs. *Id*. at 4:25-28.

86. In light of the costs associated with misallocated inventory, the '868 Patent explains that it "is generally desirable to accurately predict the amount of inventory needed at the

nodes." *Id.* at 1:36-37. While there existed known techniques for calculating an inventory target for a node in a supply chain at the time of the invention, these techniques "may not be able to accurately predict the amount of inventory needed at the nodes." *Id*. at 1:30-36.

87. The '868 Patent resolves technological problems related to determining an inventory target in a supply chain node by disclosing a novel computer system for optimizing inventory targets. The novel system of the '868 Patent maximizes cost savings both by minimizing misallocated inventory across different nodes, and by generating an optimal inventory target that accounts for other potential costs that a manufacturer may face.

88. The novel system of the '868 Patent generates a more accurate inventory target using a demand stock, demand variability stock, and demand bias. Having generated this more accurate inventory target, the novel system of the '868 Patent takes the unconventional step of further optimizing the inventory target by changing a supply parameter associated with the node and evaluating the change in terms of cost and benefit. In this way the claimed system provides improved optimization of inventory targets.

89. The claims of the '868 Patent recite one or more inventive concepts rooted in computerized technology and overcome technical problems in that field. A person of ordinary skill in the art reading the '868 Patent and its claims would understand that the patent's disclosure and claims are drawn to solving specific, technical problems arising in supply chain management systems and provide for advancements in the field that were not routine, well-understood or conventional. Accordingly, each claim of the '868 Patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent claiming an abstract concept. A person of ordinary skill in the art would understand that the ordered combination of claim elements is inventive. Further, the claimed improvements over

prior art supply chain management computer systems are concrete and improve the capabilities of existing supply chain management computer systems.

90. A person of ordinary skill reviewing the specification of the '868 Patent would understand that the inventors had possession of the claimed subject matter and would know how to practice the claimed invention without undue experimentation.

F. The '856 Patent

91. On February 25, 2020, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 10,572,856 ("the '856 Patent"), entitled "Custom Application Builder for Supply Chain Management," to inventors Anand Rau and Tarak Patel. Blue Yonder owns all rights to the '856 Patent necessary to bring this action. A true and correct copy of the '856 Patent is attached hereto as Exhibit 6 and incorporated herein by reference.

92. The '856 Patent concerns "customizing the display and use of supply chain data in supply chain management applications." '856 Patent at 1:30-31.

93. The '856 Patent discusses the shortcomings of the state of the art supply chain management applications at the time of the invention and discloses a novel method for generating custom applications.

94. The '856 Patent explains that a supply chain may include various different entities known as "trading partner[s] (e.g., consumer[s], retailer[s], manufacturer[s], parts supplier[s], distributor[s])." *Id.* at 4:30-31. These trading partners perform different roles in the supply chain, including "managing payment for the order; determining the resources needed to fulfill the order; determining a course of action to fulfill the order; managing the flow of and/or distributing information regarding the order," and so on. *Id.* at 1:40-43. Moreover, the same trading partner may, from time to time, play different roles in the supply chain.

95. The ’856 Patent explains that distributing these different responsibilities across the supply chain “may result in overall or targeted cost savings, improved order processing efficiency [], and/or improved quality of ordered goods and services.” *Id.* at 1:50-53.

96. To facilitate direct interaction among the trading partners and to enable each trading partner to perform its assigned tasks, trading partners typically make use of supply chain management software applications. Trading partners use these applications to access the information and data that they need in order to adequately perform their assigned tasks. However, because of the variation among the different roles played in a supply chain, different trading partners need access to different data at different times and in different formats. Before the ’856 Patent, however, these applications were rigid and had user-interfaces (UIs) that were not sufficiently configurable in terms of the ways in which they presented information and the types of information presented.

97. To solve these problems, the ’856 Patent improves supply chain management computer systems with a novel method for generating custom applications based on the role of each trading partner. *See id.* at 1:35-54; 7:61-8:18.

98. The ’856 Patent “allows a user to build custom applications for interacting with supply chain related data.” *Id.* at 4:26-28. The invention improves upon existing computer systems by allowing a user to generate a custom application with a custom UI that is specifically tailored to that user’s needs. *See id.* at 4:30-39; *see also id.* at 5:40-47.

99. The ’856 Patent states that the “[a]dvantages of the present invention” (*id.* at 9:14) flow from the novel way in which the invention allows users to customize applications and their UIs, which in turn “improve[s] supply chain operations.” *Id.* at 9:18-21. More particularly, the ’856 Patent claims a specific manner of displaying a customized set of information to the user, as

opposed to the conventional predetermined UIs. The claimed system stores application parameters, including at least one user-customized display of supply chain data and a user-customized order of actions to be performed. When a request for supply chain data is received from a trading partner, the system automatically identifies a role of the trading partner and generates at least one application parameter based on the role of the trading partner. The system then generates a custom application comprising one or more user interfaces based on the stored parameters and the at least one parameter based on the role of the trading partner. This allows the system to automatically generate a custom application tailored to the particular role of the trading partner at the time. The display for the custom application is then rendered with the appropriate data and format as specified by the parameters of the custom application.

100. The claims of the '856 Patent recite one or more inventive concepts rooted in computerized technology and overcome technical problems in that field. A person of ordinary skill in the art reading the '856 Patent and its claims would understand that the patent's disclosure and claims are directed to technical improvements related to generating custom applications comprising one or more user interfaces and provide advancements in the field that were not routine, well-understood or conventional. Accordingly, each claim of the '856 Patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent claiming an abstract concept. A person of ordinary skill in the art would understand that the ordered combination of claim elements is inventive. Further, the claimed improvements over prior art supply chain management computer systems are concrete and improve the capabilities of existing supply chain management computer systems.

101. A person of ordinary skill in the art reviewing the specification of the '856 Patent would understand that the inventors had possession of the claimed subject matter and would know how to practice the claimed invention without undue experimentation.

GENERAL ALLEGATIONS RELATED TO INFRINGEMENT

102. Kinaxis has infringed and continues to directly and indirectly infringe at least one claim of each of the Patents-in-Suit by engaging in acts constituting infringement under 35 U.S.C. § 271(a), (b), (c) and/or (f), including but not limited to one or more of making, using, selling, offering for sale, importing, exporting, and inducing and contributing to infringement by others, the Accused Products in this District and elsewhere in the United States.

103. Kinaxis directly competes with Blue Yonder in the supply chain management space by offering products that use Blue Yonder's patented technology. In the last four years alone, Blue Yonder has lost over $20 million in customer deals to Kinaxis in direct compete situations. As a result of Kinaxis's infringement, Blue Yonder has suffered and will continue to suffer harm in the form of reasonable royalties and/or lost profits. Blue Yonder seeks damages for infringing acts beginning as early as six years prior to the filing of this Original Complaint.

104. Blue Yonder also seeks an injunction prohibiting further acts of infringement. Each of Kinaxis's acts of infringement has caused and will continue to cause Blue Yonder irreparable harm for which there is no adequate remedy at law. Such injunctive relief would not disserve the public interest, and is warranted when considering the balance of equities.

105. On information and belief, Kinaxis had actual or constructive knowledge and notice of infringement as to each of the Patents-in-Suit. Kinaxis is a direct competitor of Blue Yonder in the supply chain management industry. As such, Kinaxis knew, should have known, or was willfully blind as to the existence of the Patents-in-Suit at the time of Kinaxis's infringing acts.

106. On information and belief, Kinaxis's infringement of the Patents-in-Suit has been, and continues to be, willful because Kinaxis has committed and continues to commit acts of infringement even though Kinaxis knew or should have known that its actions constituted an unjustifiably high risk of infringement.

107. Kinaxis's infringement of the Patents-in-Suit has been, and continues to be, without permission, consent, authorization, or license.

COUNT 1: PATENT INFRINGEMENT OF THE '153 PATENT

108. Blue Yonder incorporates by reference the preceding paragraphs as though fully set forth herein.

109. Kinaxis infringes, contributes to the infringement of, and/or induces infringement of the '153 Patent by making, using, selling, offering for sale, and/or importing into the United States the Accused Products that are covered by one or more claims of the '153 Patent.

110. The Accused Products directly infringe, literally and/or by the doctrine of equivalents, at least claims 17, 33, 37, and 40 of the '153 Patent. Kinaxis makes, uses, sells, offers for sale, and/or imports, in this District and elsewhere in the United States, the Accused Products and thus directly infringes claims of the '153 Patent.

111. For example, Claim 33 of the '153 Patent is reproduced below:

> 33. A method for generating and selecting a planning route and selecting scheduling opportunities according to the selected route, comprising the steps:
>
> defining resources;
>
> receiving an order having an objective;
>
> generating a production method based on said objective and said defined resources;
>
> generating routes based on said production method; and

selecting one of said routes and scheduling opportunities based on a scheduling goal and a routing goal.

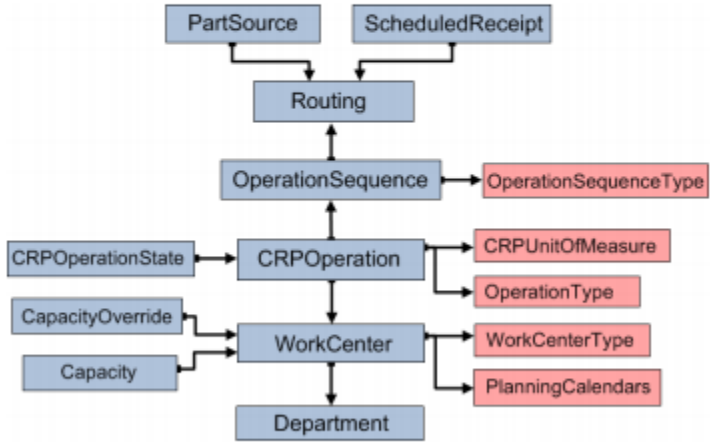
112. As a non-limiting example, on information and belief, RapidResponse performs a method for generating and selecting a planning route and selecting scheduling opportunities according to the selected route. This is supported by the exemplary evidence below.

Capacity Requirements Planning data model

The RapidResponse data model contains input, control, and calculated tables designed specifically to support capacity requirements planning. There are also other standard (non-Capacity specific) tables that hold fields pertaining to capacity planning.

The following illustration shows the typical input and control tables required to configure Capacity calculations.

Figure 20-1: Tables for configuring Capacity Requirements Planning



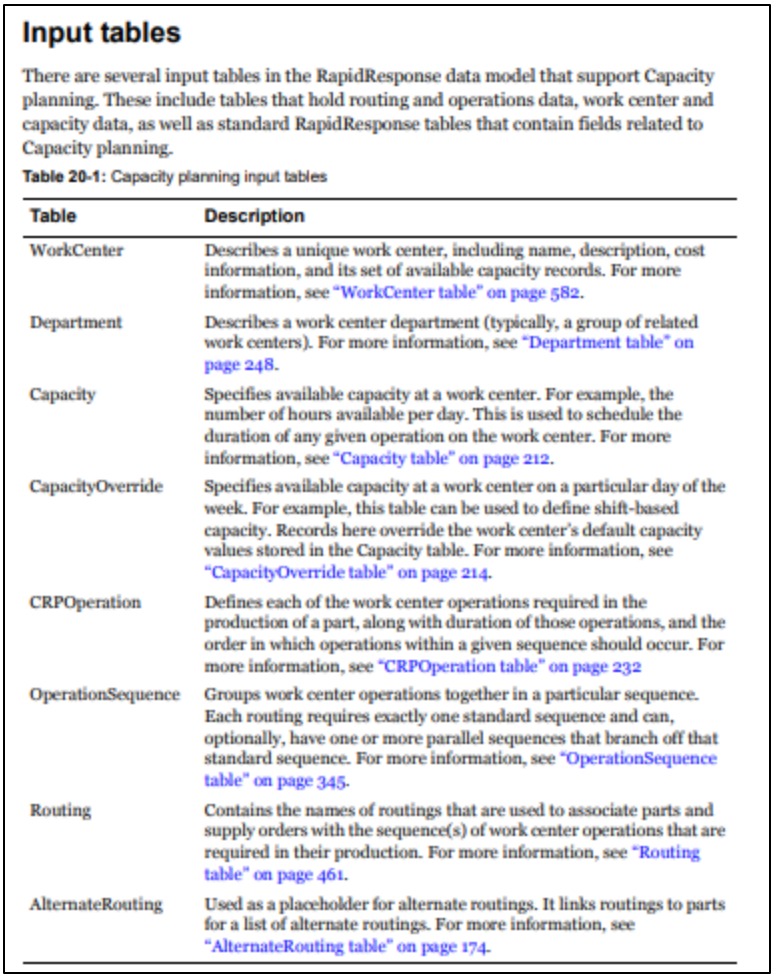
The remainder of this section provides a brief overview of each capacity-related table along with links to more detailed reference information.

RapidResponse Analytic and Data Model Guide at p. 1358, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

RapidResponse supports capacity requirements planning (CRP) by calculating the machine and labor load profile on work centers for comparison with work center capacity. Work orders defined in the **ScheduledReceipt** table reference a routing, with all operations belonging to sequences that reference the same routing run during processing of the work order. Similarly for planned orders, a routing referenced on the part source is used for determining the required operations and processing load at work centers.

The output of certain capacity requirements calculations can also be linked to and affect results produced by the Netting analytic. For example, the time calculated to run a supply through all operations in its routing, based on available work center capacity, can be used in calculating lead time and hence supply start dates.

RapidResponse Analytic and Data Model Guide at p. 1357, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).



Input tables

There are several input tables in the RapidResponse data model that support Capacity planning. These include tables that hold routing and operations data, work center and capacity data, as well as standard RapidResponse tables that contain fields related to Capacity planning.

Table 20-1: Capacity planning input tables

Table	Description
WorkCenter	Describes a unique work center, including name, description, cost information, and its set of available capacity records. For more information, see "WorkCenter table" on page 582.
Department	Describes a work center department (typically, a group of related work centers). For more information, see "Department table" on page 248.
Capacity	Specifies available capacity at a work center. For example, the number of hours available per day. This is used to schedule the duration of any given operation on the work center. For more information, see "Capacity table" on page 212.
CapacityOverride	Specifies available capacity at a work center on a particular day of the week. For example, this table can be used to define shift-based capacity. Records here override the work center's default capacity values stored in the Capacity table. For more information, see "CapacityOverride table" on page 214.
CRPOperation	Defines each of the work center operations required in the production of a part, along with duration of those operations, and the order in which operations within a given sequence should occur. For more information, see "CRPOperation table" on page 232
OperationSequence	Groups work center operations together in a particular sequence. Each routing requires exactly one standard sequence and can, optionally, have one or more parallel sequences that branch off that standard sequence. For more information, see "OperationSequence table" on page 345.
Routing	Contains the names of routings that are used to associate parts and supply orders with the sequence(s) of work center operations that are required in their production. For more information, see "Routing table" on page 461.
AlternateRouting	Used as a placeholder for alternate routings. It links routings to parts for a list of alternate routings. For more information, see "AlternateRouting table" on page 174.

RapidResponse Analytic and Data Model Guide p. 1359, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

113. On information and belief, RapidResponse performs the step of defining resources. This is supported by the exemplary evidence below.

Capacity

Each **WorkCenter** record is typically referenced by one or more records in the **Capacity** table. Capacity records contain information about the work center's operating schedule and characteristics such as number of working hours per day, number of resources available, efficiency and utilization rates, as well as machine and labor load ratios. For example, suppose a lone **Capacity** record for a work center with values as shown in the following table.

Table 20-13: Sample values on a Capacity record

WorkCenter	Hours PerDay	NumberOf Resources	Efficiency	Utilization
AA	8.0	2	1	1

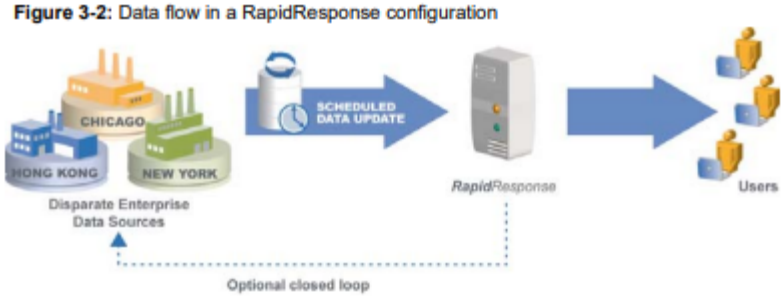
RapidResponse Analytic and Data Model Guide at p. 1382, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

The Capacity Requirements Planning analytic can be used to give a factory load projection over periods of time such as weeks, months or even years. This could be used to ensure that load and capacity levels are in alignment. The accuracy of these longer projections depends on the proper MPS forecast. Note that Capacity Requirement Planning represents an Infinite CRP model. Workcenters are loaded based on the MRP lead-times and average operation queue times, regardless of the existence of other orders due at the same time that may be competing for resources.

RapidResponse Analytic and Data Model Guide at p. 1364, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

114. On information and belief, RapidResponse performs the step of receiving an order having an objective. This is supported by the exemplary evidence below.

Figure 3-2: Data flow in a RapidResponse configuration



RapidResponse data requirements

RapidResponse utilizes the following common data elements when performing manufacturing planning calculations.

Table 3-1: Types of data required by RapidResponse

Required data	Data characteristics
Part	Part information, including part name, description, and cost.
Bill of Material	Bill of Material data that identifies the relationships between assembly parts and component parts.
On Hand Inventory	Information about amounts and location of inventory.
Demand	Describes aspects of demand, including parts, due dates, quantities, and customers.
Supply	Describes aspects of supply, including quantity, due dates, and supplier.
Supply Source	Information about multiple supply sources for a part.

RapidResponse Fundamental Concepts Guide at p. 33, https://help.kinaxis.com/20144/Docs/RR_Fund_Concepts.pdf (last visited 12/13/20).

Scheduled receipts and planned orders

Work orders are represented in RapidResponse as line items of supply orders and are stored in the **ScheduledReceipt** table. They are the drivers for creating load records through routing operations. The type of supply order is defined by records in the **SupplyType** control table.

The **SupplyType** determines if a scheduled receipt is a work order (versus a purchase order) and needs to generate load in the Current and Planned capacity calculations.

Planned orders are created by MRP calculations as recommendations for new work orders and are stored in the **PlannedOrder** table. The PlannedOrderSupplyType, found on the **PartType** table, refers to the **SupplyType** table. This determines whether planned orders are work orders or purchase orders and, therefore, whether they will be used in the planned capacity calculations.

The **CapacityProcessingRule** in the **SupplyType** table controls whether load should be generated for the order type, as well as the appropriate scheduling method. Typically, only work orders will generate load. If load is to be generated, the **CapacityProcessingRule** determines if orders will be scheduled through the routing in a forward or backward direction. Normally only one of the two scheduling methods should be used in an implementation.

RapidResponse Analytic and Data Model Guide at p. 1365, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

115. On information and belief, RapidResponse performs the step of generating a production method based on said objective and said defined resources. This is supported by the exemplary evidence below.

> A routing is the sequence of operations that must be performed in order to produce the part from its direct components. Each operation specifies a number of standard setup hours and a piece run time to perform the operation at a single work center.
>
> Each work center has time phased capacity records. These records define the factors required to convert the setup and run standard hours into elapsed hours for scheduling, and from that schedule, calculate the machine and labor load hours on the work center. The capacity also defines the operating schedule of the work center and its capacity limits.

RapidResponse Analytic and Data Model Guide at p. 1363, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

> The second step is to use the operation load records to generate a machine and labor load profile on the work center. The elapsed times calculated in the first step that were needed for scheduling purposes, are converted back to standard hours using parameters from the effective record on the **Capacity** table. Then, machine and labor ratios are used to convert the standard hours into work center machine and labor load.

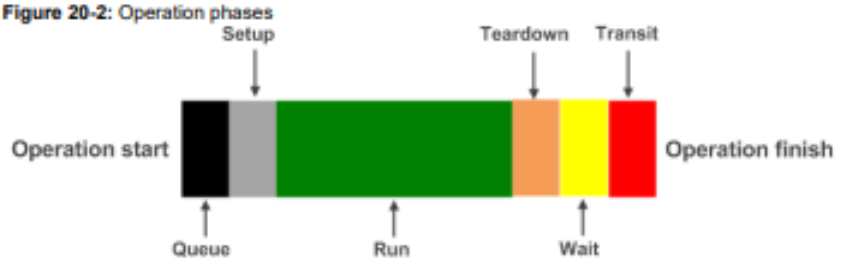
RapidResponse Analytic and Data Model Guide at p. 1364, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

> RapidResponse provides enterprise companies with instantaneous collaborative what-if analysis that uses current enterprise data. It allows for the creation and evaluation of numerous scenarios before any action is taken.
>
> When a supply chain event occurs, such as a new order from an important customer, several scenarios based on current enterprise data can be created to determine how to best respond to the new order. These scenarios can easily be distributed to key stakeholders for evaluation, making quick collaborative decision-making possible.

