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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/426,498	04/29/2003	Marc Rowen	R00158NP	4632

129668 7590 10/07/2019

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ART UNIT	PAPER NUMBER
3681	

NOTIFICATION DATE	DELIVERY MODE
10/07/2019	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARC ROWEN

Appeal 2018-006757
Application 10/426,498
Technology Center 3600

Before MICHAEL L. HOELTER, JAMES P. CALVE, and MICHAEL L. WOODS, *Administrative Patent Judges*.

CALVE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 86–102. Appeal Br. 3. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

[1] "Appellant" refers to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies Oracle International Corporation as the real party in interest. *See* Appeal Br. 3.

CLAIMED SUBJECT MATTER

The claims relate to organization incentive distribution data structures (i.e., plans) and making modifications to the incentive distribution data or to the plan rules used to generate the incentive distribution data. Spec. ¶ 23. Claims 86, 94, and 102 are independent with claim 86 reproduced below.

> 86. A method comprising:
>
> at a computer system having a processor and a memory storing a hierarchical data structure representing an organization and incentive distribution data for the organization generated by a set of plan rules:
>
> receiving, by the processor, a modification to the incentive distribution data, wherein the modification is generated by a change to the incentive distribution data or a change to the set of plan rules that generated the incentive distribution data;
>
> characterizing, by the processor, a level of approval for the modification as pending, the level of approval for the modification stored in the memory;
>
> storing, by the processor within the memory, a hierarchical data structure comprising a plurality of leaf nodes and a plurality of intermediary nodes for traversing between leaf nodes;
>
> identifying, by the processor, a first leaf node in the hierarchical data structure corresponding to a first entity in the organization that is affected by the modification;
>
> traversing, by the processor, one or more intermediary nodes from the first leaf node in the hierarchical data structure to a second leaf node in the hierarchical data structure, the one or more intermediary nodes used for navigating between leaf nodes in the data structure, the second leaf node classified as having an approver role;
>
> determining whether the second leaf node in the hierarchical data structure has approval authority for the modification using approval data stored separately from the hierarchical data structure representing the organization;

> generating, by the processor, a request for an approval of the modification using information about the first entity in the organization, information about the second entity in the organization, and the modification;
>
> sending, by the processor, the request to a client device associated with the second entity in the organization;
>
> receiving, by the processor, a response to the request;
>
> modifying, by the processor, the level of approval for the modification stored in the memory according to the response; and
>
> approving or reversing the modification to the incentive distribution data based on the modified level of approval for the modification stored in the memory.

REJECTIONS

Claims 86–102 are rejected as directed to patent-ineligible subject matter under a judicial exception to 35 U.S.C. § 101.

Claims 86–102 are rejected under 35 U.S.C. § 103(a) as unpatentable over Loya (US 2002/0035506 A1, published Mar. 21, 2002) and Rochelle (US 2004/0088215 A1, published May 6, 2004).

ANALYSIS

Patent Eligibility of Claims 86–102

Section 101 of the Patent Act defines patent eligible-subject matter as:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 101 (2012). However, "[l]aws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (citation omitted).

To distinguish patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications, we first determine whether the claims are directed to a patent-ineligible concept. *Id.* at 217. If they are, we consider the elements of each claim, individually and as an ordered combination, to determine if additional elements transform the claim into a patent-eligible application, e.g., by providing an "inventive concept" that ensures the patent amounts to significantly more than a patent on the ineligible concept. *Id.* at 217–218.

Recently, the USPTO issued guidance about this framework. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Revised Guidance"). Under the Revised Guidance, to determine whether a claim is "directed to" an abstract idea, we evaluate whether the claim recites (1) any judicial exceptions, including certain groupings of abstract ideas listed in the Revised Guidance (i.e., mathematical concepts, certain methods of organizing human activities such as a fundamental economic practice, or mental processes); and (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)). *See* Revised Guidance, 84 Fed. Reg. at 51.

