

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

BERKELEY*IEOR d/b/a B*IEOR, a Nevada
Corporation,

Plaintiff,

v.

TERADATA OPERATIONS, INC., W.W.
GRAINGER, INC., DHL EXPRESS (USA),
INC., DANZAS CORPORATION, d/b/a DHL
GLOBAL FORWARDING, AND AIR
EXPRESS INTERNATIONAL USA, INC.,
d/b/a DHL GLOBAL FORWARDING,

Defendants.

Case No. 17-cv-07472

JURY TRIAL DEMANDED

SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Berkeley*IEOR d/b/a B*IEOR (“B*IEOR”), a Nevada corporation, for its Complaint against Defendants Teradata Operations, Inc. (“Teradata”), W.W. Grainger, Inc. (“Grainger”), DHL Express (USA), Inc., Danzas Corporation d/b/a DHL Global Forwarding, and Air Express International USA, Inc. d/b/a DHL Global Forwarding (collectively, “Defendants”) states as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 et seq., including 35 U.S.C. §§ 271, 281, 283, 284, and 285.

THE PARTIES

2. Plaintiff Berkeley*IEOR d/b/a B*IEOR (“B*IEOR”) is a corporation organized under the laws of the state of Nevada with its principal place of business in Charlevoix, Michigan.

3. Teradata Operations, Inc. (“Teradata”) is a corporation organized under the laws of the state of Delaware with its principal place of business located at 10000 Innovation Drive, Dayton, Ohio 45342.

4. W.W. Grainger, Inc. (“Grainger”) is a corporation organized under the laws of the state of Illinois with its principal place of business located at 100 Grainger Parkway, Lake Forest, Illinois 60045.

5. Defendant DHL Express (USA), Inc. (“DHL Express”) is a corporation organized under the laws of the state of Ohio with its principal place of business located at 1210 South Pine Island Road, Plantation, Florida 33324.

6. Defendant Danzas Corporation d/b/a DHL Global Forwarding (“Danzas”) is a corporation organized under the laws of the state of Ohio with its principal place of business located at 1210 South Pine Island Road, Plantation, Florida 33324.

7. Defendant Air Express International USA, Inc. d/b/a DHL Global Forwarding (“Air Express”) is a corporation organized under the laws of the state of Ohio with its principal place of business located at 1210 South Pine Island Road, Plantation, Florida 33324.

8. Defendants DHL Express, Danzas, and Air Express are collectively referred to in this Second Amended Complaint as (“DHL”).

JURISDICTION AND VENUE

9. This is an action for patent infringement arising under the patent laws of the United States, Title 35, United States Code. This Court has exclusive subject matter jurisdiction over this case for patent infringement under 28 U.S.C. §§ 1331 and 1338.

10. This Court has personal jurisdiction over Defendants and venue is proper in this District pursuant to 28 U.S.C. §§ 1391(b) and 1400(b).

11. Teradata maintains and has maintained a regular and established place of business in this District. This includes, among other things, Teradata's physical office location at 20 North Upper Wacker, 12th Floor, Chicago, IL 60606, where Teradata employees regularly operate and service Teradata clients within this District.

12. Teradata has committed acts of patent infringement giving rise to this action within the State of Illinois and this District, through, among other things, its engagement with and activities involving DHL and Grainger as set forth in this Complaint.

13. Teradata maintains and has maintained a registered agent for service of process on record with the Illinois Office of The Secretary of State at CT Corporation System, 208 South LaSalle Street, Suite 814, Chicago, Illinois 60604.

14. Grainger is a corporation organized under the laws of the state of Illinois. Grainger maintains a regular and established place of business at its world headquarters at 100 Grainger Parkway, Lake Forest, Illinois 60045.

15. Grainger has committed acts of patent infringement giving rise to this action within the State of Illinois and this District as set forth in this Complaint.

16. DHL maintains and has maintained regular and established places of business in this District. These include, among other places, physical facilities and offices near Chicago O'Hare International Airport and Chicago Midway International Airport.

17. DHL's facilities and offices in this District include "DHL Global Forwarding's largest facility in the country" at the time of its opening in 2015. (Ex. J at 1). On information and belief, Danzas and Air Express, which do business under the name DHL Global Forwarding, are divisions of Deutsche Post AG.

18. These facilities and offices also include multiple air cargo gateways, which, on information and belief, are operated in this District by DHL Express.

19. DHL Express, Danzas, and Air Express maintain and have maintained a registered agent for service of process on record with the Illinois Office of The Secretary of State at CT Corporation System, 208 South LaSalle Street, Suite 814, Chicago, Illinois 60604.

20. On information and belief, DHL Express has committed acts of patent infringement giving rise to this action within the State of Illinois and this District, through, among other things, the actions described in this Second Amended Complaint, performed by DHL Express in this District.

21. On information and belief, Danzas has committed acts of patent infringement giving rise to this action within the State of Illinois and this District, through, among other things, the actions described in this Second Amended Complaint, performed by Danzas in this District.

22. On information and belief, Air Express has committed acts of patent infringement giving rise to this action within the State of Illinois and this District, through, among other things, the actions described in this Second Amended Complaint, performed by Air Express in this District.

THE ASSERTED PATENTS

A. The Three Asserted Patents.

23. On September 29, 2009, the United States Patent and Trademark Office duly and legally issued U.S. Patent Number 7,596,521 (the “‘521 Patent”), entitled “Process for Determining Object Level Profitability.” A true and correct copy of the ‘521 Patent is attached as Exhibit A to this Complaint.

24. On February 1, 2011, the United States Patent and Trademark Office duly and legally issued U.S. Patent Number 7,882,137 (the “‘137 Patent”), entitled “Process for

Determining Object Level Profitability.” A true and correct copy of the ‘137 Patent is attached as Exhibit B to this Complaint.

25. On December 17, 2013, the United States Patent and Trademark Office duly and legally issued U.S. Patent Number 8,612,316 (the “‘316 Patent”), entitled “Process for Determining Object Level Profitability.” A true and correct copy of the ‘316 Patent is attached as Exhibit C to this Complaint.

26. The ‘521 Patent, ‘137 Patent and ‘316 Patent are collectively referred to herein as the “Asserted Patents.”

B. Ownership of the Asserted Patents.

27. Richard “Tad” Lepman is the named inventor of each of the Asserted Patents.

28. On or around April 7, 2000, Mr. Lepman assigned all rights, title and interest in and to the Asserted Patents to Berkeley*IEOR, a California corporation (“B*IEOR California”).

29. In or around December 2002, B*IEOR California was succeeded by Plaintiff B*IEOR, a newly formed Nevada corporation.

30. B*IEOR is presently the owner and assignee of each of the Asserted Patents and has the exclusive right to sue for and recover all past, present, and future damages for infringement of the Asserted Patents.

31. In 2008, B*IEOR moved its original principal place of business to Charlevoix, Michigan.

C. The Improvement Needed for Accurately Measuring Profit Contribution.

32. Prior to the filing of the Asserted Patents, businesses struggled to accurately measure profit contribution at a resolution necessary to make strategic decisions. A company’s best resource for understanding its profits came from financial statements—typically compliant with Generally Accepted Accounting Principles (GAAP)—such as balance sheets, income or loss

and cash flow financial statements. Such traditional financial statements reported on profits in the aggregate (*e.g.*, subsidiary-wide or possibly division-wide).

33. Such aggregated information led to blindness regarding the profit contribution measures necessary to implement account, product, or customer level decision making, particularly in large businesses with many millions of accounts, items sold, or customers. *See, e.g.*, Ex. A, the ‘521 Patent at 1:10-3-60 (discussing problems presented in prior art).

34. To address these deficiencies, the Asserted Patents disclose calculating profitability associated with the smallest common component of profit measurement desired—namely, the profit “object.”

35. Examples of profit measurement objects referenced in the Asserted Patents’ specifications include an insurance company using a “policy” object, a bank using an “account” object, and an airline using a “seat” object as a profit object. Expanding on an airline “seat” object example, the claimed inventions enable an airline to determine profitability at the “seat” level—each seat of each segment of each flight of each origin or destination. *See, e.g.*, Ex. A at FIG. 14 (showing a partial relational database schema for the airline industry example with the entities and attributes used as an example of the improved database processing).

36. The inventions of the Asserted Patents provide management a single version of the truth when evaluating multiple dimensions of profitability (such as product, account, customer, or item), which was not possible before.

D. The Technological Improvements Needed to Determine Object Level Profitability on a Massive Scale.

37. Prior to the filing date of the Asserted Patents, others attempted to calculate certain profitability-related measures for individual customer accounts on a limited scale, either manually, or sometimes through traditional procedural-based computer software with limited success.

38. However, due to technical limitations associated with relying primarily on traditional procedural-based software (*e.g.*, using conventional if, then, else statements), such prior attempts could not provide sufficient flexibility or the capability to simultaneously support the number of calculation permutations required to achieve the functionality made possible by the present invention, much less within the time needed.

39. Concepts disclosed in the Asserted Patents include, among others, allowing multiple profitability factors to be processed independently and simultaneously by a relational database management system (RDBMS), resulting in significantly improved performance, compared to methods relying largely on traditional procedural-based software.

40. Thus, the Asserted Patents disclose and claim not only the idea of determining object level profitability, but also recite limitations directed to employing unconventional technological solutions to these technological problems encountered by the prior art.

41. In particular, the Asserted Patents claim unconventional uses of relational database management techniques, independent and simultaneous calculation techniques, and combinations of rules and data in a mathematical set theoretic framework that improve upon the capabilities, performance, and scalability (ability to maintain performance as the number of users and volume of data grows) of traditional procedural-based computer software, which largely relies on sequential and iterative processing and logic.

42. For example, the specifications of the Asserted Patents disclose, and the claimed processes of the Asserted Patents embody, the use of a particular type of unconventional rules, “micro profit measurement rules,” along with the unconventional use of RDBMS and independent and simultaneous calculation techniques, to produce information into a new, improved, and specific format (*i.e.*, the profit object) that is then used and applied to create desired results of a

profit report for the measurement of object level profitability—thus improving computer functionality and providing “large scale businesses a lower cost of maintenance and a technologically scalable tool to measure profit at a level of precision or resolution not possible in prior financial performance measurement processes.” *See, e.g.*, Ex. A, the ‘521 Patent at 3:27-5:30.

43. These claimed features make it possible to achieve a technologically scalable solution capable of measuring profit at a level of precision, resolution, and speed not possible in prior computerized financial performance measurement processes.

44. The Asserted Patents disclose and teach multiple benefits from the claimed processes, including, for example, scalability, flexibility, and lower cost of maintenance. In doing so, the specifications of the Asserted Patents teach that the processes improve upon and function differently than conventional profit level measurement and database structures. *See, e.g.*, Ex. A, the ‘521 Patent at 3:29-34 (“Such a process should utilize rule driven and data base management processes which will give large scale businesses a lower cost of maintenance and a technologically scalable tool to measure profit at a level of precision or resolution not possible in prior financial performance measurement processes. The present invention fulfills this need and provides other related advantages.”); 8:33-41 (“The DPM invention uses profit measurement rules separate from, but applied, to object data and the use of relational database concepts, given the user flexibility in both the assignment and depth of measurement rules and measurement resolution. . . .”).

BACKGROUND FACTS

A. Mr. Lepman’s Conception of The Inventions of the Asserted Patents.

45. B*IEOR’s relationship with Teradata dates back to the 1990s when Teradata’s predecessor, NCR Corporation (“NCR”), engaged B*IEOR to provide consulting services.

46. During this timeframe, NCR was in the business of, among other things, building and developing operating systems, database hardware, and software computing solutions.

