

The Civil Law Protection of Virtual Property Rights in Online Games

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Abstract: In the information age, the influence of the Internet on people's lives is increasing, especially in online games, whose radiation groups include almost all age groups such as teenagers, middle-aged and elderly people. With the increasing amount of time, money and energy people inject in the virtual environment of online games, the value of virtual property in the Internet can no longer be underestimated. Therefore, in the newly promulgated Civil Code of the People's Republic of China, online virtual property is explicitly listed as an object protected by law with the same status as substantive property. However, the application of its provisions is too flexible, so this paper puts forward the author's own opinions and suggestions on the legal protection of virtual property in the present-day context, starting from the value of virtual property on the Internet, the doctrines of various schools of thought and the legal protection in other countries.

Keywords: Internet; online games; virtual property; civil law protection

1. Introduction

The booming development of the game industry has caused more and more people to contact and love online games and pay more and more attention to the virtual property in online games. There are more and more legal disputes related to it, and in judicial practice there are generally different applicable laws, different attributes of defining the rights of virtual property in online games, different judgments in the same case, etc. The Civil Code of the People's Republic of China (hereinafter referred to as the Civil Code) was adopted at the third session of the 13th National People's Congress on May 28, 2020, and Article 127 of its General Provisions provides as follows: "Where the law provides for the protection of data and network virtual property, it shall be in accordance with its provisions." Such general provisions obviously cannot meet the needs of the complicated judicial practice and cannot better guide judicial practice. The theoretical community has not yet reached a consensus on the concept and connotation of network virtual property, which is not conducive to the civil law protection of online game virtual property [1].

2. Overview of online game virtual property

2.1. Virtual property

2.1.1. Concept

Virtual property is a kind of exclusive right with certain value that can be disposed of by people, and virtual property is the expression of real property in the virtual environment of the network, and is also a kind of property protected by law. The concept in a broad sense refers to the virtual property with value that can only exist in the Internet environment, including network accounts, network data, virtual currency, virtual goods, etc., which are based on the network and can only exist in the Internet environment. In a narrow sense, the concept generally refers to the accounts, characters, props, currencies and other virtual goods held by network users in a specific online game environment.

2.1.2. Etymology of online virtual property explained

According to the modern Chinese dictionary, the word "virtual" has two meanings, one is "not in line with or not necessarily in line with the facts, hypothetical"; the other is "fictitious". In the Chinese interpretation, "virtual" things are more inclined to "false", that is, "things that do not exist in reality or

are fabricated out of thin air", and virtual property is property that does not exist in real material life. The virtual property is the property that does not exist in the real material life. Thus, virtual property on the Internet can be understood as personal property that does not exist in real life and cannot be measured by normal standards.

Property generally has four characteristics: first, usefulness, property should have the ability to meet certain material and spiritual needs of the subject; second, value, property condenses the undifferentiated human labor; third, disposable, that is, the owner of property can dispose of the property he owns in a certain way; fourth, circulation, property can be transferred from one subject to another subject to enjoy. Network virtual property has all the attributes of substantive property and can be regarded as a sub-category of substantive property[2-4].

2.2. Online game virtual property

2.2.1. Concept

The online game virtual property mentioned here is the virtual property in a narrow sense, which refers to the items with certain value held by the player in the online game, and also includes the player's game account and role, as well as the virtual currency, equipment and props obtained by the role in the game environment in a normal way.

2.2.2. Types

Account and role. Online game virtual property is generated based on different game accounts that users apply to establish, and different game accounts can be used as virtual warehouses for different users to produce and obtain a series of valuable virtual items independently held by game players in the online game environment, and these virtual items depend on the game accounts in the virtual game environment, and together with the accounts themselves, they form the virtual property of online game users. The virtual goods depend on the game account in the virtual game environment, and together with the account itself, they form the virtual property of the online game user. Each user's account and role is unique, and the source of its uniqueness is that: first, each account applied by the player is private in nature, and different accounts correspond to different players, and the player can enjoy the independent ownership of the account and the role corresponding to the account according to the account number and secret key, which also means that the game account is private in nature, and without the consent of the account owner, any infringement of the account's virtual property is not allowed.