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then consider whether the claim (3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field (*see* MPEP § 2106.05(d)) or (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *Id*. at 56.

Revised Step 2A, Prong One: Judicial Exceptions Recited in Claims

Appellant argues patent eligibility for independent claim 86 (Appeal Br. 6–12), which we take as representative. 37 C.F.R. § 41.37(c)(1)(iv). The Examiner determines claim 86 recites the abstract ideas of managing incentive/reward plans in a business setting and an organizational workflow process for managing incentives/rewards with steps of comparing new and stored information using rules to identify options. Final Act. 2–3; Ans. 3.

The Revised Guidance calls these abstract ideas (1) certain methods of organizing human activity—commercial interactions for sales and managing personal behavior, relationships, or interactions between people using rules and (2) mental processes performed in the human mind. Revised Guidance, 84 Fed. Reg. at 52. Similarly, the Specification describes these activities as managing incentive transactions and allocations for employees, contractors, and business objects of an organization. Spec. ¶¶ 1–6, 13, 14, 23, 24, 34, 35, 50–52, 57. Hence, the Specification is consistent with claim 86's recitation of certain methods of organizing human activity and mental processes.

The first limitation "at a computer system having a processor and a memory storing a hierarchical data structure representing an organization and incentive distribution data for the organization generated by a set of plan rules" recites certain methods of organizing human activity by managing relationships between people. The Specification describes the hierarchical data structure as a preexisting data structure that is representative of an organization and that is used to store relationships between business objects of the organization. *Id.* ¶¶ 34–37. Business objects may be geographic regions, sales channels, products, and individual sales people represented by intermediate and leaf nodes. *Id.* ¶ 34.

The steps of "receiving . . . a modification to the incentive distribution data," "characterizing . . . a level of approval for the modification as pending," "storing . . . a hierarchical data structure comprising a plurality of leaf nodes and a plurality of intermediary nodes for traversing between leaf nodes," "identifying . . . a first leaf node in the hierarchical data structure corresponding to a first entity in the organization that is affected by the modification," and "traversing . . . one or more intermediary nodes from the first leaf node in the hierarchical data structure to a second leaf node in the hierarchical data structure" also recite this abstract idea. These steps involve approving changes to incentive distribution data by identifying a first leaf node (i.e., a person or entity) affected by the proposed modification and then navigating within the data structure of relationships within the organization from the first leaf node to a second leaf node having "an approver role."

These steps also recite mental processes of observation and evaluation of an organizational structure to identify persons affected by a modification and their approval authority. The "intermediary nodes" may be related to "leaf nodes" as sales group leader and sales group members or as different entities such as companies, divisions or groups. *Id.* ¶¶ 34, 35.

The next step of "determining whether the second leaf node in the hierarchical data structure has approval authority for the modification using approval data stored separately from the hierarchical data structure representing the organization" recites methods of organizing human activity of commercial interactions, e.g., for sales activities, and managing personal behavior, relationships, or interactions between people via rules and mental processes discussed above. The hierarchical data structure, Role Data 130, or Approval Authority Data 135 may be used for this step. *See id.* ¶ 42.

The final steps of "generating . . . a request for an approval of the modification," "sending . . . the request to a client device associated with the second entity," "receiving . . . a response," "modifying . . . the level of approval for the modification," and "approving or reversing the modification to the incentive distribution data based on the modified level of approval for the modification stored in the memory" all involve the same abstract ideas.

The Specification describes these steps of organizing human activity and mental processes as processing modifications to incentive distributions, e.g., sales commissions. *Id.* ¶ 23. Approval Engine 155 provides approval using approval rules. *Id.* ¶ 40. The approval level and approval authorities depend on the modification and/or the business objects, e.g., modifications involving more than a certain amount of money may require a specific approval level such as a supervisor or multiple approval sources. *Id.* ¶¶ 27, 30, 41. A member of the organization's hierarchical structure with approval authority for a pending modification is identified by Approval Engine 155 using rules. *Id.* ¶ 42. A modification can be made to Plan Rules 140 used to calculate Incentive Distribution Data 145. *Id.* ¶¶ 28, 29, 38, 39.