RapidResponse Fundamental Concepts Guide at p. 24, https://help.kinaxis.com/20144/Docs/RR_Fund_Concepts.pdf (last visited 12/13/20).

116. On information and belief, RapidResponse performs the step of generating routes based on said production method. This is supported by the exemplary evidence below.

Figure 20-2: Operation phases



The following table outlines each of the phases of an operation that can be configured using fields in the **CRPOperation** table.

Table 20-6: CRPOperation phases

Phase	Configuration and description
Queue	The **QueueTimeOverride** field can be used to specify a number of hours to wait before operation setup can begin at the work center. Queue time is also specified in the **Capacity.QueueTime** field. The value on the **Capacity** record applicable to the work center is used unless a non-negative value is provided in **QueueTimeOverride**.
Setup	The **SetUpHours** field is used to specify the number of standard hours needed to set up a machine for use in the operation.
Run	The **RunTime** field is used to specify the amount of time required for the operation to process one unit of supply. By default, this is the number of hours required to run through one unit of supply at the operation. However, the **RunTimeUOM** field (reference to **CRPUnitOfMeasure** table) is used to determine the actual formula and scaling factors for converting the specified run time to standard hours per part. Once determined, the standard hours are multiplied by the order quantity to determine the total hours of run time needed for the supply.
Tear down	The **TearDownTime** field can be used to specify the standard number of hours needed for tear down of the work center after the run time phase has completed. For example, the time to remove parts and restore the work center to its normal state in preparation for the next order.

RapidResponse Analytic and Data Model Guide at p. 1368, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

A routing is the sequence of operations that must be performed in order to produce the part from its direct components. Each operation specifies a number of standard setup hours and a piece run time to perform the operation at a single work center.

Each work center has time phased capacity records. These records define the factors required to convert the setup and run standard hours into elapsed hours for scheduling, and from that schedule, calculate the machine and labor load hours on the work center. The capacity also defines the operating schedule of the work center and its capacity limits.

RapidResponse Analytic and Data Model Guide p. 1363, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

Table 3-2: RapidResponse core analytics

Analytic	Function
Material Requirements Planning (MRP)	Emulates the Material Requirement Planning (MRP) analytics found in common MRP and ERP systems. This includes netting, explosion, and safety stock calculations. • Netting—calculates net requirements for a part by matching demand with available inventory and scheduled receipts, provides reschedule recommendations for existing supplies, and recommends new planned orders (subject to any lot-sizing parameters) as necessary to satisfy the demands. • Explosion—calculates dependent demands for component parts, through all levels in the bill-of-material structure, that are ultimately required in the production of a parent assembly. • Safety stock—calculates and maintains a defined inventory level for each part, based on configurable fixed and dynamic methods, to protect against fluctuations in supply and demand.

RapidResponse Fundamental Concepts Guide at p. 38, https://help.kinaxis.com/20144/Docs/RR_Fund_Concepts.pdf (last accessed 12/13/20).

117. On information and belief, RapidResponse performs the step of selecting one of said routes and scheduling opportunities based on a scheduling goal and a routing goal. This is supported by the exemplary evidence below.

The **CapacityProcessingRule** in the **SupplyType** table controls whether load should be generated for the order type, as well as the appropriate scheduling method. Typically, only work orders will generate load. If load is to be generated, the **CapacityProcessingRule** determines if orders will be scheduled through the routing in a forward or backward direction. Normally only one of the two scheduling methods should be used in an implementation.

Possible uses of forward or backward scheduling are:

- **Forward** — used for orders where early completion is a priority. Slack time could potentially build up.
- **Backward** — used if minimizing early completion of orders is a priority. Due date will be achieved with no slack built up

RapidResponse Analytic and Data Model Guide at p. 1365, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

> A routing is the sequence of operations that must be performed in order to produce the part from its direct components. Each operation specifies a number of standard setup hours and a piece run time to perform the operation at a single work center.
>
> Each work center has time phased capacity records. These records define the factors required to convert the setup and run standard hours into elapsed hours for scheduling, and from that schedule, calculate the machine and labor load hours on the work center. The capacity also defines the operating schedule of the work center and its capacity limits.

RapidResponse Analytic and Data Model Guide at p. 1363, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

118. Kinaxis also indirectly infringes claims of the '153 Patent, as provided in 35 U.S.C. § 271(b), by inducing infringement by others, such as Kinaxis's customers and end users, in this District and elsewhere in the United States. For example, on information and belief, Kinaxis's customers and end users directly infringe through their use of the inventions claimed in the '153 Patent. Kinaxis induces this direct infringement through its affirmative acts of manufacturing, selling, distributing, and/or otherwise making available the Accused Products, and providing instructions, documentation, online technical support, marketing, product manuals, advertisements, and other information to customers and end users suggesting they use the Accused Products in an infringing manner. As a result of Kinaxis's inducement, Kinaxis's customers and end users use the Accused Products in the way Kinaxis intends and directly infringe the '153 Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '153 Patent and with the intent, or willful blindness, that the induced acts directly infringe the '153 Patent.

119. Kinaxis also indirectly infringes claims of the '153 Patent, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as customers and end users, in this District and elsewhere in the United States. On information and belief, Kinaxis's affirmative acts of selling and offering to sell, in this District and elsewhere in the United States, the Accused Products and causing the Accused Products to be manufactured,

used, sold, and offered for sale, contribute to Kinaxis's customers' and end users' use of the Accused Products, such that the '153 Patent is directly infringed. The accused features and components of the Accused Products are material to the invention of the '153 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Kinaxis to be especially made or especially adapted for use in infringement of the '153 Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '153 Patent and with intent, or willful blindness, that they cause the direct infringement of the '153 Patent.

COUNT II: PATENT INFRINGEMENT OF THE '874 PATENT

120. Blue Yonder incorporates by reference the preceding paragraphs as though fully set forth herein.

121. Kinaxis infringes, contributes to the infringement of, and/or induces infringement of the '874 Patent by making, using, selling, offering for sale, and/or importing into the United States the Accused Products that are covered by one or more claims of the '874 Patent.

122. The Accused Products directly infringe, literally and/or by the doctrine of equivalents, at least claims 1, 3, 4, 5, 6, and 8 of the '874 Patent. Kinaxis makes, uses, sells, offers for sale, and/or imports, in this District and elsewhere in the United States, the Accused Products and thus directly infringes claims of the '874 Patent.

123. For example, Claim 1 of the '874 Patent is reproduced below:

1. A bill of materials (BOM) sourcing system, comprising:

one or more data storage locations operable to store BOM sourcing criteria;

a sourcing engine operable to:

receive a BOM including a plurality of part identifiers;

identify one or more part identifiers included in the BOM;

search supplier data associated with one or more suppliers of parts to obtain pricing information associated with the identified parts;

receive the sourcing criteria from the one or more data storage locations; and

determine which supplier should be used to supply each identified part based on the pricing information and the sourcing criteria; and

a transaction execution module operable to:

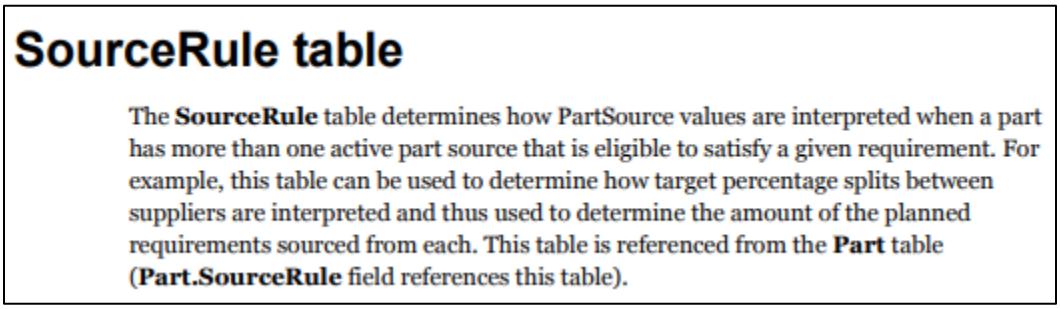
receive from the sourcing engine a part identifier for each identified part and the identity of the supplier to be used to supply each identified part;

generate one or more transaction documents each identifying one or more parts and including a request that a supplier provide the one or more parts; and

communicate the one or more transaction documents to the associated suppliers.

124. As a non-limiting example, on information and belief, RapidResponse is a bill of materials sourcing system comprising one or more components.

125. On information and belief, RapidResponse comprises one or more data storage locations operable to store BOM sourcing criteria. This is supported by the exemplary evidence below.



SourceRule table

The **SourceRule** table determines how PartSource values are interpreted when a part has more than one active part source that is eligible to satisfy a given requirement. For example, this table can be used to determine how target percentage splits between suppliers are interpreted and thus used to determine the amount of the planned requirements sourced from each. This table is referenced from the **Part** table (**Part.SourceRule** field references this table).

RapidResponse Analytic and Data Model Guide at p. 784, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

Table 5-32: BillOfMaterial (Mfg) fields (Continued)

Field name	Description	Data type	Key
Target	Determines the ratio, or percentage, in which dependent demand from the assembly is exploded down to the components in a substitute group when creating planned orders. This value should be expressed in terms of the assembly's supply unit. The percentage of demand that should be exploded down to a given component is then calculated as the **Target** value for the component divided by the sum of the **Target** values across all components in the group. Note that depending on the setting in the **ComponentSourceRule** field on the **SubstituteGroupType** table, each dependent requirement from the assembly is either split proportionally between substitutable components or fully assigned to the substitutable component which would otherwise be furthest away from its ongoing target. If planned orders should only be created on the primary component in the group, then it can be assigned a positive value in this field and all other components should be assigned a value of 0 (zero). If planned orders should be evenly spread across all components in the group, then each can be assigned the same value in this field (for example, 0 or 1 could be specified). **Default value:** 0 **Note:** The usage of this field was modified in Version 2014.4.	Quantity	
Type	A value that is associated with processing rules that defines the explosion, effectivity, and netting behavior. This field references the BOMType table. **Referenced table:** BOMType **Note**: For information about this table, see "BOMType table" on page 598.	Reference (String)	FK

RapidResponse Analytic and Data Model Guide at p. 202, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

PartSource table

The **PartSource** table defines multiple sources of supply for a part.

The **BaseKey**, **Part**, and **Source** fields form the **PartSource** table's primary key. In many cases, **BaseKey** can be blank. When only one part source for a part exists, a blank **BaseKey** value is sufficient. Similarly, in cases where there is never more than one **PartSource** record for each supplier of a part, a blank **BaseKey** value is also valid.

Where there is more than one **PartSource** record per part, a BaseKey value must be created to ensure each **PartSource** record is unique.

RapidResponse Analytic and Data Model Guide at p. 389, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

Part source selection process

When all on hand inventory and scheduled receipts are used up and new planned orders required to satisfy demand, RapidResponse looks for active sources that can best satisfy the demand while respecting source allotment rules defined on the part where appropriate. The following table defines the basic part source selection criteria.

Table 13-24: Standard part source selection criteria

	Selection criteria	Description
1	On time availability (or least late)	RapidResponse looks for active part sources that can satisfy a planned requirement on time. This involves the following: • The **OrderPolicy.OrderGenerationRule** field setting determines when new orders can be provided from a source. If this field set to "NoOrder" then the part source is assumed to be inactive. If this field is set to "AfterRunDate" then new orders cannot be due before RunDate, and if this field is set to "AfterPTF" then new orders cannot be due before **PartSource.PTFDate**. • Effectivity on the part source is also considered as new planned orders from a given source cannot be earlier than its **PartSource.FirstEffectiveDate** or later than its **PartSource.LastEffectiveDate**. • If a part source is constrained, then it must have available constraint at least up to the minimum order quantity requirement in order to be used. For more information about constraint, see "Constraint Analysis calculations" on page 1489. Based on the above criteria, RapidResponse equally prefers those part sources that can satisfy the planned requirement either on time or early. If no part source can provide supply on time, then the source than can provide supply the least late is preferred. If multiple part sources can provide the supply either on time or the least late, then the specified source allotment rules are used to determine the supply distribution. **Note:** The ability of a part source to satisfy a requirement for the part on time is based on its effectivity, constraint, and planning time fence settings. Availability of component supplies is not considered (if it is required, then multi-level search logic should be used as discussed in "Multi-level search logic" on page 1663.

Table 13-24: Standard part source selection criteria

	Selection criteria	Description
2	Priority	If more than one part source is able to provide supply either on time or the least late, then only those part sources that have the highest effective priority as defined by the value in **PartSource.Priority** are considered for use. The interpretation of the value in the **Part.SourcePriority** field is affected by the **Part.SourceRule.PriorityRule** setting. If this rule is set to "Descending" then smaller Priority values are considered to have higher effective priority, and if this rule is set to "Ascending" then larger Priority values are considered to have higher effective priority.

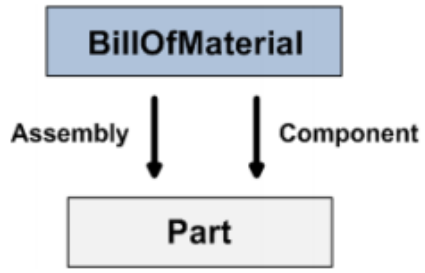
RapidResponse Analytic and Data Model Guide at p. 1225-26, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

126. On information and belief, RapidResponse is operable to receive a BOM including a plurality of part identifiers, and identify one or more part identifiers included in the BOM. This is supported by the exemplary evidence below.

The **BillOfMaterial** table identifies parent /child relationships between assembly parts (products, assemblies and sub-assemblies), and their component parts (assemblies, sub-assemblies, and raw materials). For this reason, the **BillOfMaterial** table has 2 separate references to the **Part** table, one to define the assembly and another to define a component under that assembly. Each record in this table also contains of the relationship between a given assembly and component. For example, the **QuantityPer** of the component required to make one unit of the assembly.

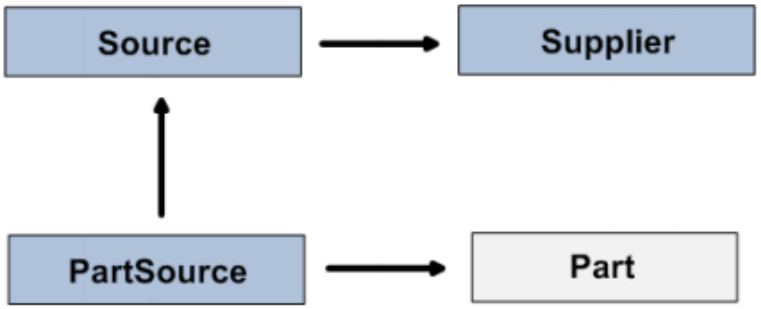
The relationship between the **Part** and **BillOfMaterial** tables is shown in the following illustration.

Figure 3-4: BillOfMaterial table defines how products are built

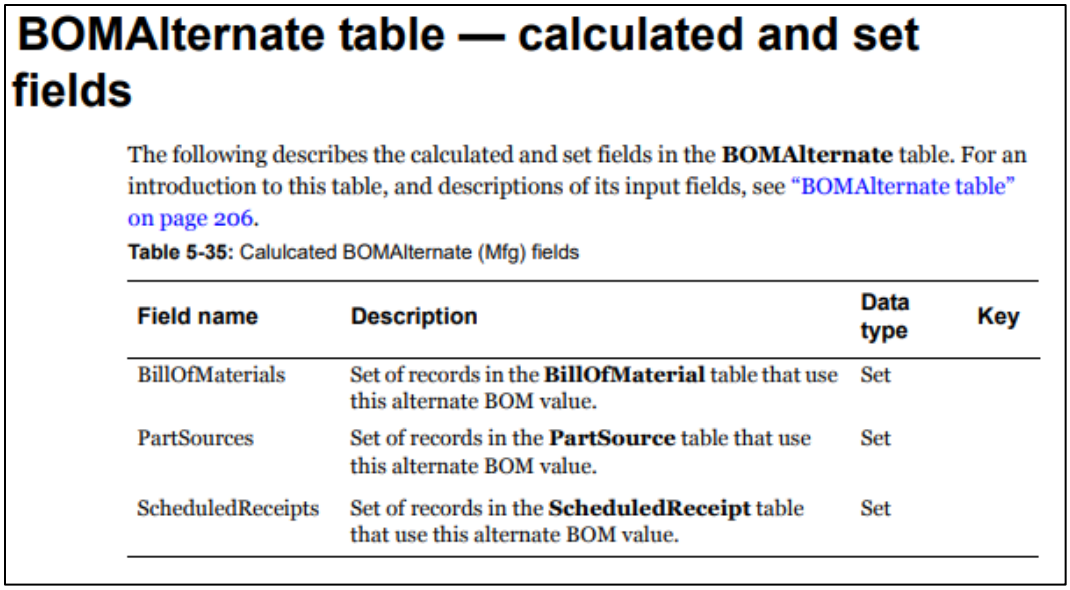


Another important table to understand when dealing with parts is the **PartSource** table. This table can be used to define multiple sources of supply for a single part as well as the planning attributes for that part and source relationship. Examples of multiple sources of supply for a single part includes parts supplied by more than one vendor, parts that can be made or bought, and parts that are transferred in from another internal plant. The **PartSource** table references the **Part** table and it contains information such as the lead times and costs associated with the part source. As shown in the following illustration, the **PartSource** table also references the Source table which contains delivery information and provides a reference to the **Supplier** table which identifies the part's supplier (could be either a vendor, work center, plant, and so on).

Figure 3-5: PartSource table defines multiple sources of supply for parts



RapidResponse Analytic and Data Model Guide at p. 125, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).



BOMAlternate table — calculated and set fields

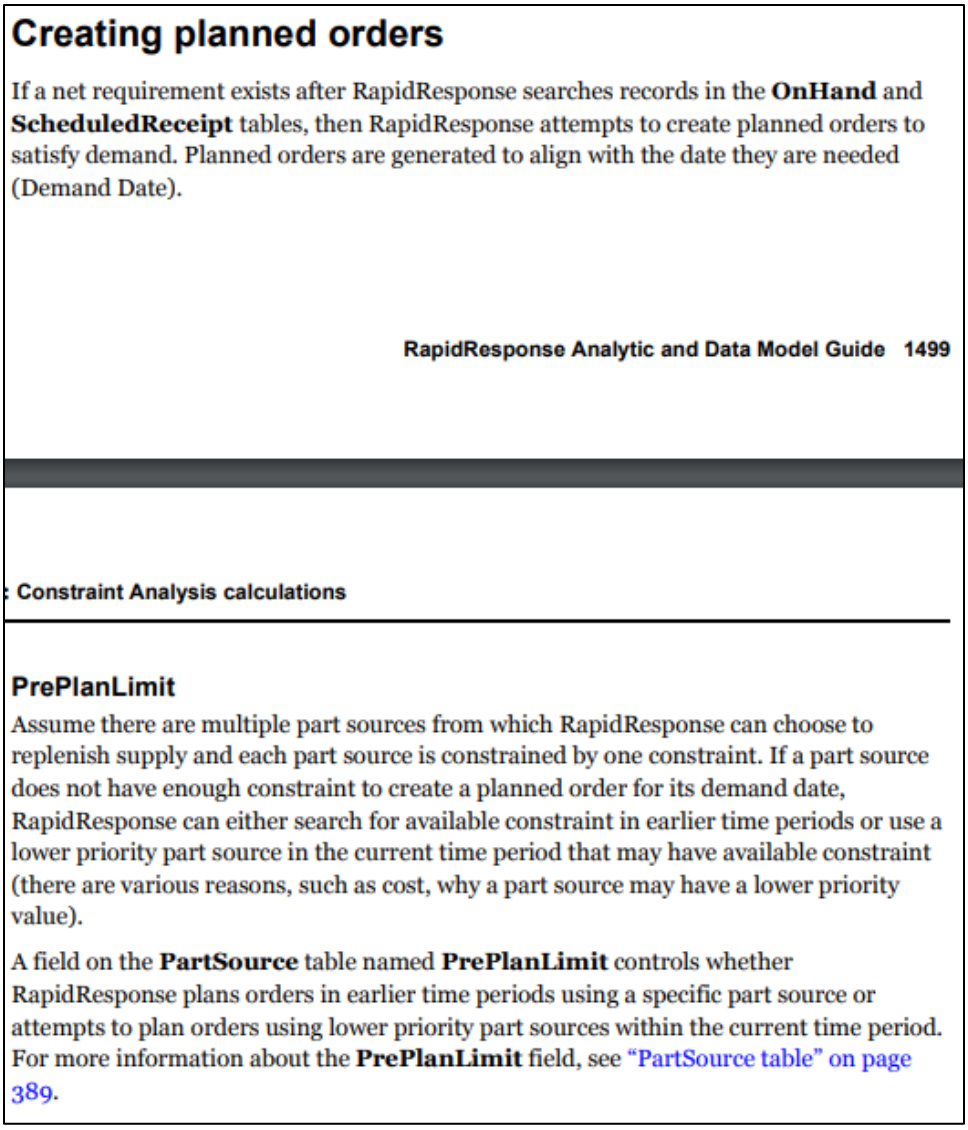
The following describes the calculated and set fields in the **BOMAlternate** table. For an introduction to this table, and descriptions of its input fields, see "BOMAlternate table" on page 206.

