

# Study on the Obligations of Internet Technology Service Providers to Protect Copyright

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**Abstract:** The "balance of interests principle" seeks to find a balance between "maintaining the development of the Internet industry" and "protecting the legitimate rights of copyright owners", so that the balance of interests of multiple parties can be achieved. The key lies in clarifying the obligation of network technology service providers to protect the copyright of others. This article clarifies this: before an infringement occurs, the network technology service provider cannot directly infringe the copyright of others, and must exercise reasonable care and the obligation to "build a copyright database". When an act of infringement occurs, the online technology service provider must comply with the "notice-and-delete" rule, fulfil its obligation to "forward notification" and provide an obvious channel for complaints. After an infringement has occurred, the OTS provider has an obligation to assist the "rights holder" in its investigation and to prevent repeated infringements by unusual Internet users.

**Keywords:** internet technology service providers; obligations; copyright; balance of interests principle

## 1. Introduction

In recent years, copyright infringement cases related to network technology service providers have been frequent, the root cause of which is that the current copyright protection obligations of network technology service providers are still unclear. On the one hand, network technology service providers represent the development of the Internet industry to a certain extent, and as a new thing, their development is still emerging and needs to be promoted and protected; on the other hand, the rights and interests of relevant copyright owners are legal and legitimate and protected by law. At the same time, the relevant network legislation lacks top-level design, presenting a low and fragmented legislative hierarchy, missing or poor provisions, or simple transposition of existing norms to the network field. <sup>[1]</sup>The boundaries of the obligations of network technology service providers in relation to the copyright protection of works, performances, sound recordings and video recordings within their cloud servers are blurred, and this article attempts to clarify them and promote the study of this issue.

## 2. Network technology service providers enjoy the right to make rules and enforce them, and their rights and obligations are consistent

To define the copyright protection obligations of the network technology service provider with respect to the works in the cloud server, the rights of the network technology service provider must first be clarified. Obligations" in the study of jurisprudence are requirements to do or not to do certain acts that are expressly provided for by law or contained in the logic of legal norms, or at least inferred from the spirit or principles of law, as opposed to "rights": to say that a person enjoys or possesses a certain interest, interest, claim, qualification, power or freedom is to say that others have a duty not to infringe upon what they enjoy or possess. It is the opposite of a 'right': to say that a person enjoys or possesses an interest, claim, qualification, power or freedom is to say that another person is under an obligation not to usurp or interfere with that which he enjoys or possesses. <sup>[2]</sup>It follows that rights and obligations are two sides of the same coin.

Rights and duties are consistent, meaning that the greater the rights, the greater the duties. The consistency of rights and obligations is a fundamental principle established in the Constitution of the People's Republic of China, stipulated in Article 33 of the Chinese Constitution<sup>①</sup>, which truly reflects the essence of socialist law and embodies the equal relationship between citizens under the socialist system. In civil legislation, this principle is set out in Article 131 of the Civil Code of the People's

① Article 33 of the Constitution of the People's Republic of China.

Republic of China<sup>②</sup>, reflecting the consistency of rights and obligations of civil subjects, which is the implementation and enforcement of the basic philosophy of the Chinese Constitution.

The network technology service provider enjoys the right to make rules and the right to enforce them. The basic legal relationship between the network technology service provider and the network user is a contractual relationship. The terms of the contract are drawn up in advance by the network technology service provider, which stipulates the rights and obligations of both parties and other matters, and can be regarded as the Internet rules formulated by the network technology service provider for the network user, and the network user can only get the network service by fully accepting the rules. In this process, the network technology service provider is the rule maker and enjoys the right to make rules, and the network user can only choose to accept the rules or not to accept the rules. This requires the network technology service provider to formulate an Internet rule that can both protect the legitimate rights and interests of copyright owners and guide the healthy and orderly development of the Internet industry. If the rule is poorly formulated or if the rule induces or abets the occurrence of infringement, the network technology service provider shall bear the corresponding responsibility in this case. At the same time, when a network user violates this rule, the network technology service provider can take measures such as "shutting down the server", "prohibiting the network user from accessing", "suspending the provision of network services", etc. In other words, they can exercise the right to enforce the rules. The right to make and enforce rules gives the network technology service provider the right and ability to regulate the servers it provides, so when the network technology service provider knows or should know that the network user is using the cloud server to commit infringement, it should do its part to regulate the infringement and not let the infringement happen and the damage expand.