Game currency. A mature online game inevitably has its own exclusive game trading system, and in the operation of the trading system within the game, it is inevitable to measure the value of virtual items with the help of general equivalents, and the game virtual currency is thus produced. The game currency is a virtual currency that acts as the general equivalent in the virtual game environment, and the role and function of this currency in the game environment is the same as that of the currency circulating in the real society, and it can even connect to the real trading system to realize the interchange of virtual goods and real goods. However, it is worth mentioning that only one kind of virtual currency may not exist in online games, and it may be several kinds of virtual currencies that jointly support the monetary system of the network virtual world, and several currencies are combined together to play the complete function of general equivalents and the role of connecting reality.

Virtual items. Virtual goods in a broad sense include all the goods existing in online games. In a narrow sense, virtual goods refer to all kinds of equipment and game props in the player's account that have certain value and can be called virtual property. The value of virtual items can be roughly estimated according to the chance of their appearance, the amount of their quantity and the level of their attributes, and this value is generally decisive in the circulation of virtual items and the evaluation of the amount of virtual property, but the supply and demand of network users also have a significant impact on them[5-6].

2.3. Characteristics of virtual property

2.3.1. Virtuality

It is called virtual property because it can only exist in the virtual environment of the network and cannot be revealed apart from the network. The dependence of online game virtual property on the network is expressed in the form of roles, equipment and game currency. Technically speaking, virtual property is just a series of electronic data in the network server, and these electronic data can only be

expressed in a specific form in a specific online game, and the data in different network servers cannot be shared, therefore, virtual goods in different online games cannot be circulated. Once the data on the game server is deleted or made to be modified, the virtual goods corresponding to it will also appear to be changed accordingly.

2.3.2. Technical restrictiveness

The level of characters in online games, the attributes of each character, equipment, and the amount of game currency are all set and planned in advance by computer programs, and their data have a definite range, and the specific values fluctuate within the specified range, generally speaking, the closer to the great value of this range, the more scarce the items corresponding to this data are; in addition, according to the game running procedures, the appearance of all items. In addition, according to the game operation procedure, all items have a certain probability or condition set in advance, and it is this technical level restriction that makes the number of virtual items with extreme properties low, the game value is high, and many players have demand for them, thus promoting the creation of online virtual property trading[7-9].

2.3.3. Transactability

Human beings have been trading since primitive society, and the essence of trading is to take what you need, which is an inevitable behavior in civilized society. Communication between people, exchange of goods and mutual satisfaction of needs are the essential attributes of social interaction. Although the virtual society in online games relies on the virtual environment of the network, it is also one of the components of human society and has such characteristics. Although the virtual society in online games does not exist in reality, it has the same members as part of the real society, which connects the real society with the virtual society. On this basis, when the trading system of the virtual society in online games cannot meet the measurement or exchange of virtual goods, its members will use the interoperability between the real and virtual worlds to use real money and real goods with value to carry out virtual the members of the virtual society use the interoperability between the real and virtual worlds to exchange virtual goods using real money and real goods with value, forming a unique trading behavior. Along with the increase of such trading behavior, the connection between the virtual world and the real world of online games is promoted more closely, so more and more trading platforms appear to support the trading between the real and virtual worlds; the trading volume continues to expand, so the trading industry between the real and virtual worlds is gradually systematized and formalized, and the trading nature becomes one of the important characteristics of online virtual property.

2.3.4. Value-based

Players invest money, time and effort in online games to level up the virtual characters held by individuals and obtain certain equipment and game currency by means of system settings. The difference of players' payment in the game is directly reflected in the level of the game character and the number of game virtual items owned. Moreover, due to the different degree of players' demand for online game virtual items, a kind of similarity between players and players is formed spontaneously.

The act of trading commodities in the real society, and the resulting organizations and individuals who make a living by creating high level characters, acquiring scarce amounts of game items, selling these characters and virtual items in reality for profit, and making a living out of them, are the reasons that give virtual property its value.

2.3.5. Periodicity

Periodicity is an important characteristic to determine the legal attributes of network virtual property. Network virtual property is a one-way attachment relationship with online games, and is an important part of online games. Online game is an entertainment electronic project in the Internet environment, using the game operator's server as a platform to connect multiple users through computers, and its essence is a service commodity with an entertainment role, and as a commodity, its survival or abolition is closely related to the operator's business strategy and operation status - when the operator shuts down the game server, the When the operator closes the game server, the virtual environment of the game will collapse. Once the online game ceases to exist, the corresponding online virtual property also loses its environment and disappears. This connection determines that online virtual property has a duration, and its duration is the same as the duration of the online game.