47. B*IEOR's consulting services specialized in the design and development of large scale decision support solutions.

48. In or around the mid to late 1990s, B*IEOR's president, Richard "Tad" Lepman (also the named inventor of the Asserted Patents), conceived the functional and technical ideas behind the inventions claimed in the Asserted Patents while strategizing on and designing an improved profitability measurement solution both NCR and B*IEOR could bring to market. NCR was interested in marketing a solution of this type to clients in the retail banking industry and B*IEOR was interested in marketing it to clients outside the retail banking industry.

49. B*IEOR and NCR worked together in building the first commercial embodiment of Mr. Lepman's inventions, which Royal Bank of Canada ("RBC") implemented in April 1999. This commercial embodiment received much industry acclaim and was ultimately named "Value Analyzer" or "Teradata Value Analyzer" (hereinafter, "TVA").

50. On April 9, 1999, the same month RBC's implementation of TVA went live, Mr. Lepman filed the provisional application with the USPTO to which the Asserted Patents claim priority.

B. The Limited Field of Use License Not at Issue in This Case.

51. On or around June 1, 1999, B*IEOR and NCR executed a license agreement ("License Agreement") under which B*IEOR licensed NCR for limited uses of B*IEOR and/or Mr. Lepman's inventions.

52. B*IEOR, however, licensed NCR only for certain activities falling within a stated field of use ("Limited Field of Use") expressly limited to, among other things, direct sales to NCR clients that derive the majority of their annual gross revenue from retail financial services ("Retail

Banking Businesses”). In other words, certain implementations of TVA concerning Retail Banking Businesses fall within NCR’s Limited Field of Use, while other implementations do not.

53. Defendant Grainger is not, and has never been, a Retail Banking Business and, thus, at least the Grainger TVA implementation at issue here falls outside the Limited Field of Use.

54. Defendants DHL are not, and have never been, a Retail Banking Business and, thus, at least the TVA implementation by DHL at issue here falls outside the Limited Field of Use.

55. As a result, the Counts of this Complaint arise from Defendants’ infringement under the patent laws of the United States rather than the License Agreement confined to the Limited Field of Use.

C. Teradata’s TVA Implementations Outside the Limited Field of Use.

56. In 2007, NCR spun off its data warehousing business into a separate legal entity. Teradata formed as a result of this spin-off.¹

57. On or around September 29, 2009, B*IEOR sent a letter to Teradata announcing the issuance of the ‘521 Patent. (See Ex. D, Correspondence from B*IEOR to Teradata). In that letter, B*IEOR asked for a meeting with Teradata to discuss its ongoing sales of TVA, particularly those falling outside the Limited Field of Use.

58. In July 2010, the parties met in-person to discuss, among other things, the ‘521 Patent and then-existing implementations of TVA. During that meeting, Teradata took the position that it and some of its customers were discontinuing use of TVA and did not perform certain steps

¹ B*IEOR denies that Teradata and/or its parent company acquired NCR’s rights under the License Agreement. Still, whether Teradata did or did not acquire NCR’s rights is of no moment here. B*IEOR does not allege or seek remedies for acts of patent infringement falling within the Limited Field of Use in this Complaint, nor does B*IEOR allege here that any party has breached the License Agreement.

recited in the claims of the '521 Patent and that other customers fell within the Limited Field of Use.

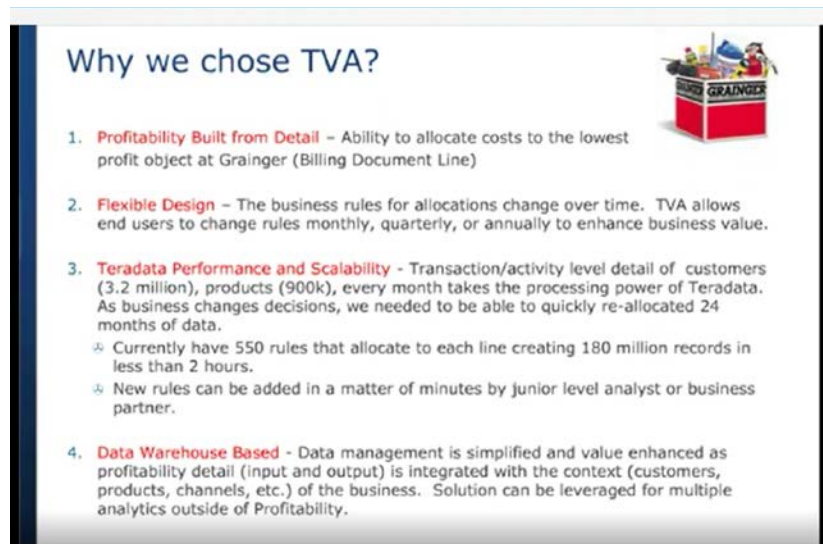
59. B*IEOR has since learned that this is not the case, at least for certain implementations of TVA, such as by Grainger and DHL.

D. Grainger's TVA Implementation.

60. In or around 2010, Teradata partnered with Grainger and implemented, among other things, the "Teradata Value Analyzer software." (See Ex. E, Grainger Press Release at p. 1).

61. Grainger's implementation allocates to "the lowest profit object." (Ex. F, Grainger Case Study at p. 2).

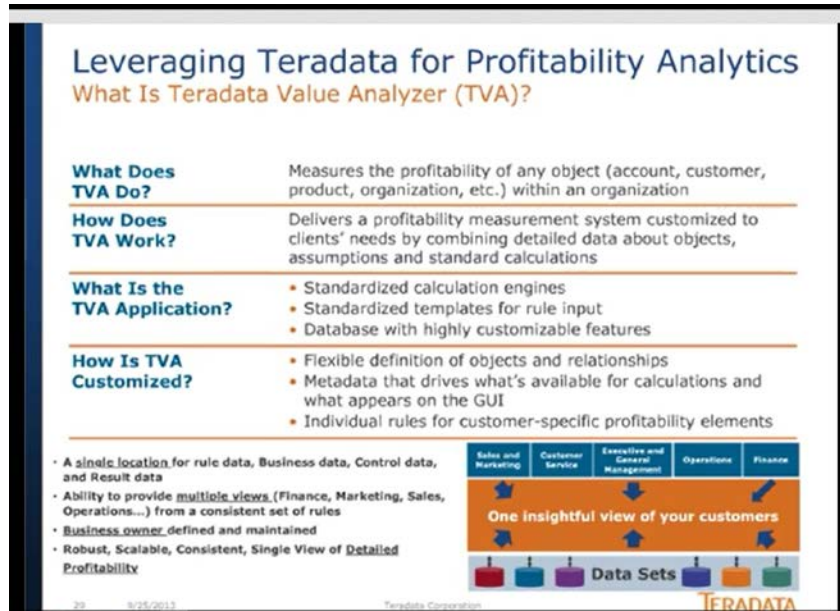
62. Teradata's website publishes a video recording of a September 2013 slide presentation (the "2013 Teradata–Grainger Presentation")² discussing the benefits promoted by Teradata and enjoyed by Grainger through their implementation of TVA and use of the inventions of the Asserted Patents.



(2013 Teradata–Grainger Presentation).

² As of the date of this Complaint, the 2013 Teradata–Grainger Presentation is available at www.teradata.com/Resources/Web-Casts/Leveraging-Profitability-to-Drive-Business-Growth/?LangType=1033&LangSelect=true.

63. The 2013 Teradata–Grainger Presentation refers to the TVA’s ability to “measur[e] the profitability of any object (account, customer, product, organization, etc.)” for a “Robust, Scalable Consistent Single View of Detailed Profitability.”



(2013 Teradata–Grainger Presentation).

64. Teradata reports that Grainger saw a return on its investment within four months and soon brought in an additional \$80 million in revenue as a result of the project. (Ex. F at p. 2).

E. DHL’s TVA Implementation.

65. In or around 2013³, Teradata partnered with DHL and implemented, among other things, the “Teradata Value Analyzer” as a “as a costing and profitability engine.” (Ex. H at p. 3).

66. Teradata and DHL refer to DHL’s TVA implementation, together with a corresponding data warehouse, as INSIGHT.

³ (See *Gaining Insights From a Global Finance Transformation* at www.teradata.com/Resources/Videos/DHL-Express-Gaining-Insights-From-a-Global-F at 0:30-0:35) (“In 2013, DHL embarked on project INSIGHT”)

Ultimately, we chose to expand upon the existing Teradata solution, adding Teradata Value Analyzer as a costing and profitability engine, and the data warehouse as a repository and reporting platform for the output data. The new application is called INSIGHT.

(Ex. H at p. 3).

67. DHL uses TVA / INSIGHT to “see the profitability of any trade lane, any customer or any product.” (Ex. H at p. 4).

68. DHL’s TVA / INSIGHT implementation “generates cost and profitability figures for every shipment.”

The result is INSIGHT—a single, worldwide costing system that reconciles quality data to the company’s global profit-and-loss statement. The system works by collecting and analyzing data from all of DHL’s transactions with the customers it serves. From there, the system generates cost and profitability figures for every shipment (hundreds of millions annually) across a global network that includes 31,500 vehicles, 260 aircraft and over 4,000 facilities.

(Ex. L at p. 2).

69. It has been reported that DHL’s TVA / INSIGHT implementation contributed to “COST SAVINGS IN THE ‘HUNDREDS OF MILLIONS’” (Ex. L at 4).

COUNT I - DIRECT INFRINGEMENT OF THE ASSERTED PATENTS - GRAINGER

70. The allegations set forth in the foregoing paragraphs 1 through 69 are hereby re-alleged and incorporated by reference.

71. In violation of 35 U.S.C. §271(a), Grainger has infringed at least Claims 1 – 4 of the ‘521 Patent, Claims 1 and 2 of the ‘137 Patent and Claims 1 and 2 of the ‘316 Patent (hereinafter, the “Asserted Claims”)⁴ by making, using, offering for sale, selling and/or importing the inventions claimed.

⁴ B*IEOR reserves the right to assert additional claims beyond the Asserted Claims identified in this complaint.

72. Grainger performs the steps recited in the Asserted Claims in connection with their usage of the TVA and related activities.

73. As exemplified by the following statements, Grainger performs a process for determining object level profitability as recited in the Asserted Claims of the '316 and '521 Patents and a process for transforming a computerized profit database as recited in the Asserted Claims of the '137 Patent:

Teradata . . . partnered with [Grainger] . . . “to implement new analytics capabilities utilizing Teradata’s Active Enterprise Data Warehouse (EDW) platform and Teradata Value Analyzer software.”

(Ex. E at p. 1);

Teradata Value Analyzer (TVA) is Teradata’s tool for calculating the profit contribution for all of a company’s accounts, customers, relationships or other entities. This gives the management team the valuable information needed to understand and affect the profit dynamics of the business.

(Ex. G, TVA Technical Overview, at p. 3);

The lowest level of detail at which TVA will calculate profitability. This may be a bank customer’s checking account, airline’s passenger name record or a shipping company’s package. A base profit object may or may not be related to an associate profit object (defined below).

(Ex. G at p. 3).

74. Grainger practices the claimed step of providing a computerized profit database having profit information, as recited in the Asserted Claims of the '137 and '316 Patents.

75. By way of example, Grainger generates, furnishes, supplies, makes available, and/or prepares factual profit data used for TVA processing:

There is a series of tables containing the client’s operational data. This is the actual data from the client’s systems of record and it is used to drive the profitability calculations. For example, if the client has 30 million accounts and 15 million customers, these tables may be populated with the following types of information: Account numbers and attributes for each of the 30 million base profit objects (in this case the client’s accounts are recognized as base profit objects by TVA) . .

. . These tables are updated each TVA processing cycle with new data from the client's systems of record. Although these tables are relatively few, they constitute a large amount of the data in the database.

