



Chinese Practice: Drafting Strategy For Protecting Algorithms Or Business Methods

--- Interpretation of CNIPA Announcement No. 343

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Article

The China National Intellectual Property Administration (CNIPA) announced amended the "Guidelines for Patent Examination" (amended Guidelines) effective February 1, 2020 in its Announcement No. 343^[1]. The amendments are made for further clarification of patent examination rules in new fields and new business forms involving artificial intelligence, blockchain, business rules and methods. The purpose of this article is to lead readers to understand the amended Guidelines, and to discuss the drafting strategies accordingly for patent applications related to algorithms or business methods.

Background of the Amended Guidelines

Patent applications for invention involving new technologies, such as artificial intelligence, new fields and new business forms are clearly distinguished from other patent applications for invention. In addition to "technical" features, solutions for such inventions generally include features involving rules and methods for mental activities such as algorithms or business methods. The amended Guidelines add a Section 6 to Chapter IX to address the examination of such inventions.

On the one hand, good practices explored in patent examination have been raised into the amended Guidelines (see the CNIPA's explanations on the draft for comments of the amendments^[2]), which will unify the examination criteria, and meanwhile, provide guidelines on how to better draft such applications to promote the quality of the applications. Moreover, the amended Guidelines clearly stipulate that all limitations recited in

claims including the features involving rules and methods for mental activities such as algorithms or business methods, should be taken as a whole to correctly grasp the technical contribution of the inventions, and the technical means involved, the technical problems to be solved, and the technical effects obtained shall be also considered.

Summary of the Amendments

Based on the original 5 sections of Part II, Chapter 9 "Some Provisions on Examination of Invention Applications Relating to Computer Programs", the amended Guidelines specifically add Section 6, in which specific cases are cited to clarify the allowable subject matters, novelty and inventiveness, and the drafting of claims and description of such applications; the summary of the amendments is listed below:

1. Emphasize that the examination on patent applications shall not simply split technical features from algorithm features or business rules and method features

The general principle for all examination is established in the “Examination Criteria” section of Section 6.1: “During examination, technical features shall not be simply split from algorithm features or business rule and method features; all the contents recorded in a claim shall be considered as a whole, so as to analyze the involved technical means, the resolved technical problems and the obtained technical effects.”

2. Clarify that if a claim contains technical features, the claim shall not be alleged unallowable under Article 25(1) of the Chinese Patent Law

If a claim contains technical features in addition to abstract algorithms or business rules and methods features, then the claim as a whole does not belong to rules and methods for mental activities, and the patentability shall not be excluded for the reason of belonging to rules and methods for mental activities stipulated in Article 25(1) of the Chinese Patent Law.

3. Clarify the examination criteria of Article 2(2) of the Chinese Patent Law

For the judgment of whether belonging to a technical solution, the examination criteria have been further refined based on the original "three elements" methodology of technical problem, technical means and technical effect. If an algorithm is incorporated into a specific technical field to solve a specific technical problem, or the implementation of business rules and method features requires adjustment or improvement of technical means, then it belongs to subject matter eligible under Article 2(2) of the Chinese Patent Law.

4. Consider the technical contribution to inventiveness of the algorithm features or business rules and method features that are functionally, mutually supportive and have an interaction relationship with technical features

When the examination is conducted on the inventiveness of a patent application for

invention that contains both technical features and algorithm features or business rules and method features, the algorithm features or business rules and method features that are functionally, mutually supportive and have an interaction relationship with technical features shall be considered as a whole together with the technical features, which further emphasizes the holistic principle in inventiveness judgment.

"Functionally, mutually supportive and have an interaction relationship" means that the algorithm features or business rules and method features are closely combined with the technical features, and constitute technical means together with the technical features to solve a certain technical problem, and can obtain corresponding technical effects.

5. The revision of the guidelines not only provides the examination principle, but also adds 10 examination cases of subject matters and inventiveness from both positive and negative aspects to provide guidance

6. Refine drafting requirements of the description and claims

For example: in the drafting requirements of a description, it is mentioned that how the algorithm is incorporated into a specific technical field shall be recited, and that the effect such as user experience shall be recited; in the drafting requirements of the claims, it is emphasized that the claims shall record both the technical features and the algorithm features or business rules and method features that are functionally, mutually supportive and have an interaction relationship with the technical features.