3. Doctrine on the legal nature of network virtual property

3.1. Property rights theory

In the doctrine of property rights, scholars regard the network virtual property as part of the substantial property, and consider it belongs to the object protected by the property rights codification of the civil law, and the property rights codification of the civil law as the legal basis for the non-infringement of the network virtual property. This is the earliest doctrine about the legal nature of network virtual property proposed in China, and has gained the support of many scholars.

The basis for treating online virtual property as an object of property rights is that virtual property also has the characteristics of usefulness, exclusivity, value, dominance, and so on, which are possessed by property rights. Among these characteristics, the most crucial are exclusivity and dominance, which are the most important attributes of the object of property rights. The dominance and exclusivity of virtual property on the Internet are reflected in the fact that the Internet users enjoy independent dominion over the corresponding virtual data by means of accounts and passwords, and are not hindered by others. In this issue, the scholars who support the property right make a new interpretation of the "dominance" of the property right, which broadens the dominance of the property right owner to the connection of the right, and is no longer limited to the state of actual possession, under the new dominance interpretation, the user has the relative dominance of the network virtual property, which still conforms to the characteristics of the property right. Therefore, network virtual property still belongs to the object of property. Some scholars believe that there are other values of the protection of virtual property on the Internet within the scope of property rights under the Civil Law: First, it enriches the types of objects within the scope of the Civil Law and expands the scope of objects protected by property rights. The value of this doctrine is not only limited to virtual property, but also has great significance in the whole civil law, which is another progress of jurisprudence; secondly, as a new intangible object in the Internet era, network virtual property has all the attributes of traditional objects, in which the value and use value, moreover, reflect the important characteristics of virtual property as property in general sense. The protection of network virtual property through law can effectively protect the interests of network users from infringement. Therefore, classifying network virtual property as an object of property rights can provide effective legal protection for the new type of property owned by users in the Internet era[10-11].

3.2. Claims

Soon after the doctrine of property, some scholars who do not recognize the doctrine of property put forward the doctrine of claim, these scholars believe that the network virtual property is classified as the object protected by the claim, which can better reflect the virtual properties of network virtual property in the Internet environment, and this is one of the important reasons why there is no unified statement on the legal nature of network virtual property in academic circles today.

There are two theoretical bases for proposing the doctrine of claim: one, some scholars, based on the service agreement signed between the network user and the online game operator before entering the game, believe that the premise of the generation of network virtual property is the contract concluded between the two, which is a service contract, the operator provides the game environment, the user enters it for experience, the virtual goods generated in the process are generated by the service contract, and the virtual property acquired by the user is a claim against the operator. The virtual property acquired by the user is the claim held against the operator. Secondly, since only the doctrine of property rights of virtual property and the doctrine of claims existed in the academic circles at that time, some scholars made arguments from the perspective of proving that the network virtual property does not meet the requirements of the object of property rights according to the limited choice, and concluded that the doctrine of claims meets the requirements of reality: First, the network virtual property depends on the Internet environment, and its essence is only the data in the computer system, and its existence depends on the online game operator's timely maintenance of the server. First, network virtual property depends on the Internet environment and is only data in the computer system, and its existence depends on the online game operator's timely maintenance of the server, so it cannot exist independently of the server, so it does not belong to the category of "things"; second, the general theory of the object of property rights is that "things must have a body", and only things with a body can become the object of property rights, and things without a body are generally associated with rights, and network virtual property has no body. Therefore, the network virtual property should be classified as the object of property rights, and break through the general theory that property rights have physical

objects.

3.3. Intellectual property rights say

Some scholars, starting from the root cause of virtual games, regard online game virtual property as a technical product in the Internet field, which is the fruit of labor produced by the joint efforts of online game operators and users, and the operators and players have ownership and use rights to it respectively.