(Ex. G at p. 7).

76. Grainger practices the claimed step of providing a relational database management system operable in association with the computerized profit database, as recited in the Asserted Claims of the '137 and '316 Patents, as well as the claimed step of providing a relational database management system operable in association with a computer as recited in the Asserted Claims of the '521 Patent.

77. By way of example, Grainger, furnishes, supplies, makes available, and/or prepares the TVA relational database management system:



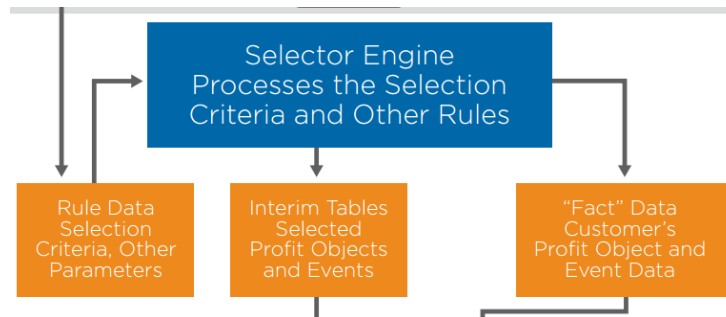
(2013 Teradata–Grainger Presentation);

TVA calculates profitability by loading detailed data about the company's accounts, customers, relationships and activities into the TVA database. The user-defined rules are matched to the appropriate data sets and detailed calculations are performed. The result is the profit contribution for each of the items and relationships loaded into the database, along with a supporting audit trail.

(Ex. G at 2).

78. Grainger practices the claimed step of preparing the profit information to be accessed electronically through the relational database management system.

79. By way of example, Grainger prepares profit information for use by the TVA's selector engine:



(Ex. G at p. 4).

80. Grainger calculates opportunity values for funds used or supplied by each object being measured as recited in the Asserted Claims.

81. By way of example, Grainger states its TVA implementation is “fully reconciled to the General Ledger.” In conformance with GAAP, a general ledger’s corresponding financial data accounts for amounts such as (i) the cost of carried inventory, aggregated into interest expense shown in Granger’s audited financial statements according to GAAP interest expense and/or (ii) marginal interest, such as cost of funds used or supplied per Granger’s management accounting policy. (2013 Teradata Grainger Presentation); (Ex. F at p. 2) (the [TVA] data “helps Grainger make daily decisions and gives them the visibility into the quarter—long before [traditional GAAP based] quarterly financial reports [are available]”).

82. Further, Exhibit M provides an example of a GAAP-compliant “Consolidated Statements of Cash Flows” financial statement from a recent Grainger 10-K annual report. Exhibit M indicates that Grainger makes “cash payments for interest” totaling tens-of millions USD each year. (Ex. M at p. 45). On information and belief, these cash payments correspond to funds used or supplied by Grainger’s objects.

83. Further, on information and belief, Grainger uses TVA to calculate net interest (“NI”) or to perform similar calculations for particular objects. These types of calculations rely on TVA first calculating amounts such as interest expense and/or cost of funds used.

84. Each of these types of amounts or values are examples of opportunity values for funds used or supplied, which can vary from object to object.

85. On information and belief, one or more of the 530-plus rules Grainger states it uses in its TVA implementation are used for types of opportunity value calculations.

86. Grainger practices the claimed step of establishing, in the relational database, rules for processing the prepared information, including the steps of providing information necessary to select objects and performing a profit calculus, as recited in the Asserted Claims.

87. By way of example, Grainger uses the TVA to “change rules monthly, quarterly or annually to enhance business value.” (Ex. F at p. 2) (“Expanded [from] 280 rules and calculations to over 530 within 5 months”).

88. The TVA’s use of database established rules is discussed extensively in a 13-page technical overview Teradata makes available on its website (the “TVA Technical Overview”):

All Balance Types, Products and Product Groups, Profit Object Attributes and Profit Object Events are user definable. Since these attributes are all available to be used in rule definitions and selection criteria, this gives the user a great deal of flexibility in defining selection criteria and allows for very specific database segmentation to which rules may be applied.

(Ex. G at p. 5).

89. Grainger practices the claimed step of using the relational database management system to independently calculate at least one marginal value of profit for each object being measured using the established rules as applied to a selected set of prepared information, as recited in the Asserted Claims.

90. By way of example, Grainger performs the claimed calculations through its use of TVA's SQL-driven "In Database" TVA calculation engine:



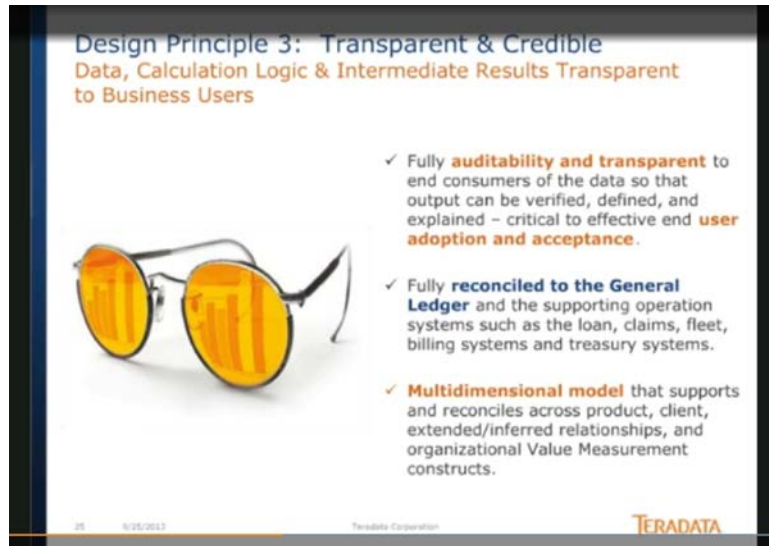
(2013 Teradata–Grainger Presentation);

Because Rule Type and Calculation Type segment the Calculation Engine, significant processing efficiencies can be realized when running a set of rules. Rules of similar calculation types are automatically run in parallel. The architecture of the TVA Calculation Engine is designed for maximum processing efficiency while maintaining a detailed audit trail.

(Ex. G at p. 6).

91. On information and belief, Grainger practices the claimed step of using the relational database management system to calculate a fully absorbed profit adjustment value for each object being measured, as recited in the Asserted Claims of the '521 and '137 Patents.

92. By way of example, Grainger use the TVA to generate output that can be reconciled to Grainger's general ledger, which involves performing a fully absorbed profit adjustment value calculation:



(2013 Teradata–Grainger Presentation).

93. Grainger practices the claimed step of combining the calculated values to create a measure for object level profitability, as recited in the Asserted Claims of the ‘316 Patent.

94. By way of example, Grainger uses the TVA and/or related technologies to combine the values calculated by the TVA engine to arrive at and/or report on profitability measures for the contemplated objects:

After calculating the results of the individual rules, the Calculation Engine goes through a process of aggregating the results by Profit Object and by scenario to arrive at a final profitability component value for each Profit Object in the database.

(Ex. G at p. 9);

The result is the profit contribution for each of the items and relationships loaded into the database, along with a supporting audit trail. The results may then be aggregated, sorted and examined to any level of detail for additional analysis.

(Ex. G at p. 2);

Grainger also leverages profitability analytics to support brand/segment profitability reporting and value-based contracting/customer profitability. The company can take detailed revenue and costing techniques to drive insights into their business. This includes HR costs, distribution and logistics costs, customers (A, B; but not C) and their profitability to the company. This data helps Grainger make daily decisions and gives them the visibility into the quarter—long before quarterly financial reports.

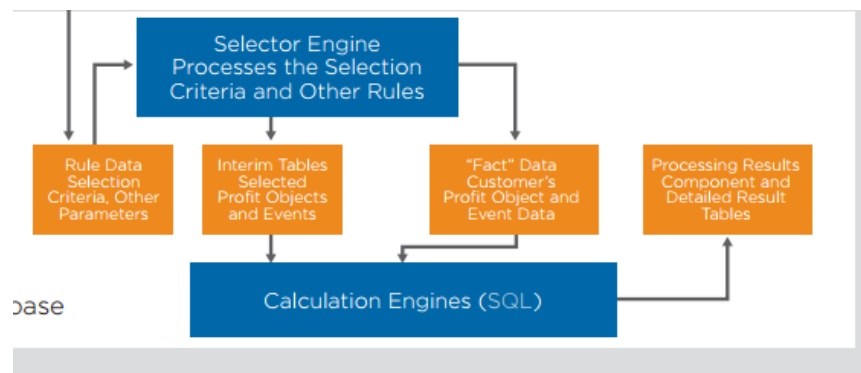
(Ex. F at p. 2).

[TVA implementation] fully reconciled to the General Ledger and the supporting operating systems such as the loan, claims, fleet, billing systems and treasury systems.

(2013 Teradata-Grainger Presentation).

95. The TVA relational database management system used by Grainger comprises a structured query language (SQL), as recited in certain Asserted Claims of each of the Asserted Patents.

96. By way of example, the TVA calculation engines are SQL driven:



(Ex. G at 4).

97. Grainger's infringement has been willful to the extent it has known of the Asserted Patents and/or is willful to the extent it has continued with its infringing actions since having been made aware of them in connection with the initiation of this lawsuit.

98. B*IEOR is entitled to damages in accordance with 35 U.S.C. §§ 271, 281, and 284.

COUNT II - DIRECT INFRINGEMENT OF THE ASSERTED PATENTS – DHL EXPRESS

99. The allegations set forth in the foregoing paragraphs 1 through 98 are hereby re-alleged and incorporated by reference.

100. In violation of 35 U.S.C. §271(a) and/or (g), DHL Express has infringed at least Claims 1 – 4 of the '521 Patent, Claims 1 and 2 of the '137 Patent and Claims 1 and 2 of the '316

Patent (hereinafter, the “Asserted Claims”)⁵ by: (i) making, using, offering for sale, selling and/or importing the inventions claimed; and/or (ii) importing into the United States or offering to sell, selling, or using within the United States a product which is made by a process claimed in the Asserted Patents.

101. On information and belief, DHL Express performs the steps recited in the Asserted Claims in connection with its usage of TVA / INSIGHT and related activities.

102. To the extent DHL Express does not perform each step of the Asserted Claims itself, the performance of the steps may be attributed to DHL Express such that DHL Express is a direct infringer of the Asserted Claims and is alleged to have performed each step of the Asserted Claims.

103. As exemplified by the following statements, on information and belief, DHL Express performs a process for determining object level profitability as recited in the Asserted Claims of the ‘316 and ‘521 Patents and a process for transforming a computerized profit database as recited in the Asserted Claims of the ‘137 Patent:

Teradata Value Analyzer runs monthly batch processes in which select data from DHL’s tracking, billing and general ledger systems, together with country-specific reference data, is processed in a complex costing algorithm.

(Ex. H at p. 3);

Teradata Value Analyzer (TVA) is Teradata’s tool for calculating the profit contribution for all of a company’s accounts, customers, relationships or other entities. This gives the management team the valuable information needed to understand and affect the profit dynamics of the business.

(Ex. G, TVA Technical Overview, at p. 3);

The lowest level of detail at which TVA will calculate profitability. This may be a bank customer’s checking account, airline’s passenger name record or a shipping

⁵ B*IEOR reserves the right to assert additional claims beyond the Asserted Claims identified in this complaint.

company's package. A base profit object may or may not be related to an associate profit object (defined below).

(Ex. G at p. 3);

The [TVA / INSIGHT] system works by collecting and analyzing data from all of DHL's transactions with the customers it serves. From there, the system generates cost and profitability figures for every shipment (hundreds of millions annually) across a global network that includes 31,500 vehicles, 260 aircraft and over 4,000 facilities.