Table 5-35: Calulcated BOMAlternate (Mfg) fields

Field name	Description	Data type	Key
BillOfMaterials	Set of records in the **BillOfMaterial** table that use this alternate BOM value.	Set	
PartSources	Set of records in the **PartSource** table that use this alternate BOM value.	Set	
ScheduledReceipts	Set of records in the **ScheduledReceipt** table that use this alternate BOM value.	Set	

RapidResponse Analytic and Data Model Guide at p. 206, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

127. On information and belief, RapidResponse is operable to search supplier data associated with one or more suppliers of parts to obtain pricing information associated with the identified parts. This is supported by the exemplary evidence below.



Creating planned orders

If a net requirement exists after RapidResponse searches records in the **OnHand** and **ScheduledReceipt** tables, then RapidResponse attempts to create planned orders to satisfy demand. Planned orders are generated to align with the date they are needed (Demand Date).

: Constraint Analysis calculations

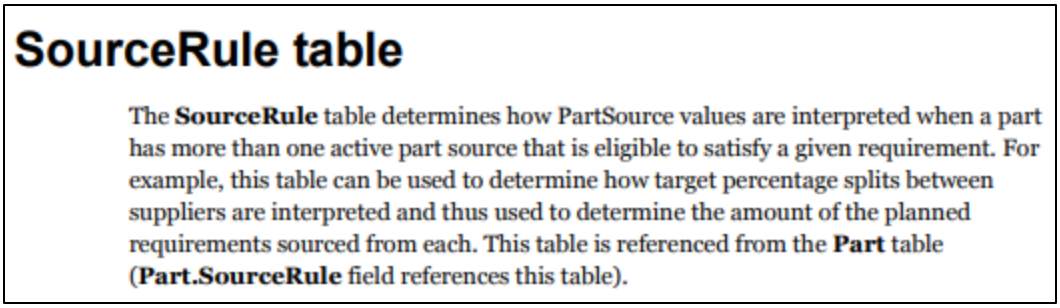
PrePlanLimit

Assume there are multiple part sources from which RapidResponse can choose to replenish supply and each part source is constrained by one constraint. If a part source does not have enough constraint to create a planned order for its demand date, RapidResponse can either search for available constraint in earlier time periods or use a lower priority part source in the current time period that may have available constraint (there are various reasons, such as cost, why a part source may have a lower priority value).

A field on the **PartSource** table named **PrePlanLimit** controls whether RapidResponse plans orders in earlier time periods using a specific part source or attempts to plan orders using lower priority part sources within the current time period. For more information about the **PrePlanLimit** field, see "PartSource table" on page 389.

RapidResponse Analytic and Data Model Guide at p. 1499-1500, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

128. On information and belief, RapidResponse is operable to receive the sourcing criteria from the one or more data storage locations. This is supported by the exemplary evidence below.



SourceRule table

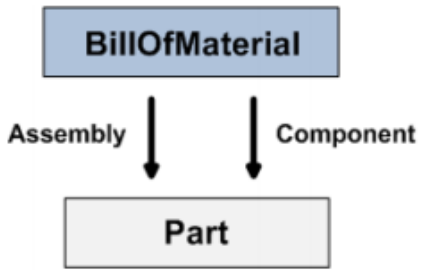
The **SourceRule** table determines how PartSource values are interpreted when a part has more than one active part source that is eligible to satisfy a given requirement. For example, this table can be used to determine how target percentage splits between suppliers are interpreted and thus used to determine the amount of the planned requirements sourced from each. This table is referenced from the **Part** table (**Part.SourceRule** field references this table).

RapidResponse Analytic and Data Model Guide at p. 784, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

The **BillOfMaterial** table identifies parent /child relationships between assembly parts (products, assemblies and sub-assemblies), and their component parts (assemblies, sub-assemblies, and raw materials). For this reason, the **BillOfMaterial** table has 2 separate references to the **Part** table, one to define the assembly and another to define a component under that assembly. Each record in this table also contains of the relationship between a given assembly and component. For example, the **QuantityPer** of the component required to make one unit of the assembly.

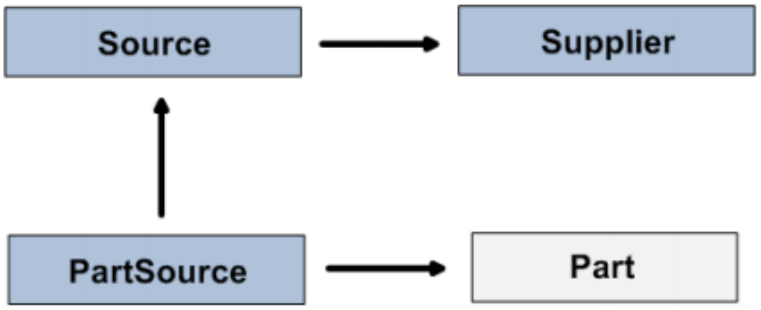
The relationship between the **Part** and **BillOfMaterial** tables is shown in the following illustration.

Figure 3-4: BillOfMaterial table defines how products are built



Another important table to understand when dealing with parts is the **PartSource** table. This table can be used to define multiple sources of supply for a single part as well as the planning attributes for that part and source relationship. Examples of multiple sources of supply for a single part includes parts supplied by more than one vendor, parts that can be made or bought, and parts that are transferred in from another internal plant. The **PartSource** table references the **Part** table and it contains information such as the lead times and costs associated with the part source. As shown in the following illustration, the **PartSource** table also references the Source table which contains delivery information and provides a reference to the **Supplier** table which identifies the part's supplier (could be either a vendor, work center, plant, and so on).

Figure 3-5: PartSource table defines multiple sources of supply for parts



RapidResponse Analytic and Data Model Guide at p. 125, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

BOMAlternate table — calculated and set fields

The following describes the calculated and set fields in the **BOMAlternate** table. For an introduction to this table, and descriptions of its input fields, see "BOMAlternate table" on page 206.

Table 5-35: Calulcated BOMAlternate (Mfg) fields

Field name	Description	Data type	Key
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PartSources	Set of records in the **PartSource** table that use this alternate BOM value.	Set	
ScheduledReceipts	Set of records in the **ScheduledReceipt** table that use this alternate BOM value.	Set	

RapidResponse Analytic and Data Model Guide at p. 206, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

129. On information and belief, RapidResponse is operable to determine which supplier should be used to supply each identified part based on pricing information and the sourcing criteria. This is supported by the exemplary evidence below.

Part source selection process

When all on hand inventory and scheduled receipts are used up and new planned orders required to satisfy demand, RapidResponse looks for active sources that can best satisfy the demand while respecting source allotment rules defined on the part where appropriate. The following table defines the basic part source selection criteria.

Table 13-24: Standard part source selection criteria

RapidResponse Analytic and Data Model Guide at p. 1225, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

Table 6-29: PartSourceType (Mfg) fields (Continued)

Field name	Description	Data type	Key
CostRule	Specifies how the enterprise system calculates the effective cost of a part. Valid values are: • **UnitCost**—sets the PartSource.EffUnitCost to a fixed value equal to the value imported into the PartSource.UnitCost field or Part.StdUnitCost if UnitCost is 0. If neither of these fields are greater than 0 then the PartSource.EffUnitCost is 0. If PartSource.UnitCost > 0, set PartSource.EffUnitCost = UOMConversion (PartSource.UnitCost). Otherwise, if Part.StdUnitCost > 0, set PartSource.EffUnitCost = Part.StdUnitCost. Otherwise, PartSource.EffUnitCost = 0. • **MaterialLaborOverheadCosts**—calculates the PartSource.EffUnitCost by adding the material, labor, and overhead costs. If PartSource.MaterialCost + PartSource.LaborCost + PartSource.OverheadCost + PartSource.OverheadCost2 > 0 then set PartSource.EffUnitCost to the value of this summation converted to Part UOM (note that if the **PartSourceTimePhasedAttributes** table has an effective record for the part source then its values are used instead of those defined on the **PartSource** record). Otherwise, if Part.StdUnitCost > 0, set PartSource.EffUnitCost = Part.StdUnitCost. Otherwise, PartSource.EffUnitCost = 0. **Default value:** UnitCost **Note:** This setting also impacts the calculation of the **NewPurchaseCost** fields found on many tables in the RapidResponse data model.	String (Enum)	

RapidResponse Analytic and Data Model Guide at p. 686, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

130. On information and belief, RapidResponse comprises a transaction execution module and is operable to receive from the sourcing engine a part identifier for each identified part and the identity of the supplier to be used to supply each identified part. This is supported by the exemplary evidence below.

PartSourcePlannedOrder table

This table reports all the PlannedOrder records that use a PartSource.

Table 7-81: PartSourcePlannedOrder (Mfg) fields

Field name	Description	Data type	Key
PartSource	The PartSource used by the PlannedOrder. **Referenced table:** PartSource	Reference (String)	FK
PlannedOrder	The PlannedOrder using this PartSource. **Referenced table:** PlannedOrder (Owner)	Reference (String)	FK

RapidResponse Analytic and Data Model Guide at p. 1006, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

Part	The name of the part replenished by this part source. **Referenced table:** Part **FK syntax:** Part.Name, Part.Site	Reference (String)	PK FK

RapidResponse Analytic and Data Model Guide at p. 399, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

131. On information and belief, RapidResponse is operable to generate one or more transaction documents each identifying one or more parts and including a request that a supplier provide the one or more parts. This is supported by the exemplary evidence below.

> Purchase order data is editable by both buyers and suppliers and order details can be negotiated through the supplier collaboration process. For more information, see "Overview of the supplier collaboration process for purchase orders" on page 337.

RapidResponse Applications Guide at p. 336, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

Field name	Description	Data type
DocQualifier	For an order received from the Real-time Integration Service, identifies the type of order the IDOC message generates. This field is taken from the IDOC message and can contain the following values: • **001**—A customer purchase order. • **004**—A vendor quotation. • **007**—A collective. • **050**—A delivery order. • **066**—An external order. This field is in the **SupCollab** namespace. This field maps to the QUALF field of the E1EDK02 segment of the IDOC message. **Note**: This field was added in RapidResponse 11.2.	String

RapidResponse Analytic and Data Model Guide at p. 537, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 11/16/20).

132. On information and belief, RapidResponse is operable to communicate the one or more transaction document to the associated suppliers. This is supported by the exemplary evidence below.

Examples of selecting data in scripts

When you create a script to send business messages, you have several options for how to select the data to send. You can send all data in a worksheet, specific data in a table, specific rows from a worksheet, or specific data from referenced tables. This section provides examples of selecting data in scripts.

For more information about how to create scripts, see the *RapidResponse Scripting Guide*.

The script examples in this section use a business message definition named `SupplyOrder`, which is based on the SupplyOrder table.

For a script that sends the data matching a filter expression, specify that expression as the first parameter for the send method. An example of a script that sends purchase orders from the SupplyOrder table is shown in the following illustration.

RapidResponse Data Integration Guide at p. 648, https://help.kinaxis.com/20144/docs/rr_integration.pdf (last visited 12/13/20).

133. Kinaxis also indirectly infringes claims of the '874 Patent, as provided in 35 U.S.C. § 271(b), by inducing infringement by others, such as Kinaxis's customers and end users, in this District and elsewhere in the United States. For example, on information and belief,

Kinaxis's customers and end users directly infringe through their use of the inventions claimed in the '874 Patent. Kinaxis induces this direct infringement through its affirmative acts of manufacturing, selling, distributing, and/or otherwise making available the Accused Products, and providing instructions, documentation, online technical support, marketing, product manuals, advertisements, and other information to customers and end users suggesting they use the Accused Products in an infringing manner. As a result of Kinaxis's inducement, Kinaxis's customers and end users use the Accused Products in the way Kinaxis intends and directly infringe the '874 Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '874 Patent and with the intent, or willful blindness, that the induced acts directly infringe the '874 Patent.

134. Kinaxis also indirectly infringes claims of the '874 Patent, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as customers and end users, in this District and elsewhere in the United States. On information and belief, Kinaxis's affirmative acts of selling and offering to sell, in this District and elsewhere in the United States, the Accused Products and causing the Accused Products to be manufactured, used, sold, and offered for sale, contribute to Kinaxis's customers' and end users' use of the Accused Products, such that the '874 Patent is directly infringed. The accused features and components of the Accused Products are material to the invention of the '874 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Kinaxis to be especially made or especially adapted for use in infringement of the '874 Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '874 Patent and with intent, or willful blindness, that they cause the direct infringement of the '874 Patent.

COUNT III: PATENT INFRINGEMENT OF THE '383 PATENT

135. Blue Yonder incorporates by reference the preceding paragraphs as though fully set forth herein.

136. Kinaxis infringes, contributes to the infringement of, and/or induces infringement of the '383 Patent by making, using, selling, offering for sale, and/or importing into the United States the Accused Products that are covered by one or more claims of the '383 Patent.

137. The Accused Products directly infringe, literally and/or by the doctrine of equivalents, at least claims 1, 2, 3, 4, 5, 6, 9, 10, and 17 of the '383 Patent. Kinaxis makes, uses, sells, offers for sale, and/or imports, in this District and elsewhere in the United States, the Accused Products and thus directly infringes claims of the '383 Patent.

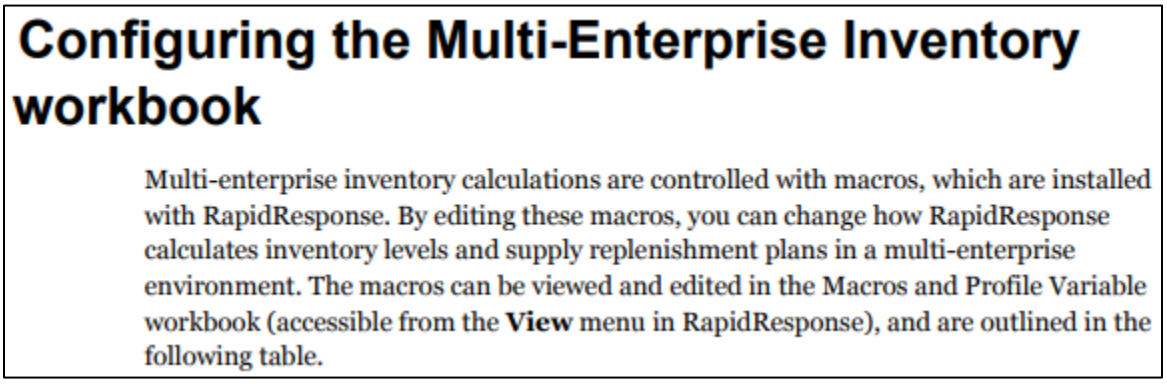
138. For example, Claim 1 of the '383 Patent is reproduced below:

> 1. A distributed inventory management system, the system comprising one or more components collectively operable to:
>
> receive information regarding a plurality of distributed participants in one or more tiers of a value chain, wherein each tier of the one or more tiers of the value chain comprise a different replenishment process associated with one or more of the plurality of distributed participants, and information regarding one or more items in the one or more tiers of the value chain;
>
> model relationships between at least two of the plurality of distributed participants in the different tiers of the one or more tiers of the value chain based on the received information;
>
> model the one or more items based on the received information;
>
> receive inventory data from one or more of the plurality of distributed participants relating to the one or more items;
>
> process the inventory data based on the models of the relationships and the items to generate inventory information related to one or more of the distributed participants; and
>
> communicate the generated inventory information to one or more of the plurality of distributed participants in a different tier of the value chain, the inventory

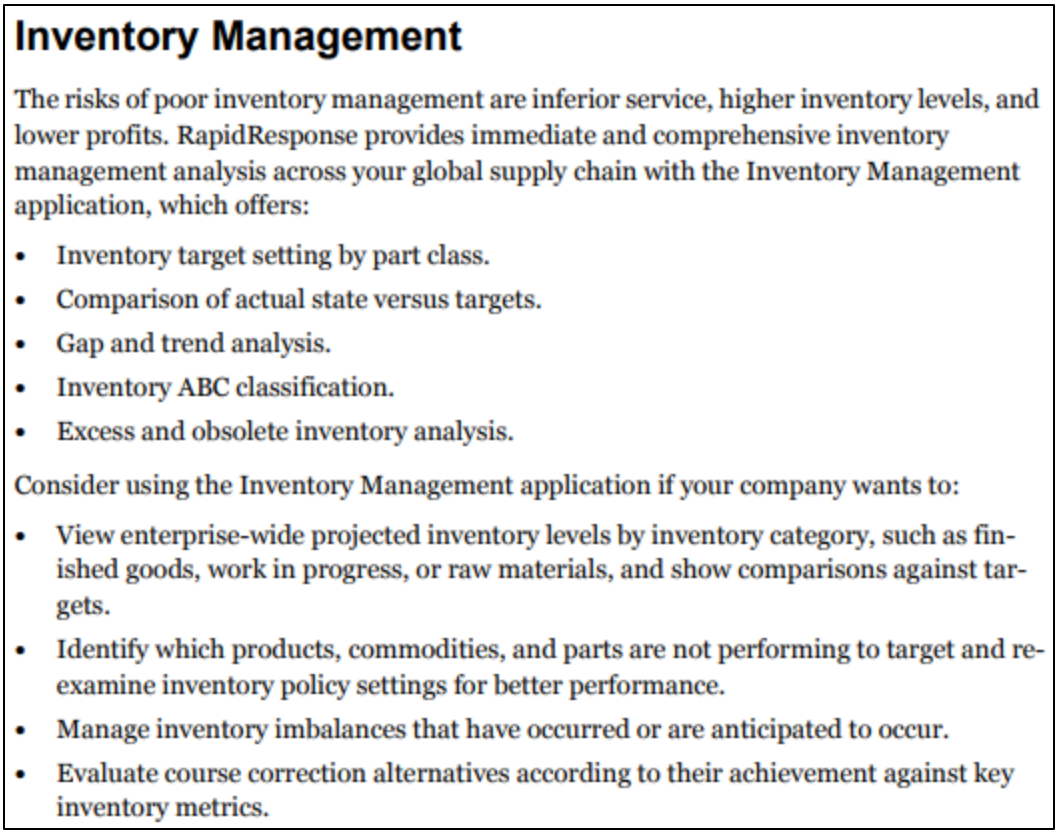
information including at least inventory data of participants other than those participants to which the inventory information is communicated.

139. As a non-limiting example, on information and belief, RapidResponse is a distributed inventory management system comprising one or more components collectively operable to perform the limitations recited in claim 1. This is supported by the exemplary evidence below.

RapidResponse Analytic and Data Model Guide at p. 1939, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).



RapidResponse Analytic and Data Model Guide at p. 1940, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).



Inventory Management

The risks of poor inventory management are inferior service, higher inventory levels, and lower profits. RapidResponse provides immediate and comprehensive inventory management analysis across your global supply chain with the Inventory Management application, which offers:

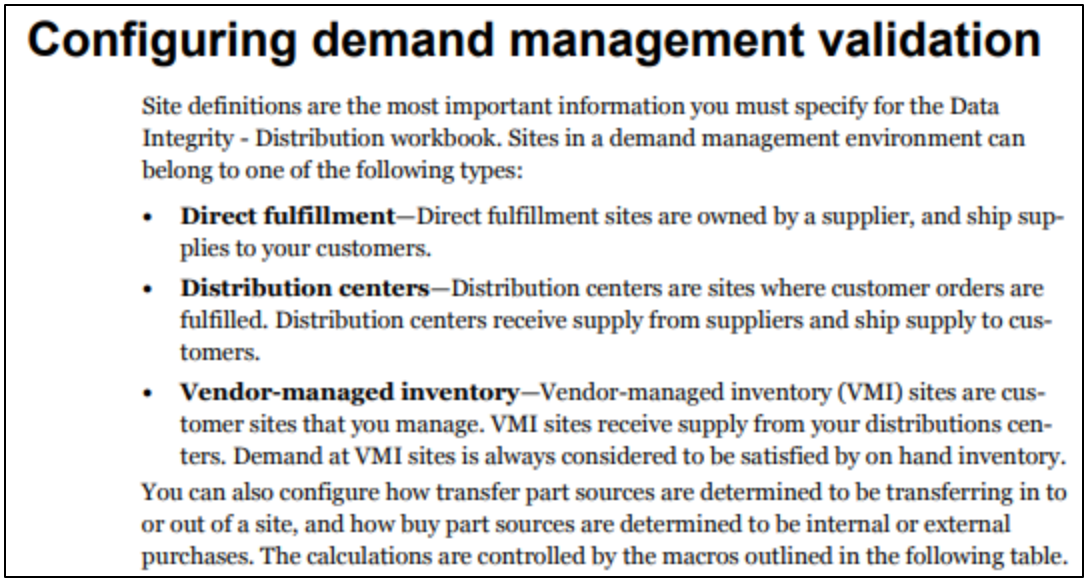
- Inventory target setting by part class.
- Comparison of actual state versus targets.
- Gap and trend analysis.
- Inventory ABC classification.
- Excess and obsolete inventory analysis.