Scholars who propose the theory of intellectual property rights of online virtual property believe that the root cause of online virtual property is related to two subjects, one is the online game operator and the other is the online users who experience the game environment, i.e. players. First, the entire online game is composed of computer code programs designed by the operator, and the online game and the virtual property derived from it should be owned by the online game operator, while the network users who experience the online game only enjoy the right to use the virtual goods they obtain; the second view is that although the online game is designed by the operator, the virtual goods held by the players are all obtained through personal labor, and they should have the right to use them. The second view is that although online games are designed by operators, virtual goods held by players are obtained through personal labor and should be owned by them. Although these two views differ, they both insist that virtual property should be regarded as technical products and protected from the perspective of intellectual property.

3.4. New type of rights object said

Since virtual property is not put into any chapter of property rights, claims or intellectual property rights in China's civil law norms, but into a separate article for description, many scholars have proposed a new doctrine based on this status quo, treating virtual property as a new kind of right arising from the development of the virtual era of the Internet and protecting it with a new legal system.

From the classification of property rights to property, the legal theory of civil law has been studied by the dichotomous system of property and debt, and the existence of this system and theory certainly has a certain reasonableness, but in the new era of Internet development today, the progress of society promotes the modernization and development of civil law theory, specifically to a certain aspect, it is a new research path to the protection of virtual property, with a new theory to break the tradition This is the background and basis for the emergence of a new type of right to virtual property.

3.5. Author's view

The author agrees with the doctrine of object of property in the doctrine of virtual property, and supports virtual property as a special object within the scope of object of property for the following reasons: Firstly, the author believes that network virtual property, as an intangible object in the context of a new era, has all the characteristics of substantial property and is a new form of property. Secondary, some scholars propose that "under the consequentialist approach of focusing on facts and results, the dispute between the position of property rights and the position of claims is concretized into the choice of different remedies and the configuration efficiency of their consequences, which ultimately proves that the remedial consequences under the position of property rights are superior to the position of claims", and this view proposes to treat virtual property as property rights from the perspective of right remedy This viewpoint suggests that virtual property as the object of property rights is more in line with the reality and the need of personal interest protection than as the object of claims. As a product of the new era, virtual property naturally cannot be fully applied to the traditional system of property rights, but the law is not static, but can follow the development of the times and make corresponding adjustments, and so is the law of property rights. We can refer to the suggestions made by scholars to expand the interpretation of the concept of "dominant" in property rights, so that it can meet the real needs of new property in the present era and satisfy the demands of network users for the protection of virtual property, so that the new form of people's property in the information age can be legally protected.

4. Analysis of the types of infringement on network virtual property

The subject of online game virtual property generally involves ordinary network users (i.e. players)

and network operators, and the types of infringement of online virtual property from the perspective of the subject can be divided into the following four categories:

4.1. The player commits aggression against the operator

Online game is the property owned by the operator, and the initial ownership of the virtual property generated based on the online game should also be attributed to the operator, and the player can get the ownership from the operator through the system setting at a later stage.

Players' infringement on the operator's virtual property is mainly through the following two ways: first, using game plug-ins to destroy the game balance, which will affect the normal operation of the virtual environment of online games and lead to a reduction in the amount of the operator's property value; second, using game loopholes to obtain items and game currency that have not yet appeared or should not appear in the game in an unreasonable way, and making the operator through the use, trade or transfer, etc. suffer additional losses.

4.2. Third party infringement on the player

The third person here refers to the third person outside the subject of the specific network service agreement, which can be the player in the same game environment, or the third person outside the game environment. The means of its infringement on the player are mainly: first, stealing the account, the third person, by illegal means, obtains the user's network account, so that the user's personal information and privacy are violated, or makes the account do acts that are not in line with the user's true will; second, using computer technology, the data of the online game is modified, so that the player's legally obtained virtual property is destroyed or transferred.

