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Prendergast et al.

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(54) **SYSTEM FOR AUTOMATIC DATA TRANSFER ACCELERATION**

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G06F 16/23 (2019.01)
G06F 11/34 (2006.01)
G06F 16/21 (2019.01)

(52) **U.S. Cl.**
CPC ***G06F 16/235*** (2019.01); ***G06F 11/3409*** (2013.01); ***G06F 16/21*** (2019.01); ***G06F 16/2386*** (2019.01)

(58) **Field of Classification Search**
CPC G06F 11/3409; G06F 16/2386; G06F 16/235; G06F 16/21
See application file for complete search history.

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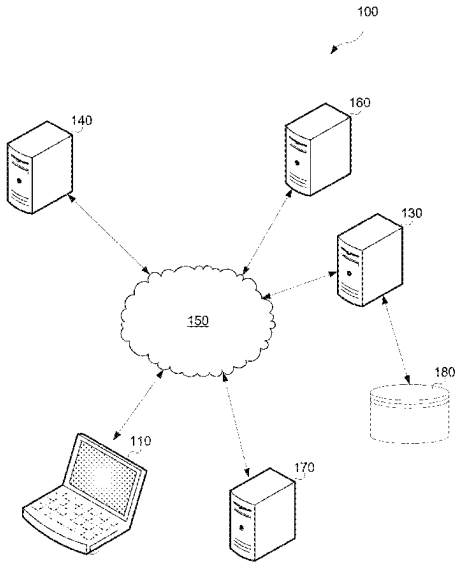
(57) **ABSTRACT**

In an aspect a computer system is configured to: receive accelerated transfer definition data defining one or more conditions for accelerating a transfer; obtain a due date for completing the transfer; initiate the transfer in response to the earlier of: determining that at least one of the conditions for accelerating the transfer have occurred; and determining that a current date is within a defined proximity of the due date for completing the transfer.