We determine that claim 86 recites the abstract ideas discussed above. *See Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344 (Fed. Cir. 2013) (holding that a system for generating tasks to be performed in an insurance organization when an event occurs by assigning tasks to various individuals authorized to complete them and decomposing an insurance claim into different levels based on rules was an abstract idea); *In re Ferguson*, 558 F.3d 1359, 1364 (Fed. Cir. 2009) (holding that claims to organizing business or legal relationships in a structure of a sales force or a marketing company recite an abstract idea).

Revised Step 2A, Prong Two: Integration into a Practical Application

At Revised Step 2A, Prong Two, we consider any additional elements that may integrate the abstract ideas into a practical application. Appellant argues that the claims are rooted in computer technology. *See* Appeal Br. 6. Appellant argues that generation and traversal of a hierarchical data structure involve technical benefits. They differentiate leaf nodes from intermediary nodes. They facilitate navigation between approver nodes in a data structure and identify objects in a computing environment without using workflow rules or spreadsheets to optimize processing of rules for leaf nodes. *Id.* at 7; Reply Br. 1–2. Appellant argues that a hierarchical data structure functions differently than conventional data structures for processing modifications to incentive distribution data, and the data structure protects data security by reversing unauthorized changes. Appeal Br. 7–9, 10; Reply Br. 2.

We agree with the Examiner that claim 86 recites a generic computer, processor, and memory performing generic functions. *See* Final Act. 9–11. The "computer system has "a processor and a memory storing a hierarchical data structure representing an organization and incentive distribution data for the organization." Reply to Notification of Non-Compliant Appeal Brief, filed Jan. 2, 2018, at 2 (Claim 86) (Claims App.). The processor performs the steps of claim 86, which involve the abstract ideas discussed above.

The Specification describes Computing System 110 with Storage 120 configured to store data for incentive management system 100. Spec. ¶ 25. Computing System 110 includes Processing Unit 165 configured to manage access to Storage 120 and execute computer code. *Id.* ¶ 32. Processing Unit 165 may be an integrated circuit, e.g., central processing unit or logic circuit, and Computer System 110 may be a distributed computing system. *Id.*

Thus, claim 86 does not tie the abstract ideas to a particular machine that is integral to the claim sufficient to integrate the abstract ideas into a practical application. Nor does claim 86 recite improvements to computers or technology. Revised Guidance, 84 Fed. Reg. at 55. The Specification discloses that Hierarchical Data Structure 200 merely stores relationships of Business Objects 210A–210W, such as geographic regions 210A–210F, sales channels 210G–210H, product types 210I–210UJ, and individual sales people 210K–210W as illustrated in Figure 2, reproduced below. *Id.* ¶ 34.