(Ex. L at p. 2).

104. DHL Express practices the claimed step of providing a computerized profit database having profit information, as recited in the Asserted Claims of the '137 and '316 Patents.

105. By way of example, on information and belief, DHL Express generates, furnishes, supplies, makes available, and/or prepares factual profit data used for TVA processing:

There is a series of tables containing the client's operational data. This is the actual data from the client's systems of record and it is used to drive the profitability calculations. For example, if the client has 30 million accounts and 15 million customers, these tables may be populated with the following types of information:
. . . . Account numbers and attributes for each of the 30 million base profit objects (in this case the client's accounts are recognized as base profit objects by TVA) . .
. . These tables are updated each TVA processing cycle with new data from the client's systems of record. Although these tables are relatively few, they constitute a large amount of the data in the database.

(Ex. G at p. 7).

106. DHL Express practices the claimed step of providing a relational database management system operable in association with the computerized profit database, as recited in the Asserted Claims of the '137 and '316 Patents, as well as the claimed step of providing a relational database management system operable in association with a computer as recited in the Asserted Claims of the '521 Patent.

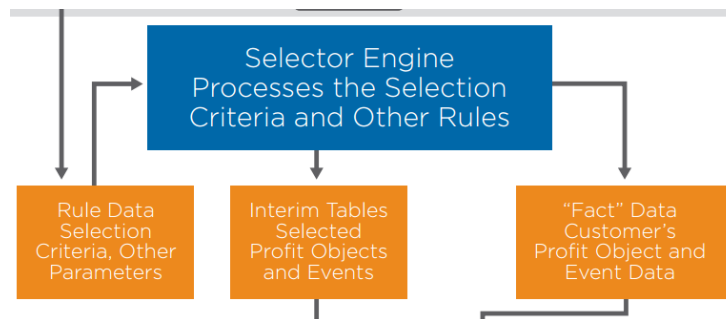
107. By way of example, DHL Express generates, furnishes, supplies, makes available, and/or prepares the TVA relational database management system:

TVA calculates profitability by loading detailed data about the company's accounts, customers, relationships and activities into the TVA database. The user-defined rules are matched to the appropriate data sets and detailed calculations are performed. The result is the profit contribution for each of the items and relationships loaded into the database, along with a supporting audit trail.

(Ex. G at 2).

108. DHL Express practices the claimed step of preparing the profit information to be accessed electronically through the relational database management system, as recited in the Asserted Claims.

109. By way of example, DHL Express prepares profit information for use by the TVA's selector engine:



(Ex. G at p. 4);

That is, until DHL turned to Teradata for its profitability analytics capabilities. The result is INSIGHT—a single, worldwide costing system that reconciles quality data to the company's global profit-and-loss statement. The system works by collecting and analyzing data from all of DHL's transactions with the customers it serves. From there, the system generates cost and profitability figures for every shipment (hundreds of millions annually) across a global network that includes 31,500 vehicles, 260 aircraft and over 4,000 facilities.

(Ex. L at p. 2).

110. DHL Express calculates opportunity values for funds used or supplied by each object being measured as recited in the Asserted Claims.

111. By way of example, DHL Express states its TVA implementation “reconciles quality data to the company’s global profit-and-loss statement.” (Ex. L at p. 2). In conformance with GAAP, a company’s profit-and-loss statement accounts for amounts such as GAAP interest expense and/or marginal interest, such as cost of funds used or supplied.

112. Exhibit N provides an example of a GAAP-compliant “Cash Flow” financial statement from a recent DHL annual report. Exhibit N indicates that DHL accounts for “interest received” and “interest paid” totaling tens or hundreds of millions of Euros each year. (Ex. M at p. 45). On information and belief, these types of payments or receipts correspond to funds used or supplied by DHL Express’s objects.

113. Further, on information and belief, DHL Express uses TVA to calculate net interest (“NI”) or to perform similar calculations for particular objects. These types of calculations rely on TVA first calculating amounts such as interest expense and/or cost of funds used.

114. Each of these types of amounts or values are examples of opportunity values for funds used or supplied, which can vary from object to object.

115. Further, DHL Express states its TVA implementation “interfaces to local general ledger systems for service-center-level financial detail and with more detailed costing rules.” (Ex. H at 4). On information and belief, one or more of these types of rules are used for types of opportunity value calculations.

116. DHL Express practices the claimed step of establishing, in the relational database, rules for processing the prepared information, including the steps of providing information necessary to select objects and performing a profit calculus, as recited in the Asserted Claims.

117. By way of example, DHL Express has implemented “detailed costing rules” for its TVA implementation (Ex. H at 4).

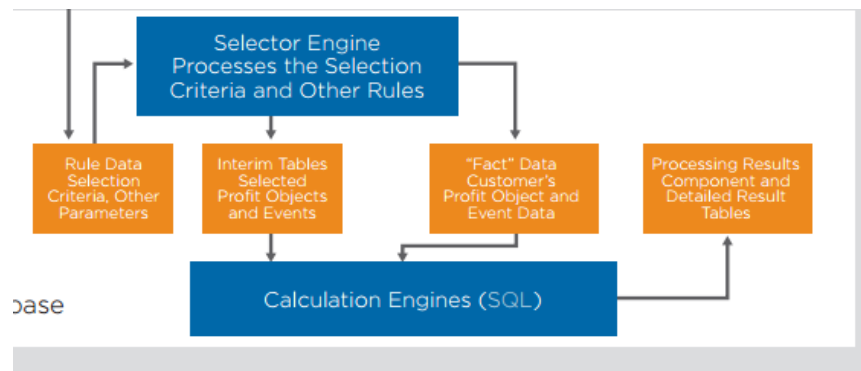
118. The TVA’s use of database established rules is discussed extensively in a 13-page technical overview Teradata makes available on its website (the “TVA Technical Overview”):

All Balance Types, Products and Product Groups, Profit Object Attributes and Profit Object Events are user definable. Since these attributes are all available to be used in rule definitions and selection criteria, this gives the user a great deal of flexibility in defining selection criteria and allows for very specific database segmentation to which rules may be applied.

(Ex. G at p. 5).

119. On information and belief, DHL Express practices the claimed step of using the relational database management system to independently calculate at least one marginal value of profit for each object being measured using the established rules as applied to a selected set of prepared information, as recited in the Asserted Claims.

120. By way of example, DHL Express performs the claimed calculations through its use of TVA’s SQL-driven TVA calculation engine:



(Ex. G at 4);

The Calculation Engines use the results of the Selector Engine, Rule data and the client’s operational data to calculate the results of each rule for each applicable Profit Object.

(Ex. G at p. 9);

Because Rule Type and Calculation Type segment the Calculation Engine, significant processing efficiencies can be realized when running a set of rules. Rules of similar calculation types are automatically run in parallel. The architecture of the TVA Calculation Engine is designed for maximum processing efficiency while maintaining a detailed audit trail.

(Ex. G at p. 6).

121. On information and belief, DHL Express practices the claimed step of using the relational database management system to calculate a fully absorbed profit adjustment value for each object being measured, as recited in the Asserted Claims of the '521 and '137 Patents.

122. By way of example, DHL Express uses the TVA to generate output that can be reconciled to DHL Express's general ledger, which involves performing a fully absorbed profit adjustment value calculation:

[DHL has] implemented a global costing system which reconciles with global P&L. Shipping, billing and general ledger information fed into Teradata Data Warehouse which runs the Teradata Value Analyser (TVA) calculation engine. From this DHL enables margin management, carbon accounting, profitability reporting, cost management, operational benchmarking and trade-lane control.

(Ex. I at p. 1).

123. DHL Express practices the claimed step of combining the calculated values to create a measure for object level profitability, as recited in the Asserted Claims of the '316 Patent.

124. By way of example, DHL Express uses the TVA and/or related technologies to combine the values calculated by the TVA engine to arrive at and/or report on profitability measures for the contemplated objects:

After calculating the results of the individual rules, the Calculation Engine goes through a process of aggregating the results by Profit Object and by scenario to arrive at a final profitability component value for each Profit Object in the database.

(Ex. G at p. 9);

The result is the profit contribution for each of the items and relationships loaded into the database, along with a supporting audit trail. The results may then be aggregated, sorted and examined to any level of detail for additional analysis.

(Ex. G at p. 2);

[DHL's] analyzer calculates two sets of costs—actual unit costs that typically reflect significant month-to-month variability, and standard costs based on periods of actual costs to average those variations.

After validation to check that every shipment has been costed and matched against billing records, the computed costs flow into two virtual data marts within the data warehouse. One supports profitability reporting, the other cost management.

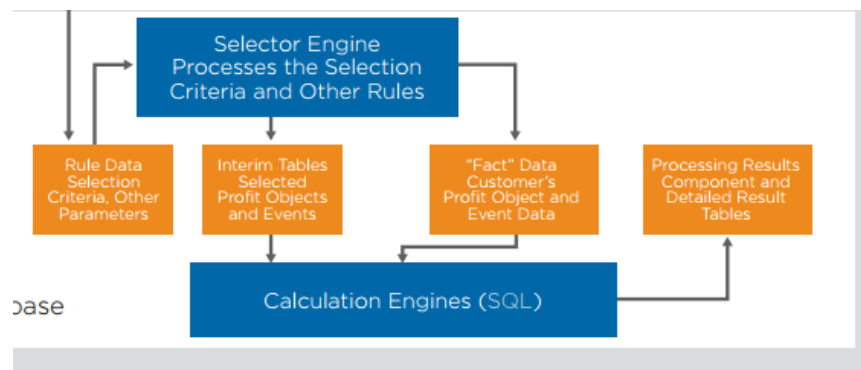
(Ex. H at p. 3);

[DHL has] implemented a global costing system which reconciles with global P&L. Shipping, billing and general ledger information fed into Teradata Data Warehouse which runs the Teradata Value Analyser (TVA) calculation engine. From this DHL enables margin management, carbon accounting, profitability reporting, cost management, operational benchmarking and trade-lane control.

(Ex. I at p. 1).

125. The TVA relational database management system used by DHL Express comprises a structured query language (SQL), as recited in certain Asserted Claims of each of the Asserted Patents.

126. By way of example, the TVA calculation engines are SQL driven:



(Ex. G at 4).

127. To the extent DHL Express does not perform each step of the Asserted Claims itself, the performance of the steps may be attributed to DHL Express such that DHL Express is a direct infringer of the Asserted Claims and is alleged to have performed each step of the Asserted Claims.

128. For example, to the extent any entity other than DHL Express performs any step of the Asserted Claims, DHL Express profits from the performance of the Asserted Claims and directs or controls the acts for the performance of the Asserted Claims. DHL Express moreover conditions participation in the activity of determining object level profitability and/or receives the benefit upon performance of a step or steps of the Asserted Claims and establishes the manner or timing of that performance when it profits from the use of the Asserted Claims or causes a different entity to perform the steps of the Asserted Claims for determining DHL Express's object level profitability.

129. To the extent DHL Express performs the steps of the claimed processes of the Asserted Patents outside the United States, DHL Express infringes under 35 USC 271(g) by importing into the United States or offering to sell, selling, or using within the United States a product which is made by a process claimed in the Asserted Patents.

130. By way of example, DHL Express uses the TVA and/or related technologies to perform the patented steps of the Asserted Patents to make, manufacture, create or otherwise provide calculated object level profitability values using a relational database management system, where such values are written to, or otherwise present in, a relation database and/or other forms of electronic content (hereinafter, "Profitability Records").

After calculating the results of the individual rules, the Calculation Engine goes through a process of aggregating the results by Profit Object and by scenario to arrive at a final profitability component value for each Profit Object in the database.

(Ex. G at 9).