23 Claims, 7 Drawing Sheets



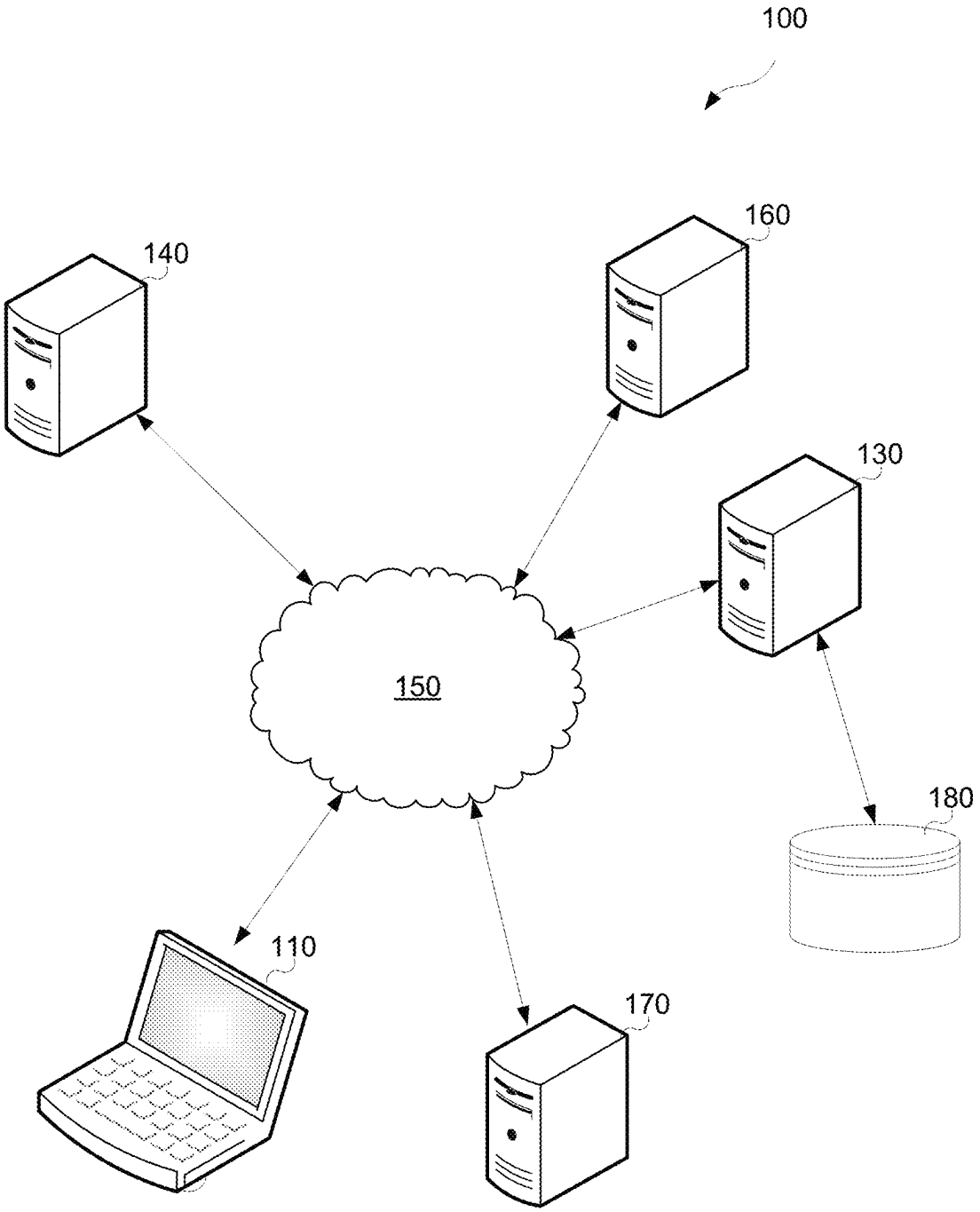


FIG. 1

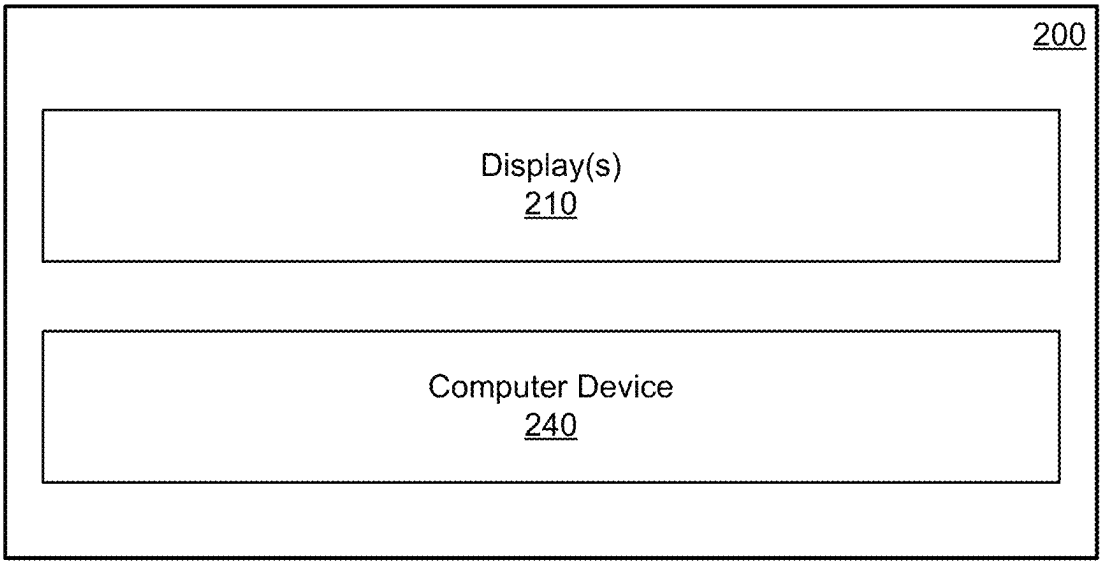


FIG. 2

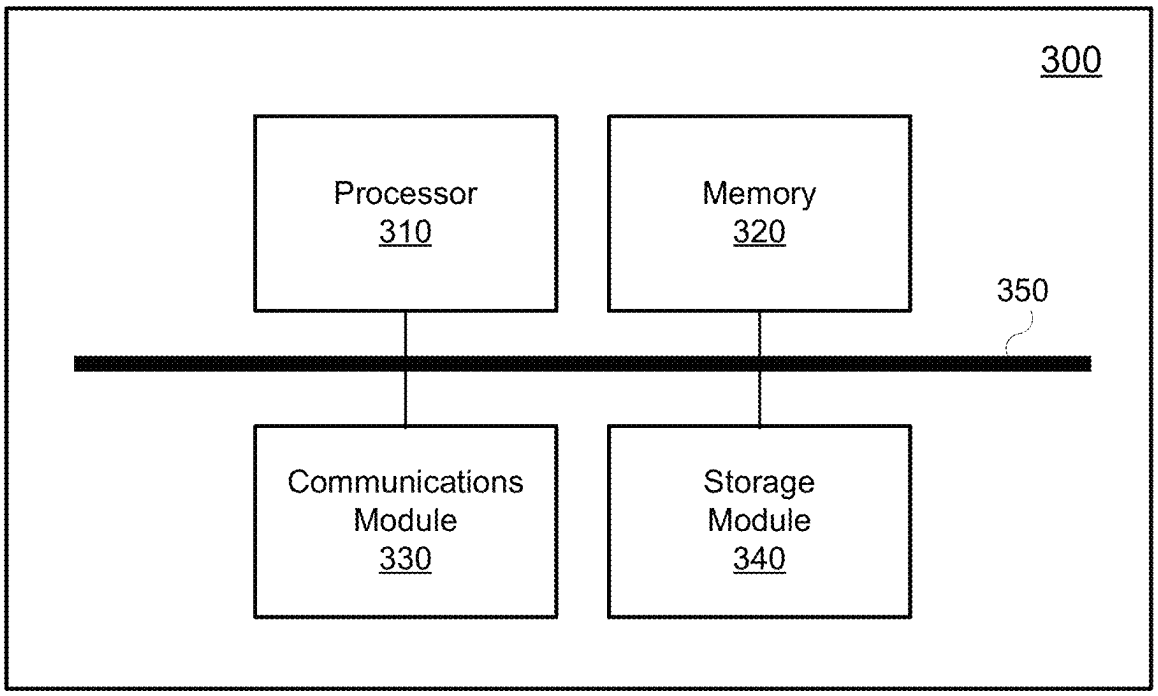

300
Processor
310
Memory
320
350
Communications
Module
330
Storage
Module
340

FIG. 3

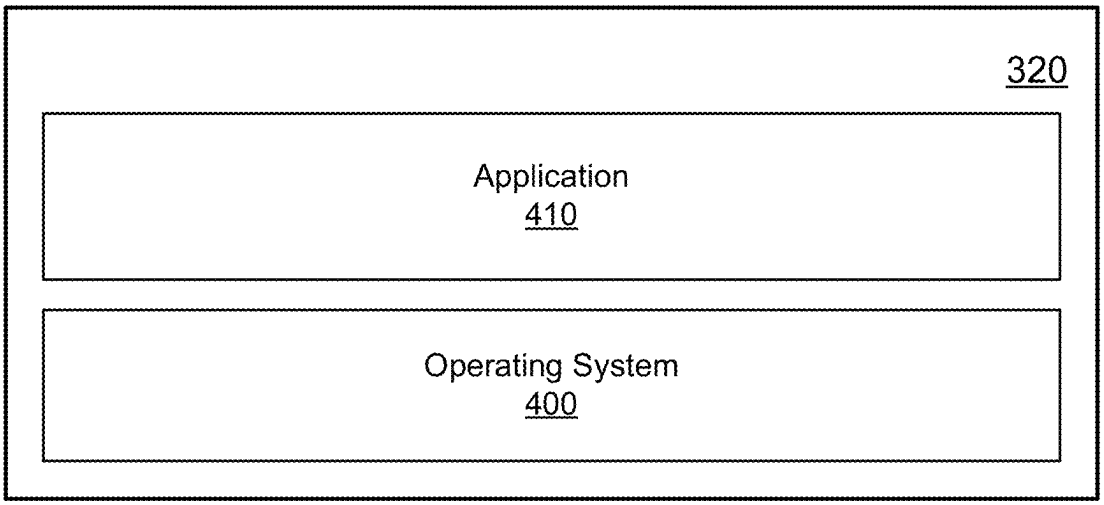