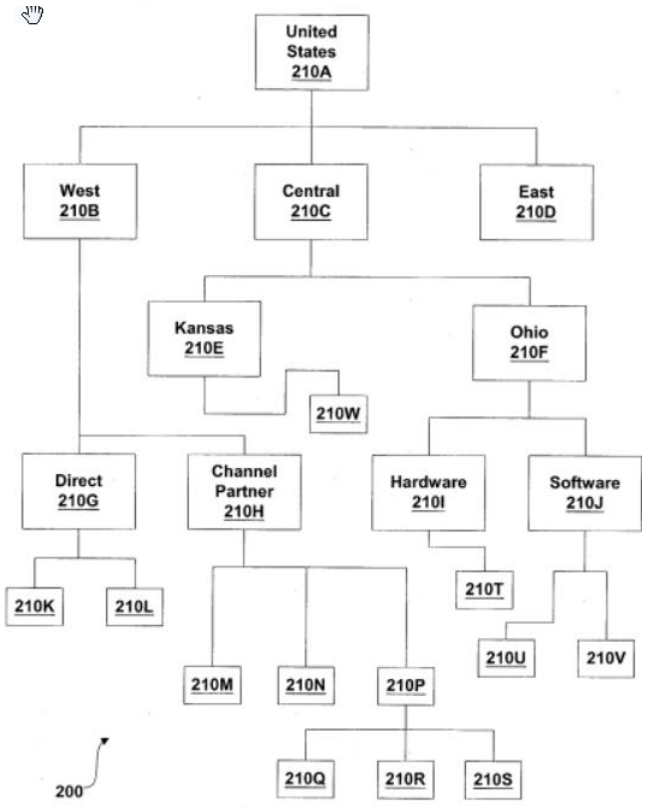

FIG. 2

Figure 2 shows Business Objects 210B–210J 210P as "intermediate nodes" and Business Objects 210K–210N and 210Q–210W as "leaf nodes." *Id.* Furthermore, the hierarchical data structure may be a *preexisting* data structure that is representative of an organization of the enterprise. *Id.* ¶ 24.

The asserted technical benefits of the hierarchical data structure (*see* Appeal Br. 7–9, 10) merely involve traversing an organization chart from a business object affected by a modification to an incentive program, i.e., a "leaf node," through intermediary nodes of the hierarchical data structure to a second leaf node having an approver role. Spec. ¶ 57. This feature recites the abstract ideas discussed above rather than an improvement to computers, databases, processors, or memory. Nor is it rooted in computer technology. It does not transform or reduce a particular article to a different state or thing. *See* Revised Guidance, 84 Fed. Reg. at 55; Final Act. 10. Thus, it does not integrate the abstract ideas into a practical application.

The method uses an organizational data structure to process incentive distribution modifications. A "hierarchical data structure [is] representative of relationships between business objects configured to provide the approval and/or receive the notice" relating to an incentive plan. Spec. ¶ 24. The data structure is a relationship database of business objects in an enterprise. *Id.* ¶¶ 25, 26, 34, 35. The related business objects are people, groups, divisions, contractors, subsidiaries, channel and partners. *Id.* ¶ 25. A relationship can exist between a sales group leader and sales group members. *Id.* ¶ 35. We find no technological advance in databases or data structures in claim 86, which merely recites the patent-ineligible abstract ideas discussed above.

The asserted improvement to data security by reversing or preventing *unauthorized* changes to incentive distribution data (Appeal Br. 7) is not claimed. Claim 86 recites a level of approval authority stored in memory and a determination whether a second leaf node has an approver role, and modifying the level of approval according to a response, which are abstract ideas of organizing human activity and mental processes discussed above.

There is no evidence the claimed data structure provides more secure data, operational efficiency, or code manageability. Reply Br. 2. Approval Engine 155 navigates Hierarchical Data Structure 200 to Business Objects (e.g., 210C) using Approval Authority Data 135 to determine which business object has approval authority. Spec. ¶¶ 50–53. The processor traverses over intermediary nodes between first and second leaf nodes of the organization's hierarchical data structure as a determination is made whether a second leaf node has approval authority. These steps are mental processes and methods of organizing human activity based on stored approval authorities.

Even if the steps are groundbreaking, innovative, or brilliant, that is not enough for eligibility. *See Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013); *accord SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 ("No matter how much of an advance in the finance field the claims recite, the advance lies entirely in the realm of abstract ideas, with no plausibly alleged innovation in the non-abstract application realm. An advance of that nature is ineligible for patenting."); *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) ("Adding one abstract idea (math) to another abstract idea (encoding and decoding) does not render the claim non-abstract."); *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) ("[A] claim for a *new* abstract idea is still an abstract idea. The search for a § 101 inventive concept is thus distinct from demonstrating § 102 novelty."); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1315 (Fed. Cir. 2016) ("While the claims may not have been anticipated or obvious [from] the prior art . . . that does not suggest that the idea . . . is not abstract, ...").