131. DHL Express uses the Profitability Records to generate profitability reports, cost reports and/or reports of a similar nature (hereinafter, “Profitability Reports”).

Teradata Value Analyzer runs monthly batch processes in which select data from DHL’s tracking, billing and general ledger systems, together with country-specific reference data, is processed in a complex costing algorithm. Initial preprocessing and validation extracts specific event stamps from the operational data, reducing billions of records to millions. Then the analyzer calculates two sets of costs—actual unit costs that typically reflect significant month-to-month variability, and standard costs based on periods of actual costs to average those variations.

After validation to check that every shipment has been costed and matched against billing records, the computed costs flow into two virtual data marts within the data warehouse. One supports profitability reporting, the other cost management. A Web-based user interface provides global access to a comprehensive library of pre-designed IBM Cognos reports.

(Exhibit H at p. 3 - 4).

132. The Profitability Records and/or Profitability Reports are tangible products.

133. The Profitability Records and/or Profitability Reports are, and have been, imported into the United States or offered for sale, sold or used within the United States by DHL Express, DHL Express employees and/or others with access:

We’ve built standard reports that should answer most cost and margin questions. You define the parameters, e.g., product, trade lane, period, etc., then push the button and out comes your data. You can see the profitability of any trade lane, any customer or any product. You have access to all the cost and revenue detail on every shipment, and it will be available to **every pricing manager in every country**.

(Ex. H at p. 4) (emphasis added).

134. DHL Express launched TVA / INSIGHT “in every country ... at the same time.”

We needed to be 100% sure INSIGHT was going to work from Day 1. Teradata helped us with the architecture and the design to make sure that our Big Bang approach would work when we switched **every country** onto the new system at the same time.

(Ex. L at 5) (emphasis added).

135. DHL Express provides a “customizable version” of TVA / INSIGHT in “larger countries,” such as the United States, “with interfaces to local general ledger systems for service-center-level financial detail and with more detailed costing rules.” (Ex. H at p. 5).

136. The Profitability Records made by the processes claimed in the Asserted Patents have not been materially changed by subsequent processes and are non-trivial and essential components of the Profitability Reports and/or other products DHL Express has imported into the United States, offered for sale, sold or used within the United States.

137. DHL Express employees within the United States or other US-based TVA / INSIGHT users include, among others, “pricing managers” at DHL Express hub facilities in this District and others who operate in similar capacities in the United States. (Ex. H at 4) (“[reports] will be available to every pricing manager in every country”).

138. On information and belief, one of these hub facilities includes the “500,000 square-foot office and warehouse space” DHL operates near Chicago O’Hare Airport in this District (the “O’Hare Facility”). (Ex. J at p. 1). The O’Hare Facility is “DHL Global Forwarding’s largest facility in the country.” (Ex. J at p. 1).

139. On information and belief, DHL Express employs at the O’Hare Facility and/or elsewhere in this District, pricing managers, employees with a similar function, and/or other employees who import or use Profitability Records and/or Profitability Reports in making pricing decisions:

In this role you will identify and implement appropriate pricing for DHL Air Freight products and services by gathering data, following industry developments and providing tactical and strategic responses on a station or country basis.

(Ex. K at 1) (“Air Freight Pricing Specialist -Chicago, Illinois”).

140. DHL Express's infringement has injured and will continue to injure B*IEOR and B*IEOR is entitled to recover damages adequate to compensate it for DHL Express's infringement, which in no event can be less than a reasonable royalty.

141. DHL Express's infringement has been willful to the extent it has known of the Asserted Patents and/or is willful to the extent it continues with its infringing actions having been made aware of this pleading and the infringement detailed herein.

142. B*IEOR is entitled to damages in accordance with 35 U.S.C. §§ 271, 281, and 284.

COUNT III - DIRECT INFRINGEMENT OF THE ASSERTED PATENTS – DANZAS

143. The allegations set forth in the foregoing paragraphs 1 through 142 are hereby re-alleged and incorporated by reference.

144. In violation of 35 U.S.C. §271(a) and/or (g), Danzas has infringed at least Claims 1 – 4 of the '521 Patent, Claims 1 and 2 of the '137 Patent and Claims 1 and 2 of the '316 Patent (hereinafter, the "Asserted Claims")⁶ by: (i) making, using, offering for sale, selling and/or importing the inventions claimed; and/or (ii) importing into the United States or offering to sell, selling, or using within the United States a product which is made by a process claimed in the Asserted Patents.

145. On information and belief, Danzas performs the steps recited in the Asserted Claims in connection with its usage of TVA / INSIGHT and related activities.

146. To the extent Danzas does not perform each step of the Asserted Claims itself, the performance of the steps may be attributed to Danzas such that Danzas is a direct infringer of the Asserted Claims and is alleged to have performed each step of the Asserted Claims.

⁶ B*IEOR reserves the right to assert additional claims beyond the Asserted Claims identified in this complaint.

147. As exemplified by the following statements, on information and belief, Danzas performs a process for determining object level profitability as recited in the Asserted Claims of the '316 and '521 Patents and a process for transforming a computerized profit database as recited in the Asserted Claims of the '137 Patent:

Teradata Value Analyzer runs monthly batch processes in which select data from DHL's tracking, billing and general ledger systems, together with country-specific reference data, is processed in a complex costing algorithm.

(Ex. H at p. 3);

Teradata Value Analyzer (TVA) is Teradata's tool for calculating the profit contribution for all of a company's accounts, customers, relationships or other entities. This gives the management team the valuable information needed to understand and affect the profit dynamics of the business.

(Ex. G, TVA Technical Overview, at p. 3);

The lowest level of detail at which TVA will calculate profitability. This may be a bank customer's checking account, airline's passenger name record or a shipping company's package. A base profit object may or may not be related to an associate profit object (defined below).

(Ex. G at p. 3);

The [TVA / INSIGHT] system works by collecting and analyzing data from all of DHL's transactions with the customers it serves. From there, the system generates cost and profitability figures for every shipment (hundreds of millions annually) across a global network that includes 31,500 vehicles, 260 aircraft and over 4,000 facilities.

(Ex. L at p. 2).

148. Danzas practices the claimed step of providing a computerized profit database having profit information, as recited in the Asserted Claims of the '137 and '316 Patents.

149. By way of example, on information and belief, Danzas generates, furnishes, supplies, makes available, and/or prepares factual profit data used for TVA processing:

There is a series of tables containing the client's operational data. This is the actual data from the client's systems of record and it is used to drive the profitability calculations. For example, if the client has 30 million accounts and 15 million

customers, these tables may be populated with the following types of information:
... Account numbers and attributes for each of the 30 million base profit objects
(in this case the client's accounts are recognized as base profit objects by TVA) . .
. . These tables are updated each TVA processing cycle with new data from the
client's systems of record. Although these tables are relatively few, they constitute
a large amount of the data in the database.

(Ex. G at p. 7).

150. Danzas practices the claimed step of providing a relational database management system operable in association with the computerized profit database, as recited in the Asserted Claims of the '137 and '316 Patents, as well as the claimed step of providing a relational database management system operable in association with a computer as recited in the Asserted Claims of the '521 Patent.

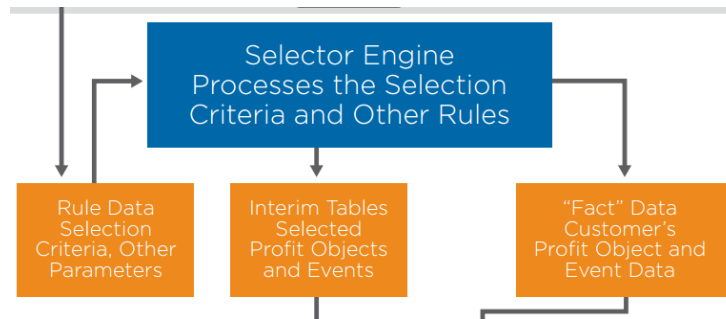
151. By way of example, Danzas generates, furnishes, supplies, makes available, and/or prepares the TVA relational database management system:

TVA calculates profitability by loading detailed data about the company's accounts, customers, relationships and activities into the TVA database. The user-defined rules are matched to the appropriate data sets and detailed calculations are performed. The result is the profit contribution for each of the items and relationships loaded into the database, along with a supporting audit trail.

(Ex. G at 2).

152. Danzas practices the claimed step of preparing the profit information to be accessed electronically through the relational database management system, as recited in the Asserted Claims.

153. By way of example, Danzas prepares profit information for use by the TVA's selector engine:



(Ex. G at p. 4);

That is, until DHL turned to Teradata for its profitability analytics capabilities. The result is INSIGHT—a single, worldwide costing system that reconciles quality data to the company’s global profit-and-loss statement. The system works by collecting and analyzing data from all of DHL’s transactions with the customers it serves. From there, the system generates cost and profitability figures for every shipment (hundreds of millions annually) across a global network that includes 31,500 vehicles, 260 aircraft and over 4,000 facilities.

(Ex. L at p. 2).

154. Danzas calculates opportunity values for funds used or supplied by each object being measured as recited in the Asserted Claims.

155. By way of example, Danzas states its TVA implementation “reconciles quality data to the company’s global profit-and-loss statement.” (Ex. L at p. 2). In conformance with GAAP, a company’s profit-and-loss statement accounts for amounts such as GAAP interest expense and/or marginal interest, such as cost of funds used or supplied.

156. Exhibit N provides an example of a GAAP-compliant “Cash Flow” financial statement from a recent DHL annual report. Exhibit N indicates that DHL accounts for “interest received” and “interest paid” totaling tens or hundreds of millions of Euros each year. (Ex. M at p. 45). On information and belief, these types of payments or receipts correspond to funds used or supplied by Danzas’s objects.

157. Further, on information and belief, Danzas uses TVA to calculate net interest ("NI") or to perform similar calculations for particular objects. These types of calculations rely on TVA first calculating amounts such as interest expense and/or cost of funds used.

158. Each of these types of amounts or values are examples of opportunity values for funds used or supplied, which can vary from object to object.

159. Further, Danzas states its TVA implementation "interfaces to local general ledger systems for service-center-level financial detail and with more detailed costing rules." (Ex. H at 4). On information and belief, one or more of these types of rules are used for types of opportunity value calculations.

160. Danzas practices the claimed step of establishing, in the relational database, rules for processing the prepared information, including the steps of providing information necessary to select objects and performing a profit calculus, as recited in the Asserted Claims.

161. By way of example, Danzas has implemented "detailed costing rules" for its TVA implementation (Ex. H at 4).

162. The TVA's use of database established rules is discussed extensively in a 13-page technical overview Teradata makes available on its website (the "TVA Technical Overview"):

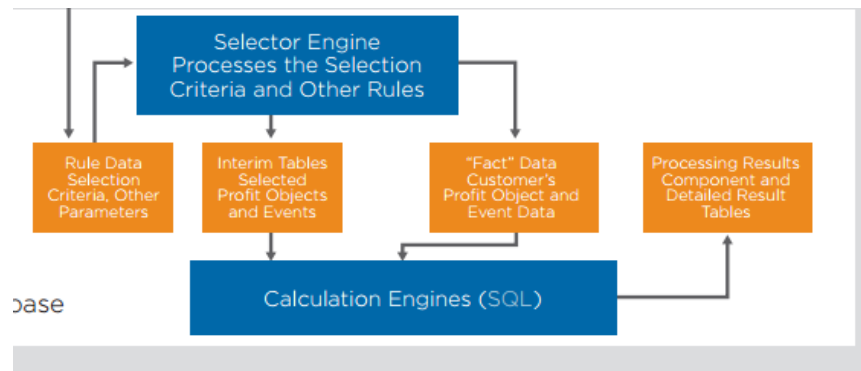
All Balance Types, Products and Product Groups, Profit Object Attributes and Profit Object Events are user definable. Since these attributes are all available to be used in rule definitions and selection criteria, this gives the user a great deal of flexibility in defining selection criteria and allows for very specific database segmentation to which rules may be applied.