5. Suggestions for the legislative protection of China's network virtual property

5.1. Establishing the types of online game virtual property that should be protected

Due to the incompleteness of legal provisions, the provisions on online game virtual property in China's existing laws still remain in general terms, although some scholars also propose to add relevant provisions on online game virtual property in the Civil Code, and some even propose to formulate special legislation on this kind of property rights, but the legislative procedure has taken a large time span, and there are relatively more factors to be considered. In the process of waiting for the introduction of the law, disputes about online game virtual property have been increasing, and from the perspective of judicial efficiency, adding special provisions or formulating special laws for protection may be the best choice, but it is not conducive to solving the urgent needs; and the latest judicial interpretation has just been issued, which does not involve the object of this article's study, and the possibility of launching new judicial interpretation in the short term is not high. Comprehensive judicial practice, the author believes that, in the process of actively promoting the formulation of laws and judicial interpretations, regulations for the protection of online game virtual property can be introduced first. In China, there have been many disputes about virtual property in online games, and there have been enough theoretical and practical data to support them, and the types of online game virtual property that should receive protection can be clarified by formulating regulations. It can be learned from the case analysis part above that the types of virtual property involved in most cases are relatively fixed, and the civil law protection of online game virtual property can be further strengthened by introducing special regulations to clarify the types and scope of protection of online game virtual property, so as to solve the problem of unclear types of online game virtual property protection, and also provide judicial guidance for the online game virtual property disputes that are waiting to be solved and may appear in the future. Property disputes to be solved and to provide judicial trial guidance.

5.2. Establishing players' ownership of virtual property in online games

According to the previous justification analysis, the online game virtual property belongs to the game developer and operator in the initial period because of the content of the service agreement and the intellectual property rights enjoyed by the online game operator, but when the game player starts to play, buy, sell, operate and recharge the online game virtual property, it should be "separated". After that, the ownership of online game virtual property should be transferred. The players have invested

labor, time and money in the process of operating the game, and the spiritual satisfaction and positive influence of the game also make the ownership of the online game virtual property out of the control of the online game operator and then transferred to the game players, so the right of the online game virtual property should belong to the players. In order to make the attribution of property clearer in disputes, the ownership of online game virtual property can be attributed to players by means of legal provisions or operator user agreement provisions to solve the problem of attribution of rights in judicial practice.

5.3. Clarify the custodial responsibility of online game operators

Due to the dependence of online game virtual property on the operator's server, the plaintiff in a large number of disputes involving the theft or destruction of virtual property will choose to bring the operator to court, and the dispute usually focuses on what kind of responsibility the operator should bear, and the final conclusion is often based on the security guarantee obligation. If from the perspective of custody contract

This legal problem can be solved by analysis. In terms of jurisprudence, the custodian shall take proper and reasonable care of the property of the consignor. Article 892 of the Civil Code provides that "the custodian shall take proper care of the custodian's property", and in Article 897 clearly stipulates the custodian's custodian's responsibility, "during the custodial period, the custodian shall be liable for the damage or loss of the custodian's property caused by the custodian's mismanagement. ". More specifically, China's "Network Security Law" Article 10 provides that "the construction, operation of the network or provide services through the network, in accordance with the provisions of laws, administrative regulations and mandatory requirements of national standards, technical measures and other necessary measures to ensure the security of the network, stable operation, effective response to network security incidents, to prevent illegal activities on the network, to maintain the network The integrity, confidentiality and availability of data. Article 897 of the Civil Code provides for the liability of gratuitous custodians, who are not liable for compensation as long as they can prove that there is no intentional or gross negligence. In China's current game market, the fee-based services provided by operators do not include the custody of virtual property. According to the relevant legal provisions on gratuitous custody, operators only need to fulfill the general level of custody responsibility in disputes over virtual property in online games as long as they can prove that they are not intentionally or grossly negligent.

5.4. Improve the inheritance system of online game virtual property

In the traditional inheritance system, the subjects involved are generally two parties, i.e. the heir and the decedent, and the real physical property is easy to determine the quantity and price, and the remedies are also very mature and perfect when disputes arise. However, since online game virtual property is intangible property and most of its owners belong to young groups or even minor groups, there is still a lot of room for improvement of the provisions of the inheritance system. The essence of online game virtual property is electronic data, which depends on the server provided by online game operators, so in the inheritance of this property, besides the heir and the heiree, the operator is also one of the important subjects, and the rights and obligations of the operator should be clearly stipulated in the legislation of online game virtual property to ensure that the heir gets the necessary technical support when inheriting the property. Since the change of online game virtual property also relies on the operator's server and requires the operator to provide corresponding technical support, the online game operator has the right to require the heir to present relevant supporting documents to prove the legality of his inheritance right as a pre-condition to assist in the transfer of property when handling the inheritance procedure of virtual property. However, the accompanying obligation of the operator to examine the documents and other materials, which puts forward higher requirements for the operator's protection obligations, increases its responsibility and burden, and may cause the process of virtual property inheritance to be too long and inefficient. Therefore, in order to achieve the balance of interests between players and operators, we can try to introduce notary institutions for virtual property in judicial practice with reference to the current property notary system, and specialize in the succession of virtual property in online games, which can not only better protect the succession rights of heirs at the legal level, but also reduce the responsibility of network operators in succession disputes and speed up the succession procedure. This not only can better protect heirs' inheritance rights at the legal level, but also reduce the responsibility of network operators in inheritance disputes, speed up the process of inheritance procedures, so that the right holders can enjoy their legitimate rights and