Consider using the Inventory Management application if your company wants to:

- View enterprise-wide projected inventory levels by inventory category, such as finished goods, work in progress, or raw materials, and show comparisons against targets.
- Identify which products, commodities, and parts are not performing to target and reexamine inventory policy settings for better performance.
- Manage inventory imbalances that have occurred or are anticipated to occur.
- Evaluate course correction alternatives according to their achievement against key inventory metrics.

RapidResponse Fundamental Concepts Guide at p. 58, https://help.kinaxis.com/20144/Docs/RR_Fund_Concepts.pdf (last visited 12/13/20).

140. On information and belief, RapidResponse is operable to receive information regarding a plurality of distributed participants in one or more tiers of a value chain, wherein each tier of the one or more tiers of the value chain comprise a different replenishment process associated with one or more of the plurality of distributed participants, and information regarding one or more items in the one or more tiers of the value chain. This is supported by the exemplary evidence below.



Configuring demand management validation

Site definitions are the most important information you must specify for the Data Integrity - Distribution workbook. Sites in a demand management environment can belong to one of the following types:

- **Direct fulfillment**—Direct fulfillment sites are owned by a supplier, and ship supplies to your customers.
- **Distribution centers**—Distribution centers are sites where customer orders are fulfilled. Distribution centers receive supply from suppliers and ship supply to customers.
- **Vendor-managed inventory**—Vendor-managed inventory (VMI) sites are customer sites that you manage. VMI sites receive supply from your distributions centers. Demand at VMI sites is always considered to be satisfied by on hand inventory.

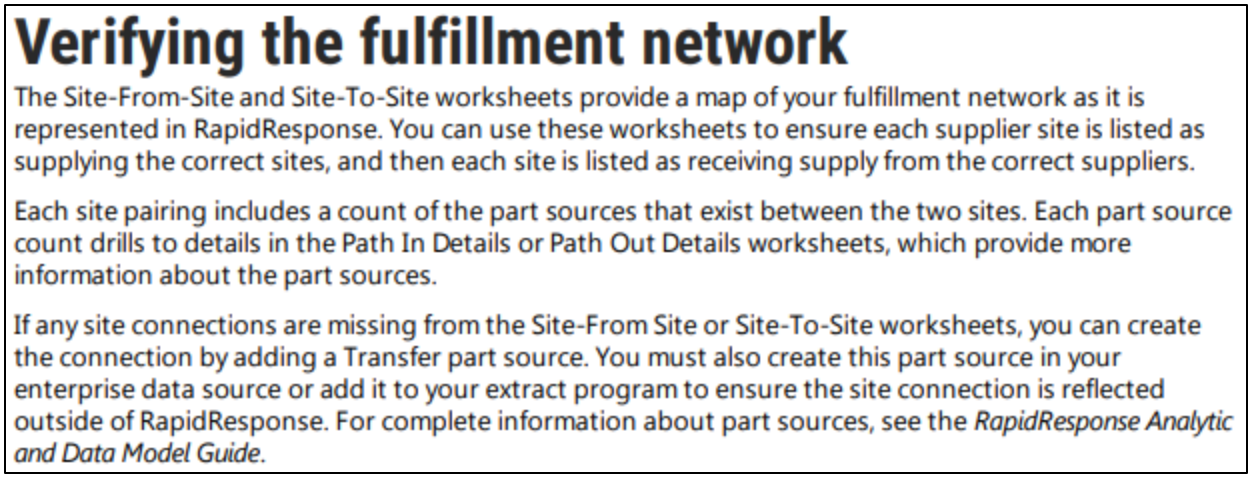
You can also configure how transfer part sources are determined to be transferring in to or out of a site, and how buy part sources are determined to be internal or external purchases. The calculations are controlled by the macros outlined in the following table.

RapidResponse Analytic and Data Model Guide at p. 1945, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

Table 10-2: RapidResponse analytic modifiers

Modifier	Description
Multi-site	Supports analytic calculations across multiple sites in a company. This enables inter-site planning and analysis while supporting the transfer of supply and demand data between multiple site types, such as plants, distribution centers, and warehouses. For more information, see "Multi-site calculations" on page 1557.
Multi-sourcing	When replenishing a part, allows for consideration of multiple sources of supply each with potentially different planning characteristics. Parameters such as priority and target percentage can be used to control the distribution supply allotments (for example, they might reflect contractual requirements with suppliers). For more information, see "Planned orders" on page 1193.

RapidResponse Analytic and Data Model Guide at p. 1141, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).



Verifying the fulfillment network

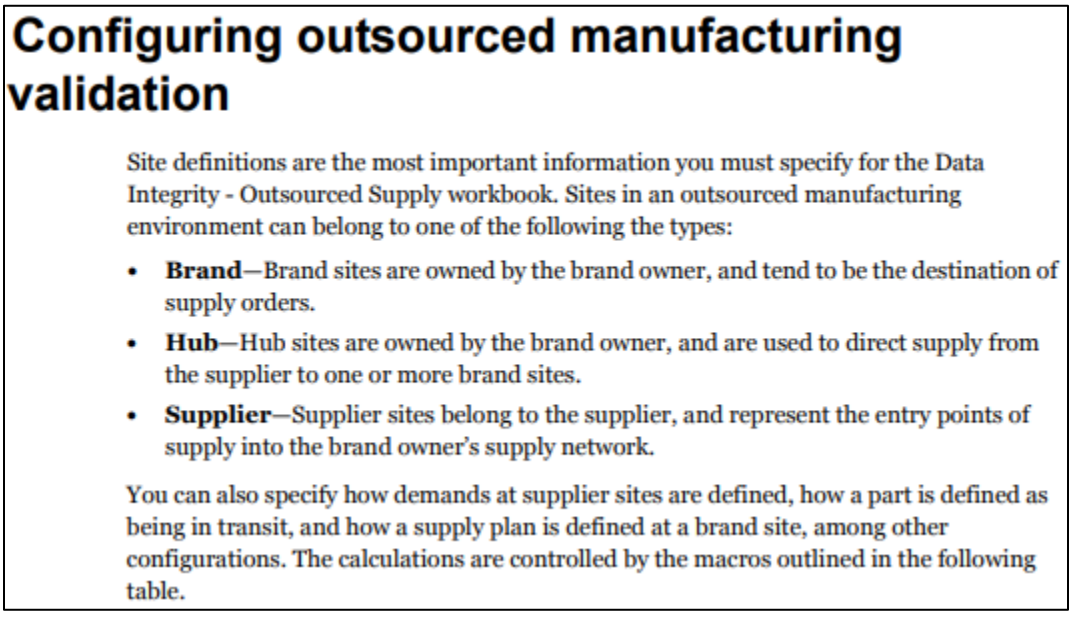
The Site-From-Site and Site-To-Site worksheets provide a map of your fulfillment network as it is represented in RapidResponse. You can use these worksheets to ensure each supplier site is listed as supplying the correct sites, and then each site is listed as receiving supply from the correct suppliers.

Each site pairing includes a count of the part sources that exist between the two sites. Each part source count drills to details in the Path In Details or Path Out Details worksheets, which provide more information about the part sources.

If any site connections are missing from the Site-From Site or Site-To-Site worksheets, you can create the connection by adding a Transfer part source. You must also create this part source in your enterprise data source or add it to your extract program to ensure the site connection is reflected outside of RapidResponse. For complete information about part sources, see the *RapidResponse Analytic and Data Model Guide*.

RapidResponse Data Integration Guide at p.375, https://help.kinaxis.com/20144/docs/rr_integration.pdf (last visited 12/13/20).

141. On information and belief, RapidResponse is operable to model relationships between at least two of the plurality of distributed participants in the different tiers of the one or more tiers of the value chain based on the received information. This is supported by the exemplary evidence below.



Configuring outsourced manufacturing validation

Site definitions are the most important information you must specify for the Data Integrity - Outsourced Supply workbook. Sites in an outsourced manufacturing environment can belong to one of the following the types:

- **Brand**—Brand sites are owned by the brand owner, and tend to be the destination of supply orders.
- **Hub**—Hub sites are owned by the brand owner, and are used to direct supply from the supplier to one or more brand sites.
- **Supplier**—Supplier sites belong to the supplier, and represent the entry points of supply into the brand owner's supply network.

You can also specify how demands at supplier sites are defined, how a part is defined as being in transit, and how a supply plan is defined at a brand site, among other configurations. The calculations are controlled by the macros outlined in the following table.

RapidResponse Analytic and Data Model Guide at p. 1944, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

The Site-From-Site worksheet contains a summary of part sources that move parts to your distribution centers and VMI sites from your supplier sites. Each of your sites is listed with the sites that supply it, and the number of active and inactive part sources that exist between the sites are listed. Each part source cell allows you to drill to details in a worksheet in the lower pane to view information about the part sources.

The Site-To-Site worksheet contains a summary of part sources that move parts from your supplier sites to your distribution centers and VMI sites. Each supplier site is listed with the sites it supplies, and the number of active and inactive part sources that exist between the sites are listed. Each part source cell allows you to drill to details in a worksheet in the lower pane to view information about the part sources.

RapidResponse Data Integration Guide at p. 368, https://help.kinaxis.com/20144/docs/rr_integration.pdf (last visited 12/13/20).

142. On information and belief, RapidResponse is operable to model the one or more items based on the received information. This is supported by the exemplary evidence below.

Inventory/Logical

Inventory/logical sites are used to identify units, such as business units and inventory hubs. An inventory/logical site is often an inventory location, and it segregates its supply and demand from other locations. Examples include retail site, hub, VMI, and order consolidation.

These types of sites are primarily used to model a source of supply, demand, or both.

The part data associated with the inventory/logical site type does not involve transformation of one part into another (for example, processing, assembly, and so on) and should not include any BOM structures. RapidResponse analytics (including netting) must not be used in modeling exercises that explode BOM structures.

RapidResponse Administration Guide at p. 237, https://help.kinaxis.com/20144/docs/rr_admin.pdf (last visited 12/13/20).

InventoryCTPAnalysis table

This table shows bucketed ending inventories, work in process quantities, and supply and demand activity data grouped together for each part. The calculations reported in this table are based on projected material and constraint availability). In each date bucket, one record is generated for each unique model, unit, and pool segregation corresponding to a given part.

RapidResponse Analytic and Data Model Guide at p. 956, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

Configuring the Multi-Enterprise Inventory workbook

Multi-enterprise inventory calculations are controlled with macros, which are installed with RapidResponse. By editing these macros, you can change how RapidResponse calculates inventory levels and supply replenishment plans in a multi-enterprise environment. The macros can be viewed and edited in the Macros and Profile Variable workbook (accessible from the **View** menu in RapidResponse), and are outlined in the following table.

Table 46-1: Multi-Enterprise Inventory macros

Macro	Description
RR_MEM_BrandReplenPlan	In the context of the **ScheduledReceipt** table, determines if the scheduled receipt is part of a brand owner's replenishment plan. A replenishment plan is a set of the brand owner's demands that a supplier's scheduled receipt is expected to fill.
RR_MEM_BrandSite	In the context of the **Part** table, determines if the part's site belongs to the brand owner.
RR_MEM_SupplierSite	In the context of the **Part** table, determines if the part's site belongs to a supplier.
RR_MEM_CMReplenPlan	In the context of the **ScheduledReceipt** table, determines if the scheduled receipt is part of a supplier's replenishment plan.
RR_MEM_RequirementTarget	In the context of the **Part** table, calculates a demand target that is used to determine if a replenishment plan is insufficient to meet demand requirements.

RapidResponse Analytic and Data Model Guide at p. 1940, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

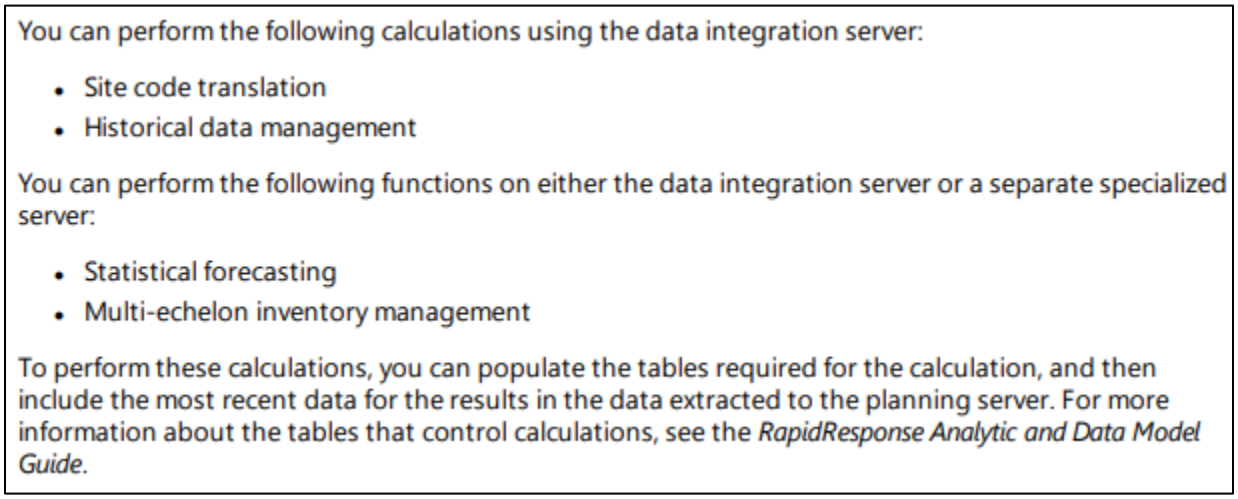
143. On information and belief, RapidResponse is operable to receive inventory data from one or more of the plurality of distributed participants relating to the one or more items. This is supported by the exemplary evidence below.

Contributors

Contributors not only view data in RapidResponse, but contribute by editing or adding information. For example, a warehouse manager might use a form to update inventory data. Contributors might also be external users, such as suppliers and customers, who need to modify order information. A supplier, for example, might open a workbook to view new part orders, and then commit to delivering the parts, decline the orders, or propose changes.

Contributor users with access to multiple reports can decide which reports to open to view data, or you can provide them with task flows that describe a process they can follow.

RapidResponse Administration Guide at p. 412,
https://help.kinaxis.com/20144/docs/rr_admin.pdf (last visited 12/13/20).



You can perform the following calculations using the data integration server:

- Site code translation
- Historical data management

You can perform the following functions on either the data integration server or a separate specialized server:

- Statistical forecasting
- Multi-echelon inventory management

To perform these calculations, you can populate the tables required for the calculation, and then include the most recent data for the results in the data extracted to the planning server. For more information about the tables that control calculations, see the *RapidResponse Analytic and Data Model Guide*.

RapidResponse Data Integration Guide at p. 126,
https://help.kinaxis.com/20144/docs/rr_integration.pdf (last visited 12/13/20).

144. On information and belief, RapidResponse is operable to process the inventory data based on the models of the relationships and the items to generate inventory information related to one or more of the distributed participants. This is supported by the exemplary evidence below.

Configuring the Multi-Enterprise Inventory workbook

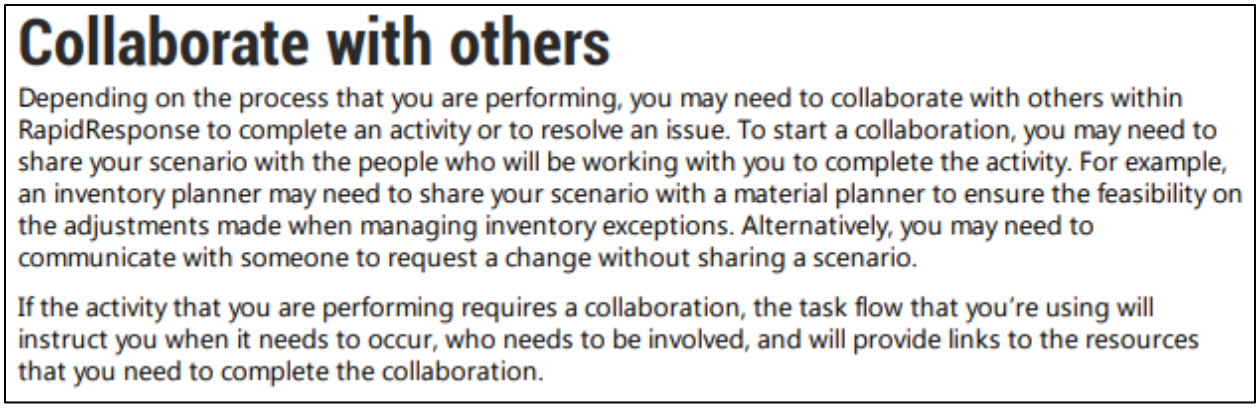
Multi-enterprise inventory calculations are controlled with macros, which are installed with RapidResponse. By editing these macros, you can change how RapidResponse calculates inventory levels and supply replenishment plans in a multi-enterprise environment. The macros can be viewed and edited in the Macros and Profile Variable workbook (accessible from the **View** menu in RapidResponse), and are outlined in the following table.

Table 46-1: Multi-Enterprise Inventory macros

Macro	Description
RR_MEM_BrandReplenPlan	In the context of the **ScheduledReceipt** table, determines if the scheduled receipt is part of a brand owner's replenishment plan. A replenishment plan is a set of the brand owner's demands that a supplier's scheduled receipt is expected to fill.
RR_MEM_BrandSite	In the context of the **Part** table, determines if the part's site belongs to the brand owner.
RR_MEM_SupplierSite	In the context of the **Part** table, determines if the part's site belongs to a supplier.
RR_MEM_CMReplenPlan	In the context of the **ScheduledReceipt** table, determines if the scheduled receipt is part of a supplier's replenishment plan.
RR_MEM_RequirementTarget	In the context of the **Part** table, calculates a demand target that is used to determine if a replenishment plan is insufficient to meet demand requirements.

RapidResponse Analytic and Data Model Guide at p. 1940, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

145. On information and belief, RapidResponse is operable to communicate the generated inventory information to one or more of the plurality of distributed participants in a different tier of the value chain, the inventory information including at least inventory data of participants other than those participants to which the inventory information is communicated. This is supported by the exemplary evidence below.



Collaborate with others

Depending on the process that you are performing, you may need to collaborate with others within RapidResponse to complete an activity or to resolve an issue. To start a collaboration, you may need to share your scenario with the people who will be working with you to complete the activity. For example, an inventory planner may need to share your scenario with a material planner to ensure the feasibility on the adjustments made when managing inventory exceptions. Alternatively, you may need to communicate with someone to request a change without sharing a scenario.

If the activity that you are performing requires a collaboration, the task flow that you're using will instruct you when it needs to occur, who needs to be involved, and will provide links to the resources that you need to complete the collaboration.

RapidResponse Applications Guide at p. 57, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

146. Kinaxis also indirectly infringes claims of the '383 Patent, as provided in 35 U.S.C. § 271(b), by inducing infringement by others, such as Kinaxis's customers and end users, in this District and elsewhere in the United States. For example, on information and belief, Kinaxis's customers and end users directly infringe through their use of the inventions claimed in the '383 Patent. Kinaxis induces this direct infringement through its affirmative acts of manufacturing, selling, distributing, and/or otherwise making available the Accused Products, and providing instructions, documentation, online technical support, marketing, product manuals, advertisements, and other information to customers and end users suggesting they use the Accused Products in an infringing manner. As a result of Kinaxis's inducement, Kinaxis's customers and end users use the Accused Products in the way Kinaxis intends and directly infringe the '383 Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '383 Patent and with the intent, or willful blindness, that the induced acts directly infringe the '383 Patent.

147. Kinaxis also indirectly infringes claims of the '383 Patent, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as customers and end users, in this District and elsewhere in the United States. On information and belief, Kinaxis's affirmative acts of selling and offering to sell, in this District and elsewhere in

the United States, the Accused Products and causing the Accused Products to be manufactured, used, sold, and offered for sale, contribute to Kinaxis's customers' and end users' use of the Accused Products, such that the '383 Patent is directly infringed. The accused features and components of the Accused Products are material to the invention of the '383 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Kinaxis to be especially made or especially adapted for use in infringement of the '383 Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '383 Patent and with intent, or willful blindness, that they cause the direct infringement of the '383 Patent.

COUNT IV: PATENT INFRINGEMENT OF THE '145 PATENT

148. Blue Yonder incorporates by reference the preceding paragraphs as though fully set forth herein.

149. Kinaxis infringes, contributes to the infringement of, and/or induces infringement of the '145 Patent by making, using, selling, offering for sale, and/or importing into the United States the Accused Products that are covered by one or more claims of the '145 Patent.