Examples

Hereinafter, two specific cases are selected from the amended Guidelines to discuss the subject matters that can seek patent protection for invention application containing algorithm features or business rules and method features, and to discuss how to combine technical

features with algorithm features or business rules and method features for consideration in inventiveness judgment.

[Case 1]: A method and device for communicating between blockchain nodes

Overview

An invention application relates to a method and device for communicating between blockchain nodes. Before establishing a communication connection, business nodes in a blockchain can determine whether to establish the communication connection based on a CA certificate carried in the communication request and a pre-configured CA trust list, thereby to reduce the possibility of leaking private data through business nodes and to improve the security of data stored in the blockchain.

Claim

A method for communicating between blockchain nodes, wherein the blockchain nodes in a blockchain network comprise business nodes, and the business nodes store a certificate sent from a certificate authority (CA) and are pre-configured with a CA trust list, and the method comprises:

- receiving, by a first blockchain node, a communication request sent from a second blockchain node, wherein the communication request carries a second certificate of the second blockchain node;
- determining a CA identifier corresponding to the second certificate;
- judging whether the determined CA identifier corresponding to the second certificate exists in the CA trust list;
- if yes, establishing a communication connection with the second blockchain node; and
- if not, establishing no communication connection with the second blockchain node.

Analysis and Conclusion

In assessing patent eligibility of a subject matter, it is necessary to determine whether the technical solution as claimed solves a specific technical problem in a specific technical field. The problem to be solved in this application is how to prevent the blockchain business nodes from leaking user's privacy data in the alliance chain network. It belongs to the technical problem of improving the security of blockchain data; by determining whether to establish a connection by carrying a CA certificate in the communication request and pre-configuring a CA trust list, the objects with which business nodes can establish connections are limited, which uses technical means that follow natural laws, and obtains technical effects of secure communication between business nodes and reducing the possibility of leaking private data through business nodes.

Therefore, the solution of this application belongs to the technical solution under Chinese Patent Law, and belongs to subject matters eligible.

Case Inspiration

Judgment on whether belonging to allowable subject matters can be conducted in the following two steps.

Step 1: Determining whether belonging to rules and methods for mental activities, that is, whether containing technical features

If a claim involves abstract algorithms or pure business rules and methods, and does not contain any technical features, then the claim is not the subject matter that can seek patent protection;

If a claim contains technical features in addition to algorithm features or business rules and method features, then the possibility of patenting the claim shall not be excluded for the reason of belonging to rules and methods for mental activities, and the next step is necessary for judgment.

Step 2: Determining whether belonging to

technical solutions

Considering all the features recorded in the claim as a whole: if technical means using natural laws is adopted to solve the technical problem, and the technical effect complying with natural laws is thereby obtained, then the claim belongs to subject matters that can seek patent protection. In the judgment process, it shall be focused on whether the algorithm features or business rules and method features are incorporated into a specific technical field to solve a specific technical problem.

[Case 2]: A logistics delivery method

Overview

In the process of cargo delivery, how to effectively increase the efficiency of cargo delivery and reduce the delivery cost is the problem to be solved by the invention application. After a logistics person arrives at the delivery location, by pushing information to the order user terminals through a server, the logistics person can simultaneously notify multiple order users within a specific delivery area to pick up the cargoes, thereby to achieve the purposes of increasing the efficiency of cargo delivery and reducing the delivery cost.

Claims

A logistics delivery method, which increases the efficiency of logistics delivery by notifying users to pick up in batches, the method comprising:

when a delivery person needs to notify users to pick up cargoes, the delivery person sending an arrival notification that the cargoes have arrived to a server through a handheld logistics terminal;

the server notifying in batches all ordering users within a delivery range of the delivery person; and

the ordering users who have received notification completing pickup based on notification information;

wherein, batch notification conducted by the server comprises: the server

determining all target order information corresponding to delivery person ID and within a delivery distance centered at the current location of the logistics terminal, based on the delivery person ID, the current location of the logistics terminal and the corresponding delivery range carried in the arrival notification sent from the logistics terminal, and then pushing the notification information to ordering user terminals corresponding to ordering user accounts in all target order information.