Claim 86 does not recite improvements to databases or computers based on the claimed hierarchical data structure. *See BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1286–87 (Fed. Cir. 2018) ("Here, the recited database structure similarly provides a generic environment in which the claimed method is performed. . . . Thus, the recitation of a database structure slightly more detailed than a generic database does not save the asserted claims at step one."). Applying an abstract idea in a narrow way is insufficient to make the abstract idea patent eligible. *Id.* at 1287.

Instead, claim 86 merely recites traversing an organizational chart (the hierarchical data structure) from a first leaf node nominated for an incentive award through intermediary nodes to a second leaf node that has approval authority. The hierarchical data structure is used to identify nodes that have authority to approve an award. *See* Spec. ¶¶ 37, 40–42, 50–53, 57.

At best, the hierarchical data structure and method of claim 86 merely automate an activity previously performed manually of searching through an organization for persons with authority to approve incentive rules or data. *See id.* ¶ 3. Indeed, the Specification discloses some approvals and input of incentive data that may be performed manually. *Id.* ¶¶ 30, 38, 40; *see OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) ("But relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible."); *see also In re Morinville*, 767 F. App'x 964, 969–70 (Fed. Cir. 2019) (non-precedential) (holding steps of automatically generating a dynamic functional organization from an operating organization to restructure a business organization using generic computer were not patent-eligible).

Thus, we determine that the claims are directed to an abstract idea.

Step 2B: Do the Claims Recite an Inventive Concept?

We next consider whether claim 86 recites any elements, individually or as an ordered combination, that provide an inventive concept. *Alice*, 573 U.S. at 217–18. "The second step of the *Alice* test is satisfied when the claim limitations involve more than performance of well-understood, routine [and] conventional activities previously known to the industry." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1367 (Fed. Cir. 2018) (internal quotations and citation omitted); *see* Revised Guidance, 84 Fed. Reg. at 56.

Considering its limitations individually or as an ordered combination, claim 86 lacks an inventive concept. Generic computer components perform generic functions at a high level of generality involving abstract ideas. *See Alice*, 573 U.S. at 223–26; Final Act. 9–12; Ans. 3–4 (the alleged "benefits" are not technical; they are business processes that use a general purpose computer). The brief description of these components in the Specification indicates that they are well-known. *See* USPTO Memorandum, Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*) (Apr. 19, 2018), *available athttps://www.uspto.gov/sites/default/files/ documents/ memo-berkheimer-20180419.PDF*. Using organization hierarchies to make determinations "is an abstract idea that has no particular concrete or tangible form or application. It is a building block, a basic conceptual framework for organizing information." *Versata, Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1333–34 (Fed. Cir. 2015); Spec. ¶ 24 (hierarchical data structure may be a preexisting data structure of an enterprise organization).

Thus, we sustain the rejection of claim 86 and claims 87–102, which fall therewith, as ineligible under 35 U.S.C. § 101.

Claims 86–102 Rejected Over Loya and Rochelle

Appellant presents arguments only for claim 86. *See* Appeal Br. 10–13. We select claim 86 as representative of the group with the other claims standing or falling with claim 86. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Regarding claim 86, the Examiner finds that Loya teaches a method as recited in claim 86 of storing a hierarchical data structure representing an organization and incentive distribution data generated by a set of plan rules and receiving a modification of the incentive distribution data but fails to teach a pending level of approval, traversing relationships in the hierarchical data structure to a second leaf node via intermediary nodes, and determining whether the second leaf node has approval authority for the modification. Final Act. 5–6. The Examiner cites Rochelle for these features. *Id.* at 6. The Examiner finds that Rochelle discloses an organizational workflow process in which data flows from an intermediary node (e.g., a nominator) to a subsequent node classified as having an approver role (i.e., a manager who has authority to approve or decline the award). Ans. 8–9.

Appellant argues that claim 86 requires traversing one or more intermediary nodes from the first leaf node to the second leaf node in the hierarchical data structure, whereas Rochelle involves only a one-node hop to obtain approval from one node (a nominator) to a subsequent node (a manager). Reply Br. 4–5; Appeal Br. 11–12.