150. The Accused Products directly infringe, literally and/or by the doctrine of equivalents, at least claims 1, 2, 3, 5, 14, and 20 of the '145 Patent. Kinaxis makes, uses, sells, offers for sale, and/or imports, in this District and elsewhere in the United States, the Accused Products and thus directly infringes claims of the '145 Patent.

151. For example, Claim 1 of the '145 Patent is reproduced below:

> 1. A distributed inventory management system, comprising: one or more computers coupled with a plurality of participant computers in one or more tiers of a value chain, the one or more computers configured to:
>
> evaluate inventory data received from one or more of the plurality of participant computers according to one or more business rules;

execute a business process using one or more software agents, based on the evaluation of the received inventory data;

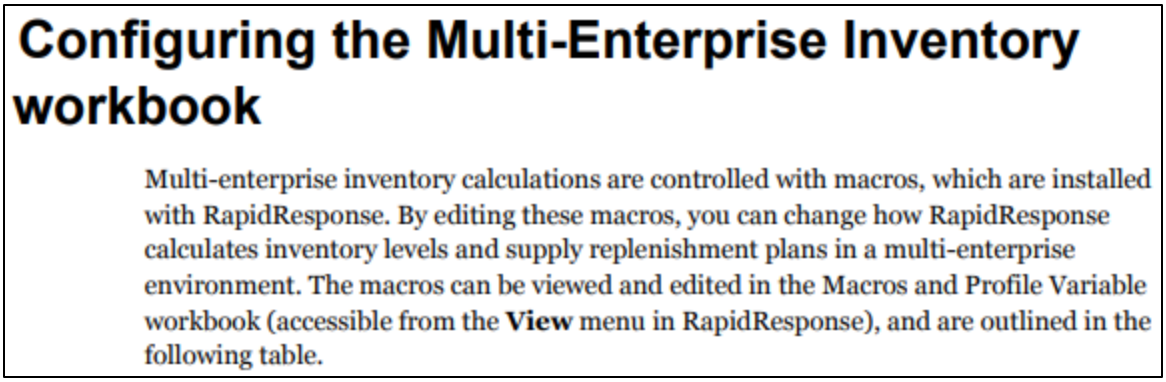
communicate output of the business process to one or more of the plurality of participant computers;

generate an alert when at least one of the plurality of participant computers uses a first replenishment policy in a first tier of the one or more tiers of the value chain that is different than a second replenishment policy used by at least one of the plurality of participant computers in at least a second tier of the one or more tiers of the value chain; and

communicate the generated alert to one or more of the plurality of participant computers.

152. As a non-limiting example, on information and belief, RapidResponse is a distributed inventory management system comprising one or more computers coupled with a plurality of participant computers in one or more tiers of a value chain, and that is configured to perform the limitations recited in claim 1. This is supported by the exemplary evidence below.

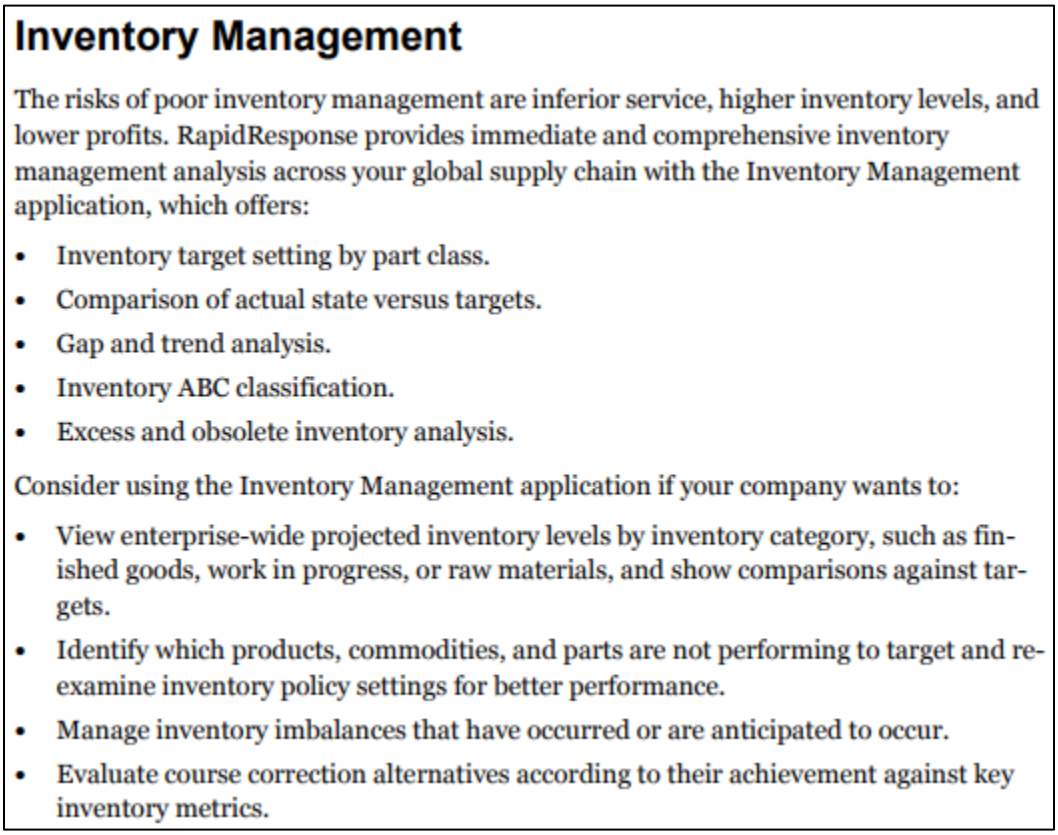
RapidResponse Analytic and Data Model Guide at p. 1939, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).



Configuring the Multi-Enterprise Inventory workbook

Multi-enterprise inventory calculations are controlled with macros, which are installed with RapidResponse. By editing these macros, you can change how RapidResponse calculates inventory levels and supply replenishment plans in a multi-enterprise environment. The macros can be viewed and edited in the Macros and Profile Variable workbook (accessible from the **View** menu in RapidResponse), and are outlined in the following table.

RapidResponse Analytic and Data Model Guide at p. 1940, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).



Inventory Management

The risks of poor inventory management are inferior service, higher inventory levels, and lower profits. RapidResponse provides immediate and comprehensive inventory management analysis across your global supply chain with the Inventory Management application, which offers:

- Inventory target setting by part class.
- Comparison of actual state versus targets.
- Gap and trend analysis.
- Inventory ABC classification.
- Excess and obsolete inventory analysis.

Consider using the Inventory Management application if your company wants to:

- View enterprise-wide projected inventory levels by inventory category, such as finished goods, work in progress, or raw materials, and show comparisons against targets.
- Identify which products, commodities, and parts are not performing to target and re-examine inventory policy settings for better performance.
- Manage inventory imbalances that have occurred or are anticipated to occur.
- Evaluate course correction alternatives according to their achievement against key inventory metrics.

RapidResponse Fundamental Concepts Guide at p. 58, https://help.kinaxis.com/20144/Docs/RR_Fund_Concepts.pdf (last visited 12/13/20).

153. On information and belief, RapidResponse is configured to evaluate inventory data received from one or more of the plurality of participant computers according to one or more business rules. This is supported by the exemplary evidence below.

RapidResponse includes the Inventory Analysis workbook as an inventory policy planning resource. It helps inventory managers understand projected trends and predict future inventory values based on current inventory patterns. The Inventory Analysis workbook allows you to see the full scope of your inventory data; from a high-level overview through to specific part details. From the general inventory overview, you can drill down to view information about the inventory flow within a specific inventory category (finished goods, work in process, or raw material). For example, you can see planned inventory input and output for each inventory category, and compare these values with actual, or firm, inventory input and output.

When an input/output pattern emerges for an inventory category that seems unusual or unexpected, you can drill down to identify the parts in the inventory category and time period that are responsible for the anomalies.

RapidResponse Applications Guide at p. 453, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

Data integrity

Data extracted from enterprise systems is loaded into the RapidResponse database. The RapidResponse analytics mimic the business rules and calculations in your enterprise system. If necessary, RapidResponse can return calculated data that has been saved into the root scenario back to the enterprise system, thus closing the loop in a seamless process; there is no need to replace costly existing enterprise systems.

The RapidResponse data model is configurable, allowing it to expand to accommodate updated business processes and new problems to solve. You can navigate to new functional areas by adding tables and records to the data model to address supply and demand imbalances in any corporate division.

RapidResponse Fundamental Concepts Guide at p. 34, https://help.kinaxis.com/20144/Docs/RR_Fund_Concepts.pdf (last visited 12/13/20).

154. On information and belief, RapidResponse is configured to execute a business process using one or more software agents, based on the evaluation of the received inventory data. This is supported by the exemplary evidence below.

RapidResponse automation tasks are resources that support automated processes. You can use automation tasks to automatically modify data, run other automated processes, and notify you of changes made by the process. Automation tasks consist of alerts, scheduled tasks, automation chains, and scripts.

- Alerts are typically used for monitoring workbook or scorecard data for changes, and then notify you when a specific condition is met. For more information, see "About alerts and data monitoring" on page 504. They can also be used to send regularly scheduled reports. For more information, see "Scheduling reports" on page 291.
- Scheduled tasks are typically used to automatically run data modifications and scripts. For more information, see "About scheduled tasks" on page 504.
- Scripts typically represent a custom application, and are used to perform an automated process. For more information, see "About scripting" on page 504.
- Forms are interfaces based on scripts that are used to run automated business tasks. For more information, see "About forms" on page 535.
- Automation chains are used to run a sequence of other automation tasks. For more information, see "About automation chains" on page 505.

RapidResponse User Guide at p. 503, https://help.kinaxis.com/20144/docs/rr_user.pdf (last visited 12/13/20).

About scripting

Scripts can be used to automate parts of your business processes, such as creating and updating historical scenarios or ensuring data changes are available in multiple scenarios. Scripts perform a specific series of actions, and are typically provided by your RapidResponse administrator or a user with script authoring permission.

RapidResponse User Guide at p. 504, https://help.kinaxis.com/20144/docs/rr_user.pdf (last visited 12/13/20).

Resolving order problems

For each site in your fulfillment network, the Site Summary (Orders) worksheet summarizes the quantities of all on hand inventory, supply orders, and demand orders. Any cell in this worksheet that contains an error—for example, a VMI site that does not have any on hand inventory—is shown with a red background.

RapidResponse Data Integration Guide at p. 373, https://help.kinaxis.com/20144/docs/rr_integration.pdf (last visited 12/13/20).

155. On information and belief, RapidResponse is configured to communicate output of the business process to one or more of the plurality of participant computers. This is supported by the exemplary evidence below.

RapidResponse scripts allow you to build custom applications using scripting language objects, functions, and methods to automate some RapidResponse processes. Scripts are executed on the RapidResponse System, and perform operations using RapidResponse resources and data. For example, you can create scripts to perform any of the following operations:

- Automating part of a simulation process.
- Creating historical scenarios or scenarios required by a process.
- Running automatic data modifications as part of a process.
- Retrieving worksheet data.
- Performing date arithmetic.
- Sending messages.
- Automating RapidResponse Server commands.
- Modifying data.

RapidResponse Scripting Guide at p. 35, https://help.kinaxis.com/20144/docs/rr_scripting.pdf (last visited 12/13/20).

Export scenario activity

You can export the information on the Pending Commits, Pending Updates, Pending Update Data Conflicts, and Inherited Data Changes tabs of any scenario's properties. You can use this information to make changes in your enterprise data sources, or to distribute reports about the data that is being modified in RapidResponse.

RapidResponse User Guide at p. 438, https://help.kinaxis.com/20144/docs/rr_user.pdf (last visited 12/13/20).

156. On information and belief, RapidResponse is configured to generate an alert when at least one of the plurality of participant computers uses a first replenishment policy in a first tier of the one or more tiers of the value chain that is different than a second replenishment policy used by at least one of the plurality of participant computers in at least a second tier of the one or more tiers of the value chain. This is supported by the exemplary evidence below.

The Data Integrity - Distribution workbook

Fulfillment data is validated using the Data Integrity - Distribution workbook. This workbook contains a summary of part source problems at each site in your fulfillment network, and allows you to drill to details to determine what the problem is.

The Site Summary worksheet contains a summary of all parts at your sites. For each site, the part sources of each type, and errors with part sources are counted. Any parts that violate the site's data conventions, as listed in "Fulfillment networks consist of many types of sites, each of which assume different conventions within the data. These conventions are described in the following table." on page 367, or part sources that have errors are displayed with a red background, and clicking the link in the cell drills to details in a worksheet in the lower pane, where you can view more information about the error.

The problems identified in the Site Summary worksheet should be resolved beginning with the Error Counts Part Source Missing column. Each successive column should then be resolved before moving on to the next site. After all problems for all sites have been resolved, you can move on to the Site Summary (Orders) worksheet.

The Site Summary (Orders) worksheet contains a summary of the dollar amounts of all demand and supply orders at each site. The demand orders are divided into forecast, actual, inter-site, and manufacturing orders. The supply orders are divided into on hand, allocations, scheduled, and planned orders. Clicking the link in each cell drills to details in a worksheet in the lower pane, where you can view more information about the orders at each site.

The Site-From-Site worksheet contains a summary of part sources that move parts to your distribution centers and VMI sites from your supplier sites. Each of your sites is listed with the sites that supply it, and the number of active and inactive part sources that exist between the sites are listed. Each part source cell allows you to drill to details in a worksheet in the lower pane to view information about the part sources.

The Site-To-Site worksheet contains a summary of part sources that move parts from your supplier sites to your distribution centers and VMI sites. Each supplier site is listed with the sites it supplies, and the number of active and inactive part sources that exist between the sites are listed. Each part source cell allows you to drill to details in a worksheet in the lower pane to view information about the part sources.

RapidResponse Data Integration Guide at p. 368, https://help.kinaxis.com/20144/docs/rr_integration.pdf (last visited 12/13/20).

The Site-From-Site and Site-To-Site worksheets can be used to verify the same number of part sources exist between sites whether the supply is considered from the supplier perspective or the customer perspective.

Before any data is displayed in the Data Integrity - Distribution workbook, you must define the following macros:

- **RR_DistSite_DC**—Defines distribution centers.
- **RR_DistSite_DCText**—Defines the String used to describe a distribution center in the Type columns of various worksheets.
- **RR_DistSite_Direct**—Defines direct fulfillment sites.
- **RR_DistSite_DirectText**—Defines the String used to describe a direct fulfillment site in the Type columns of various worksheets.
- **RR_DistSite_VMI**—Defines VMI sites.
- **RR_DistSite_VMIText**—Defines the String used to describe a VMI site in the Type columns of various worksheets.

RapidResponse Data Integration Guide at p. 369, https://help.kinaxis.com/20144/docs/rr_integration.pdf (last visited 12/13/20).

▸Create an alert to monitor a specific record

You can also create an alert that monitors a single record in the RapidResponse database. The record displays as a row in vertical worksheets. This allows you to keep track of and respond to changes made to specific areas of your business, such as an order or part. For example, you can monitor the on hand nettable inventory of a part, and be alerted if the quantity drops below a level you specify.

When creating an alert to monitor a specific record, you can specify a value for a field of that record to be compared against and receive notifications only if the field matches the specified value. The conditions available depend on the data type of the field being monitored. For example, a date field has conditions such as 'is before' and 'is after', while a numeric field has conditions such as 'is less than' and 'is not equal to'.

The monitored record is uniquely defined by its key fields. For example, if the record is an order, it is defined by its order number, line, type, and site. No other order can have the same combination of key fields. You cannot monitor a single record if the worksheet you are creating the alert from does not uniquely identify records, such as a crosstab worksheet.

After an alert is created, you can modify its settings. For example, if you create an alert with a private scenario active, but that you intended to monitor the Approved Actions scenario, you can change the scenario being monitored. Similarly, if you create an alert with search conditions that do not match what you intended, you can add, modify or remove conditions in the alert. For more information, see "Modify an alert" on page 523.

RapidResponse User Guide at p. 516, https://help.kinaxis.com/20144/docs/rr_user.pdf (last visited 12/13/20).

Table 46-1: Multi-Enterprise Inventory macros

Macro	Description
RR_MEM_BrandReplenPlan	In the context of the **ScheduledReceipt** table, determines if the scheduled receipt is part of a brand owner's replenishment plan. A replenishment plan is a set of the brand owner's demands that a supplier's scheduled receipt is expected to fill.
RR_MEM_BrandSite	In the context of the **Part** table, determines if the part's site belongs to the brand owner.
RR_MEM_SupplierSite	In the context of the **Part** table, determines if the part's site belongs to a supplier.
RR_MEM_CMReplenPlan	In the context of the **ScheduledReceipt** table, determines if the scheduled receipt is part of a supplier's replenishment plan.
RR_MEM_RequirementTarget	In the context of the **Part** table, calculates a demand target that is used to determine if a replenishment plan is insufficient to meet demand requirements.

RapidResponse Analytic and Data Model Guide at p. 1940, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

157. On information and belief, RapidResponse is configured to communicate the generated alert to one or more of the plurality of participant computers. This is supported by the exemplary evidence below.

Alerts

As part of the RapidResponse Supplier Collaboration process, alert messages are sent to buyers and suppliers. The following alerts are included in the list.

- Buyer New Forecast—Notifies buyers when suppliers have responded to new forecast requests.
- Buyer New Request—Notifies buyers that suppliers have responded to new purchase order requests.
- Buyer Overdue Forecast—Notifies buyers that suppliers are late in responding to new forecast requests.
- Buyer Overdue Requests—Notifies buyers that suppliers are late in responding to new purchase order requests.
- Supplier New Forecast—Notifies suppliers that new forecast requests from customers are waiting commitment.
- Supplier New Requests—Notifies suppliers that new purchase order requests from customers are waiting commitment.
- Supplier Overdue Forecast—Notifies suppliers that there are overdue forecast requests from customers waiting for commitment.
- Supplier Overdue Requests—Notifies suppliers that there are overdue purchase order requests from customers waiting for commitment.

RapidResponse Applications Guide at p. 509-10,

https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

158. Kinaxis also indirectly infringes claims of the '145 Patent, as provided in 35 U.S.C. § 271(b), by inducing infringement by others, such as Kinaxis's customers and end users, in this District and elsewhere in the United States. For example, on information and belief, Kinaxis's customers and end users directly infringe through their use of the inventions claimed in the '145 Patent. Kinaxis induces this direct infringement through its affirmative acts of manufacturing, selling, distributing, and/or otherwise making available the Accused Products, and providing instructions, documentation, online technical support, marketing, product manuals, advertisements, and other information to customers and end users suggesting they use the Accused Products in an infringing manner. As a result of Kinaxis's inducement, Kinaxis's customers and end users use the Accused Products in the way Kinaxis intends and directly infringe the '145 Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '145 Patent and with the intent, or willful blindness, that the induced acts directly infringe the '145 Patent.

159. Kinaxis also indirectly infringes claims of the '145 Patent, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as customers and end users, in this District and elsewhere in the United States. On information and belief, Kinaxis's affirmative acts of selling and offering to sell, in this District and elsewhere in the United States, the Accused Products and causing the Accused Products to be manufactured, used, sold, and offered for sale, contribute to Kinaxis's customers' and end users' use of the Accused Products, such that the '145 Patent is directly infringed. The accused features and components of the Accused Products are material to the invention of the '145 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Kinaxis to be especially made or especially adapted for use in infringement of the '145

Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '145 Patent and with intent, or willful blindness, that they cause the direct infringement of the '145 Patent.

COUNT V: PATENT INFRINGEMENT OF THE '868 PATENT

160. Blue Yonder incorporates by reference the preceding paragraphs as though fully set forth herein.

161. Kinaxis infringes, contributes to the infringement of, and/or induces infringement of the '868 Patent by making, using, selling, offering for sale, and/or importing into the United States the Accused Products that are covered by one or more claims of the '868 Patent.

162. The Accused Products directly infringe, literally and/or by the doctrine of equivalents, at least claims 1, 3, 4, 9, and 15 of the '868 Patent. Kinaxis makes, uses, sells, offers for sale, and/or imports, in this District and elsewhere in the United States, the Accused Products and thus directly infringes claims of the '868 Patent.