Analysis and Conclusion

Prior art Reference 1 discloses a logistics delivery method, in which a logistics terminal scans the barcode on the delivery note and sends the scan information to a server to notify the server that the cargoes have arrived; the server obtains the ordering user information in the scan information and sends a notification to the ordering user; the ordering user who has received the notification completes the pickup based on the notification information.

Compared with Reference 1, the claim differs in: 1) notifying users of cargo arrival in batches; 2) the data architecture and data communication manner among the server, the logistics terminal and the user terminals.

The pickup notification rule of this application is to notify users of the cargo arrival in batches; in order to achieve the batch notification, the data architecture and data communication manner among the server, the logistics terminal and the user terminals have all been adjusted accordingly in the solution, which belong to the specific batch notification implementation manner, and are functionally, mutually supportive and have an interactive relationship with the pickup notification rule. Therefore, the above two differences shall be considered as a whole.

Based on the above two differences, the technical problem actually solved by the

technical solution as claimed is how to increase the efficiency of order arrival notification and thereby to increase the efficiency of cargo delivery. From the user's point of view, the user can get the order arrival information more quickly, which also improves the user experience.

Since there is no technical motivation in the prior art to improve the above-mentioned Reference 1 to arrive at the claimed solution, the claim does possess inventiveness.

Case Inspiration

In the examination on the inventiveness of claims containing technical features and business rules and method features, first to determine whether the technical features are functionally, mutually supportive and have an interactive relationship with the business rules and method feature; if yes, then to consider the two type of features as a whole, re-determine the technical problem, and then judge whether the prior art provides technical inspiration.

If the implementation of the business rules and method features in the claims requires the adjustment or improvement of technical means, or if the algorithm features in the claims can be applied to a specific technical field to solve a specific technical problem, then these features can be considered as being functionally, mutually supportive and having an interactive relationship with corresponding technical features, thus shall be considered as a whole with the technical features to judge their contribution to inventiveness.

Drafting Strategy

In sum, for an invention application involving algorithm features or business rules and method features, one should draft the application focusing on the following:

1. In addition to the algorithm features or business rules and method features, the claims shall also record the technical features that are functionally, mutually supportive and have an

interaction relationship with the algorithm features or business rules and method features;

2. While describing the algorithm features or business rules and method features in the description, it is necessary to describe how those features "are functionally, mutually supportive and have an interaction relationship with" the technical features to jointly solve the technical problem; "incorporated into a specific technical field" does not mean to simply mention the technical field to which the invention is applied, but to describe the incorporating process such that the skilled person in the art can confirm such incorporation;

3. When containing algorithm features, the abstract algorithm shall be incorporated into a specific technical field, and the definition of at least one input parameter and its related output result shall be associated with specific data in the technical field;

4. When containing business rules and method features, the entire process for solving the technical problem shall be described and explained in detail, so that the skilled person in the art can implement the solution of the invention according to the recordation of the description;

5. Advantageous effects, such as the increase of quality, accuracy or efficiency, the improvement of system's internal performance, etc., shall be described in the description, and shall also be explained in detail or proved by combining the technical features and the algorithm features or business rules and method features; and

6. Since the improvement of user experience with objectivity can also be regarded as a technical effect, the drafting of user experience shall reflect that the improvement of user experience is objective, but not subjective preferences that vary from person to person. It shall be described how the improvement of user experience is brought about or produced jointly

by the algorithm features or business rules and method features associated with the technical features.

References:

- [1] Announcement No. 343 on the revision of the "Guidelines for Patent Examination", <http://www.cnipa.gov.cn/zfgg/1144989.htm>;
- [2] The CNIPA's explanations on "Draft Revision of Part II, Chapter IX of the Guidelines for Patent Examination (Draft for Comments)".



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