(Ex. G at p. 5).

163. On information and belief, Danzas practices the claimed step of using the relational database management system to independently calculate at least one marginal value of profit for

each object being measured using the established rules as applied to a selected set of prepared information, as recited in the Asserted Claims.

164. By way of example, Danzas performs the claimed calculations through its use of TVA's SQL-driven TVA calculation engine:



(Ex. G at 4);

The Calculation Engines use the results of the Selector Engine, Rule data and the client's operational data to calculate the results of each rule for each applicable Profit Object.

(Ex. G at p. 9);

Because Rule Type and Calculation Type segment the Calculation Engine, significant processing efficiencies can be realized when running a set of rules. Rules of similar calculation types are automatically run in parallel. The architecture of the TVA Calculation Engine is designed for maximum processing efficiency while maintaining a detailed audit trail.

(Ex. G at p. 6).

165. On information and belief, Danzas practices the claimed step of using the relational database management system to calculate a fully absorbed profit adjustment value for each object being measured, as recited in the Asserted Claims of the '521 and '137 Patents.

166. By way of example, Danzas uses the TVA to generate output that can be reconciled to Danzas's general ledger, which involves performing a fully absorbed profit adjustment value calculation:

[DHL has] implemented a global costing system which reconciles with global P&L. Shipping, billing and general ledger information fed into Teradata Data Warehouse which runs the Teradata Value Analyser (TVA) calculation engine. From this DHL enables margin management, carbon accounting, profitability reporting, cost management, operational benchmarking and trade-lane control.

(Ex. I at p. 1).

167. Danzas practices the claimed step of combining the calculated values to create a measure for object level profitability, as recited in the Asserted Claims of the '316 Patent.

168. By way of example, Danzas uses the TVA and/or related technologies to combine the values calculated by the TVA engine to arrive at and/or report on profitability measures for the contemplated objects:

After calculating the results of the individual rules, the Calculation Engine goes through a process of aggregating the results by Profit Object and by scenario to arrive at a final profitability component value for each Profit Object in the database.

(Ex. G at p. 9);

The result is the profit contribution for each of the items and relationships loaded into the database, along with a supporting audit trail. The results may then be aggregated, sorted and examined to any level of detail for additional analysis.

(Ex. G at p. 2);

[DHL's] analyzer calculates two sets of costs—actual unit costs that typically reflect significant month-to-month variability, and standard costs based on periods of actual costs to average those variations.

After validation to check that every shipment has been costed and matched against billing records, the computed costs flow into two virtual data marts within the data warehouse. One supports profitability reporting, the other cost management.

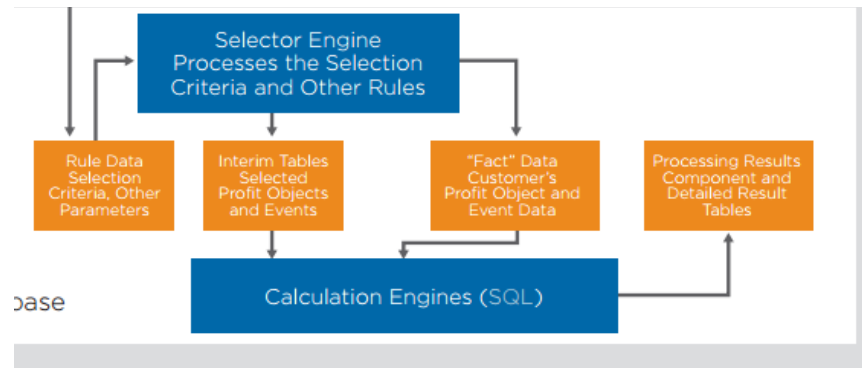
(Ex. H at p. 3);

[DHL has] implemented a global costing system which reconciles with global P&L. Shipping, billing and general ledger information fed into Teradata Data Warehouse which runs the Teradata Value Analyser (TVA) calculation engine. From this DHL enables margin management, carbon accounting, profitability reporting, cost management, operational benchmarking and trade-lane control.

(Ex. I at p. 1).

169. The TVA relational database management system used by Danzas comprises a structured query language (SQL), as recited in certain Asserted Claims of each of the Asserted Patents.

170. By way of example, the TVA calculation engines are SQL driven:



(Ex. G at 4).

171. To the extent Danzas does not perform each step of the Asserted Claims itself, the performance of the steps may be attributed to Danzas such that Danzas is a direct infringer of the Asserted Claims and is alleged to have performed each step of the Asserted Claims.

172. For example, to the extent any entity other than Danzas performs any step of the Asserted Claims, Danzas profits from the performance of the Asserted Claims and directs or controls the acts for the performance of the Asserted Claims. Danzas moreover conditions participation in the activity of determining object level profitability and/or receives the benefit upon performance of a step or steps of the Asserted Claims and establishes the manner or timing of that performance when it profits from the use of the Asserted Claims or causes a different entity to perform the steps of the Asserted Claims for determining Danzas's object level profitability.

173. To the extent Danzas performs the steps of the claimed processes of the Asserted Patents outside the United States, Danzas infringes under 35 USC 271(g) by importing into the

United States or offering to sell, selling, or using within the United States a product which is made by a process claimed in the Asserted Patents.

174. By way of example, Danzas uses the TVA and/or related technologies to perform the patented steps of the Asserted Patents to make, manufacture, create or otherwise provide calculated object level profitability values using a relational database management system, where such values are written to, or otherwise present in, a relation database and/or other forms of electronic content (hereinafter, “Profitability Records”).

After calculating the results of the individual rules, the Calculation Engine goes through a process of aggregating the results by Profit Object and by scenario to arrive at a final profitability component value for each Profit Object in the database.

(Ex. G at 9).

175. Danzas uses the Profitability Records to generate profitability reports, cost reports and/or reports of a similar nature (hereinafter, “Profitability Reports”).

Teradata Value Analyzer runs monthly batch processes in which select data from DHL’s tracking, billing and general ledger systems, together with country-specific reference data, is processed in a complex costing algorithm. Initial preprocessing and validation extracts specific event stamps from the operational data, reducing billions of records to millions. Then the analyzer calculates two sets of costs—actual unit costs that typically reflect significant month-to-month variability, and standard costs based on periods of actual costs to average those variations.

After validation to check that every shipment has been costed and matched against billing records, the computed costs flow into two virtual data marts within the data warehouse. One supports profitability reporting, the other cost management. A Web-based user interface provides global access to a comprehensive library of pre-designed IBM Cognos reports.

(Exhibit H at p. 3 - 4).

176. The Profitability Records and/or Profitability Reports are tangible products.

177. The Profitability Records and/or Profitability Reports are, and have been, imported into the United States or offered for sale, sold or used within the United States by Danzas, Danzas employees and/or others with access:

We've built standard reports that should answer most cost and margin questions. You define the parameters, e.g., product, trade lane, period, etc., then push the button and out comes your data. You can see the profitability of any trade lane, any customer or any product. You have access to all the cost and revenue detail on every shipment, and it will be available to **every pricing manager in every country**.

(Ex. H at p. 4) (emphasis added).

178. Danzas launched TVA / INSIGHT "in every country ... at the same time."

We needed to be 100% sure INSIGHT was going to work from Day 1. Teradata helped us with the architecture and the design to make sure that our Big Bang approach would work when we switched **every country** onto the new system at the same time.

(Ex. L at 5) (emphasis added).

179. Danzas provides a "customizable version" of TVA / INSIGHT in "larger countries," such as the United States, "with interfaces to local general ledger systems for service-center-level financial detail and with more detailed costing rules." (Ex. H at p. 5).

180. The Profitability Records made by the processes claimed in the Asserted Patents have not been materially changed by subsequent processes and are non-trivial and essential components of the Profitability Reports and/or other products Danzas has imported into the United States, offered for sale, sold or used within the United States.

181. Danzas employees within the United States or other US-based TVA / INSIGHT users include, among others, "pricing managers" at Danzas hub facilities in this District and others who operate in similar capacities in the United States. (Ex. H at 4) ("[reports] will be available to every pricing manager in every country").

182. On information and belief, one of these hub facilities includes the “500,000 square-foot office and warehouse space” DHL operates near Chicago O’Hare Airport in this District (the “O’Hare Facility”). (Ex. J at p. 1). The O’Hare Facility is “DHL Global Forwarding’s largest facility in the country.” (Ex. J at p. 1).

183. On information and belief, Danzas employs at the O’Hare Facility and/or elsewhere in this District, pricing managers, employees with a similar function, and/or other employees who import or use Profitability Records and/or Profitability Reports in making pricing decisions:

In this role you will identify and implement appropriate pricing for DHL Air Freight products and services by gathering data, following industry developments and providing tactical and strategic responses on a station or country basis.

(Ex. K at 1) (“Air Freight Pricing Specialist -Chicago, Illinois”).

184. Danzas’s infringement has injured and will continue to injure B*IEOR and B*IEOR is entitled to recover damages adequate to compensate it for Danzas’s infringement, which in no event can be less than a reasonable royalty.

185. Danzas’s infringement has been willful to the extent it has known of the Asserted Patents and/or is willful to the extent it continues with its infringing actions having been made aware of this pleading and the infringement detailed herein.

186. B*IEOR is entitled to damages in accordance with 35 U.S.C. §§ 271, 281, and 284.

COUNT IV - DIRECT INFRINGEMENT OF THE ASSERTED PATENTS – AIR EXPRESS

187. The allegations set forth in the foregoing paragraphs 1 through 186 are hereby re-alleged and incorporated by reference.

188. In violation of 35 U.S.C. §271(a) and/or (g), Air Express has infringed at least Claims 1 – 4 of the ‘521 Patent, Claims 1 and 2 of the ‘137 Patent and Claims 1 and 2 of the ‘316

Patent (hereinafter, the “Asserted Claims”)⁷ by: (i) making, using, offering for sale, selling and/or importing the inventions claimed; and/or (ii) importing into the United States or offering to sell, selling, or using within the United States a product which is made by a process claimed in the Asserted Patents.

189. On information and belief, Air Express performs the steps recited in the Asserted Claims in connection with its usage of TVA / INSIGHT and related activities.

190. To the extent Air Express does not perform each step of the Asserted Claims itself, the performance of the steps may be attributed to Air Express such that Air Express is a direct infringer of the Asserted Claims and is alleged to have performed each step of the Asserted Claims.

191. As exemplified by the following statements, on information and belief, Air Express performs a process for determining object level profitability as recited in the Asserted Claims of the ‘316 and ‘521 Patents and a process for transforming a computerized profit database as recited in the Asserted Claims of the ‘137 Patent:

Teradata Value Analyzer runs monthly batch processes in which select data from DHL’s tracking, billing and general ledger systems, together with country-specific reference data, is processed in a complex costing algorithm.

(Ex. H at p. 3);

Teradata Value Analyzer (TVA) is Teradata’s tool for calculating the profit contribution for all of a company’s accounts, customers, relationships or other entities. This gives the management team the valuable information needed to understand and affect the profit dynamics of the business.

(Ex. G, TVA Technical Overview, at p. 3);

The lowest level of detail at which TVA will calculate profitability. This may be a bank customer’s checking account, airline’s passenger name record or a shipping company’s package. A base profit object may or may not be related to an associate profit object (defined below).

⁷ B*IEOR reserves the right to assert additional claims beyond the Asserted Claims identified in this complaint.