163. For example, Claim 1 of the '868 Patent is reproduced below:

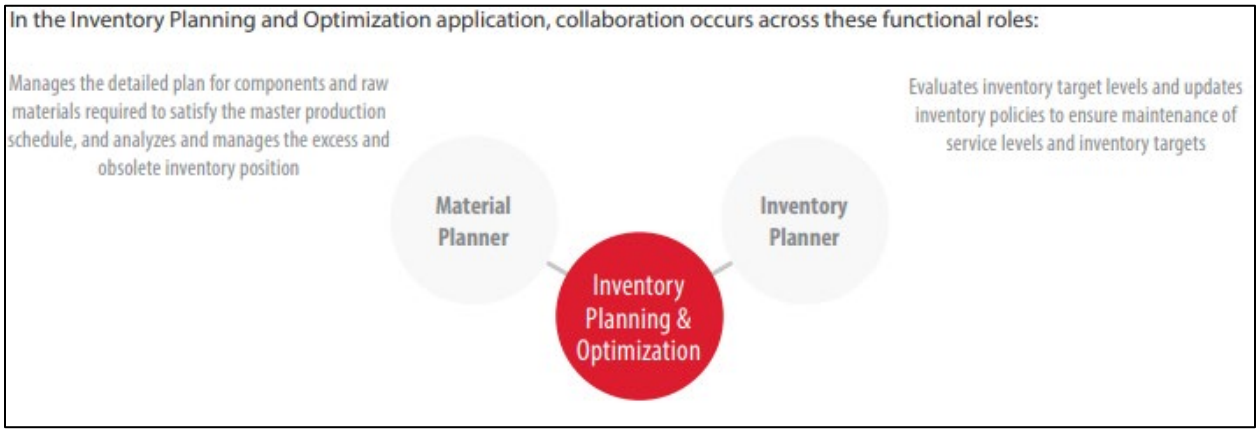
> 1. A method of optimizing a supply chain parameter of a node of a supply chain, comprising:
>
> calculating, by a computer, an inventory target for a node of a supply chain; by:
>
> calculating a demand stock that satisfies a demand over supply lead time at a node of the supply chain;
>
> calculating a demand variability stock that satisfies a demand variability of the demand over supply lead time at the node;
>
> establishing the demand bias of the demand at the node; and
>
> determining the inventory target of the node based on the demand stock and the demand variability stock in accordance with the demand bias;
>
> changing, by the computer, a supply parameter associated with the node, the change in the supply parameter associated with a supply parameter cost or a supply parameter benefit;

adjusting, by the computer, the supply parameter associated with the node, when the benefit of the supply parameter exceeds the cost of the supply parameter; and

adjusting, by the computer, the inventory target of the node based on the adjusted supply parameter.

164. As a non-limiting example, on information and belief, RapidResponse performs a method of optimizing a supply chain parameter of a node of a supply chain comprising the steps recited in claim 1.

165. On information and belief, RapidResponse performs the step of calculating, by a computer, an inventory target for a node of a supply chain. This is supported by the exemplary evidence below.



RapidResponse Inventory Planning and Optimization at p. 3, https://content.kinaxis.com/c/inventory-planning-a?x=Zb0Z-_ (last visited 12/13/2020).

- **HistoricalDemandActual**— contains the actual details of historical customer orders/shipments that are used as input in determining average and standard deviation of historical demands. These are key parameters used in determining the recommended safety stock levels and reorder points for the item. The records used in this table are those that match an item's HistoricalDemandCategory reference. For more information, see "HistoricalDemandActual table" on page 285.

RapidResponse Analytic and Data Model Guide at p. 1711, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

166. On information and belief, RapidResponse performs the step of calculating a demand stock that satisfies a demand over supply lead time at a node of the supply chain. This is supported by the exemplary evidence below.

> The adjusted historical demand data is then used to calculate demand parameters for use in determining safety stock. Specifically, the average historical demand and standard deviation (or forecast error) of those demands is calculated for each end item. Based on configuration options, these demand parameters can be calculated based on either the bucketed demands (using Intervals calendar) or rolling lead time demands, and can be either stationary or time-phased.

RapidResponse Analytic and Data Model Guide at p. 1769, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

Lead Time	Standard average lead time for this part. If historical supply data is available for this part, then this value is ignored. If no historical supply data exists, and the supply variability rule is set to Ignore or Manual, then this is used in safety stock calculations for single-echelon parts.
Standard Deviation Lead Time	A value that represents the standard deviation of supply lead time to use for the part in single-echelon safety stock calculations. This is applicable only of the supply variability rule is set to Manual. Otherwise, the standard deviation of lead time is calculated from historical supply data.
Historical Demand Category	The historical demand category used to calculate safety stock.
Average Demand	The average historical demand to use for this part when calculating safety stock. You might provide this value when there is not enough historical demand information. This value is used only for non-time phased items, and only when the Standard Deviation Demand Rule is set to Manual.

Control	Description
Standard Deviation Demand	A value representing the standard deviation of historical demands to use for this part when calculating safety stock.

RapidResponse Applications Guide at p. 183-184, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

> ▸ **Define average demand profiles**
>
> You can define optional average demand profiles that define the specific horizon over which the average demand values used to determine reorder points are calculated. These profiles can be applied to historical or future demands.
>
> 1. In the **Explorer**, ensure that workbooks are shown. You can do this by selecting **Reports**.
> 2. Double-click the **Inventory Planning** workbook, click the **Configuration** worksheet tab, and then click the **Profiles** worksheet tab.
> 3. On the **Edit** menu, click **Insert Record**.
> 4. In the **Insert Record** dialog box, specify the required information.

RapidResponse Applications Guide at p. 184, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

167. On information and belief, RapidResponse performs the step of calculating a demand variability stock that satisfies a demand variability of the demand over supply lead time at the node. This is supported by the exemplary evidence below.

Lead Time	Standard average lead time for this part. If historical supply data is available for this part, then this value is ignored. If no historical supply data exists, and the supply variability rule is set to Ignore or Manual, then this is used in safety stock calculations for single-echelon parts.
Standard Deviation Lead Time	A value that represents the standard deviation of supply lead time to use for the part in single-echelon safety stock calculations. This is applicable only of the supply variability rule is set to Manual. Otherwise, the standard deviation of lead time is calculated from historical supply data.
Historical Demand Category	The historical demand category used to calculate safety stock.
Average Demand	The average historical demand to use for this part when calculating safety stock. You might provide this value when there is not enough historical demand information. This value is used only for non-time phased items, and only when the Standard Deviation Demand Rule is set to Manual.

Control	Description
Standard Deviation Demand	A value representing the standard deviation of historical demands to use for this part when calculating safety stock.

RapidResponse Applications Guide at p. 183-184, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

▸ **Define average demand profiles**

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RapidResponse Applications Guide at p. 184, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

168. On information and belief, RapidResponse performs the step of establishing the demand bias of the demand at the node. This is supported by the exemplary evidence below.

- **Bias (MPE)** —the average of the percentage difference between the forecast and actual demand. You can change the warning limit for the Bias (MPE) accuracy measure.

RapidResponse Applications Guide at p. 142, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

169. On information and belief, RapidResponse performs the step of determining the inventory target of the node based on the demand stock and the demand variability stock in accordance with the demand bias. This is supported by the exemplary evidence below.

Inventory Management

The risks of poor inventory management are inferior service, higher inventory levels, and lower profits. RapidResponse provides immediate and comprehensive inventory management analysis across your global supply chain with the Inventory Management application, which offers:

- Inventory target setting by part class.
- Comparison of actual state versus targets.
- Gap and trend analysis.
- Inventory ABC classification.
- Excess and obsolete inventory analysis.

Consider using the Inventory Management application if your company wants to:

- View enterprise-wide projected inventory levels by inventory category, such as finished goods, work in progress, or raw materials, and show comparisons against targets.
- Identify which products, commodities, and parts are not performing to target and re-examine inventory policy settings for better performance.
- Manage inventory imbalances that have occurred or are anticipated to occur.
- Evaluate course correction alternatives according to their achievement against key inventory metrics.

RapidResponse Fundamental Concepts Guide at p. 58, https://help.kinaxis.com/20144/Docs/RR_Fund_Concepts.pdf (last visited 12/13/20).

170. On information and belief, RapidResponse performs the step of changing, by the computer, a supply parameter associated with the node, the change in the supply parameter

associated with a supply parameter cost, or a supply parameter benefit. This is supported by the exemplary evidence below.

Workbooks

The following workbooks have been modified.

- Inventory Management—this workbook has been redesigned to make use of new statistical calculations that determine the optimal safety stock and re-order point for an item in consideration of its historical/future demands, supply lead time variability, and a specified service level. To see the results of these calculations, safety stock items must first be properly set up which users can do in the new Configuration worksheet added to this workbook.

RapidResponse Applications Guide at p. 543, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

StandardDeviation LeadTime	A value representing the standard deviation of supply lead time to use for the part in single-echelon safety stock calculations. Applicable only when **Type.SupplyVariabilityRule** is set to "Manual" (otherwise, standard deviation of lead time is calculated from historical supply data). **Note:** This field was added in Version 2014.1.

RapidResponse Analytic and Data Model Guide at p. 473, https://help.kinaxis.com/20144/Docs/RR_DataModel.pdf (last visited 12/13/20).

Inventory Planning and Optimization

Inventory planning in RapidResponse

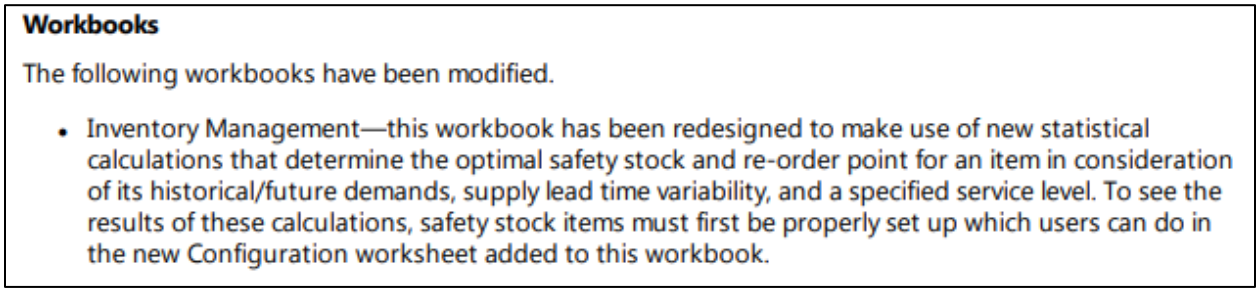
A challenge that every company faces is the maintenance of optimal inventory, that is, balancing the costs of carrying inventory versus the service level provided to customers. As such, companies invest significant resources into determining how much safety stock to hold for items, from finished goods to components.

RapidResponse supports inventory planning and optimization with the following methods for calculating safety stock:

RapidResponse Applications Guide at p. 182, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

171. On information and belief, RapidResponse performs the step of adjusting, by the computer, the supply parameter associated with the node, when the benefit of the supply

parameter exceeds the cost of the supply parameter. This is supported by the exemplary evidence below.



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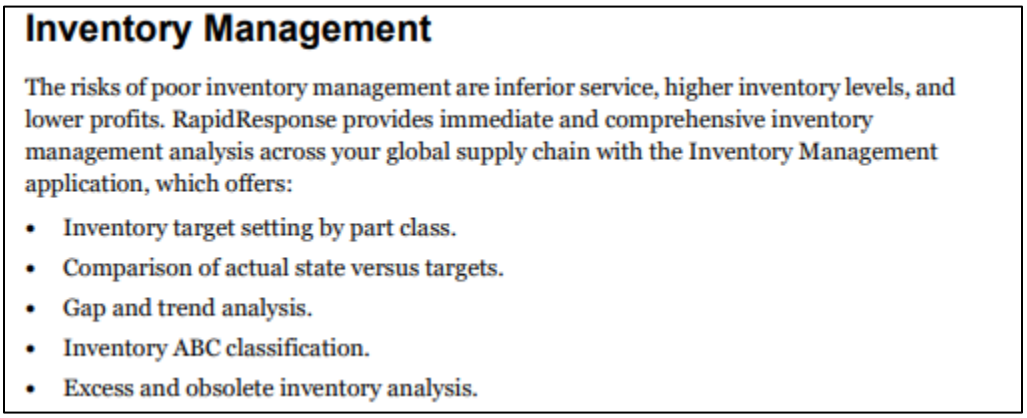
RapidResponse Applications Guide at p. 543, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).



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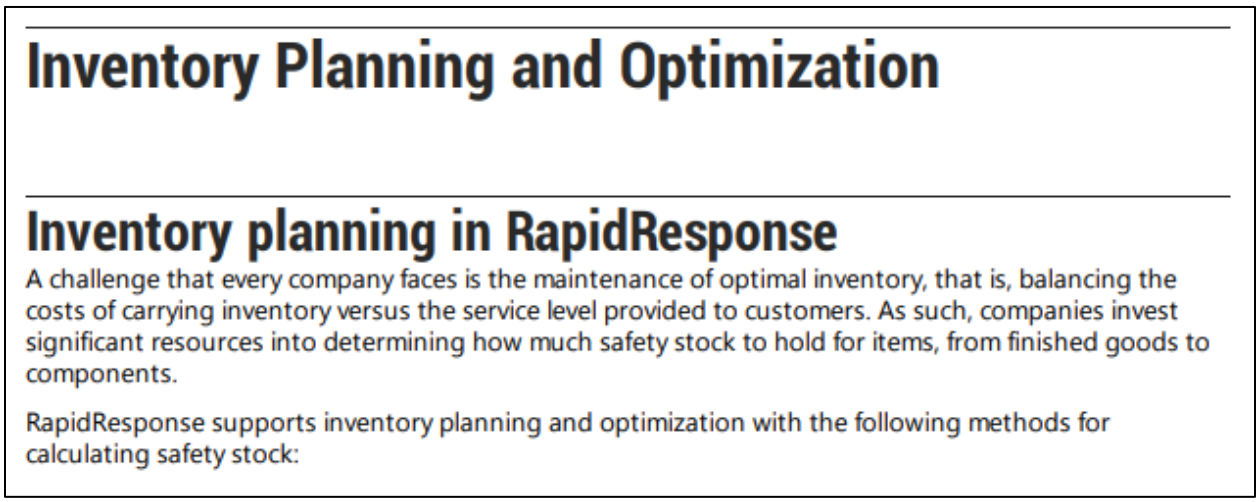
RapidResponse Fundamental Concepts Guide at p. 58, https://help.kinaxis.com/20144/Docs/RR_Fund_Concepts.pdf (last visited 12/13/20).



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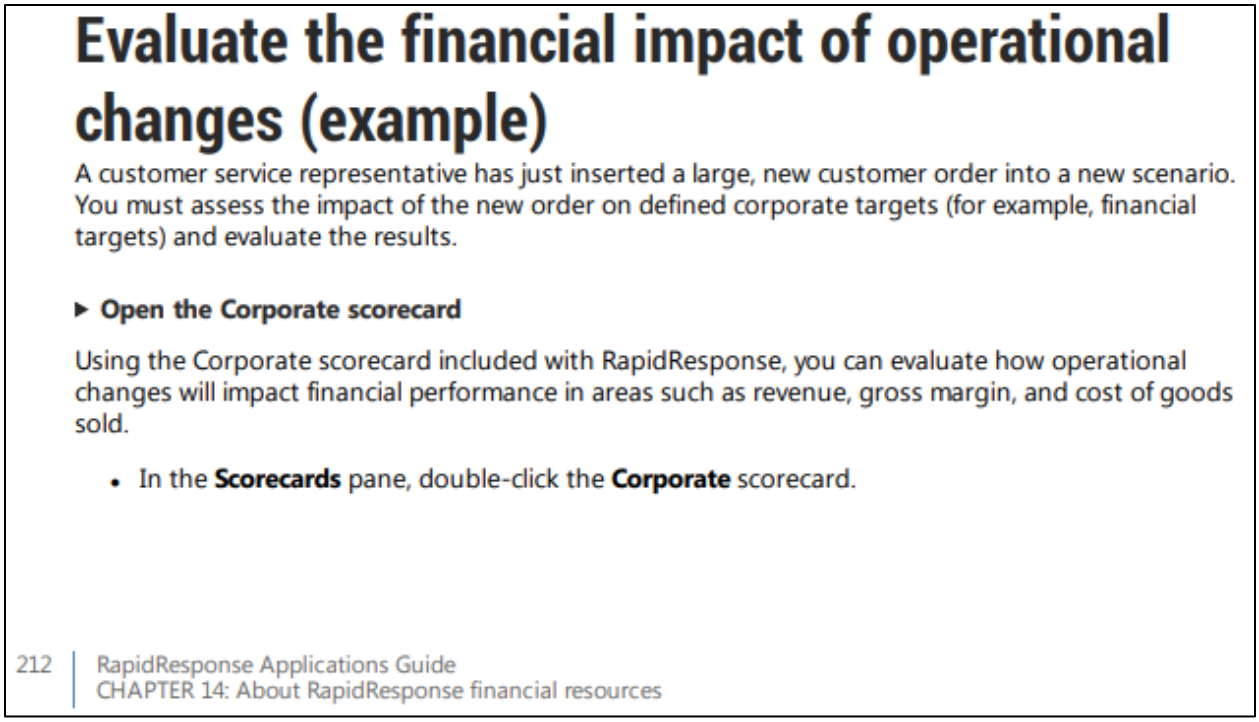
RapidResponse Applications Guide at p. 182, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).



Evaluate the financial impact of operational changes (example)

A customer service representative has just inserted a large, new customer order into a new scenario. You must assess the impact of the new order on defined corporate targets (for example, financial targets) and evaluate the results.

▶ **Open the Corporate scorecard**

Using the Corporate scorecard included with RapidResponse, you can evaluate how operational changes will impact financial performance in areas such as revenue, gross margin, and cost of goods sold.

- In the **Scorecards** pane, double-click the **Corporate** scorecard.

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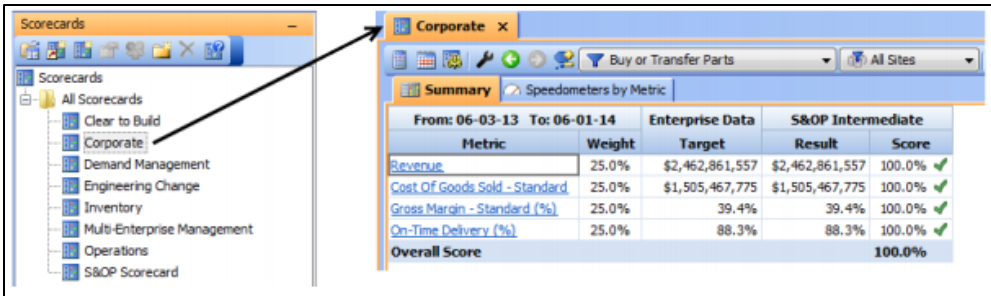
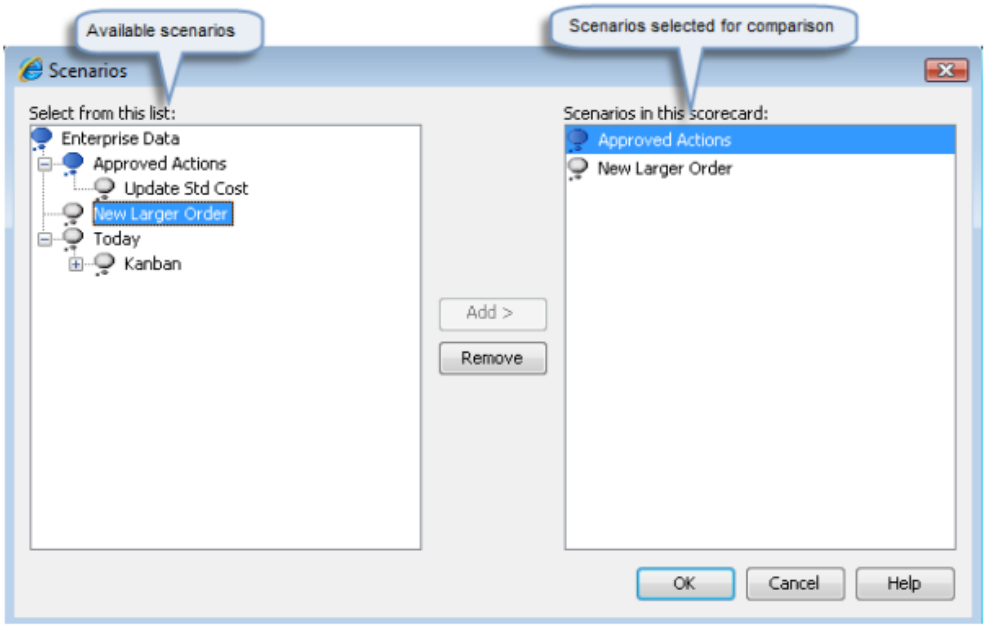
RapidResponse Applications Guide at p. 212, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).



▸ **Select the scenarios to compare**

Using Scorecards, you can compare multiple scenarios in order to select the one that best aligns with corporate objectives.

In order to calculate the impact of the new order on corporate objectives you must select the scenario that contains the new order data. The following illustration includes the New Larger Order scenario and the Approved Actions scenario, which excludes the new order data, so that you can compare the results of both situations against your overall corporate objectives.