These arguments are not persuasive of error in the Examiner's finding that Rochelle navigates through multiple nodes beginning with a nominator and traversing through the organization from the nominator to the nominee and then to one or more managers who have authority to approve or deny the award. Final Act. 6.

In this regard, the Examiner correctly finds that Rochelle teaches that business organization hierarchies may require multiple levels to approve an employee's award including a manager and the next level manager and this organizational hierarchy must be traversed from a nominated employee to managers who are authorized to approve the award. Final Act. 6; Ans. 8–9.

The Specification describes the claimed Hierarchical Data Structure as being used to navigate between members of a business object affected by an incentive modification (first leaf node) and approval authorities (second leaf nodes) in an organization via intermediate nodes. *See* Spec. ¶ 42, 57. Thus, a modification affecting Business Object 210B in a western sales division affects Business Objects 210G and 210H, which fall beneath Business Object 210B in the structure as illustrated in Figure 2 reproduced above. *Id.* The Specification discloses that approval of a modification may be sought from several members of Business objects 210A–210W. *Id.* ¶¶ 41, 44, 45.

In a similar manner, Rochelle teaches that employee awards typically require multiple approvals prior to granting the award and must be submitted to an employee's manger and then forwarded to the next level manager for approval before being sent to the distributor responsible for the award. *See* Rochelle ¶¶ 3, 5. An administrator verifies that the appropriate levels of approval were obtained before the award is granted. *Id.* ¶ 3. Some awards may be approved by a department manager while other awards are approved at the general manager level or higher. *Id.* ¶¶ 134, 136, 187–200. Therefore, we agree with the Examiner that Rochelle teaches to traverse intermediary nodes in a hierarchical business organization (data structure) to identify the managers at the highest levels (second node) who must approve an award and the administrators and distributors who process the awards.

Based on these teachings of Rochelle, we disagree with Appellant's argument that Rochelle is a one-node hop that does not traverse between leaf nodes via intermediary nodes. *See* Reply Br. 5. Instead, Rochelle traverses a hierarchical business structure from an employee who is nominated for an award through different levels of managers who must approve the award. Rochelle ¶¶ 3, 4, 134, 136, 102–117, 187–200. The employee and highest level manager may be considered leaf nodes and the intermediate managers may be considered an intermediary node through which the system navigates to seek approval of an employee's award nomination. *See id.*; Ans. 8.

Rochelle also uses stored approval data separate from the hierarchical data structure to determine which node has approval authority. Rochelle ¶¶ 102–117 (listing the approval authorities for different awards based on amounts as department manager for smaller awards and general manager, head of human relations, or manager of the entire business for increasingly larger awards). The system ensures that the appropriate manager(s) approve an award, which step corresponds to "determining whether the second node [manager] in the hierarchical data structure has approval authority for the modification using approval data stored separately from the hierarchical data structure representing the organization" as claimed. *See id.* ¶¶ 3, 102–117.

Just as Rochelle determines approval authority based on the amount of an award and verifies that authority by an administrator, the Specification discloses that Approval Authority Data 135 is indicative of the authority of a business object (node) to provide approval and can be based on a limit on a dollar value of an approval that a particular business object can grant. Spec. ¶ 27. Thus, Rochelle teaches such stored approval authority, as claimed, when this limitation is interpreted in light of the Specification.