(Ex. G at p. 3);

The [TVA / INSIGHT] system works by collecting and analyzing data from all of DHL's transactions with the customers it serves. From there, the system generates cost and profitability figures for every shipment (hundreds of millions annually) across a global network that includes 31,500 vehicles, 260 aircraft and over 4,000 facilities.

(Ex. L at p. 2).

192. Air Express practices the claimed step of providing a computerized profit database having profit information, as recited in the Asserted Claims of the '137 and '316 Patents.

193. By way of example, on information and belief, Air Express generates, furnishes, supplies, makes available, and/or prepares factual profit data used for TVA processing:

There is a series of tables containing the client's operational data. This is the actual data from the client's systems of record and it is used to drive the profitability calculations. For example, if the client has 30 million accounts and 15 million customers, these tables may be populated with the following types of information:
. . . . Account numbers and attributes for each of the 30 million base profit objects (in this case the client's accounts are recognized as base profit objects by TVA) . .
. . These tables are updated each TVA processing cycle with new data from the client's systems of record. Although these tables are relatively few, they constitute a large amount of the data in the database.

(Ex. G at p. 7).

194. Air Express practices the claimed step of providing a relational database management system operable in association with the computerized profit database, as recited in the Asserted Claims of the '137 and '316 Patents, as well as the claimed step of providing a relational database management system operable in association with a computer as recited in the Asserted Claims of the '521 Patent.

195. By way of example, Air Express generates, furnishes, supplies, makes available, and/or prepares the TVA relational database management system:

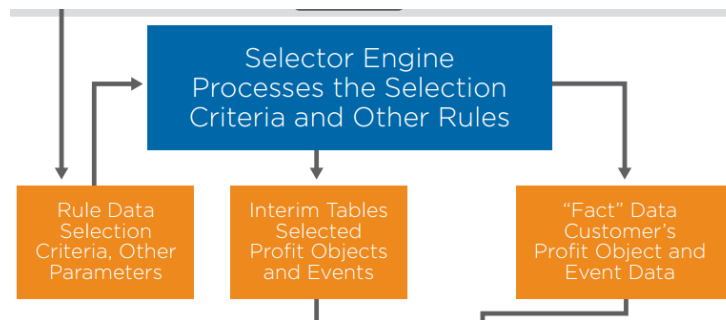
TVA calculates profitability by loading detailed data about the company's accounts, customers, relationships and activities into the TVA database. The user-

defined rules are matched to the appropriate data sets and detailed calculations are performed. The result is the profit contribution for each of the items and relationships loaded into the database, along with a supporting audit trail.

(Ex. G at 2).

196. Air Express practices the claimed step of preparing the profit information to be accessed electronically through the relational database management system, as recited in the Asserted Claims.

197. By way of example, Air Express prepares profit information for use by the TVA's selector engine:



(Ex. G at p. 4);

That is, until DHL turned to Teradata for its profitability analytics capabilities. The result is INSIGHT—a single, worldwide costing system that reconciles quality data to the company's global profit-and-loss statement. The system works by collecting and analyzing data from all of DHL's transactions with the customers it serves. From there, the system generates cost and profitability figures for every shipment (hundreds of millions annually) across a global network that includes 31,500 vehicles, 260 aircraft and over 4,000 facilities.

(Ex. L at p. 2).

198. Air Express calculates opportunity values for funds used or supplied by each object being measured as recited in the Asserted Claims.

199. By way of example, Air Express states its TVA implementation “reconciles quality data to the company's global profit-and-loss statement.” (Ex. L at p. 2). In conformance

with GAAP, a company's profit-and-loss statement accounts for amounts such as GAAP interest expense and/or marginal interest, such as cost of funds used or supplied.

200. Exhibit N provides an example of a GAAP-compliant "Cash Flow" financial statement from a recent DHL annual report. Exhibit N indicates that DHL accounts for "interest received" and "interest paid" totaling tens or hundreds of millions of Euros each year. (Ex. M at p. 45). On information and belief, these types of payments or receipts correspond to funds used or supplied by Air Express's objects.

201. Further, on information and belief, Air Express uses TVA to calculate net interest ("NI") or to perform similar calculations for particular objects. These types of calculations rely on TVA first calculating amounts such as interest expense and/or cost of funds used.

202. Each of these types of amounts or values are examples of opportunity values for funds used or supplied, which can vary from object to object.

203. Further, Air Express states its TVA implementation "interfaces to local general ledger systems for service-center-level financial detail and with more detailed costing rules." (Ex. H at 4). On information and belief, one or more of these types of rules are used for types of opportunity value calculations.

204. Air Express practices the claimed step of establishing, in the relational database, rules for processing the prepared information, including the steps of providing information necessary to select objects and performing a profit calculus, as recited in the Asserted Claims.

205. By way of example, Air Express has implemented "detailed costing rules" for its TVA implementation (Ex. H at 4).

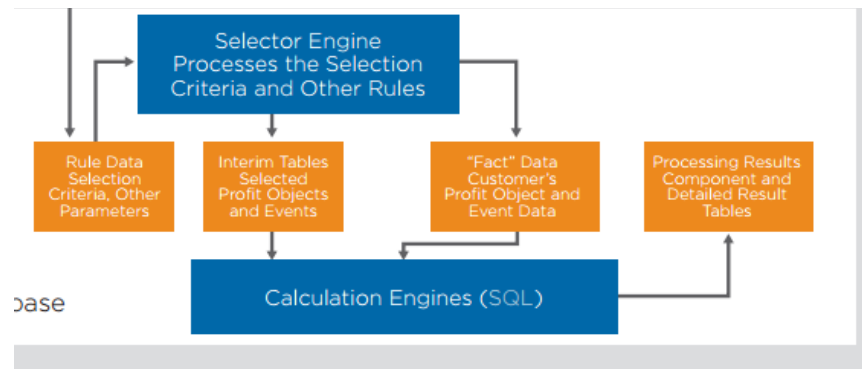
206. The TVA's use of database established rules is discussed extensively in a 13-page technical overview Teradata makes available on its website (the "TVA Technical Overview"):

All Balance Types, Products and Product Groups, Profit Object Attributes and Profit Object Events are user definable. Since these attributes are all available to be used in rule definitions and selection criteria, this gives the user a great deal of flexibility in defining selection criteria and allows for very specific database segmentation to which rules may be applied.

(Ex. G at p. 5).

207. On information and belief, Air Express practices the claimed step of using the relational database management system to independently calculate at least one marginal value of profit for each object being measured using the established rules as applied to a selected set of prepared information, as recited in the Asserted Claims.

208. By way of example, Air Express performs the claimed calculations through its use of TVA's SQL-driven TVA calculation engine:



(Ex. G at 4);

The Calculation Engines use the results of the Selector Engine, Rule data and the client's operational data to calculate the results of each rule for each applicable Profit Object.

(Ex. G at p. 9);

Because Rule Type and Calculation Type segment the Calculation Engine, significant processing efficiencies can be realized when running a set of rules. Rules of similar calculation types are automatically run in parallel. The architecture of the TVA Calculation Engine is designed for maximum processing efficiency while maintaining a detailed audit trail.

(Ex. G at p. 6).

209. On information and belief, Air Express practices the claimed step of using the relational database management system to calculate a fully absorbed profit adjustment value for each object being measured, as recited in the Asserted Claims of the '521 and '137 Patents.

210. By way of example, Air Express uses the TVA to generate output that can be reconciled to Air Express's general ledger, which involves performing a fully absorbed profit adjustment value calculation:

[DHL has] implemented a global costing system which reconciles with global P&L. Shipping, billing and general ledger information fed into Teradata Data Warehouse which runs the Teradata Value Analyser (TVA) calculation engine. From this DHL enables margin management, carbon accounting, profitability reporting, cost management, operational benchmarking and trade-lane control.

(Ex. I at p. 1).

211. Air Express practices the claimed step of combining the calculated values to create a measure for object level profitability, as recited in the Asserted Claims of the '316 Patent.

212. By way of example, Air Express uses the TVA and/or related technologies to combine the values calculated by the TVA engine to arrive at and/or report on profitability measures for the contemplated objects:

After calculating the results of the individual rules, the Calculation Engine goes through a process of aggregating the results by Profit Object and by scenario to arrive at a final profitability component value for each Profit Object in the database.

(Ex. G at p. 9);

The result is the profit contribution for each of the items and relationships loaded into the database, along with a supporting audit trail. The results may then be aggregated, sorted and examined to any level of detail for additional analysis.

(Ex. G at p. 2);

[DHL's] analyzer calculates two sets of costs—actual unit costs that typically reflect significant month-to-month variability, and standard costs based on periods of actual costs to average those variations.

After validation to check that every shipment has been costed and matched against billing records, the computed costs flow into two virtual data marts within the data warehouse. One supports profitability reporting, the other cost management.

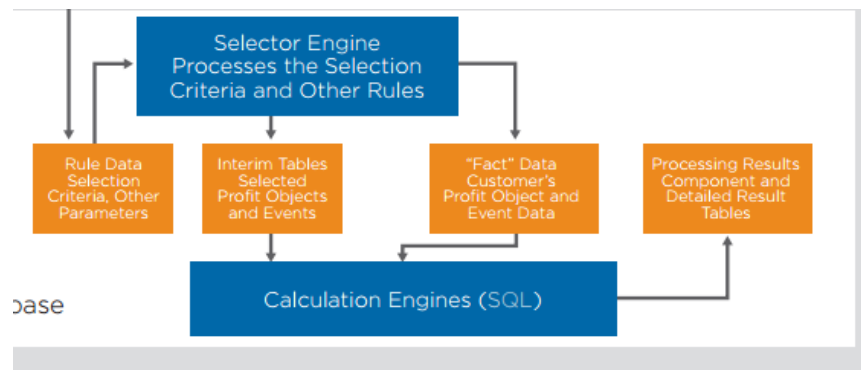
(Ex. H at p. 3);

[DHL has] implemented a global costing system which reconciles with global P&L. Shipping, billing and general ledger information fed into Teradata Data Warehouse which runs the Teradata Value Analyser (TVA) calculation engine. From this DHL enables margin management, carbon accounting, profitability reporting, cost management, operational benchmarking and trade-lane control.

(Ex. I at p. 1).

213. The TVA relational database management system used by Air Express comprises a structured query language (SQL), as recited in certain Asserted Claims of each of the Asserted Patents.

214. By way of example, the TVA calculation engines are SQL driven:



(Ex. G at 4).

215. To the extent Air Express does not perform each step of the Asserted Claims itself, the performance of the steps may be attributed to Air Express such that Air Express is a direct infringer of the Asserted Claims and is alleged to have performed each step of the Asserted Claims.

216. For example, to the extent any entity other than Air Express performs any step of the Asserted Claims, Air Express profits from the performance of the Asserted Claims and directs or controls the acts for the performance of the Asserted Claims. Air Express moreover conditions

participation in the activity of determining object level profitability and/or receives the benefit upon performance of a step or steps of the Asserted Claims and establishes the manner or timing of that performance when it profits from the use of the Asserted Claims or causes a different entity to perform the steps of the Asserted Claims for determining Air Express's object level profitability.

217. To the extent Air Express performs the steps of the claimed processes of the Asserted Patents outside the United States, Air Express infringes under 35 USC 271(g) by importing into the United States or offering to sell, selling, or using within the United States a product which is made by a process claimed in the Asserted Patents.

218. By way of example, Air Express uses the TVA and/or related technologies to perform the patented steps of the Asserted Patents to make, manufacture, create or otherwise provide calculated object level profitability values using a relational database management system, where such values are written to, or otherwise present in, a relation database and/or other forms of electronic content (hereinafter, "Profitability Records").

After calculating the results of the individual rules, the Calculation Engine goes through a process of aggregating the results by Profit Object and by scenario to arrive at a final profitability component value for each Profit Object in the database.