▸ **Calculate the metrics**

The Corporate scorecard is available with RapidResponse and includes a number of financial metrics, as indicated in the following illustration. For each scenario included in the evaluation, the Corporate

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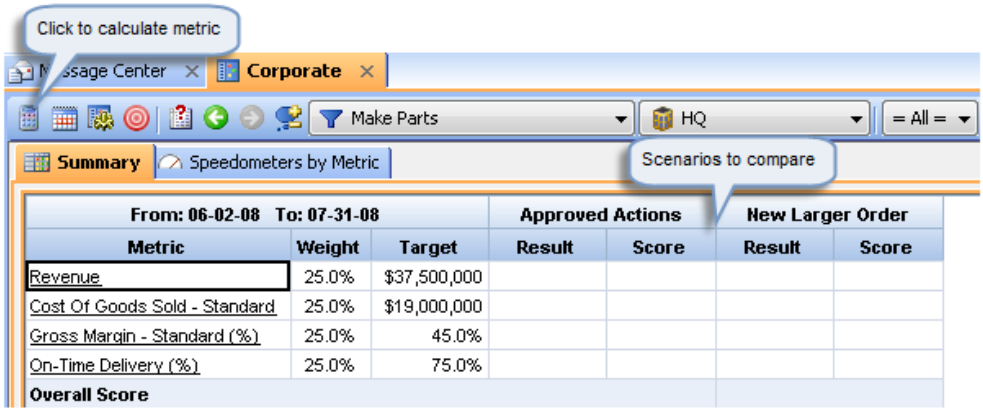
Evaluate the financial impact of operational changes (example)

RapidResponse Applications Guide at p. 213, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

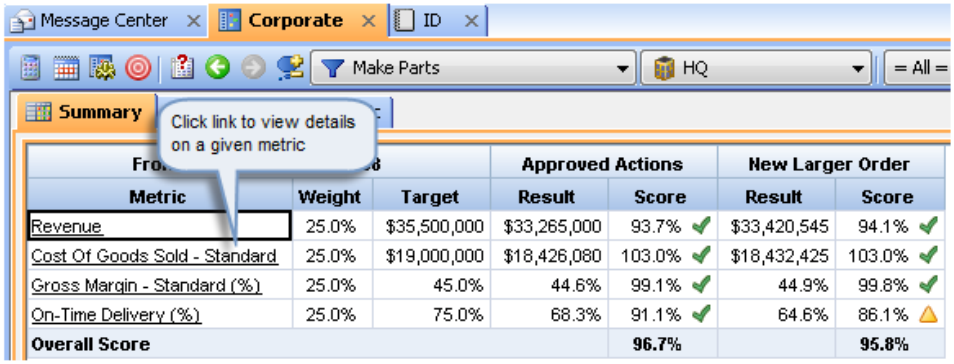
scorecard calculates metric results against predefined targets. You can then compare the scores of each scenario.



From: 06-02-08 To: 07-31-08			Approved Actions		New Larger Order	
Metric	Weight	Target	Result	Score	Result	Score
Revenue	25.0%	$37,500,000				
Cost Of Goods Sold - Standard	25.0%	$19,000,000				
Gross Margin - Standard (%)	25.0%	45.0%				
On-Time Delivery (%)	25.0%	75.0%				
Overall Score						

▸ **View analysis results**

In this analysis, you can see that the new large order will positively impact revenue, and gross margin. But, there will also be a negative impact on the on-time delivery percentages.



			Approved Actions		New Larger Order	
Metric	Weight	Target	Result	Score	Result	Score
Revenue	25.0%	$35,500,000	$33,265,000	93.7% ✓	$33,420,545	94.1% ✓
Cost Of Goods Sold - Standard	25.0%	$19,000,000	$18,426,080	103.0% ✓	$18,432,425	103.0% ✓
Gross Margin - Standard (%)	25.0%	45.0%	44.6%	99.1% ✓	44.9%	99.8% ✓
On-Time Delivery (%)	25.0%	75.0%	68.3%	91.1% ✓	64.6%	86.1% △
Overall Score				96.7%		95.8%

RapidResponse generated a score of 96.7 for the Approved Actions scenario while the score for the New Large Orders scenario is 95.8. Based on these results, the Approved Actions scenario best aligns with the established corporate targets.

Prior to turning down the large order, you want to investigate the details of the On Time Delivery (%). Click the metric link to view the underlying details associated with the metric. The following illustration provides details about the On Time Delivery (%) metric.

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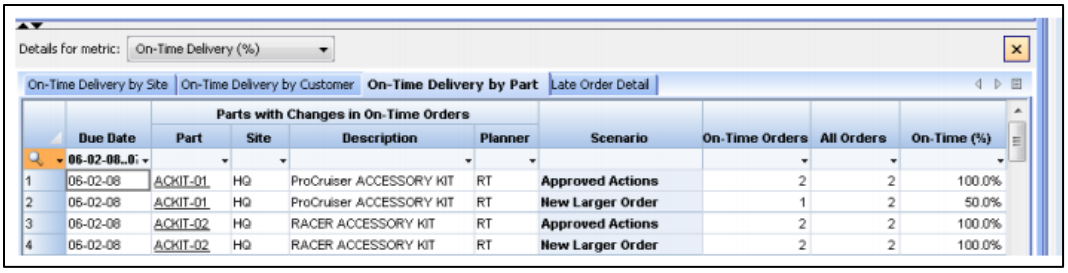
RapidResponse Applications Guide at p. 214, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).



Details for metric: On-Time Delivery (%)

On-Time Delivery by Site | On-Time Delivery by Customer | On-Time Delivery by Part | Late Order Detail

Parts with Changes in On-Time Orders

	Due Date	Part	Site	Description	Planner	Scenario	On-Time Orders	All Orders	On-Time (%)
1	06-02-08	ACKIT-01	HQ	ProCruiser ACCESSORY KIT	RT	Approved Actions	2	2	100.0%
2	06-02-08	ACKIT-01	HQ	ProCruiser ACCESSORY KIT	RT	New Larger Order	1	2	50.0%
3	06-02-08	ACKIT-02	HQ	RACER ACCESSORY KIT	RT	Approved Actions	2	2	100.0%
4	06-02-08	ACKIT-02	HQ	RACER ACCESSORY KIT	RT	New Larger Order	2	2	100.0%

RapidResponse Applications Guide at p. 215, https://help.kinaxis.com/20144/docs/rr_PDR.pdf (last visited 12/13/20).

172. On information and belief, RapidResponse performs the step of adjusting, by the computer, the inventory target of the node based on the adjusted supply parameter. This is supported by the exemplary evidence below.

Inventory Management

The risks of poor inventory management are inferior service, higher inventory levels, and lower profits. RapidResponse provides immediate and comprehensive inventory management analysis across your global supply chain with the Inventory Management application, which offers:

- Inventory target setting by part class.
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- Inventory ABC classification.
- Excess and obsolete inventory analysis.

Consider using the Inventory Management application if your company wants to:

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- Identify which products, commodities, and parts are not performing to target and re-examine inventory policy settings for better performance.
- Manage inventory imbalances that have occurred or are anticipated to occur.
- Evaluate course correction alternatives according to their achievement against key inventory metrics.

RapidResponse Fundamental Concepts Guide at p. 58, https://help.kinaxis.com/20144/Docs/RR_Fund_Concepts.pdf (last visited 12/13/20).

173. Kinaxis also indirectly infringes claims of the '868 Patent, as provided in 35 U.S.C. § 271(b), by inducing infringement by others, such as Kinaxis's customers and end users, in this District and elsewhere in the United States. For example, on information and belief, Kinaxis's customers and end users directly infringe through their use of the inventions

claimed in the '868 Patent. Kinaxis induces this direct infringement through its affirmative acts of manufacturing, selling, distributing, and/or otherwise making available the Accused Products, and providing instructions, documentation, online technical support, marketing, product manuals, advertisements, and other information to customers and end users suggesting they use the Accused Products in an infringing manner. As a result of Kinaxis's inducement, Kinaxis's customers and end users use the Accused Products in the way Kinaxis intends and directly infringe the '868 Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '868 Patent and with the intent, or willful blindness, that the induced acts directly infringe the '868 Patent.

174. Kinaxis also indirectly infringes claims of the '868 Patent, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as customers and end users, in this District and elsewhere in the United States. On information and belief, Kinaxis's affirmative acts of selling and offering to sell, in this District and elsewhere in the United States, the Accused Products and causing the Accused Products to be manufactured, used, sold, and offered for sale, contribute to Kinaxis's customers' and end users' use of the Accused Products, such that the '868 Patent is directly infringed. The accused features and components of the Accused Products are material to the invention of the '868 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Kinaxis to be especially made or especially adapted for use in infringement of the '868 Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '868 Patent and with intent, or willful blindness, that they cause the direct infringement of the '868 Patent.

COUNT VI: PATENT INFRINGEMENT OF THE '856 PATENT

175. Blue Yonder incorporates by reference the preceding paragraphs as though fully set forth herein.

176. Kinaxis infringes, contributes to the infringement of, and/or induces infringement of the '856 Patent by making, using, selling, offering for sale, and/or importing into the United States the Accused Products that are covered by one or more claims of the '856 Patent.

177. The Accused Products directly infringe, literally and/or by the doctrine of equivalents, at least claims 1, 2, and 3 of the '856 Patent. Kinaxis makes, uses, sells, offers for sale, and/or imports, in this District and elsewhere in the United States, the Accused Products and thus directly infringes claims of the '856 Patent.

178. For example, Claim 1 of the '856 Patent is reproduced below:

> 1. A computer-implemented method for generating a custom application, comprising:
>
> storing application parameters of a custom application for a trading partner in a supply chain network, the application parameters describing at least one user-customized display of supply chain data for the trading partner, the application parameters further defining a user-customized order of actions to be performed on the supply chain data and a type of the custom application;
>
> receiving one or more user-modifications of the user-customized display of supply chain data and the user-customized order of actions to be performed on the supply chain data;
>
> storing the received one or more user-modifications;
>
> receiving a request for supply chain data over a computer network from the trading partner;
>
> responsive to receiving the request for supply chain data from the trading partner, automatically identifying a role of the trading partner that made the request for supply chain data;
>
> responsive to identifying the role of the trading partner, generating at least one of the application parameters based on the role of the trading partner;
>
> generating a custom application comprising one or more user interfaces based on the stored application parameters and the at least one application parameter based on the role of the trading partner; and
>
> rendering for display the custom application to the trading partner wherein the one or more user interfaces display portions of the requested supply chain data based

on a format for display described in the application parameters and permit actions to be performed on the supply chain data based on the application parameters.

179. As a non-limiting example, on information and belief, RapidResponse performs a computer-implemented method for generating a custom application.

180. On information and belief, RapidResponse performs storing application parameters of a custom application for a trading partner in a supply chain network, the application parameters describing at least one user-customized display of supply chain data for the trading partner, the application parameters further defining a user-customized order of actions to be performed on the supply chain data and a type of the custom application. This is supported by the exemplary evidence below.

> Controls are user-interface elements you place on a form. There are presentation, input, and button controls with varying degrees of configurable properties. Control properties affect how a control displays and behaves on a form. For more information, see "Control properties" on page 923
>
> As you create or build a form, you drag controls from the Controls pane and drop them on to the form. Properties for each control are configured in the Properties pane.

RapidResponse Resource Authoring Guide at p. 909, https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).

Forms and scripts

Scripts run a series of actions that automate parts of a business process. For example, you can create a script to calculate the difference between the current date and the last date a scenario was accessed in a workbook. The script can then delete any scenarios not accessed in a specified number of weeks.

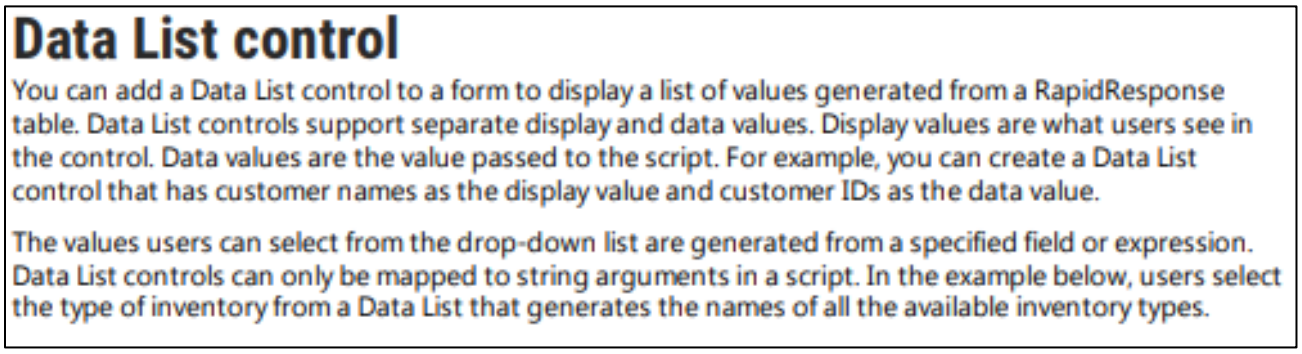
Forms are based on underlying scripts and provide a focused way for users to input values into the script actions. Scripts can be used to execute a wide range of actions. For example, you can create scripts that:

- Modify data in worksheets—adding, editing, or removing data.
- Manage scenarios—creating, sharing, and responding to scenarios.
- Send messages to users or groups.
- Perform administrative tasks—such as user provisioning, server management, or automation tasks. For more information, see the *RapidResponse Administration Guide*.

You can also create a script that executes multiple actions. For example, you can create a script that creates a new scenario, modifies data in the scenario, and then sends a message to users about the changes and to start a business process.

For any action that can be scripted, you can create a form based on that script. The diagram below illustrates the flow between a form and its underlying script.

RapidResponse Resource Authoring Guide at p. 899, https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).



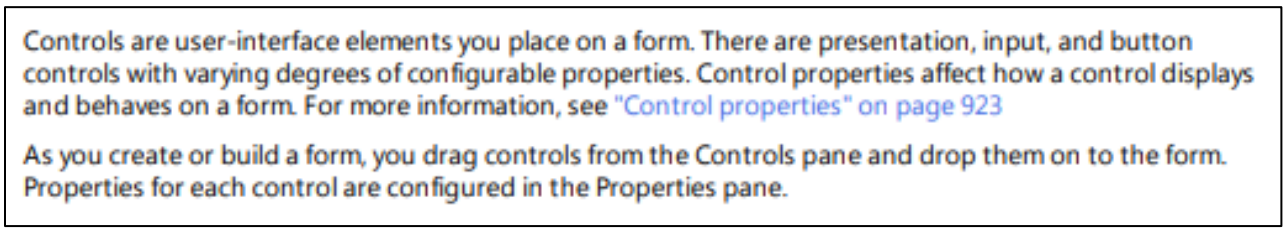
Data List control

You can add a Data List control to a form to display a list of values generated from a RapidResponse table. Data List controls support separate display and data values. Display values are what users see in the control. Data values are the value passed to the script. For example, you can create a Data List control that has customer names as the display value and customer IDs as the data value.

The values users can select from the drop-down list are generated from a specified field or expression. Data List controls can only be mapped to string arguments in a script. In the example below, users select the type of inventory from a Data List that generates the names of all the available inventory types.

RapidResponse Resource Authoring Guide at p. 932, https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).

181. On information and belief, RapidResponse performs receiving one or more user-modifications of the user-customized display of supply chain data and the user-customized order of actions to be performed on the supply chain data. This is supported by the exemplary evidence below.



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- Send messages to users or groups.
- Perform administrative tasks—such as user provisioning, server management, or automation tasks. For more information, see the *RapidResponse Administration Guide*.

You can also create a script that executes multiple actions. For example, you can create a script that creates a new scenario, modifies data in the scenario, and then sends a message to users about the changes and to start a business process.

For any action that can be scripted, you can create a form based on that script. The diagram below illustrates the flow between a form and its underlying script.

RapidResponse Resource Authoring Guide at p. 899, https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).

Data List control

You can add a Data List control to a form to display a list of values generated from a RapidResponse table. Data List controls support separate display and data values. Display values are what users see in the control. Data values are the value passed to the script. For example, you can create a Data List control that has customer names as the display value and customer IDs as the data value.

The values users can select from the drop-down list are generated from a specified field or expression. Data List controls can only be mapped to string arguments in a script. In the example below, users select the type of inventory from a Data List that generates the names of all the available inventory types.

RapidResponse Resource Authoring Guide at p. 932, https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).

182. On information and belief, RapidResponse performs storing the received one or more user-modifications. This is supported by the exemplary evidence below.

Depending on your authoring permissions, you can create a new form by building it from a blank start or generating it from an existing script. For more information, see "Form authoring permissions" on page 896.

You can edit any form that you own and change the form layout, form properties, control properties, or the underlying script the form is based on. For more information about how to edit a public resource, see "Modifying a public resource" on page 113.

The flow diagram below outlines the general steps to creating a form, depending on your authoring permissions and the scripts you have access to.

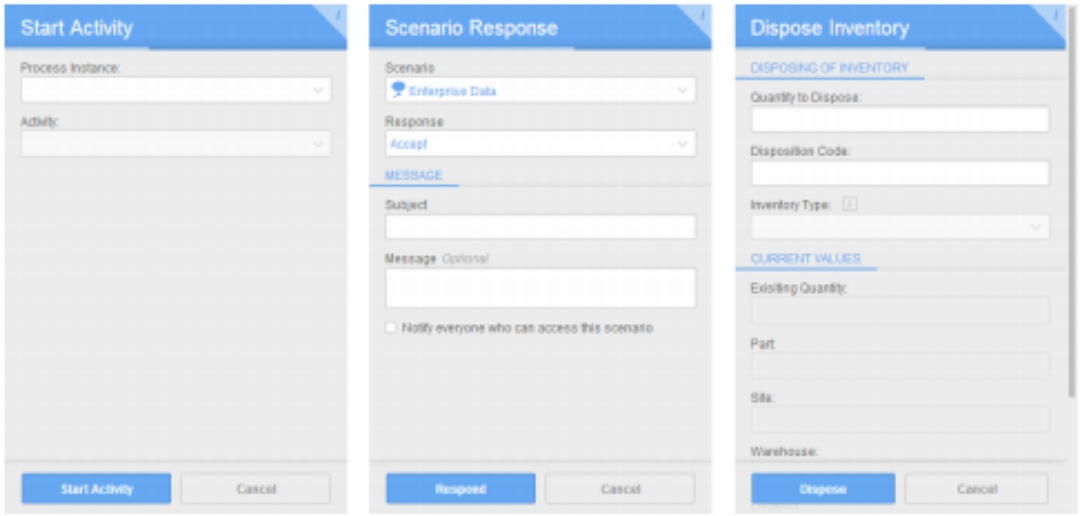
RapidResponse Resource Authoring Guide at p. 901, https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).

183. On information and belief, RapidResponse performs receiving a request for supply chain data over a computer network from the trading partner. This is supported by the exemplary evidence below.

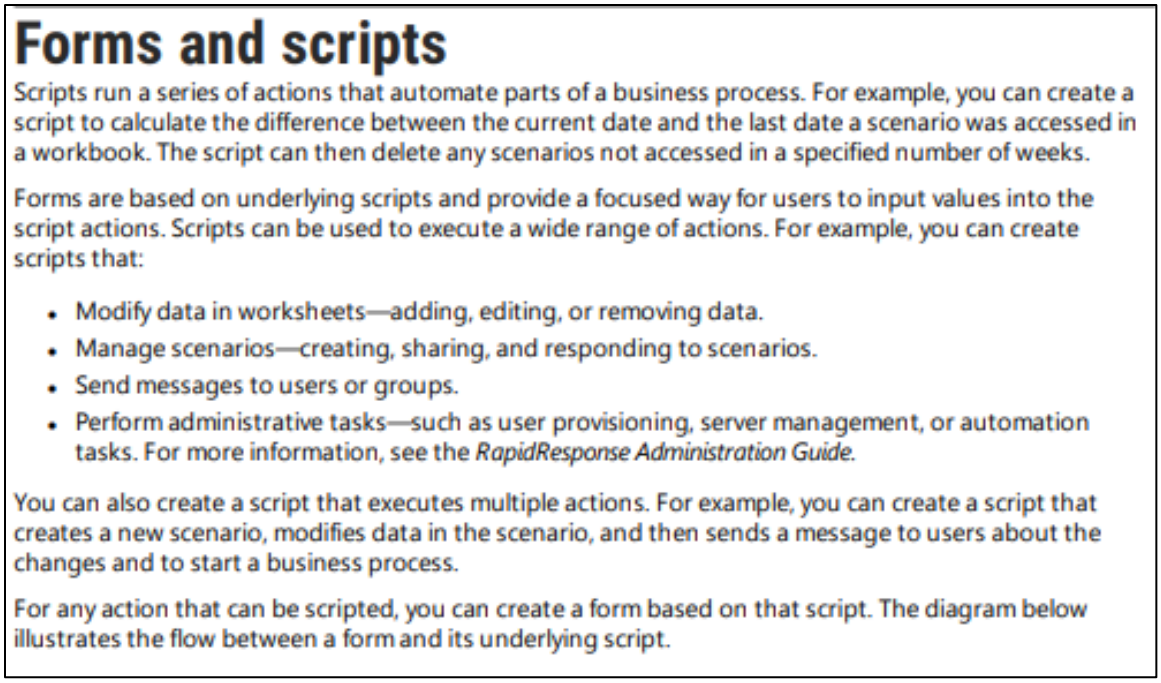
Forms are graphical user interfaces you design to help users accomplish business tasks. They provide guided and streamlined experiences that enable users to complete tasks faster and on the go.