320
Application
410
Operating System
400

FIG. 4

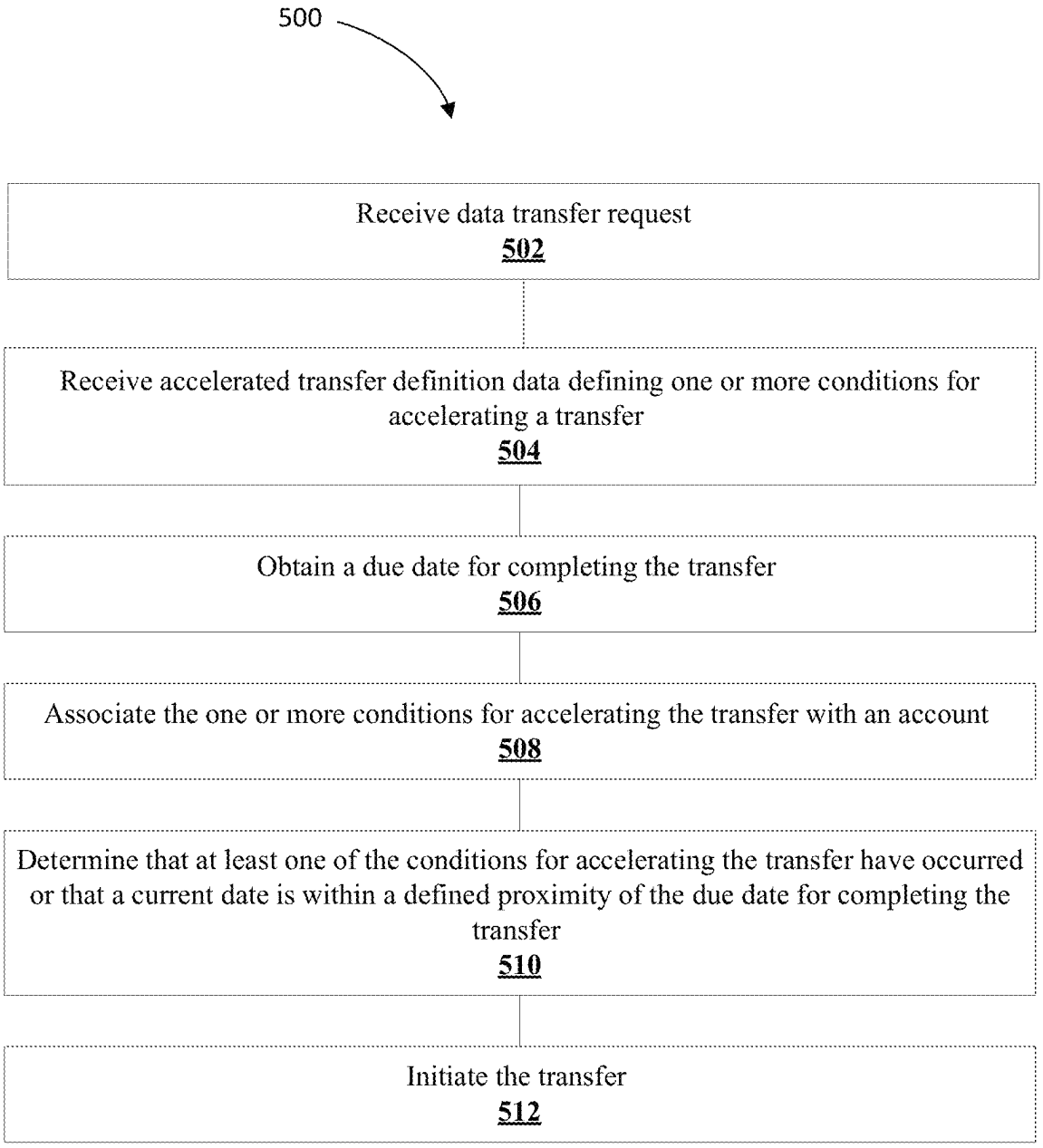

500
Receive data transfer request
502
Receive accelerated transfer definition data defining one or more conditions for accelerating a transfer
504
Obtain a due date for completing the transfer
506