(Ex. G at 9).

219. Air Express uses the Profitability Records to generate profitability reports, cost reports and/or reports of a similar nature (hereinafter, "Profitability Reports").

Teradata Value Analyzer runs monthly batch processes in which select data from DHL's tracking, billing and general ledger systems, together with country-specific reference data, is processed in a complex costing algorithm. Initial preprocessing and validation extracts specific event stamps from the operational data, reducing billions of records to millions. Then the analyzer calculates two sets of costs—actual unit costs that typically reflect significant month-to-month variability, and standard costs based on periods of actual costs to average those variations.

After validation to check that every shipment has been costed and matched against billing records, the computed costs flow into two virtual data marts within the data warehouse.

One supports profitability reporting, the other cost management. A Web-based user interface provides global access to a comprehensive library of pre-designed IBM Cognos reports.

(Exhibit H at p. 3 - 4).

220. The Profitability Records and/or Profitability Reports are tangible products.

221. The Profitability Records and/or Profitability Reports are, and have been, imported into the United States or offered for sale, sold or used within the United States by Air Express, Air Express employees and/or others with access:

We've built standard reports that should answer most cost and margin questions. You define the parameters, e.g., product, trade lane, period, etc., then push the button and out comes your data. You can see the profitability of any trade lane, any customer or any product. You have access to all the cost and revenue detail on every shipment, and it will be available to **every pricing manager in every country**.

(Ex. H at p. 4) (emphasis added).

222. Air Express launched TVA / INSIGHT "in every country ... at the same time."

We needed to be 100% sure INSIGHT was going to work from Day 1. Teradata helped us with the architecture and the design to make sure that our Big Bang approach would work when we switched **every country** onto the new system at the same time.

(Ex. L at 5) (emphasis added).

223. Air Express provides a "customizable version" of TVA / INSIGHT in "larger countries," such as the United States, "with interfaces to local general ledger systems for service-center-level financial detail and with more detailed costing rules." (Ex. H at p. 5).

224. The Profitability Records made by the processes claimed in the Asserted Patents have not been materially changed by subsequent processes and are non-trivial and essential components of the Profitability Reports and/or other products Air Express has imported into the United States, offered for sale, sold or used within the United States.

225. Air Express employees within the United States or other US-based TVA / INSIGHT users include, among others, “pricing managers” at Air Express hub facilities in this District and others who operate in similar capacities in the United States. (Ex. H at 4) (“[reports] will be available to every pricing manager in every country”).

226. On information and belief, one of these hub facilities includes the “500,000 square-foot office and warehouse space” DHL operates near Chicago O’Hare Airport in this District (the “O’Hare Facility”). (Ex. J at p. 1). The O’Hare Facility is “DHL Global Forwarding’s largest facility in the country.” (Ex. J at p. 1).

227. On information and belief, Air Express employs at the O’Hare Facility and/or elsewhere in this District, pricing managers, employees with a similar function, and/or other employees who import or use Profitability Records and/or Profitability Reports in making pricing decisions:

In this role you will identify and implement appropriate pricing for DHL Air Freight products and services by gathering data, following industry developments and providing tactical and strategic responses on a station or country basis.

(Ex. K at 1) (“Air Freight Pricing Specialist -Chicago, Illinois”).

228. Air Express’s infringement has injured and will continue to injure B*IEOR and B*IEOR is entitled to recover damages adequate to compensate it for Air Express’s infringement, which in no event can be less than a reasonable royalty.

229. Air Express’s infringement has been willful to the extent it has known of the Asserted Patents and/or is willful to the extent it continues with its infringing actions having been made aware of this pleading and the infringement detailed herein.

230. B*IEOR is entitled to damages in accordance with 35 U.S.C. §§ 271, 281, and 284.

COUNT V - INDIRECT INFRINGEMENT - TERADATA

231. The allegations set forth in the foregoing paragraphs 1 through 230 are hereby alleged and incorporated by reference.

232. In violation of 35 U.S.C. §271(b), Teradata, with knowledge of the Asserted Patents at least as of the date of this Complaint and/or with willful blindness to the Asserted Patents, has knowingly induced infringement of the Asserted Patents with specific intent to do so by its activities relating to the marketing, distribution, and/or sale of the TVA and related technology and infringing uses thereof, and by providing services to clients, and instructing and encouraging clients (including through product documentation) to operate and use TVA, Teradata database hardware, firmware, and related technology in an infringing manner with knowledge that these actions would infringe the Asserted Claims of the Asserted Patents.

233. Client users of the TVA include at least Grainger and DHL, among others to be identified.

234. At least Grainger, DHL Express, Danzas, and Air Express perform the steps recited in the Asserted Claims and, thus, directly infringe those claims, as specified in Counts I and IV above.

235. Teradata has had knowledge of the '521 Patent through, among other things, correspondence from B*IEOR expressly identifying the '521 Patent and a July 2010 meeting when the claims of the '521 Patent were discussed. (See Ex. D).

236. Teradata has had knowledge of the '137 and '316 Asserted Patents and/or has been willfully blind to their existence because, among other things: (i) Teradata has known of the '521 Patent—of which '137 and '316 Asserted Patents are related—since at least 2009; (ii) Teradata has been fully aware of B*IEOR's ongoing prosecution efforts for more than a decade; (iii) Teradata has taken the position that it is a licensee of B*IEOR's patent portfolio in the Limited

Field Of Use; (iv) Teradata is a sophisticated corporation with dedicated, knowledgeable in-house and/or outside patent counsel; (v) Teradata prosecuted patents in the same technology field, but with later priority dates compared to the Asserted Patents, where Teradata was under an obligation to disclose the Asserted Patents or corresponding publications, applications, or the like; and (vi) information on the '137 and '316 Asserted Patents and their pending applications has been publicly available from the USPTO online database since as early as July 2009.

237. Teradata has known that Grainger's, DHL's and other clients' uses of TVA and/or related technologies infringe the Asserted Claims of the Asserted Patents and has actively encouraged such clients to use TVA and/or related technologies in an infringing manner.

238. Examples of Teradata's knowledge, active encouragement, and/or specific intent include the Teradata literature and presentation and promotional material referenced and quoted extensively in support of Counts I and IV above, indicating that Teradata instructs and encourages clients such as Grainger and DHL to use the TVA in an infringing manner.

239. By further example, the 2013 Teradata–Grainger Presentation refers to infringing features of the TVA that Teradata has identified and promoted in its marketing and/or training materials.



240. The 2013 Teradata–Grainger Presentation also refers to numerous ways the TVA can be used to infringe, including through the use of, among other features, the ability to “measure the profitability of any object,” “calculation engines,” and “rules for customer profitability elements.”

Leveraging Teradata for Profitability Analytics
What Is Teradata Value Analyzer (TVA)?

What Does TVA Do?	Measures the profitability of any object (account, customer, product, organization, etc.) within an organization
How Does TVA Work?	Delivers a profitability measurement system customized to clients' needs by combining detailed data about objects, assumptions and standard calculations
What Is the TVA Application?	<ul style="list-style-type: none"> Standardized calculation engines Standardized templates for rule input Database with highly customizable features
How Is TVA Customized?	<ul style="list-style-type: none"> Flexible definition of objects and relationships Metadata that drives what's available for calculations and what appears on the GUI Individual rules for customer-specific profitability elements

- A single location for rule data, Business data, Control data, and Result data
- Ability to provide multiple views (Finance, Marketing, Sales, Operations...) from a consistent set of rules
- Business owner defined and maintained
- Robust, Scalable, Consistent, Single View of Detailed Profitability

20 3/25/2013 Teradata Corporation

241. The 2013 Teradata–Grainger Presentation also refers to “Sample Real World Results,” Teradata has promoted. These results were derived from the RBC implementation B*IEOR participated in, and which represented the first commercial embodiment of Mr. Lepman’s patented inventions.

Fundamental #5: Warehouse Centricity

In Database Solution

- ✓ Avoid **unproductive data movement**, i.e. bring calculation/modeling capability to the data.
- ✓ Ensure **true performance scalability** and reduce/avoid data complexity and replication.
- ✓ Performance scalability is mandatory to effectively **run alternate scenarios in parallel** prior to release.

Sample Real World Results

- 26.5M Accounts
- Over 500 Business Rules
- (Many of which are Complex, Chained Rules)
- 1,050 Product Offerings
- 155M Transactions / Month
- Results in 3 1/2 Hours!

*** Actual Results from Royal Bank of Canada

27 9/25/2013 Teradata Corporation

TERADATA

242. Examples of Teradata encouraging customers to use the TVA in an infringing manner can also be found in the TVA Technical Overview attached as Ex. G and made available on Teradata’s website. The TVA Technical Overview, quoted extensively with regard to Counts I and II above, provides this summary of TVA on page 2:

Teradata Value Analyzer (TVA) is Teradata’s tool for calculating the profit contribution for all of a company’s accounts, customers, relationships or other entities. This gives the management team the valuable information needed to understand and affect the profit dynamics of the business. TVA is not industry-specific; for example, it can be used by financial institutions, telecommunication companies, airlines or shipping companies to help manage their business.

(Ex. G. at 2).

243. The TVA Technical Overview describes, for example, how profit contribution calculations can be “aggregated, sorted and examined to any level of detail for additional analysis.”

(Ex. G at p. 2).

244. DHL states that “one or two of [the original Teradata consultants] are still working on INSIGHT.”⁸

⁸ (See *Gaining Insights From a Global Finance Transformation* at www.teradata.com/Resources/Videos/DHL-Express-Gaining-Insights-From-a-Global-F at 3:40-3:50) (“In 2013, DHL embarked on project INSIGHT”).

245. Teradata's infringement has injured and will continue to injure B*IEOR and B*IEOR is entitled to recover damages adequate to compensate it for Teradata's infringement, which in no event can be less than a reasonable royalty.

246. Teradata's inducement has been willful.

247. B*IEOR is entitled to damages in accordance with 35 U.S.C. §§ 271, 281, and 284.

JURY DEMAND

Plaintiff B*IEOR hereby requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

PRAYER FOR RELIEF

Plaintiff B*IEOR respectfully requests that the Court find in its favor and against Defendants Grainger, Teradata, DHL Express, Danzas, and Air Express, and that the Court grant B*IEOR the following relief:

- (a) an adjudication that Defendants DHL and Grainger have directly infringed the Asserted Patents;
- (b) an adjudication that Defendant Teradata has induced infringement of the Asserted Patents;
- (c) a finding that Defendants' infringement is or has been willful;
- (d) an award of damages adequate to compensate B*IEOR for Defendants' past infringement, and any continuing or future infringement through the date such judgment is entered, including prejudgment and post-judgment interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;
- (e) an award of enhanced damages;

(f) a finding that this case is “exceptional” under 35 U.S.C. § 285 and awarding Plaintiff its expenses and attorneys’ fees incurred in bringing and prosecuting this action; and,
(g) an award to Plaintiff of such further relief at law or in equity as the Court deems just and proper, including, but not limited to costs, fees, expenses, and/or interest.

Dated: March 26, 2018

Respectfully submitted,

/s/ Jason Wejnert
Jason Wejnert
William Cory Spence
Jacob R. Graham
SPENCE, P.C.
405 N. Wabash Ave., Suite P2E
Chicago, Illinois 60611
312-404-8882
William.Spence@spencepc.com
Jason.Wejnert@spencepc.com
Jacob.Graham@spencepc.com
Counsel for Plaintiff
B*IEOR

CERTIFICATE OF SERVICE

I, hereby certify that on March 26, 2018, the above and foregoing document was electronically filed with the Clerk of the Court using the CM/ECF system.

/s/ Jason Wejnert
Jason Wejnert