Similar to dashboards, forms only need to be authored once and they can then run on either the desktop or mobile clients. For example, you might create a form that starts or finishes an activity in a process or a form that creates new order records. Administrators might use forms to perform administrative or maintenance tasks on the go, such as unlock a user account, change a user's password, or run an automation task. Users can access forms from the Explorer pane, the Start page, and Task Flows. On mobile devices, forms are opened from the Resources screen.

Forms can be designed with varying degrees of complexity, as shown in the form examples below:



RapidResponse Resource Authoring Guide at p. 895, https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).



Forms and scripts

Scripts run a series of actions that automate parts of a business process. For example, you can create a script to calculate the difference between the current date and the last date a scenario was accessed in a workbook. The script can then delete any scenarios not accessed in a specified number of weeks.

Forms are based on underlying scripts and provide a focused way for users to input values into the script actions. Scripts can be used to execute a wide range of actions. For example, you can create scripts that:

- Modify data in worksheets—adding, editing, or removing data.
- Manage scenarios—creating, sharing, and responding to scenarios.
- Send messages to users or groups.
- Perform administrative tasks—such as user provisioning, server management, or automation tasks. For more information, see the *RapidResponse Administration Guide*.

You can also create a script that executes multiple actions. For example, you can create a script that creates a new scenario, modifies data in the scenario, and then sends a message to users about the changes and to start a business process.

For any action that can be scripted, you can create a form based on that script. The diagram below illustrates the flow between a form and its underlying script.

RapidResponse Resource Authoring Guide at p. 899, https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).

184. On information and belief, RapidResponse performs responsive to receiving the request for supply chain data from the trading partner, automatically identifying a role of the trading partner that made the request for supply chain data. This is supported by the exemplary evidence below.

As a RapidResponse user administrator, you are responsible for creating and managing groups to provide users with permissions to access tools and resources they require to perform a particular task. Different users in your organization require different permissions and levels of functionality in RapidResponse. Some users might only view data, while others might perform simulations and create workbooks or filters.

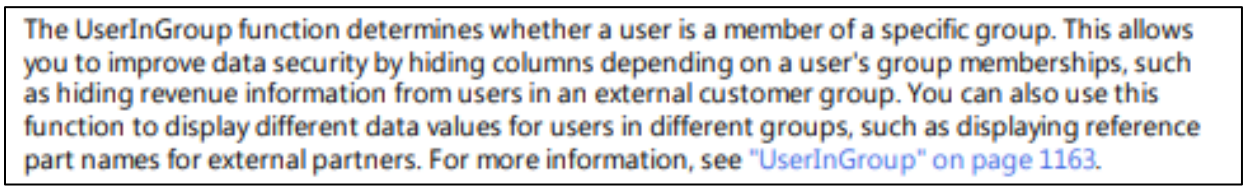
It is recommended that you provide users with access to RapidResponse resources by adding them to groups that have the required permissions and resources. This allows you to grant permissions to one group rather than many times to multiple users. This chapter describes how to provide RapidResponse permissions and resources to groups.

If a group does not provide all of the permissions or resources a user requires, you can add that user to multiple groups. Although it is recommended you assign resources and permissions through group memberships, if required, you can provide the user with access to RapidResponse resources and permissions on an individual basis. For more information, see "Granting and denying permissions for a user" on page 452.

Group membership might also be used to determine who can be assigned responsibility for data using a responsibility definition. For more information, see the *RapidResponse Resource Authoring Guide*.

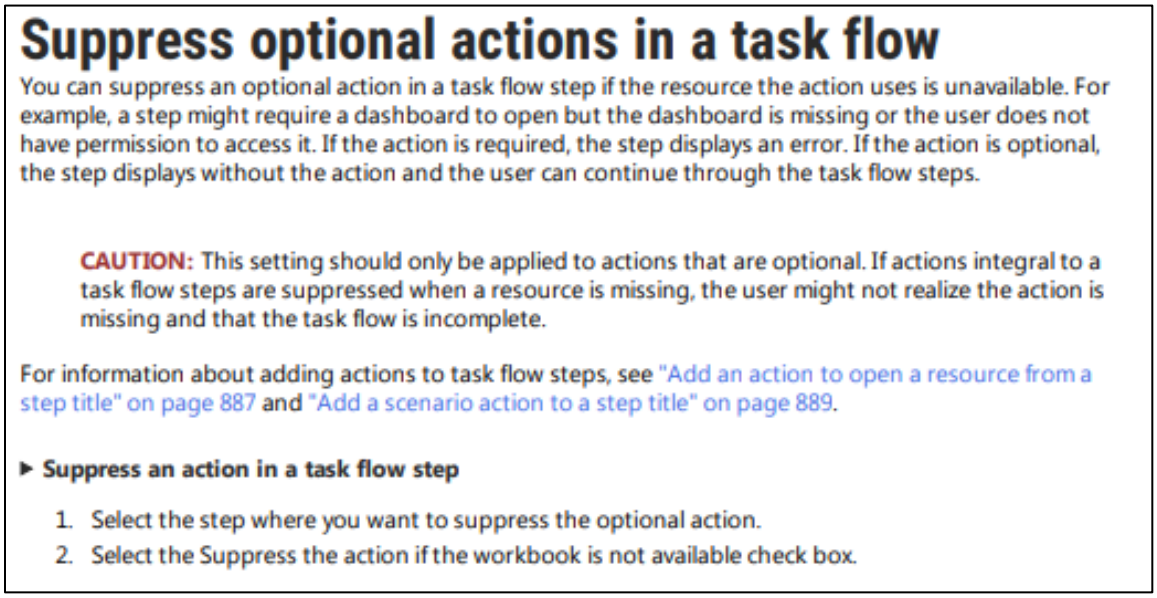
RapidResponse Administrators Guide at p. 419,
https://help.kinaxis.com/20144/docs/rr_admin.pdf (last visited 12/13/20)

185. On information and belief, RapidResponse performs responsive to identifying the role of the trading partner, generating at least one of the application parameters based on the role of the trading partner. This is supported by the exemplary evidence below.



The UserInGroup function determines whether a user is a member of a specific group. This allows you to improve data security by hiding columns depending on a user's group memberships, such as hiding revenue information from users in an external customer group. You can also use this function to display different data values for users in different groups, such as displaying reference part names for external partners. For more information, see "UserInGroup" on page 1163.

RapidResponse Resource Authoring Guide at p. 58,
https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).



Suppress optional actions in a task flow

You can suppress an optional action in a task flow step if the resource the action uses is unavailable. For example, a step might require a dashboard to open but the dashboard is missing or the user does not have permission to access it. If the action is required, the step displays an error. If the action is optional, the step displays without the action and the user can continue through the task flow steps.

CAUTION: This setting should only be applied to actions that are optional. If actions integral to a task flow steps are suppressed when a resource is missing, the user might not realize the action is missing and that the task flow is incomplete.

For information about adding actions to task flow steps, see "Add an action to open a resource from a step title" on page 887 and "Add a scenario action to a step title" on page 889.

▶ **Suppress an action in a task flow step**

1. Select the step where you want to suppress the optional action.
2. Select the Suppress the action if the workbook is not available check box.

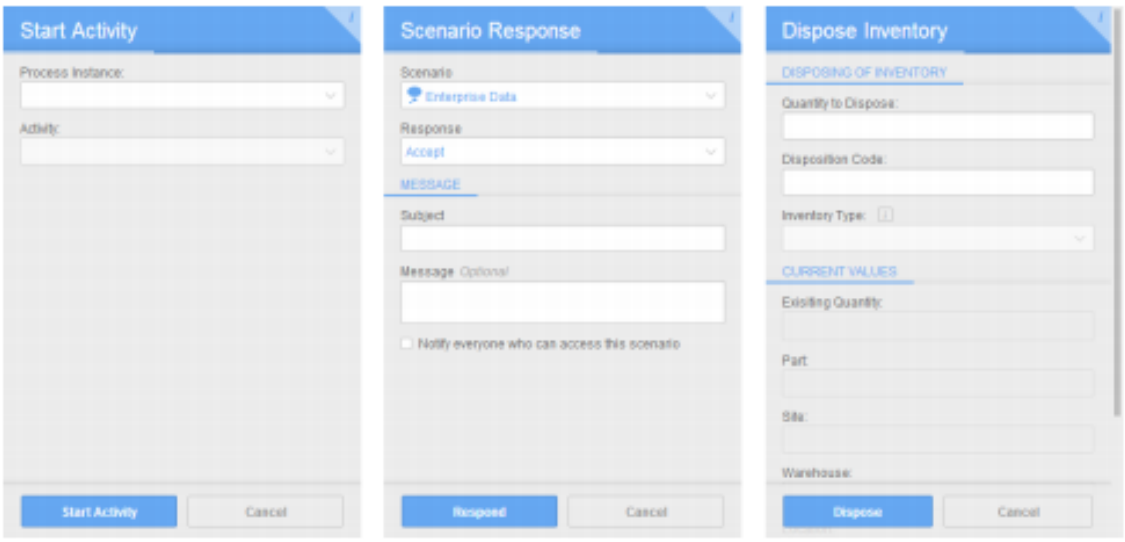
RapidResponse Resource Authoring Guide at p. 892,
https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).

186. On information and belief, RapidResponse performs generating a custom application comprising one or more user interfaces based on the stored application parameters and the at least one application parameter based on the role of the trading partner. This is supported by the exemplary evidence below.

Forms are graphical user interfaces you design to help users accomplish business tasks. They provide guided and streamlined experiences that enable users to complete tasks faster and on the go.

Similar to dashboards, forms only need to be authored once and they can then run on either the desktop or mobile clients. For example, you might create a form that starts or finishes an activity in a process or a form that creates new order records. Administrators might use forms to perform administrative or maintenance tasks on the go, such as unlock a user account, change a user's password, or run an automation task. Users can access forms from the Explorer pane, the Start page, and Task Flows. On mobile devices, forms are opened from the Resources screen.

Forms can be designed with varying degrees of complexity, as shown in the form examples below:



RapidResponse Resource Authoring Guide at p. 895, https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).

Forms and scripts

Scripts run a series of actions that automate parts of a business process. For example, you can create a script to calculate the difference between the current date and the last date a scenario was accessed in a workbook. The script can then delete any scenarios not accessed in a specified number of weeks.

Forms are based on underlying scripts and provide a focused way for users to input values into the script actions. Scripts can be used to execute a wide range of actions. For example, you can create scripts that:

- Modify data in worksheets—adding, editing, or removing data.
- Manage scenarios—creating, sharing, and responding to scenarios.
- Send messages to users or groups.
- Perform administrative tasks—such as user provisioning, server management, or automation tasks. For more information, see the *RapidResponse Administration Guide*.

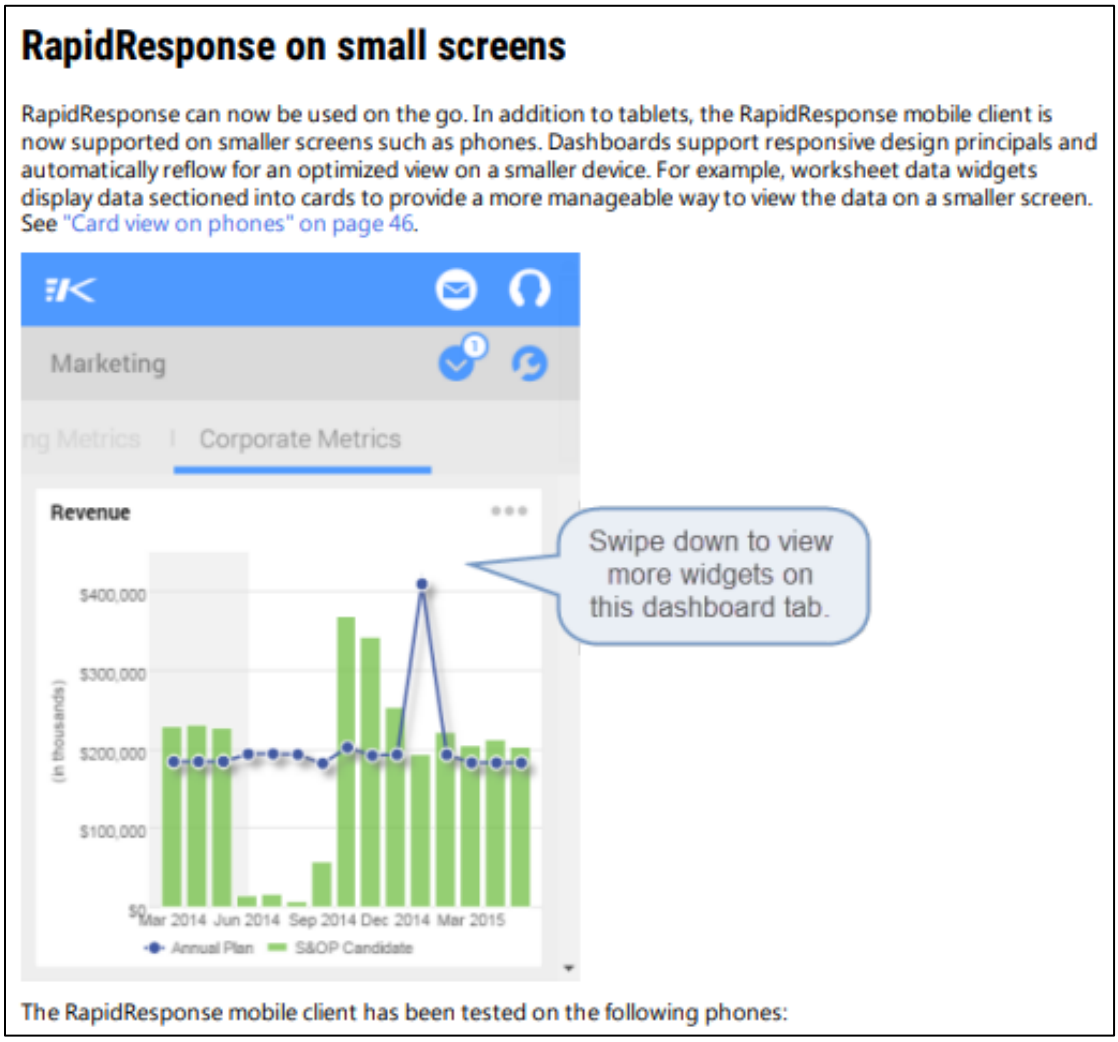
You can also create a script that executes multiple actions. For example, you can create a script that creates a new scenario, modifies data in the scenario, and then sends a message to users about the changes and to start a business process.

For any action that can be scripted, you can create a form based on that script. The diagram below illustrates the flow between a form and its underlying script.

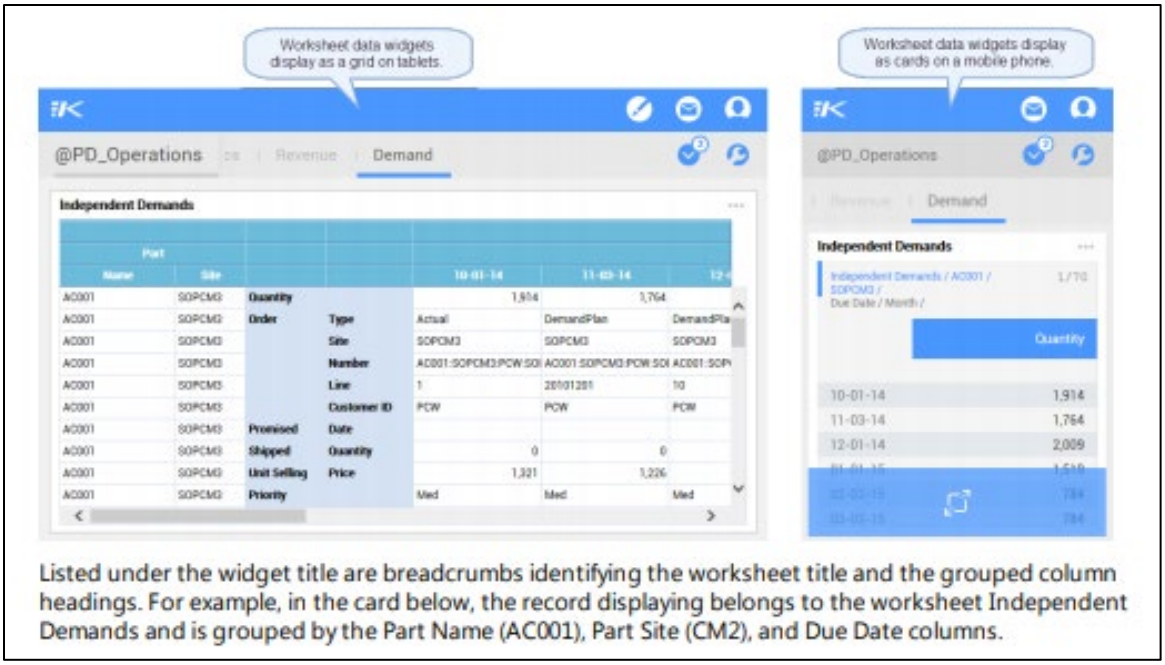
RapidResponse Resource Authoring Guide at p. 899,

https://help.kinaxis.com/20144/docs/rr_author.pdf (last visited 12/13/20).

187. On information and belief, RapidResponse performs rendering for display the custom application to the trading partner wherein the one or more user interfaces display portions of the requested supply chain data based on a format for display described in the application parameters and permit actions to be performed on the supply chain data based on the application parameters. This is supported by the exemplary evidence below.



RapidReponse User Guide (Mobile Client) at p.17, https://help.kinaxis.com/20144/docs/rr_user_mobile.pdf (last visited 12/13/20).



RapidReponse User Guide (Mobile Client) at p. 47, https://help.kinaxis.com/20144/docs/rr_user_mobile.pdf (last visited 12/13/20).

188. Kinaxis also indirectly infringes claims of the '856 Patent, as provided in 35 U.S.C. § 271(b), by inducing infringement by others, such as Kinaxis's customers and end users, in this District and elsewhere in the United States. For example, on information and belief, Kinaxis's customers and end users directly infringe through their use of the inventions claimed in the '856 Patent. Kinaxis induces this direct infringement through its affirmative acts of manufacturing, selling, distributing, and/or otherwise making available the Accused Products, and providing instructions, documentation, online technical support, marketing, product manuals, advertisements, and other information to customers and end users suggesting they use the Accused Products in an infringing manner. As a result of Kinaxis's inducement, Kinaxis's customers and end users use the Accused Products in the way Kinaxis intends and directly infringe the '856 Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '856 Patent and with the intent, or willful blindness, that the induced acts directly infringe the '856 Patent.

189. Kinaxis also indirectly infringes claims of the '856 Patent, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as customers and end users, in this District and elsewhere in the United States. On information and belief, Kinaxis's affirmative acts of selling and offering to sell, in this District and elsewhere in the United States, the Accused Products and causing the Accused Products to be manufactured, used, sold, and offered for sale, contribute to Kinaxis's customers' and end users' use of the Accused Products, such that the '856 Patent is directly infringed. The accused features and components of the Accused Products are material to the invention of the '856 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Kinaxis to be especially made or especially adapted for use in infringement of the '856 Patent. Kinaxis has performed and continues to perform these affirmative acts with knowledge of the '856 Patent and with intent, or willful blindness, that they cause the direct infringement of the '856 Patent.

PRAYER FOR RELIEF

WHEREFORE, Blue Yonder respectfully requests that this Court enter judgment in its favor as follows and award Blue Yonder the following relief:

(a) an award of damages adequate to compensate Blue Yonder for infringement of the Patents-in-Suit by Kinaxis, in an amount to be proven at trial, including supplemental post-verdict damages until such time as Kinaxis ceases its infringing conduct;

(b) a permanent injunction prohibiting Kinaxis and its officers, directors, employees, agents, consultants, contractors, suppliers, distributors, all affiliated entities, and all others acting in privity with Kinaxis, from committing further acts of infringement;

(c) enhanced damages for willful infringement;

(d) the costs of this action, as well as attorneys' fees as provided by 35 U.S.C. § 285;

(e) pre-judgment and post-judgment interest at the maximum amount permitted by law;

(f) all other relief, in law or equity, to which Blue Yonder is entitled.

DEMAND FOR JURY TRIAL

Plaintiff hereby demands a jury trial for all issues so triable.

Dated: December 14, 2020

MCKOOL SMITH, P.C.

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