Claim 86 also recites "a modification to the incentive distribution data, wherein the modification is generated by a change to the incentive distribution data or a change to the set of plan rules that generated the incentive distribution data." We interpret this limitation as an alternative limitation that can be satisfied by a method that modifies either plan rules *or* incentive distribution data that is generated according to the plan rules. This meaning is supported by the Specification, which discloses modifications are made to Plan Rules 140 or to Incentive Distribution Data 145, which are two types of incentive allocation data. Spec. ¶¶ 28, 39, 56. "Plan Rules 140 are representative of an incentive allocation plan configured for determining Incentive Distribution Data 145 characterizing incentive distributions to associated business objects." *Id.* ¶ 28. "Additions or changes to Plan Rules 140 or Incentive Distribution Data 145 are events for which approval may be sought and/or notice provided." *Id.* Input for changes is made by a manager or a compensation administrator. *Id.* ¶¶ 28–30, 39. Incentive Distribution Data 145 are generated using Plan Rules 140 or by manual input. *Id.* ¶¶ 36, 38, 39. The modifications include addition of new Incentive Distribution Data 145 and/or changes to existing Incentive Distribution Data 145. *Id.* ¶ 56. To provide notice of proposed incentive distributions, preliminary Incentive Distribution Data 145 is generated. *Id.* ¶ 60. Notification to members of Business Objects or supervisors provides a chance to review the planned incentive distributions and approve, modify, or disapprove them before the incentive distributions are actually made. *Id.* Thus, Incentive Distribution Data 145 comprises *incentive allocation data* and includes the *actual allocations* that are provided as incentives and awards. *See Id.* ¶ 62.

Rochelle's method allows managers and others to approve incentive awards nominations that correspond to the claimed incentive distribution data. *See* Rochelle ¶¶ 93–131, 134, 175–200. A manager of a department (comparable to the Business Object and other managers disclosed in the Specification, *see* Spec. ¶¶ 29, 39, 45) may approve an award of a certain amount, e.g., less than $1000. Rochelle ¶¶ 106, 107, 187, 188. If the award (incentive distribution data) is a greater amount, e.g., between $1000 and $2999, a department manager initially approves the award and the method navigates from one leaf node (the department manager) to another leaf node (the general manager) for final approval. *Id.* ¶¶ 109–111, 190–92. Awards of larger amount, e.g., $3000 to $3999 are sent for approval by a department manager and then to the head of human relations. *Id.* ¶¶ 112–114, 193–95. Awards over $4000, are sent to the head of human relations and then to the president of the entire business for approval. *Id.* ¶¶ 115–17, 196–98. This method moves between leaf nodes via intermediate nodes to obtain approval.

Rochelle also teaches that the award incentive distribution data can be modified by managers who may approve, decline, or modify an award and award amount during the approval process. *Id.* ¶¶ 180, 199, 200, 118–129. Thus, approval levels can be modified as one level of manager approves an award amount, and another level of manager may approve, disapprove, or modify the award, as claimed. *Id.* ¶¶ 106–127, 191–200. The original approving manager is notified of modifications to the award made by other manager levels. *Id.* ¶¶ 128, 199, 200. Thus, Rochelle teaches that the level of approval changes as modifications are made to the amount of the award. The modified level of approval for the modified award amount can approve or decline the modification to the award amount and the award as claimed.

The Specification discloses Approval Authority Data 135 is indicative of the authority of a business object (node) to provide approval and can be based on a limit on a dollar value of an approval that a particular business object can grant. Spec. ¶ 27. Rochelle teaches such approval authority as discussed above. Rochelle's method navigates through the hierarchical data structure of the organization to identify the level(s) with approval authority, which are stored separately. *See* Rochelle ¶¶ 83, 186–200.

In addition, Rochelle uses stored approval data that is separate from the hierarchical data structure to determine whether a node (department or manager level) has the appropriate approval authority. *See id.* ¶¶ 102–126 (listing approval authorities for different award amounts and their ability to approve or change an award amount), 186–200 (same).