### **3. Failure of network technology service providers to fulfill their obligations to protect copyright will constitute indirect infringement**

Although network technology service providers provide network technology services, they may constitute "indirect copyright infringement" if they fail to fulfill their obligation to protect copyright. This possibility can be seen in the Ali Cloud server copyright infringement case, which was the "first cloud server case" in China. In this case, the plaintiff discovered that his computer software works had been uploaded by a third party to the AliCloud server for others to download, and the defendant AliCloud failed to remove the software in question after receiving a notice from the plaintiff to do so<sup>③</sup>. The first trial in this case found the defendant AliCloud liable for infringement, and the second trial changed the verdict in June 2019 to find AliCloud not liable for infringement. The dispute between the parties in both trials centred on whether the notice sent by the plaintiff to the defendant was a qualified notice and whether the measures taken by AliCloud were necessary, and the courts in both trials made contrary decisions based on this point, but the question underlying the case has sparked intense debate in the jurisprudence, legal profession and internet industry: when is a provider of network technology services liable for the actions of network users liability, and for what liability? What obligations do network technology service providers need to fulfill in this aspect of copyright protection? In this case, AliCloud was a network technology service provider, providing network technology services, not committing infringement nor actively participating in the infringement of network users, but in the first instance adjudication, the court held that AliCloud did not take any measures after receiving the plaintiff's notice of infringement, thus leading to the expansion of the damage result, and therefore should bear the infringement liability. This actually showed that the network technology service provider had the obligation to take necessary measures to hinder the expansion of copyright infringement within its server, and that failure to do so may constitute infringement. In the second instance, the adjudication held a different view on the validity of the notice issued by the plaintiff and therefore reversed the judgment, but supported the view that Aliyun's failure to exercise a certain degree of care would constitute infringement. It can be seen that a provider of network technology services, although providing technical services, will constitute an infringement if it fails to exercise due care in protecting the copyright of the works on its servers.

The failure of the network technology service provider to fulfill its obligation to protect copyright will constitute an infringement, and such infringement is indirect, and the development of cloud computing technology brings difficulties to the determination of indirect infringement. Article 1197 of China's Civil Code stipulates that an internet service provider shall be jointly and severally liable with an internet user if it knows or should know that the internet user has used its internet service to infringe

② Article 131 of the Civil Code of the People's Republic of China.

③ Beijing Intellectual Property Court (2017) Beijing 73 Min Final 1194 Civil Judgment.

the civil rights of another person and has not taken the necessary measures<sup>④</sup>. This actually provides for fault-based liability. The determination of fault becomes the basis for the liability of the network technology service provider, and if there is fault, it will be liable. Fault includes knowing and ought to know: if there is evidence that the network technology service provider did know of the infringement of the network user, or that a third party with general cognitive ability could have known of the infringement, but did not take or did not take the necessary measures in time, it is at fault. However, cloud computing is private and technical in nature, which makes the determination of fault more difficult: firstly, cloud computing is private in nature, and it is difficult to determine the "knowledge" of the network technology service provider. Network technology service providers to provide network users with websites, platforms and other infrastructure and environment,<sup>[3]</sup> website, platform information content is controlled by network users, network technology service providers are not allowed to access, tamper and delete without authorization. To make two image analogy: network technology service provider can be compared to the manager of the hotel, and network users can be compared to the hotel tenants. Although the hotel manager has the key to the room, he is not allowed to enter the room of the tenant at will, let alone take away the items in the room; the network technology service provider is like the renter of the safe, while the network user is the user of the safe. The renter of the safe deposit box has the obligation to secure the safe deposit box, but may not open it at will. Thus, the cloud service provider has a duty of confidentiality in relation to the behaviour of the network subscriber and is not allowed to monitor or interfere with their data and behaviour. In particular, in the environment of the "internal cloud"<sup>⑤</sup>, the network user often does not know when the network technology service provider uses the cloud server to commit copyright infringement and it is difficult to find that this is "knowingly", unless the network technology service provider explicitly indicates that it will provide assistance to the infringement or actively contribute to it. Unless the network technology service provider clearly indicates that it will provide assistance to the infringement or actively promote the occurrence of the infringement, the People's Court will be able to find this act as inducement of infringement.<sup>[4]</sup> Secondly, cloud computing is characterised by complexity, and it is difficult to determine that the network technology service provider "should have known". In the cloud computing environment, copyright infringement acts committed by network users using cloud servers are more covert and rapid, usually in a moderate manner, which makes it difficult for network technology service providers to detect. What circumstances or conditions can the network technology service provider be deemed to have "ought to know" of the infringing acts committed by network users? Articles 9, 10 and 12 of the Provisions on the Application of Law to the Trial of Civil Disputes Involving Infringement of the Right to Information Network Dissemination issued by the Supreme People's Court of China stipulate the factors under which the People's Court may find that a network technology service provider has "knowledge" of an infringement of another's right to information network dissemination by an internet user. Article 9 defines the elements that constitute "shall know", i.e. the degree of obviousness of the network user's infringement of another's right of information network dissemination, and lists six relevant factors that need to be taken into account<sup>⑥</sup>. Article 10 specifies the situation of popular film and television works, stipulating that if a network technology service provider recommends a popular film or television work and makes it easily accessible to the public, it may be deemed to have "ought to know" of the infringement of the right of information network dissemination committed by the network user<sup>⑦</sup>. Article 12 provides specific provisions for network technology service providers that provide information storage space services, stipulating that they "shall know" of three situations in which network users infringe upon the right of others to disseminate information on the Internet<sup>⑧</sup>. The above-mentioned provisions provide a direct basis for the determination of "ought to know" for network technology service providers, but the limitation lies in the fact that the above-mentioned provisions only provide for the situation where the infringed right is the right of information network dissemination, while the right of information network dissemination is only one of the content of the property right of copyright, and when other rights in copyright are infringed, the determination of "ought to know" will be made. When other rights in copyright are infringed, the determination of "ought to know" also presents difficulties in the application

④ Article 1,197 of the Civil Code of the People's Republic of China.

⑤ The "internal cloud" refers to the cloud services provided by the government or enterprise on the local server side, based on the resources and infrastructure already existing in the government or enterprise's local data centre, or on a new separate infrastructure supported by a third party company.

⑥ Article 9 of the Provisions on the Application of Law to the Trial of Civil Dispute Cases Involving Infringement of the Right to Information Network Dissemination.

⑦ Article 10 of the Provisions on the Application of Law to the Trial of Civil Dispute Cases Involving Infringement of the Right to Information Network Dissemination.

⑧ Article 12 of the Provisions on the Application of Law to the Trial of Civil Dispute Cases Involving Infringement of the Right to Information Network Dissemination.

of the law.

#### **4. Adhere to the principle of balancing interests and reasonably define the copyright protection obligations of network technology service providers**

The balance of interests principle is the cornerstone of the IP system, which is a modern legal system based on the protection and limitation of rights, attempting to reconcile conflicting interests and promote the coexistence of interests through the authority of the law. The balance of interests principle is not only a basic principle of intellectual property law, but also a basic principle of network and information jurisprudence. With the rapid development of network technology, the intellectual property system has been extended to cyberspace, and network intellectual property has become an important research content of network and information jurisprudence.

The "balance of interests principle" in network and information jurisprudence constantly seeks to find a balance between "maintaining the development of the Internet industry" and "protecting the legitimate rights of copyright owners". The core of the search for a balance of interests lies in the definition of the copyright protection obligations of network technology service providers. From the perspective of rights protection and social development, requiring network technology service providers to have a very high obligation to protect copyright can enable copyright owners' exclusive rights to be effectively protected, but it increases the responsibility of network technology service providers and may lead them to be frequently involved in disputes over indirect infringement, which not only hinders the transmission of information and knowledge, but also discourages technological innovation. However, if the obligation of network technology service providers to protect copyright is extremely low, it will induce a broken window effect and intensify the occurrence of online infringement, which is not conducive to the protection of copyright, nor to the governance of cyberspace and the realization of the rule of law in cyberspace. From the perspective of data security, we are in the era of big data, cyberspace is an extension of the real world, and a large amount of personal information and data is stored on the servers provided by network technology service providers. If network technology service providers are given extremely high obligations to protect copyright and are required to take the initiative to review the information content on cloud servers, not only are they It is also not in line with reality: there are many types and huge numbers of works in cloud servers, and the determination of whether a copyright has been infringed is itself a legal challenge that requires legal practitioners to make judgments with the help of their professional knowledge. Therefore, this not only fails to effectively protect the exclusive rights of copyright holders, but also allows network technology service providers to violate the personal information, data security and privacy security of network users under the banner of checking the infringement status of works in cloud servers, which would be a fatal blow to the development of the cloud server industry. In particular, in the era of private clouds, everyone can use cloud servers by paying a certain fee, and enterprises and governments can also use cloud servers as an internal resource storage and sharing platform. If web technology service providers are allowed to take the initiative to examine the infringement status of the servers, it will harm the interests of enterprises and social welfare, and hinder the development of the Internet industry. Therefore, it is necessary to balance the interests of the "development of the Internet industry" and the "protection of copyright of rights holders", and the core of achieving the balance of interests lies in the reasonable definition of the obligations of network technology service providers to protect copyright.

The obligations of network technology service providers to protect copyright can be clarified in accordance with the whole process of infringement, including the three stages before, during and after the occurrence of infringement, and the obligations of network technology service providers to protect copyright differ in each stage.

##### ***4.1 Before the infringement occurred***

The obligations of online technology service providers to protect copyright at this stage are threefold:

First, the obligation not to commit direct acts of infringement. In judicial practice, most of the subjects who directly commit acts of copyright infringement are network users, and network technology service providers often bear indirect infringement liability because of the infringement acts committed by network users; network technology service providers are rarely directly involved in acts of copyright infringement, but this possibility cannot be excluded. In this case, the network technology service provider constitutes a direct infringement of copyright rather than an indirect infringement of copyright. On the issue of "protection of rights", non-infringement is a form of protection.

Second, the duty of reasonable care. Although the network technology service provider cannot be allowed to take the initiative to review the infringement status within the server, as the provider and administrator of the network server, it still has certain supervisory and management responsibilities for the illegal acts occurring within the network server, and has the obligation to prevent and stop the infringement occurring within the cloud server as a good and rational administrator should do, which is the general duty of care. This is the general duty of care. According to the regulations issued by the Supreme People's Court of China, if a provider of online technical services receives direct financial benefit from a work provided by an online user, it should have a higher duty of care with respect to the infringement status of that work<sup>⑨</sup>. What is the higher duty of care? This is not clearly defined in Chinese law, but it can be understood in two ways: on the one hand, for works that enable the network technology service provider to obtain direct economic benefits, the network technology service provider should take active and effective measures to avoid infringement of the copyright of these works. The limited number of works that enable the web technology service provider to obtain direct economic benefits should receive more attention from the web technology service provider. At the same time, if a technical measure can prevent the occurrence of infringement, the technology is relatively mature and the cost is low, then the web technology service provider should take it. If no such technical measures are taken, it can be considered that the provider has not exercised due diligence; on the other hand, after the infringement of copyright has occurred, it should be presumed that the network technology service provider has "knowledge" or "shall know" of the infringement, in which case On the other hand, after the infringement of copyright has occurred, it should be presumed that the network technology service provider has "knowledge" or "knowledge" of the infringement, and in this case, the "notice and deletion rule" cannot be applied to exempt him from liability, and he should be liable under the "red flag rule".

Thirdly, the obligation to construct a copyright database. In judicial practice, for films, television dramas and musical works, these three types of works are highly valued, artistic and ornamental, so the copyright is easily infringed. These three types of works have invested a lot of costs in the production process and also have a high economic value, so the owners of copyright will not easily upload these works to servers for others to copy and watch for free. Moreover, as the rights holders of such works are relatively clear and the number of such works is relatively limited, they are more likely to be the targets of infringement, thus making it necessary to build a copyright database of such works. For the first upload of such works, the internet technology service provider should set up a special window to manually review the proof of copyright ownership of the uploader, and incorporate it into the copyright database after the review is approved. Whenever a work is uploaded by an internet user, it must be compared with the data in the copyright database according to a certain algorithm of sampling, and if the work is tested to be identical or highly similar to the data in the database, the upload is prohibited or the internet user is required to supplement the proof of ownership.

#### **4.2 In the event of infringement**

At this stage, the obligation of online technology service providers to protect copyright is twofold.

Firstly, the obligation to "notify and delete" and the obligation to "sub-notify" should be observed. Both the "notice and deletion" obligation and the "forwarding" obligation are a reflection of the balance of interests principle in network and information jurisprudence. Under the principle of balance of interests, the requirements for network technology service providers should not be too harsh, but should be considered in conjunction with the obvious degree of infringement and the ability of the network technology service provider to control the "infringing" content, in order to clarify a solution that can protect copyright and ensure the normal development of the cloud server industry, and is also operable. The approach to be taken is a very strong one. On the one hand, as online infringement is highly concealed and the governance of cyberspace is complex, it is impossible for a network technology service provider, as a good and rational administrator, to be aware of the infringement status of all works on its servers, especially when dealing with individual works uploaded and distributed by ordinary users. Such works are diverse, numerous and have significant difficulties in defining their ownership. Therefore, the solution to copyright infringement of such works relies mainly on the right holder notifying the network technology service provider to take the necessary measures once the infringement has been detected. Upon receipt of a valid notice from the "right holder", the online technology service provider should be obliged to promptly remove the suspected "infringing" work or remove the relevant link, thereby preventing the expansion of the scope of infringement, and to restore the "counter However, Chinese

<sup>⑨</sup> Article 11 of the Provisions on Several Issues Concerning the Application of Law in Hearing Civil Dispute Cases Involving Infringement of the Right to Information Network Dissemination.

legislation does not yet provide for the removal of infringing works. However, Chinese legislation is not yet clear on what constitutes "timely" and what constitutes "effective notice", and there is still disagreement in practice, which could wait until the time is ripe to be clarified in legislation. On the other hand, the user of a cloud server is not usually a single entity, but often many entities share a cloud server. The technical characteristics of cloud servers determine that it is difficult to achieve partial shutdown of cloud servers, forcibly "delete, block or disconnect" will inevitably affect the interests of other network users, can adopt a compromise approach, expand the scope of "necessary measures", will A compromise could be made by expanding the scope of "necessary measures" to include "re-notification" to supplement the "notice-and-delete" rule. The decision in the Aliyun Server case also held the same view, and the inclusion of "subnotice" in the "necessary measures" was an exploration in practice to determine what obligations network technology service providers have to protect copyright. However, the inclusion of "forwarding notice" in the "necessary measures" seems to be inappropriate: "necessary measures" is generally understood as "notice - deletion", specifically "deletion". The term "necessary measures" is generally understood to mean "notification-removal", specifically "removal, blocking or disabling of the link". If one wants to include a "forwarding notice" in the "necessary measures", one needs a "forwarding notice" that has the same effect as the measure "remove, block or disconnect". The measure of "remove, block or disconnect" has the same effect. In fact, it is clear that the two do not have the same effect, and that the "forwarding notice" is a lesser requirement for the ISP. Moreover, the "subnotice" is not aimed at protecting the copyright owner, but at protecting the right of internet users to be informed so that they can respond to notices sent by suspected "copyright owners". This is where the principle of balance of interests comes into play: the significance of the "subnotice" is that the law balances the harsh measures of "removing, blocking or disabling links". However, the use of a "forwarding notice" should be subject to certain conditions, only if partial deletion is not possible, if forcible "deletion, blocking or disconnection" may result in damage to the interests of other network users, and if the cloud server as a whole cannot be shut down. Include "renotification" in the scope of "necessary measures". If, in this case, the network technology service provider has fulfilled its obligation to "forward the notification", it should be deemed to have taken the "necessary measures" and fulfilled its corresponding obligations.

Second, the obligation to provide a channel for complaints and to provide contact details of the uploader of the infringing information. In practice, a right holder who discovers that a third party is using a cloud server to infringe his copyright has two solutions: either to notify the network technology service provider to immediately remove, block or disconnect the infringing work, or to directly notify the uploader to remove the work. The "notice-to-delete" rule enables the right holder to remedy his rights in the first way, but the second way is sometimes swifter, more precise and more effective: the right holder sends a notice to the infringer and informs him of the possible consequences, to a certain extent preventing repeated infringement. Internet technology service providers can require internet users to register under their real names and provide their real contact details, or they can improve the instant messaging module and message platform in their websites to provide a communication channel for the right holder to be able to contact the uploader in a timely manner.

#### ***4.3 After the infringement has occurred***

The copyright protection obligations of network technology service providers at this stage are twofold.

First, the obligation to assist in the investigation. The cloud server provided by the network technology service provider creates conditions for third parties to implement acts of copyright infringement, and therefore has certain supervisory and management duties over the cloud server. Therefore, after the act of copyright infringement has occurred, the network technology service provider shall assist the right holder and the administrative organ to conduct investigation and collect evidence. Article 13 of China's Regulations on the Protection of the Right to Information Network Dissemination clearly stipulates that network technology service providers have the obligation to assist administrative organs in conducting investigations<sup>⑩</sup>. does not, however, stipulate the obligation of network technology service providers to assist rights holders in their investigations. The relevant legislation also does not address this issue, resulting in difficulties for rights holders to defend their rights and no legal basis for requesting the assistance and cooperation of network technology service providers.

Second, the obligation to prevent abnormal network users from infringing copyright again. If an internet user has used a cloud server to commit copyright infringement or has committed copyright infringement repeatedly, then the network technology service provider should classify him as an abnormal internet user and take the initiative to take monitoring measures to prevent him from infringing

<sup>⑩</sup> Article 13 of the Regulation on the Protection of the Right to Disseminate Information on the Internet.

copyright again. For example, it may restrict the publication of his information content or restrict his access to the server when necessary. For such internet users, the internet technology service provider should exercise a higher duty of care, and if it fails to take effective preventive measures, it is suspected of aiding or abetting. In terms of legislation, the Supreme People's Court in China has made a similar provision<sup>11</sup>, holding that if an internet user repeatedly commits infringement, then the provider of internet technology services should take certain measures against such an internet user, and if no measures are taken to prevent him from committing infringement again, then the internet user's infringement is "notifiable". The "shall know". In legal practice, in the "Yi Nian v. Taobao, Du Mou infringement case"<sup>12</sup>, "Taobao" repeatedly received complaints from "Yi Nian" regarding Du Mou's posting on "In the case, Taobao Company received several complaints from Yi Nian Company about infringing goods posted by Du on Taobao Company, and Taobao Company blocked and deleted the information of goods infringing others' copyright many times, but did not take further preventive measures. The court held that "Taobao" had the ability and conditions to take preventive measures against repeated infringement by the same merchant, but "Taobao" did not take preventive measures and allowed the infringement to happen, thus constituting assistance in infringement.

## 5. Conclusion

Rights and obligations are consistent and there are inevitably corresponding obligations. As a rational and benevolent administrator who enjoys the right to make rules and enforce them, a network technology service provider should also have the obligation to protect the copyright of the works in its storage space. It is crucial to balance the interests of the "copyright of the right holder" and the "development of network technology" by reasonably determining what obligations the network technology service provider has to protect the copyright of others. Network technology service providers have different obligations before, at the time of and after an infringement occurs.

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11 Article 9 of the Provisions of the Supreme People's Court on Several Issues Concerning the Application of Law in Hearing Civil Dispute Cases Involving Infringement of the Right to Information Network Dissemination.

12 Shanghai No. 1 Intermediate People's Court (2011) Shanghai No. 1 Intermediate People's Fifth (Zhi) Final Civil Judgment No. 40.