interests as soon as possible, and provide technical support for the optimization of judicial environment and improvement of judicial efficiency.

5.5. Limit the scope of virtual property of online games that can be compensated for moral damage

Regarding the compensation for moral damages, some scholars believe that it is debatable whether the virtual property of online games can be compensated for moral damages, so the scope of compensation for moral damages should be cautiously relaxed accordingly. Some scholars believe that the loss of online game virtual property, which is the product of players' digital labor and emotions, will also cause damage to players' spiritual interests, so it is necessary to strictly define the scope of compensation for spiritual damage. In the author's opinion, due to the theoretical controversy, the scope of compensation for moral damage to virtual property of online games needs to be limited. Referring to the relevant provisions of physical objects, only those virtual objects with specific personal significance to the tortfeasor can constitute moral damage after they are destroyed and lost. Secondly, this kind of online game virtual property should have certain special meaning or rarity, such as equipment and props that symbolize a certain honor or status in the game, which is different from ordinary virtual property, and this kind of property affirms the player's emotion or technical level of the game, and is a kind of personal honor with special commemorative significance. Finally, the virtual property should have been lost and cannot be recovered by any technical means, which has caused irreparable damage to the infringer.

6. Conclusion

The development of the Internet economy has led to the rise of the game industry, and disputes about the virtual property of the new online game have been controversial since its emergence, but the provisions of China's legal provisions for the protection of virtual property are relatively general and broad, so the civil law protection of the virtual property of online games in China is not perfect, and there are some disputes in judicial practice. The development of Internet economy makes the game industry rise, and the new property of online game virtual property is more and more common in daily life and becomes one of the important forms of property, so China's civil law should also clarify its legal nature and protection means on the basis of the existing legal provisions, so as to help protect the legitimate property interests of the right holder from the microscopic perspective and provide a stable and good social environment for the rapid development of Internet industry from the macroscopic perspective. From a micro perspective, it is conducive to the protection of the legal property interests of the right holder, and from a macro perspective, it is conducive to the rapid development of the Internet industry to provide a stable and good social environment.

This paper starts from the definition and characteristics of online virtual property, highlights the different views on legal attributes, analyzes the pros and cons of each doctrine, and finally classifies it as a kind of property interest worthy of protection. Using the research methods of comparative analysis and case study, and combining the current legislative status and judicial practice in China, we point out the problems of China's existing civil law system for the protection of this property right, and analyze the specific reasons from the perspective of three theories, and propose the corresponding ways to break them. The first is to clarify the type and attribution of online game virtual property, and the type of property that should be protected can be established through regulations and local laws and regulations, and the ownership can be attributed to the players while the legislative process advances; the second is to clarify the legal responsibility of infringing on online game virtual property, and the right holder can be given the "right to claim in rem" with reference to the protection of property rights. The third is to restrict the current format clauses that damage the legitimate rights and interests of the right holders, improve the free transfer system of property and the supporting right relief system, and provide stronger protection at the institutional level; the fourth is to accurately identify the value damage in disputes over virtual property of online games. In the absence of official evaluation standards to clarify its loss considerations, and limit the scope of available moral damage compensation, to facilitate the measurement of the amount of loss in judicial practice.

The research object of this paper is online game virtual property, which belongs to a special category of virtual property and has certain reference significance for the study of legal protection of virtual property as a whole. To improve the legal protection of virtual property and adapt the legal provisions to the pace of economic development, it is necessary to involve the adjustment of several departmental laws and the consistent arrangement of criminal and civil. Because of the author's

insufficient knowledge and limited ability, this paper only proposes the improvement of some existing problems, and the discussion of many articles is not mature enough, which needs further study and research.

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