Appellant's argument that "[t]here is no evidence that Rochelle's confirmation of a nomination involves ***a modification of the level of approval for a modification*** at all" is not persuasive for several reasons. First, merely reciting a claim limitation and asserting that Rochelle lacks this feature does not provide effective argument. 37 C.F.R. § 41.37(c)(1)(iv). Second, it does not address the evidence presented by the Examiner that Rochelle does teach this feature and the other limitations of claim 86. *See* Final Act. 6–7; Ans. 8–9. The portions of the Specification cited in the Summary of Claimed Subject Matter (*see* Appeal Br. 15–17) describe this feature as involving modifications to approval authority based on a specific amount of award money that requires a specific level of approval or multiple sources of approval (e.g., several people), some of whom may deny or change the status of the award request. Spec. ¶¶ 41, 44, 48, 60. As discussed above, Rochelle teaches this feature. *See* Rochelle ¶¶ 102–126.

To the extent Appellant urges us to interpret this limitation to mean that the levels of approval stored in memory are changed in some manner, we decline to do so because we find no support in the Specification for such an interpretation. The Summary of Claimed Subject Matter in the Appeal Brief cites paragraphs 30, 40, 41, 46–48, and 60 as support for this feature along with Figure 3 (345, 350, 355) and Fig. 4 (450). *See* Appeal Br. 17.

Paragraph 30 describes Approval Engine 155 changing the status of a modification from "Pending Approval" to "Approved" or "Not Approved." Paragraph 40 describes Approval Engine 155 being used to determine a level of approval required for a modification to be re-characterized from Pending to Approved and such approvals may be automatic or manual. Paragraph 41 describes how the type of approval required and approval authority varies by the type of modification (e.g., amount of money) and includes a supervisor of multiple sources (several people). Paragraph 46 describes how the system determines whether a node has authority to approve a modification. "If the authority is not sufficient the method continues to an Identify Business Object Step 355." Spec. ¶ 46. Paragraph 47 describes an Approve Change Step 350 in which the status of a modification is changed from Pending to Approved. Paragraph 48 describes how business objects are identified as having approval authority for a pending modification. Paragraph 60 describes how notifications of events other than modifications to Plan Rules 140 and/or Incentive Distribution Data 145 are provided, e.g., information about sales totals, bonuses, new incentives, quotas, successes, sales progress, or the like. None of these passages changes the approval authority stored in memory. Instead, they use those stored approval authorities to identify an entity in the business hierarchy with approval authority for a modification.

As discussed above, Rochelle teaches this same method in which an award of a particular amount may require multiple approval levels and any level, including the "modified level of approval," may approve, modify, or disapprove the award in a similar manner as the Specification describes and claim 86 recites. Rochelle's "modifications" thus correspond to "modifying . . . the level of approval for the modification stored in the memory" as the approval level changes to reflect the amount of the modification to the award amount, and the modified level of approval may approve, modify, or deny an award, i.e., thus "approving or reversing the modification to the incentive distribution data," as claimed. *See* Rochelle ¶¶ 94–131, 175–200; Reply Br. 6. For example, a manager can approve an award below $1000. However, if the award is $1000–$2999, the level of approval is modified so that this manager who approves the award forwards the award for further approval by a general manger. Rochelle ¶¶ 187–192. If the award is between $3000 and $3999, the approval authority is modified to require further approval by the department manager and human relations manager. *Id.* ¶¶ 193–95. Awards of $4000 or more require further modification of the approval authority to the organization's president.[2] *Id.* ¶¶ 196–98. Changes to award amounts by an approval authority may require a different approval authority to be used.

Thus, we sustain the rejection of claim 86 and claims 87–102, which fall therewith, as unpatentable over Loya and Rochelle.

[2] These teachings of Rochelle and others discussed above also address the arguments of Appellant that the claimed subject matter includes an inventive step by providing data security by reversing unauthorized changes because Rochelle's method, like the claimed method, ensures the proper person(s) with the appropriate level(s) of authority approve award modifications. Thus, this step is taught as conventional in the art and merely involves following the rules for approving modifications to plans and incentives.

CONCLUSION

In summary:

Claims Rejected	Basis 35 U.S.C. §	Affirmed	Reversed
86–102	101	86–102	
86–102	103(a) Loya, Rochelle	86–102	
Overall Outcome		86–102	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED