SERVICE PREDICTION METHOD AND APPARATUS, STORAGE MEDIUM, AND COMPUTER SYSTEM

TECHNICAL FIELD

[0001] This specification relates to the field of computer technologies, and in particular, to a service prediction method and apparatus, a storage medium, and a computer system.

BACKGROUND

[0002] Currently, it is very common that a user performs fund mobilization (e.g. fund transfer) or transaction through a network. For the user who performs fund mobilization or transaction, an accurate service time limit not only enables the user to obtain feedback in a timely manner, to improve user experience, but also reduces costs of offline communication between the user and a person such as a client, a seller, or a service provider. The service time limit is basic information to which the user pays special attention. For example, before the user initiates a transfer and after the user initiates the transfer, a time point at which funds are received needs to be accurately predicted.

[0003] Therefore, how to accurately predict the service time limit becomes an urgent problem to be resolved.

SUMMARY

[0004] Embodiments of this specification provide a service prediction method and apparatus, a storage medium, and a computer system, to partially resolve a problem in the conventional technology.

[0005] This specification provides a service prediction method. The method includes: receiving a service request; determining an initiation moment of a current service corresponding to the service request based on the service request and a first serving party and a second serving party that are used to execute the current service; predicting, based on the initiation moment of the

current service, a first execution completion moment of execution of the current service by the first serving party (i.e. the first execution completion moment is a moment at which the first serving party completes execution of the current service); predicting, based on the first execution completion moment, an execution start moment of execution of the current service by the second serving party (i.e. the execution start moment is a moment at which the second serving party starts execution of the current service); predicting, based on the execution start moment, a second execution completion moment of execution of the current service by the second serving party (i.e. the second execution completion moment is a moment at which the second serving party completes execution of the current service); and determining, based on the second execution completion moment, a service time limit predicted for the current service.

[0006] This specification provides a computer system, including a memory, a processor, and a computer program that is stored in the memory and that is capable of running on the processor. When executing the program, the processor implements the following steps: receiving a service request; determining an initiation moment of a current service corresponding to the service request based on the service request and a first serving party and a second serving party that are used to execute the current service; predicting, based on the initiation moment of the current service, a first execution completion moment of execution of the current service by the first serving party; predicting, based on the first execution completion moment, an execution start moment of execution of the current service by the second serving party; predicting, based on the execution start moment, a second execution completion moment of execution of the current service by the second serving party; and determining, based on the second execution completion moment, a service time limit predicted for the current service.

[0007] This specification provides a service prediction apparatus. The apparatus includes: a receiving module, configured to receive a service request; a determining module, configured to determine an initiation moment of a current service corresponding to the service request based on the service request and a first serving party and a second serving party that are used to execute the current service; a first execution module, configured to predict, based on the initiation moment of the current service, a first execution completion moment of execution of the current service by the first serving party; a transfer module, configured to predict, based on the first execution completion moment, an execution start moment of execution of the current service by the second serving party; a second execution module, configured to predict, based on the execution start moment, a second

execution completion moment of execution of the current service by the second serving party; and a prediction module, configured to determine, based on the second execution completion moment, a service time limit predicted for the current service.

[0008] This specification provides a computer-readable nonvolatile storage medium. The storage medium stores a computer program, and when the computer program is executed by a processor, the service prediction method is implemented.

[0009] According to at least one of the technical solutions used in the embodiments of this specification, at least one of the following beneficial effects can be achieved: An entire service can be divided into three parts: the first serving party executes the service, the service is transferred from the first serving party to the second serving party, and the second serving party executes the service. Three parts of service processing duration of execution duration of the first serving party, duration of transferring the service from the first serving party to the second serving party, and execution duration of the second serving party are finely calculated, to accurately predict the service time limit.

BRIEF DESCRIPTION OF DRAWINGS

[0010] The accompanying drawings described herein are used to provide a further understanding of this specification and constitute a part of this specification. The example embodiments of this specification and descriptions thereof are used to explain this specification, and do not constitute an improper limitation on this specification. In the accompanying drawings:

[0011] FIG. 1 is a schematic flowchart of a service prediction method in this specification;

[0012] FIG. 2 is a schematic flowchart of a service prediction method in this specification;

[0013] FIG. 3 is a schematic diagram of a service prediction apparatus in this specification; and

[0014] FIG. 4 is a schematic structural diagram of a computer system according to an embodiment of this specification.

DESCRIPTION OF EMBODIMENTS

[0015] To make the objectives, technical solutions, and advantages of this specification clearer, the following clearly and completely describes the technical solutions of this specification with

reference to specific embodiments and accompanying drawings of this specification. Clearly, the described embodiments are merely some but not all of embodiments of this specification. All other embodiments obtained by persons of ordinary skill in the art based on embodiment of this specification without creative efforts shall fall within the protection scope of this specification.

[0016] In this application, service duration of an entire service can be divided into three parts: service processing duration of a first serving party, duration of transferring the service from the first serving party to a second serving party, and service processing duration of the second serving party. The three segments of duration are finely predicted, to accurately predict a service time limit.

[0017] In a cross-bank or cross-border fund mobilization (e.g. fund transfer) or transaction process, after funds are transferred out, institution receipts that can be received by a user include "acceptance succeeds" and "acceptance fails", and a return receipt may be received in a bill on the next day. How to perform processing after an institution performs acceptance is a black box for the user. However, the cross-bank or cross-border fund mobilization or transaction process can still be considered as a three-stage process, that is, can be divided into three processes of a payment bank, a clearing network, and a collection bank. A sum of three segments of processing duration is total duration in which the institution processes the funds of a client. The payment bank and the collection bank that are mentioned herein are financial institutions that can provide a payment service and a collection service. The clearing network is a network system used to process and settle a financial transaction in the financial field. The clearing network provides a secure and efficient platform, and is used to perform fund clearing, transaction settlement, and related financial service processing. The funds need to be processed by the clearing network after the payment bank completes processing and before the funds are transferred to the collection bank for processing. The clearing network is responsible for verifying validity of the transaction, performing fund clearing and settlement, and ensuring a correct receipt of the funds. The clearing network is to ensure security, accuracy, and timeliness of the transaction. The clearing network provides a unified settlement platform, so that different payment banks and different collection banks transfer and settle funds in the same system. The clearing network can further provide another service, for example, risk management, information exchange, and supervision reporting.

[0018] Therefore, predicting a service time limit in this application can be predicting a cross-bank or cross-border fund mobilization or transaction service time limit. In a service prediction method provided in this application, the service time limit can be accurately predicted, so that the

user obtains a feedback in a timely manner, user experience is improved, and costs of offline communication between the user and a person such as a client, a seller, or a service provider are reduced.

[0019] The following describes in detail the technical solutions in some embodiments of this specification with reference to the accompanying drawings.

[0020] FIG. 1 is a schematic flowchart of a service prediction method in this specification. The following steps can be specifically included.

[0021] S100: Receive a service request.

[0022] A service in this embodiment can be a cross-bank or cross-border fund mobilization or transaction, and the service request is usually initiated by a user with a fund mobilization or transaction requirement. The user initiates the service request, for example, initiates a transfer request.

[0023] Correspondingly, the service request is received by a serving party that provides a related service. For example, for a cross-bank or cross-border fund mobilization or transaction service, the service request can be received by a bank that can provide a financial service. The bank receives a request such as a deposit request, a withdrawal request, or a transfer request of a client.

[0024] S102: Determine, based on the service request, an initiation moment of a current service corresponding to the service request and a first serving party and a second serving party that are used to execute the current service.

[0025] After the service request is determined, a specific moment at which the service request is initiated can be determined, or a first serving party and a second serving party that provide a related service can be determined based on a service type and related information.

[0026] For example, for a fund service of a cross-border transfer, after the user initiates a transfer transaction, a service initiation moment is a moment at which the user initiates the transfer transaction, the first serving party is a bank that can provide a payment service, that is, a payment bank, and the second serving party is a bank that can provide a collection service, that is, a collection bank. Specifically, the collection bank and the payment bank can be determined based on information such as a collection account number, a payment account number, a payment currency type, and a transaction amount.

[0027] S104: Predict, based on the initiation moment of the current service, a first execution

completion moment at which the first serving party completes execution of the current service.

[0028] Specifically, after the service is received and the service initiation moment is determined, the completion moment of execution of the current service by the first serving party can be predicted based on information such as the service initiation moment and estimated duration in which the first serving party is to execute the service. For the predicted completion moment, the service initiation moment and the estimated duration in which the first serving party is to execute the current service can be added, to obtain the predicted completion moment of execution of the current service by the first serving party. A specific calculation manner is not limited in this specification.

[0029] It should be noted that the predicted completion moment is only an estimated value, and an actual completion moment may be affected by various factors such as a degree of complexity of the service, working efficiency of a serving party, and a possible delay.

[0030] S106: Predict, based on the first execution completion moment, an execution start moment at which the second serving party starts execution of the current service.

[0031] Usually, after the first serving party completes processing of the service, the service is transferred to the second serving party to continue to process the service. After a specific moment at which the first serving party completes execution of the service, duration required for transferring the service from the first serving party to the second serving party is determined, and the first execution completion moment/time and the duration required for transferring are added, to obtain an estimated moment at which the current service arrives at the second serving party, so as to predict the execution start moment of execution of the current service by the second serving party. A specific calculation manner is not limited in this specification. For example, in a transfer service, a specific moment at which the collection bank starts processing of a collection service, that is, a moment at which a payee starts execution can be predicted based on a specific moment at which the payment bank completes processing of the payment service and duration for transferring funds from the payment bank to the collection bank (in other words, the duration required for funds to arrive at the collection bank from the payment bank).

[0032] S108: Predict, based on the execution start moment, a second execution completion moment at which the second serving party completes execution of the current service.

[0033] Similar to a method for determining the first execution completion moment of execution of the current service by the first serving party, after a moment at which the second

serving party starts processing of the service is determined, duration in which the second serving party is to execute the current service can be predicted, and then the second execution completion moment of execution of the current service by the second serving party is predicted based on the moment at which the second serving party starts processing of the service and the estimated duration in which the second serving party is to execute the current service.

[0034] A prediction method can be adding a specific moment at which the second serving party starts processing of the service and the estimated duration in which the second serving party is to execute the current service. For example, a moment at which the second serving party starts processing of the service is 10:00 a.m., and estimated duration of processing the service is 2 hours. According to the prediction method, the specific moment 10:00 a.m. at which processing of the service is started and the estimated duration of 2 hours can be added, to learn that the second execution completion moment of execution of the current service by the second serving party is 12:00 p.m. It should be noted that a specific calculation manner may change with an actual situation. This is only a simple example. The specific calculation manner is not limited in this specification.

[0035] S110: Determine, based on the second execution completion moment, a service time limit predicted for the current service.

[0036] In an entire service process, after the second serving party completes execution of the service, execution of the service ends. When the service time limit predicted for the current service is determined, the second execution completion moment at which the second serving party completes execution of the service can be used as the time limit of the current service. However, because the predicted second execution completion moment is only an estimated value, and is not completely accurate, a constant can be added based on the second execution completion moment, and a result obtained through calculation is used as the time limit of the current service. For example, in the transfer service, the above-mentioned constant can be 10 minutes. If an estimated moment at which the collection bank completes processing of the collection service is 10:00 a.m., the time limit of the current service, that is, an estimated payment arrival moment in a transfer transaction, is 10:10 a.m.

[0037] According to the service prediction method provided in FIG. 1, the entire service can be divided into three parts: the first serving party executes the service, the service is transferred from the first serving party to the second serving party, and the second serving party executes the

service. Steps S100 to S104 are that the first serving party executes the service, step S106 is that the service is transferred from the first serving party to the second serving party, and steps S108 to S110 are that the second serving party executes the service. Three parts of service processing duration of execution duration of the first serving party, service transfer duration, and execution duration of the second serving party are finely calculated, to accurately predict the service time limit.

[0038] Further, step S104 of predicting, based on the initiation moment of the current service, a first execution completion moment of execution of the current service by the first serving party in FIG. 1 can be specifically shown in FIG. 2.

[0039] S200: Obtain a business time period and a service acceptance time period of the first serving party, and determine estimated service processing duration of the first serving party.

[0040] The business time period of the first serving party, that is, a time range in which the first serving party normally starts the service is determined. This may include determining a specific opening hour and a specific closing hour on each day and determining whether to provide a service on weekends or holidays. The service acceptance time period is a time range in which the first serving party accepts the service. Some service parties may accept the service only within a specific time period, but other service parties may accept the service throughout the business time period. The service acceptance time period of the first serving party is obtained, to facilitate subsequent determining of a moment at which the first serving party accepts the service.

[0041] For example, in a fund transaction business, the first serving party is a payment bank, the business time period of the first serving party is a business time period of the payment bank, and the acceptance time period of the first serving party is a time period between an opening hour of the payment bank and a cut-off time of the payment bank. The opening hour mentioned herein is a time at which a payment bank starts processing of a transaction, and is usually also a start moment of the business time period. The cut-off time is also referred to as a cut-off point or a payment bank cut-off time, and indicates that the payment bank can process a payment transaction before the time, and after the time, a processed payment transaction is considered as a transaction to be processed on a next working day, and is not counted into a fund flow of the payment bank on the current day. The business time period of the payment bank is mainly affected by a local holiday of the payment bank. Usually, the payment bank only works on a working day.

[0042] In addition, determining of the estimated service processing duration of the first serving

party may relate to factors such as a service type, a degree of complexity, and a required review procedure. Some complex services may require a longer processing time, and some simple services may require a shorter processing time. It should be noted that the estimated service processing duration is only an estimated value. Actual processing duration may be affected by various factors such as a workload of a serving party and a possible delay.

[0043] In the payment transaction, processing duration of the payment bank is usually obtained based on the payment bank, a clearing network type, a transaction currency type, and a collection bank. If an error is reported in calculation or calculation for a current institution is not supported when the processing duration of the payment bank is obtained, prediction cannot be continued.

[0044] Specifically, there may be different processing duration for different payment banks and clearing network types. For different currencies, there is a difference in clearing and processing aspects. Some currencies may have a faster settlement speed, and other currencies may require a longer processing time. In a cross-bank or cross-border fund mobilization or transfer transaction, some payment banks may clearly specify processing duration of different types of payment transactions. For example, if a payment amount does not exceed 1,000 dollars, estimated processing duration does not exceed 1 hour; or if a payment amount is between 1,000 dollars and 20,000 dollars, estimated processing duration is 2 hours. Therefore, estimated processing duration of the payment transaction can be queried from the payment bank.

[0045] In addition, if estimated payment processing duration cannot be directly queried from the payment bank, an average value can be obtained based on processing duration of the payment bank for a same or similar historical transaction type, and is used as estimated processing duration of processing a payment transaction by the payment bank. For example, if cross-border remittance is made from a payment bank A in China to a collection bank B in the United States, used currencies are renminbi and the United States dollar, and average processing duration of the payment bank A for similar historical cross-border remittance is 5 hours, it can be predicted that processing duration of the payment bank A for a current transaction is also 5 hours. However, it should be noted that the actual processing duration may be affected by a plurality of factors such as a speed of the clearing network, a cooperation relationship between international banks, and an exchange rate fluctuation. Therefore, a historical service time can only be used as an approximate reference, and the actual processing duration may be different.

[0046] S202: Determine a service acceptance moment of the first serving party of the current

service based on the initiation moment of the current service and the business time period and the service acceptance time period of the first serving party.

[0047] Specifically, the initiation moment of the current service needs to be compared with the business time period and the service acceptance time period of the first serving party, to determine whether the initiation moment of the current service falls within the business time period and the service acceptance time period, and determine a service acceptance moment of the first serving party.

[0048] Specifically, if the initiation moment of the current service does not fall within the business time period of the first serving party, the service acceptance moment of the first serving party is a specified moment in a next business time period of the first serving party; or if the initiation moment of the current service falls within the business time period of the first serving party and falls within the acceptance time period of the first serving party, the service acceptance moment of the first serving party is the initiation moment of the current service; or if the initiation moment of the current service falls within the business time period of the first serving party and does not fall within the acceptance time period of the first serving party, the service acceptance moment of the first serving party is a specified moment in a next business time period of the first serving party.

[0049] In the cross-bank or cross-border fund mobilization or transaction, the opening hour, the cut-off point, a time zone, and local holiday information of the payment bank need to be obtained, to determine a payment transaction acceptance moment of the payment bank. Whether a payment initiation moment falls within a holiday is first determined. If the payment initiation moment falls within a holiday, the payment transaction acceptance moment of the payment bank is an opening hour on a next working day of the payment bank. If the payment initiation moment does not fall within a holiday and is before the opening hour of the payment bank on the current day, the payment transaction acceptance moment of the payment bank is the opening hour of the payment bank on the current day on which the payment transaction is initiated. If the payment initiation moment does not fall within a holiday and is after the opening hour of the payment bank on the current day and before the cut-off time of the payment bank, the payment transaction acceptance moment of the payment bank is the payment initiation moment. If the payment initiation moment does not fall within a holiday and is after the cut-off time of the payment bank, the payment transaction acceptance moment of the payment bank is an opening hour of a payment

bank on a next working day of a payment transaction initiation moment.

[0050] S204: Predict, based on the service acceptance moment of the first serving party and the estimated service processing duration of the first serving party, the first execution completion moment.

[0051] After the service acceptance moment of the first serving party and the estimated service processing duration of the first serving party are determined, the execution completion moment of execution of the current service by the first serving party can be predicted. Usually, a moment obtained after the service acceptance moment of the first serving party and the estimated service processing duration of the first serving party are added is the execution completion moment of execution of the current service by the first serving party. However, the predicted completion moment is obtained when the first serving party performs service processing based on the estimated processing duration. The actual completion moment may be affected by another factor, and a constant can be added in a calculation process to make the predicted completion moment more accurate. This is not limited in this specification.

[0052] In the payment transaction, the estimated first execution completion moment of execution of the current service by the first serving party is usually an estimated accounting moment of the payment bank, and the estimated accounting moment of the payment bank is also usually obtained by adding an acceptance moment of the payment bank and the processing duration of the payment bank. This can be expressed as a formula:

$$T_{Estimated\ accounting\ moment\ of\ a\ payment\ bank} = T_{Acceptance\ moment\ of\ the\ payment\ bank} + T_{Estimated\ processing\ duration\ of\ the\ payment\ bank}$$

[0053] Therefore, it can be learned that a predicted acceptance moment of service processing of the payment bank and the first execution completion moment, that is, the estimated accounting moment of the payment bank is mainly affected by the cut-off point of the payment bank and the local holiday. Such a value calculation rule is clear, and a calculation accuracy rate depends on correctness of the cut-off point of the payment bank and a configuration of the local holiday to a large extent.

[0054] The following shows several specific examples of steps S200 to S204:

[0055] The payment transaction occurs before a cut-off point on a holiday: If January 1 is Saturday, the opening hour of the payment bank is 9:00, a closing hour is 17:00, the cut-off time

of the payment bank is 16:00, and a processing time of the payment bank is 2h, the business time period of the payment bank is from 9:00 to 17:00, and the acceptance time period of the payment bank is from 9:00 to 16:00. If the payment initiation moment is 10:00 on January 1, the payment bank is closed on a holiday, and the payment transaction is not accepted until a next business time period, which is usually an opening hour on a next working day, the acceptance moment of the payment bank is 9:00 on January 3, and the estimated accounting moment of the payment bank is 11:00 on January 3. Details are shown in Table 1.

Table 1

January 1 Saturday	January 2 Sunday	January 3 Monday	January 4 Tuesday
10:00 Payment initiation moment		9:00 Acceptance moment	
		11:00 Estimated accounting moment of a payment bank	

[0056] The payment transaction occurs before an opening hour on a working day: If January 1 is a working day, the opening hour of the payment bank is 9:00, a closing hour is 17:00, the cut-off time of the payment bank is 16:00, and a processing time of the payment bank is 2h, the business time period of the payment bank is from 9:00 to 17:00, and the acceptance time period of the payment bank is from 9:00 to 16:00. If the payment initiation moment is 8:00 on January 1, but does not fall within the business time period of the payment bank on the working day, and the payment transaction is not accepted until a next business time period, which is usually an opening hour on a current working day, the acceptance moment of the payment bank is 9:00 on January 1, and the estimated accounting moment of the payment bank is 11:00 on January 1. Details are shown in Table 2.

Table 2

January 1 Monday	January 2 Tuesday	January 3 Wednesday	January 4 Thursday
8:00 Payment initiation moment			
9:00 Acceptance moment			
11:00 Estimated accounting moment of a payment bank			

[0057] The payment transaction occurs after an opening hour and before a cut-off point on a working day: If January 1 is a working day, the opening hour of the payment bank is 9:00, a closing hour is 17:00, the cut-off time of the payment bank is 16:00, and a processing time of the payment bank is 2h, the business time period of the payment bank is from 9:00 to 17:00, and the acceptance time period of the payment bank is from 9:00 to 16:00. If the payment initiation moment is 10:00 on January 1, falls within the business time period of the payment bank, and falls within the acceptance time period of the payment bank, and the acceptance moment is the payment initiation moment, the acceptance moment/time of the payment bank is 10:00 on January 1, and the estimated accounting moment of the payment bank is 12:00 on January 1. Details are shown in Table 3.

Table 3

January 1 Monday	January 2 Tuesday	January 3 Wednesday	January 4 Thursday
10:00 Payment initiation moment and acceptance			

January 1 Monday	January 2 Tuesday	January 3 Wednesday	January 4 Thursday
moment			
12:00 Estimated accounting moment of a payment bank			

[0058] The payment transaction occurs after a cut-off point on a working day: If January 1 is a working day, the opening hour of the payment bank is 9:00, a closing hour is 17:00, the cut-off time of the payment bank is 16:00, and a processing time of the payment bank is 2h, the business time period of the payment bank is from 9:00 to 17:00, and the acceptance time period of the payment bank is from 9:00 to 16:00. If the payment initiation moment is 17:00 on January 1, falls within the business time period of the payment bank, and does not fall within the acceptance time period of the payment bank, and the acceptance moment needs to fall within the business time period on a next working day and is usually an opening hour on the next working day, the acceptance moment/time of the payment bank is 9:00 on January 2, and the estimated accounting moment of the payment bank is 11:00 on January 2. Details are shown in Table 4.

Table 4

January 1 Monday	January 2 Tuesday	January 3 Wednesday	January 4 Thursday
	9:00 Acceptance moment		
	11:00 Estimated accounting moment of a payment bank		
17:00 Payment initiation			

January 1 Monday	January 2 Tuesday	January 3 Wednesday	January 4 Thursday
moment			

[0059] In addition, after a transfer transaction is initiated, for the first serving party, that is, the payment bank, information such as a payment initiation moment, a payment account number, a payment currency type, a collection currency type, a clearing network type, and a payment bank needs to be first obtained, and validity of the information is verified. If verification fails, payment fails. If verification succeeds, the information is valid, and the transaction is continued.

[0060] Further, step S106 of predicting, based on the first execution completion moment, an execution start moment of execution of the current service by the second serving party in FIG. 1 can be specifically: determining transfer duration required for transferring the current service to the second serving party after execution of the current service is completed by the first serving party; and predicting, based on the first execution completion moment and the required transfer duration, the execution start moment of execution of the current service by the second serving party.

[0061] Specifically, a time is also required in a process of transferring a service from the first serving party to the second serving party. After the first execution completion moment is determined, the transfer duration required for transferring the current service to the second serving party after execution of the current service is completed by the first serving party further needs to be determined, to calculate a moment at which the service arrives at the second serving party, so as to predict the execution start moment of execution of the current service by the second serving party.

[0062] For example, in the cross-bank or cross-border fund mobilization or transaction service, funds need to be processed and settled through the clearing network after the funds are initiated from the payment bank and before the funds arrive at the collection bank.

[0063] Further, the determining transfer duration required for transferring the current service to the second serving party after execution of the current service is completed by the first serving party in step S106 in FIG. 1 can be specifically: obtaining transfer duration of transferring each historical service from the first serving party to the second serving party; determining a transfer duration average value based on the transfer duration of transferring each historical service from

the first serving party to the second serving party; and determining, based on the transfer duration average value, the transfer duration required for transferring the current service to the second serving party after execution of the current service is completed by the first serving party.

[0064] In other words, to determine the transfer duration required for transferring the current service to the second serving party after execution of the current service is completed by the first serving party, the transfer duration of transferring each historical service from the first serving party to the second serving party can be obtained, historical transfer duration data is counted, an average value of the transfer duration is calculated, and the average value is used as estimated transfer duration required for transferring the current service to the second serving party after execution of the current service is completed by the first serving party. It should be noted that the predicted transfer duration is only an estimated value, and an actual situation can be affected by various factors. To reduce such impact, the average value can be updated periodically. A specific updating manner is not limited in this specification.

[0065] For example, for the above-mentioned clearing network, a clear or definite service/business cannot be calculated, because a clearing manner is selected between banks, and cannot be known by external personnel. However, an average value of clearing network flow cycles can be obtained by analyzing historical data, and the average value is used as estimated duration of transferring a payment service to the collection bank after the payment bank completes processing of the payment service. The clearing network flow cycle herein is duration of transferring the payment service to the collection bank after the payment bank completes processing of the payment service. The average value of the clearing network flow cycles may be no longer accurate as time increases, can be updated periodically, and is used as a reference only at a predicted moment at which funds arrive at the collection bank.

[0066] Further, step S106 of predicting, based on the first execution completion moment and the required transfer duration, the execution start moment of execution of the current service by the second serving party in FIG. 1 may be specifically: determining, based on the first execution completion moment and the required transfer duration, a service arrival moment at which the current service arrives at the second serving party; obtaining a business time period and a service acceptance time period of the second serving party; and predicting, based on the service arrival moment and the business time period and the service acceptance time period of the second serving party, the execution start moment of execution of the current service by the second serving party.

[0067] Usually, the service arrival moment at which the current service arrives at the second serving party is obtained by adding the first execution completion moment after the first serving party completes execution of the service and the above-mentioned determined transfer duration. This is only one calculation method. A specific manner is not limited in this specification.

[0068] Then, similar to the first serving party, the business time period and the acceptance time period of the second serving party are obtained, a moment at which the current service arrives at the second serving party is compared with the business time period and the acceptance time period of the second serving party, and a moment at which the second serving party starts execution of the current service is determined. Specifically, if the service arrival moment does not fall within the business time period of the second serving party, the execution start moment of execution of the current service by the second serving party is a specified moment in a next business time period of the second serving party; or if the service arrival moment falls within the business time period of the second serving party and falls within the acceptance time period of the second serving party, the execution start moment of execution of the current service by the second serving party is the service arrival moment; or if the service arrival moment falls within the business time period of the second serving party and does not fall within the acceptance time period of the second serving party, the execution start moment of execution of the current service by the second serving party is a specified moment in a next business time period of the second serving party.

[0069] For example, it is assumed that the business time period of the second serving party is from 9:00 to 17:00, and the acceptance time period is from 9:00 to 16:00. If the service arrival moment is 8:00, the execution start moment of execution of the current service by the second serving party is a specified moment in 9:00 to 17:00 on a current day; or if the service arrival moment is 10:00, the execution start moment of execution of the current service by the second serving party is 10:00; or if the service arrival moment is 16:30, the execution start moment of execution of the current service by the second serving party is a specified moment in 9:00 to 17:00 on a next working day.

[0070] Similarly, the cross-bank or cross-border fund mobilization or transaction service is used as an example. After an estimated accounting moment of the payment bank is predicted and the average value of the clearing network flow cycle is determined, a moment at which funds arrive at the collection bank can be obtained by adding the estimated accounting moment of the payment bank and the average value of the clearing network flow cycles. This can be expressed as a formula:

$$T_{\text{Moment at which funds arrive at a collection bank}} = T_{\text{Estimated accounting moment of a payment bank}} + T_{\text{Average value of clearing network flow cycles}}$$

[0071] In this case, the collection bank is the second serving party of the service. Similar to the payment bank, the collection bank also has a business time period and a service acceptance time period, that is, an opening hour and a cut-off time of the collection bank. The cut-off time of the collection bank is also referred to as a cut-off time of carrying interest on a current day of inflow or a cut-off point of the payment bank. A transaction received by the collection bank before the time can be accounted. A time at which the collection bank receives the transaction may be earlier than or later than the cut-off time of the payment bank. The business time period of the collection bank is usually from the opening hour to a closing hour, and the acceptance time period of the collection bank is from the opening hour to the cut-off time of carrying interest on the current day of inflow. To determine the acceptance time period of the collection bank, the opening hour of the collection bank and the cut-off time of carrying interest on the current day of inflow need to be obtained. If the cut-off time of carrying interest on the current day of inflow of the collection bank cannot be obtained, the cut-off time of the payment bank can be used as the cut-off time of carrying interest on the current day of inflow of the collection bank.

[0072] After an estimated moment at which the funds arrive at the collection bank is obtained, similar to determining of the acceptance moment of the payment bank, the moment at which the funds arrive at the payment bank is compared with the opening hour and the cut-off point of the collection bank, to determine a moment at which the collection bank accepts a transaction, that is, a moment at which the collection bank starts execution of a service.

[0073] Further, step S108 of predicting, based on the execution start moment, a second execution completion moment of execution of the current service by the second serving party in FIG. 1 can be specifically: determining estimated service processing duration of the second serving party; and predicting, based on the execution start moment of execution of the current service by the second serving party and the estimated service processing duration of the second serving party, the second execution completion moment of execution of the current service by the second serving party.

[0074] Specifically, a service type, service-related information, historical data and statistics, and communication with the second serving party can be considered, to determine the estimated

service processing duration of the second serving party. The service processing duration can be estimated based on these factors. For example, estimated processing duration of processing of a collection transaction by the collection bank can be determined based on information such as the payment bank, the clearing network type, the transaction currency type, and the collection bank. A specific method for determining the estimated processing duration of the collection bank can be the same as a method for determining the estimated processing duration of the payment bank.

[0075] In addition, the second execution completion moment of execution of the current service by the second serving party can be predicted through calculation based on the determined execution start moment and the estimated service processing duration. A calculation manner can be adding the execution start moment and the estimated processing duration, to obtain the predicted second execution completion moment. A specific calculation manner is not limited in this specification. For example, if the execution start moment of execution of the current service by the second serving party is 8:00, and the estimated processing duration of the second serving party service is 2 hours, the second execution completion moment of execution of the current service by the second serving party is estimated to be 10:00.

[0076] For example, in a collection transaction, a payee is a second serving party that processes the collection transaction, and predicting the second execution completion moment of the second serving party is predicting an estimated accounting moment of the collection bank. After an execution start moment that is of the collection bank and that is of acceptance of the transaction by the collection bank and estimated processing duration of processing of the collection transaction by the collection bank are obtained, the execution start moment and the estimated processing duration are added, to predict an estimated accounting moment of the collection bank. This can be expressed as a formula:

$$T_{Estimated\ accounting\ moment\ of\ a\ collection\ bank} = T_{Execution\ start\ moment\ of\ the\ collection\ bank} + T_{Estimated\ processing\ duration\ of\ the\ collection\ bank}$$

[0077] In addition, after funds arrive at the collection bank, before execution of the collection transaction is started, the collection bank obtains information such as a payment account number, a transaction currency type, and a collection country, and verifies validity of the information. If verification fails, the collection transaction ends; or if verification succeeds, information about the collection bank is obtained, for example, the business time period of the collection bank and the

cut-off time of the collection bank. If basic information in the information about the collection bank is not maintained, that is, cannot be obtained, the estimated accounting moment of the collection bank cannot continue to be predicted; or if basic information in the information about the collection bank is maintained, information such as the opening hour of the collection bank, the cut-off point of the collection bank, a region, a time zone, or a holiday is obtained from information cached by the collection bank, and based on a fund arrival moment, the fund arrival moment is compared with the opening hour of the collection bank and the cut-off time of the collection bank, to determine a moment at which the collection bank starts execution of the collection transaction. Then, processing duration of the collection bank is obtained, and the moment at which the collection bank starts execution of the collection transaction and the processing duration of the collection bank are added, to calculate the estimated accounting moment of the collection bank, that is, predict an estimated payment arrival time of a transfer transaction.

[0078] Further, for a cross-bank or cross-border payment transaction, a user needs to obtain an estimated payment arrival time before or after payment. Therefore, a corresponding interface can be designed. After the user initiates a payment arrival time limit obtaining request to a backend server, the backend server configured to predict the time limit returns a prediction result to the user by invoking the designed interface after prediction is completed, and the returned result includes information such as the estimated accounting moment of the payment bank and the estimated accounting moment of the collection bank.

[0079] A definition of an input parameter of an interface of the estimated accounting moment of the payment bank is specifically shown in Table 5.

Table 5

Field name	tradeTime	debitBankAccount	debitCurrency	creditCurrency	clearingChanneITypeCode	creditBankName
Service	Payment	Payment	Payment	Collection	Clearing network type	Collection

semantics	initiation moment	bank name	currency type	currency type	code	bank name

[0080] A definition of a returned value is specifically shown in Table 6.

Table 6

Field	Type	Service semantics
efficiencyScene	Character string	In an accounting time limit calculation scenario, there are two types: an accounting moment of a payer and an accounting time limit of a payee. Herein, the accounting time limit of the payer is returned.
expectedFundInTime	Character string	Expected accounting moment, which is an estimated accounting moment of a payment bank herein.

[0081] A definition of an interface of the estimated accounting moment of the collection bank is specifically shown in Table 7.

Table 7

Field name	tradeTime	debitBankAccount	debitCurrency	creditCurrency	clearingChannelTypeCode	creditBankName	creditCountry
Service semantics	Processing completion moment of a payer	Payment bank name	Payment currency type	Collection currency type	Clearing network type code	Collection bank name	Country in which a collection bank is located

[0082] A definition of a returned value is specifically shown in Table 8.

Table 8

Field	Type	Service semantics
efficiencyScene	Character string	In an accounting time limit calculation scenario, there are two types: an accounting time limit of a payer and an accounting time limit of a payee. Herein, the accounting time limit of the payee is returned.
expectedFundInTime	Character string	Expected accounting time limit, which is an estimated accounting moment of a collection bank herein.

[0083] For the payment bank, input parameters include the payment initiation moment, the payment bank name, the payment currency type, the collection currency type, the clearing network type code, and the collection bank name. For the collection bank, the parameter of the country in which the collection bank is located is newly added. If the information about the collection bank is not maintained in basic data, a time zone of a random region in the country is obtained based on a country code; or if the information about the collection bank is not maintained in basic data, local holiday information is obtained based on a country code.

[0084] When a value is returned, an accounting time limit calculation scenario and an estimated accounting moment are returned. The accounting time limit calculation scenario includes two types: the accounting time limit of the payer and the accounting time limit of the payee. Specifically, PAYER can be used to indicate the time limit of the payer, PAYEE indicates the accounting time limit of the payee, PAYER is returned during payment, and PAYEE is returned during collection. In addition, when the estimated accounting moment is returned, a date character string obtained through conversion by using GMT+8 is used, for example, 2021-01-01T10:00+8:00. A value returned during payment indicates the estimated accounting moment of the payment bank, and a value returned during collection indicates the estimated accounting moment of the collection bank.

[0085] In addition, three fields "clear_network_gap", "payer_gap", and "payee_gap" need to be added to the basic data "inter-bank flow cycle table", to represent processing duration of the clearing network, processing duration of the payment bank, and processing duration of the collection bank that are in a unit of hour. The serving party maintains the basic data. Details are shown in Table 9.

Table 9

Field	Type	Length	Meaning
clear_network_gap	Integer	11	Clearing network flow cycle constant is maintained. A unit is hour. If a value is 0, it indicates that accounting is performed in real time. If a value is 1, it indicates that a fund transaction can be successfully processed and accounted after 1 hour.
payer_gap	Integer	11	A constant of a processing time of a payment bank is maintained. A unit is hour. If a value is 0, it indicates that accounting is performed in real time. If a value is 1, it indicates that a fund transaction can be successfully processed and accounted into the payment bank after 1 hour.
payee_gap	Integer	11	A constant of a processing time of a collection bank is maintained. A unit is hour. If a value is 0, it indicates that accounting is performed in real time. If a value is 1, it indicates that a fund transaction can be successfully processed and accounted into the collection bank after 1 hour.

[0086] The foregoing describes the service prediction method provided in the embodiments of this specification. Based on the same idea, this specification further provides a corresponding service prediction apparatus. As shown in FIG. 3, the service prediction apparatus includes: a receiving module 300, configured to receive a service request; a determining module 302, configured to determine an initiation moment of a current service corresponding to the service request based on the service request and a first serving party and a second serving party that are used to execute the current service; a first execution module 304, configured to predict, based on the initiation moment of the current service, a first execution completion moment of execution of

the current service by the first serving party; a transfer module 306, configured to predict, based on the first execution completion moment, an execution start moment of execution of the current service by the second serving party; a second execution module 308, configured to predict, based on the execution start moment, a second execution completion moment of execution of the current service by the second serving party; and a prediction module 310, configured to determine, based on the second execution completion moment, a service time limit predicted for the current service.

[0087] For ease of description, the above-mentioned apparatus is described by dividing functions into various modules. Certainly, during implementation of this specification, functions of all modules can be implemented in one or more pieces of software and/or hardware.

[0088] The specification also provides a computer-readable non-transitory storage medium, wherein the storage medium stores a computer program, which, when executed by a processor, can be used to perform one or more steps of one or more methods described or illustrated herein or provides functionality described or illustrated herein. Herein, the computer-readable non-transitory storage medium or media may include one or more semiconductor-based or other integrated circuits (ICs) (such, as for example, field-programmable gate arrays (FPGAs) or application-specific ICs (ASICs)), hard disk drives (HDDs), hybrid hard drives (HHDs), optical discs, optical disc drives (ODDs), magneto-optical discs, magneto-optical drives, floppy diskettes, floppy disk drives (FDDs), magnetic tapes, solid-state drives (SSDs), RAM-drives, SECURE DIGITAL cards or drives, any other suitable computer-readable non-transitory storage media, or any suitable combination of two or more of these, where appropriate. A computer-readable non-transitory storage medium may be volatile, non-volatile, or a combination of volatile and non-volatile, where appropriate.

[0089] The specification also provides a computer system. FIG. 4 illustrates an example computer system **1000**. In particular embodiments, one or more computer systems **1000** perform one or more steps of one or more methods described or illustrated herein. In particular embodiments, one or more computer systems **1000** provide functionality described or illustrated herein. In particular embodiments, software running on one or more computer systems **1000** performs one or more steps of one or more methods described or illustrated herein or provides functionality described or illustrated herein. Particular embodiments include one or more portions of one or more computer systems **1000**. Herein, reference to a computer system may encompass a computing device, and vice versa, where appropriate. Moreover, reference to a computer system

may encompass one or more computer systems, where appropriate.

[0090] This disclosure contemplates any suitable number of computer systems **1000**. This disclosure contemplates computer system **1000** taking any suitable physical form. As example and not by way of limitation, computer system **1000** may be an embedded computer system, a system-on-chip (SOC), a single-board computer system (SBC) (such as, for example, a computer-on-module (COM) or system-on-module (SOM)), a desktop computer system, a laptop or notebook computer system, an interactive kiosk, a mainframe, a mesh of computer systems, a mobile telephone, a personal digital assistant (PDA), a server, a tablet computer system, or a combination of two or more of these. Where appropriate, computer system **1000** may include one or more computer systems **1000**; be unitary or distributed; span multiple locations; span multiple machines; span multiple data centers; or reside in a cloud, which may include one or more cloud components in one or more networks. Where appropriate, one or more computer systems **1000** may perform without substantial spatial or temporal limitation one or more steps of one or more methods described or illustrated herein. As an example and not by way of limitation, one or more computer systems **1000** may perform in real time or in batch mode one or more steps of one or more methods described or illustrated herein. One or more computer systems **1000** may perform at different times or at different locations one or more steps of one or more methods described or illustrated herein, where appropriate.

[0091] In particular embodiments, computer system **1000** includes a processor **1002**, memory **1004**, storage **1006**, an input/output (I/O) interface **1008**, a communication interface **1010**, and a bus **1012**. Although this disclosure describes and illustrates a particular computer system having a particular number of particular components in a particular arrangement, this disclosure contemplates any suitable computer system having any suitable number of any suitable components in any suitable arrangement.

[0092] In particular embodiments, processor **1002** includes hardware for executing instructions, such as those making up a computer program. As an example and not by way of limitation, to execute instructions, processor **1002** may retrieve (or fetch) the instructions from an internal register, an internal cache, memory **1004**, or storage **1006**; decode and execute them; and then write one or more results to an internal register, an internal cache, memory **1004**, or storage **1006**. In particular embodiments, processor **1002** may include one or more internal caches for data, instructions, or addresses. This disclosure contemplates processor **1002** including any suitable

number of any suitable internal caches, where appropriate. As an example and not by way of limitation, processor **1002** may include one or more instruction caches, one or more data caches, and one or more translation lookaside buffers (TLBs). Instructions in the instruction caches may be copies of instructions in memory **1004** or storage **1006**, and the instruction caches may speed up retrieval of those instructions by processor **1002**. Data in the data caches may be copies of data of **80** in memory **1004** or storage **1006** for instructions executing at processor **1002** to operate on; the results of previous instructions executed at processor **1002** for access by subsequent instructions executing at processor **1002** or for writing to memory **1004** or storage **1006**; or other suitable data. The data caches may speed up read or write operations by processor **1002**. The TLBs may speed up virtual-address translation for processor **1002**. In particular embodiments, processor **1002** may include one or more internal registers for data, instructions, or addresses. This disclosure contemplates processor **1002** including any suitable number of any suitable internal registers, where appropriate. Where appropriate, processor **1002** may include one or more arithmetic logic units (ALUs); be a multi-core processor; or include one or more processors **1002**. Although this disclosure describes and illustrates a particular processor, this disclosure contemplates any suitable processor.

[0093] In particular embodiments, memory **1004** includes main memory for storing instructions for processor **1002** to execute or data for processor **1002** to operate on. As an example and not by way of limitation, computer system **1000** may load instructions from storage **1006** or another source (such as, for example, another computer system **1000**) to memory **1004**. Processor **1002** may then load the instructions from memory **1004** to an internal register or internal cache. To execute the instructions, processor **1002** may retrieve the instructions from the internal register or internal cache and decode them. During or after execution of the instructions, processor **1002** may write one or more results (which may be intermediate or final results) to the internal register or internal cache. Processor **1002** may then write one or more of those results to memory **1004**. In particular embodiments, processor **1002** executes only instructions in one or more internal registers or internal caches or in memory **1004** (as opposed to storage **1006** or elsewhere) and operates only on data in one or more internal registers or internal caches or in memory **1004** (as opposed to storage **1006** or elsewhere). One or more memory buses (which may each include an address bus and a data bus) may couple processor **1002** to memory **1004**. Bus **1012** may include one or more memory buses, as described below. In particular embodiments, one or more memory

management units (MMUs) reside between processor **1002** and memory **1004** and facilitate accesses to memory **1004** requested by processor **1002**. In particular embodiments, memory **1004** includes random access memory (RAM). This RAM may be volatile memory, where appropriate. Where appropriate, this RAM may be dynamic RAM (DRAM) or static RAM (SRAM). Moreover, where appropriate, this RAM may be single-ported or multi-ported RAM. This disclosure contemplates any suitable RAM. Memory **1004** may include one or more memories **1004**, where appropriate. Although this disclosure describes and illustrates particular memory, this disclosure contemplates any suitable memory.

[0094] In particular embodiments, storage **1006** includes mass storage for data or instructions. As an example and not by way of limitation, storage **1006** may include a hard disk drive (HDD), a floppy disk drive, flash memory, an optical disc, a magneto-optical disc, magnetic tape, or a Universal Serial Bus (USB) drive or a combination of two or more of these. Storage **1006** may include removable or non-removable (or fixed) media, where appropriate. Storage **1006** may be internal or external to computer system **1000**, where appropriate. In particular embodiments, storage **1006** is non-volatile, solid-state memory. In particular embodiments, storage **1006** includes read-only memory (ROM). Where appropriate, this ROM may be mask-programmed ROM, programmable ROM (PROM), erasable PROM (EPROM), electrically erasable PROM (EEPROM), electrically alterable ROM (EAROM), or flash memory or a combination of two or more of these. This disclosure contemplates mass storage **1006** taking any suitable physical form. Storage **1006** may include one or more storage control units facilitating communication between processor **1002** and storage **1006**, where appropriate. Where appropriate, storage **1006** may include one or more storages **1006**. Although this disclosure describes and illustrates particular storage, this disclosure contemplates any suitable storage.

[0095] In particular embodiments, I/O interface **1008** includes hardware, software, or both, providing one or more interfaces for communication between computer system **1000** and one or more I/O devices. Computer system **1000** may include one or more of these I/O devices, where appropriate. One or more of these I/O devices may enable communication between a person and computer system **1000**. As an example and not by way of limitation, an I/O device may include a keyboard, keypad, microphone, monitor, mouse, printer, scanner, speaker, still camera, stylus, tablet, touch screen, trackball, video camera, another suitable I/O device or a combination of two or more of these. An I/O device may include one or more sensors. This disclosure contemplates

any suitable I/O devices and any suitable I/O interfaces **1008** for them. Where appropriate, I/O interface **1008** may include one or more device or software drivers enabling processor **1002** to drive one or more of these I/O devices. I/O interface **1008** may include one or more I/O interfaces **1008**, where appropriate. Although this disclosure describes and illustrates a particular I/O interface, this disclosure contemplates any suitable I/O interface.

[0096] In particular embodiments, communication interface **1010** includes hardware, software, or both providing one or more interfaces for communication (such as, for example, packet-based communication) between computer system **1000** and one or more other computer systems **1000** or one or more networks. As an example and not by way of limitation, communication interface **1010** may include a network interface controller (NIC) or network adapter for communicating with an Ethernet or other wire-based network or a wireless NIC (WNIC) or wireless adapter for communicating with a wireless network, such as a WI-FI network. This disclosure contemplates any suitable network and any suitable communication interface **1010** for it. As an example and not by way of limitation, computer system **1000** may communicate with an ad hoc network, a personal area network (PAN), a local area network (LAN), a wide area network (WAN), a metropolitan area network (MAN), or one or more portions of the Internet or a combination of two or more of these. One or more portions of one or more of these networks may be wired or wireless. As an example, computer system **1000** may communicate with a wireless PAN (WPAN) (such as, for example, a BLUETOOTH WPAN), a WI-FI network, a WI-MAX network, a cellular telephone network (such as, for example, a Global System for Mobile Communications (GSM) network), or other suitable wireless network or a combination of two or more of these. Computer system **1000** may include any suitable communication interface **1010** for any of these networks, where appropriate. Communication interface **1010** may include one or more communication interfaces **1010**, where appropriate. Although this disclosure describes and illustrates a particular communication interface, this disclosure contemplates any suitable communication interface.

[0097] In particular embodiments, bus **1012** includes hardware, software, or both coupling components of computer system **1000** to each other. As an example and not by way of limitation, bus **1012** may include an Accelerated Graphics Port (AGP) or other graphics bus, an Enhanced Industry Standard Architecture (EISA) bus, a front-side bus (FSB), a HYPERTRANSPORT (HT) interconnect, an Industry Standard Architecture (ISA) bus, an INFINIBAND interconnect, a low-pin-count (LPC) bus, a memory bus, a Micro Channel Architecture (MCA) bus, a Peripheral

Component Interconnect (PCI) bus, a PCI-Express (PCIe) bus, a serial advanced technology attachment (SATA) bus, a Video Electronics Standards Association local (VLB) bus, or another suitable bus or a combination of two or more of these. Bus **1012** may include one or more buses **1012**, where appropriate. Although this disclosure describes and illustrates a particular bus, this disclosure contemplates any suitable bus or interconnect.

[0098] The terms "comprising," "including," or any other variations thereof, are intended to cover a non-exclusive inclusion, such that a process, method, article, or apparatus that comprises a list of elements does not only include those elements but also includes other elements not expressly listed or inherent to such process, method, article, or apparatus. Without further limitation, an element defined by the phrase "comprising a..." does not exclude the presence of additional identical elements in the process, method, article, or apparatus that comprises the noted element.

[0099] The various embodiments described in this specification are presented in a progressive manner, with similar parts of the embodiments referring to each other, and each embodiment emphasizes the differences from other embodiments. In particular, for system embodiments, since they are basically similar to the method embodiments, the description is relatively brief, and the relevant parts can refer to the descriptions of the method embodiments.

[00100] The foregoing descriptions are merely examples of the embodiments of the specification and are not intended to limit this specification. For those skilled in the art, various changes and modifications can be made within the spirit and principle of this specification. Any modifications, equivalent replacements, improvements, etc., that are made within the spirit and principle of this specification should be included within the scope of the claims of this application.

CLAIMS

What is claimed is:

1. A service prediction method, wherein the method comprises:

receiving a service request, wherein the service request comprises a transfer request;

determining, based on the service request, an initiation moment of a current service corresponding to the service request and a first serving party and a second serving party that are used to execute the current service, wherein the first serving party comprises a payment bank, and the second serving party comprises a collection bank;

predicting, based on the initiation moment of the current service, a first execution completion moment at which the first serving party completes execution of the current service;

predicting, based on the first execution completion moment, an execution start moment at which the second serving party starts execution of the current service by obtaining transfer duration of transferring each historical service from the first serving party to the second serving party, determining a transfer duration average value based on the transfer duration of transferring each historical service from the first serving party to the second serving party, determining required transfer duration based on the transfer duration average value, determining a service arrival moment at which the current service arrives at the second serving party based on the first execution completion moment and the required transfer duration, obtaining a business time period and a service acceptance time period of the second serving party, and predicting the execution start moment based on the service arrival moment, the business time period, and the service acceptance time period of the second serving party;

predicting, based on the execution start moment, a second execution completion moment at which the second serving party completes execution of the current service; and

determining, based on the second execution completion moment, a service time limit predicted for the current service.

2. The method according to claim 1, wherein the predicting, based on the initiation moment of the current service, a first execution completion moment at which the first serving party completes execution of the current service specifically comprises:

obtaining a business time period and a service acceptance time period of the first serving party, and determining an estimated service processing duration of the first serving party;

determining a service acceptance moment of the first serving party of the current service based on the initiation moment of the current service and the business time period and the service acceptance time period of the first serving party; and

predicting, based on the service acceptance moment of the first serving party and the estimated service processing duration of the first serving party, the first execution completion moment.

3. The method according to claim 2, wherein the determining a service acceptance moment of the first serving party of the current service based on the initiation moment of the current service and the business time period and the service acceptance time period of the first serving party specifically comprises:

if the initiation moment of the current service does not fall within the business time period of the first serving party, the service acceptance moment of the first serving party is a specified moment in a next business time period of the first serving party; or

if the initiation moment of the current service falls within the business time period of the first serving party and falls within the service acceptance time period of the first serving party, the service acceptance moment of the first serving party is the initiation moment of the current service; or

if the initiation moment of the current service falls within the business time period of the first serving party and does not fall within the service acceptance time period of the first serving party, the service acceptance moment of the first serving party is a specified moment in a next business time period of the first serving party.

4. The method according to claim 1, wherein the predicting, based on the first execution completion moment, an execution start moment at which the second serving party starts execution of the current service specifically comprises:

determining transfer duration required for transferring the current service to the second serving party after execution of the current service is completed by the first serving party, wherein the required transfer duration is determined based on an average value of clearing network flow cycles for transferring a payment service to the collection bank after the payment bank completes processing of the payment service; and

predicting, based on the first execution completion moment and the required transfer duration, the execution start moment.

5. The method according to claim 4, wherein the predicting, based on the service arrival moment and the business time period and the service acceptance time period of the second serving party, the execution start moment at which the second serving party starts execution of the current service specifically comprises:

if the service arrival moment does not fall within the business time period of the second serving party, the execution start moment is a specified moment in a next business time period of the second serving party; or

if the service arrival moment falls within the business time period of the second serving party and falls within the service acceptance time period of the second serving party, the execution start moment is the service arrival moment; or

if the service arrival moment falls within the business time period of the second serving party and does not fall within the service acceptance time period of the second serving party, the execution start moment is a specified moment in a next business time period of the second serving party.

6. The method according to claim 1, wherein the predicting, based on the execution start moment, a second execution completion moment at which the second serving party completes execution of the current service specifically comprises:

determining estimated service processing duration of the second serving party; and

predicting, based on the execution start moment and the estimated service processing duration of the second serving party, the second execution completion moment.

7. A computer system, comprising a memory, a processor, and a computer program that is stored in the memory and that is capable of running on the processor, wherein when executing the program, the processor implements the following steps:

receiving a service request, wherein the service request comprises a transfer request;

determining, based on the service request, an initiation moment of a current service corresponding to the service request and a first serving party and a second serving party that are used to execute the current service, wherein the first serving party comprises a payment bank, and the second serving party comprises a collection bank;

predicting, based on the initiation moment of the current service, a first execution completion moment at which the first serving party completes execution of the current service;

predicting, based on the first execution completion moment, an execution start moment at which the second serving party starts execution of the current service by obtaining transfer duration of transferring each historical service from the first serving party to the second serving party, determining a transfer duration average value based on the transfer duration of transferring each historical service from the first serving party to the second serving party, determining required transfer duration based on the transfer duration average value, determining a service arrival moment at which the current service arrives at the second serving party based on the first execution completion moment and the required transfer duration, obtaining a business time period and a service acceptance time period of the second serving party, and predicting the execution start moment based on the service arrival moment, the business time period, and the service acceptance time period of the second serving party;

predicting, based on the execution start moment, a second execution completion moment at which the second serving party completes execution of the current service; and

determining, based on the second execution completion moment, a service time limit predicted for the current service.

8. The computer system according to claim 7, wherein the predicting, based on the initiation moment of the current service, a first execution completion moment at which the first serving party completes execution of the current service specifically comprises:

obtaining a business time period and a service acceptance time period of the first serving party, and determining an estimated service processing duration of the first serving party;

determining a service acceptance moment of the first serving party of the current service based on the initiation moment of the current service and the business time period and the service acceptance time period of the first serving party; and

predicting, based on the service acceptance moment of the first serving party and the estimated service processing duration of the first serving party, the first execution completion moment.

9. The computer system according to claim 8, wherein the determining a service acceptance moment of the first serving party of the current service based on the initiation moment of the current service and the business time period and the service acceptance time period of the first serving party specifically comprises:

if the initiation moment of the current service does not fall within the business time period of the first serving party, the service acceptance moment of the first serving party is a specified moment in a next business time period of the first serving party; or

if the initiation moment of the current service falls within the business time period of the first serving party and falls within the service acceptance time period of the first serving party, the service acceptance moment of the first serving party is the initiation moment of the current service; or

if the initiation moment of the current service falls within the business time period of the first serving party and does not fall within the service acceptance time period of the

first serving party, the service acceptance moment of the first serving party is a specified moment in a next business time period of the first serving party.

10. The computer system according to claim 7, wherein the predicting, based on the first execution completion moment, an execution start moment at which the second serving party starts execution of the current service specifically comprises:

determining transfer duration required for transferring the current service to the second serving party after execution of the current service is completed by the first serving party, wherein the required transfer duration is determined based on an average value of clearing network flow cycles for transferring a payment service to the collection bank after the payment bank completes processing of the payment service; and

predicting, based on the first execution completion moment and the required transfer duration, the execution start moment.

11. The computer system according to claim 10, wherein the predicting, based on the service arrival moment and the business time period and the service acceptance time period of the second serving party, the execution start moment at which the second serving party starts execution of the current service specifically comprises:

if the service arrival moment does not fall within the business time period of the second serving party, the execution start moment is a specified moment in a next business time period of the second serving party; or

if the service arrival moment falls within the business time period of the second serving party and falls within the service acceptance time period of the second serving party, the execution start moment is the service arrival moment; or

if the service arrival moment falls within the business time period of the second serving party and does not fall within the service acceptance time period of the second serving party, the execution start moment is a specified moment in a next business time period of the second serving party.

12. The computer system according to claim 7, wherein the predicting, based on the execution start moment, a second execution completion moment at which the second serving party completes execution of the current service specifically comprises:

determining estimated service processing duration of the second serving party; and

predicting, based on the execution start moment and the estimated service processing duration of the second serving party, the second execution completion moment.

13. A service prediction apparatus, wherein the apparatus comprises:

a receiving module, configured to receive a service request, wherein the service request comprises a transfer request;

a determining module, configured to determine, based on the service request, an initiation moment of a current service corresponding to the service request and a first serving party and a second serving party that are used to execute the current service, wherein the first serving party comprises a payment bank, and the second serving party comprises a collection bank;

a first execution module, configured to predict, based on the initiation moment of the current service, a first execution completion moment at which the first serving party completes execution of the current service;

a transfer module, configured to predict, based on the first execution completion moment, an execution start moment at which the second serving party starts execution of the current service by obtaining transfer duration of transferring each historical service from the first serving party to the second serving party, determining a transfer duration average value based on the transfer duration of transferring each historical service from the first serving party to the second serving party, determining required transfer duration based on the transfer duration average value, determining a service arrival moment at which the current service arrives at the second serving party based on the first execution completion moment and the required transfer duration, obtaining a business time period and a service acceptance time period of the second serving party, and predicting the execution start

moment based on the service arrival moment, the business time period, and the service acceptance time period of the second serving party;

a second execution module, configured to predict, based on the execution start moment, a second execution completion moment at which the second serving party completes execution of the current service; and

a prediction module, configured to determine, based on the second execution completion moment, a service time limit predicted for the current service.

14. A computer-readable nonvolatile storage medium, wherein the storage medium stores a computer program, and when the computer program is executed by a processor, the method according to any one of claims 1 to 6 is implemented.