Associate the one or more conditions for accelerating the transfer with an account
508
Determine that at least one of the conditions for accelerating the transfer have occurred or that a current date is within a defined proximity of the due date for completing the transfer
510
Initiate the transfer
512

FIG. 5

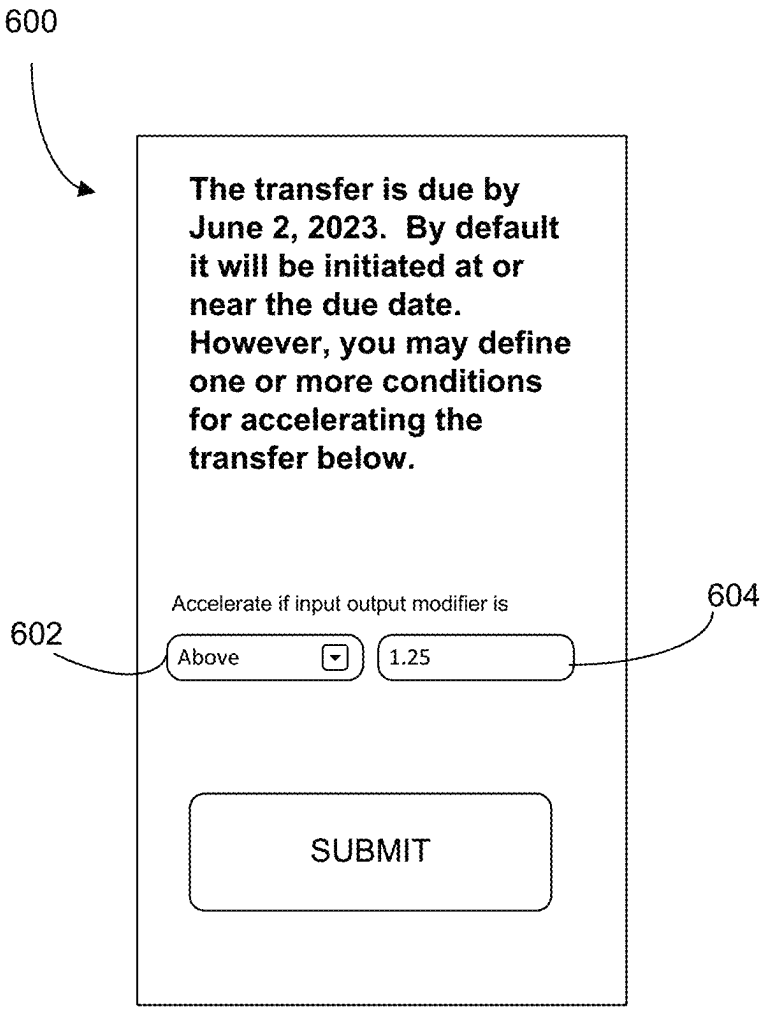

600
The transfer is due by June 2, 2023. By default it will be initiated at or near the due date. However, you may define one or more conditions for accelerating the transfer below.
Accelerate if input output modifier is
602
Above
1.25
604
SUBMIT

FIG. 6

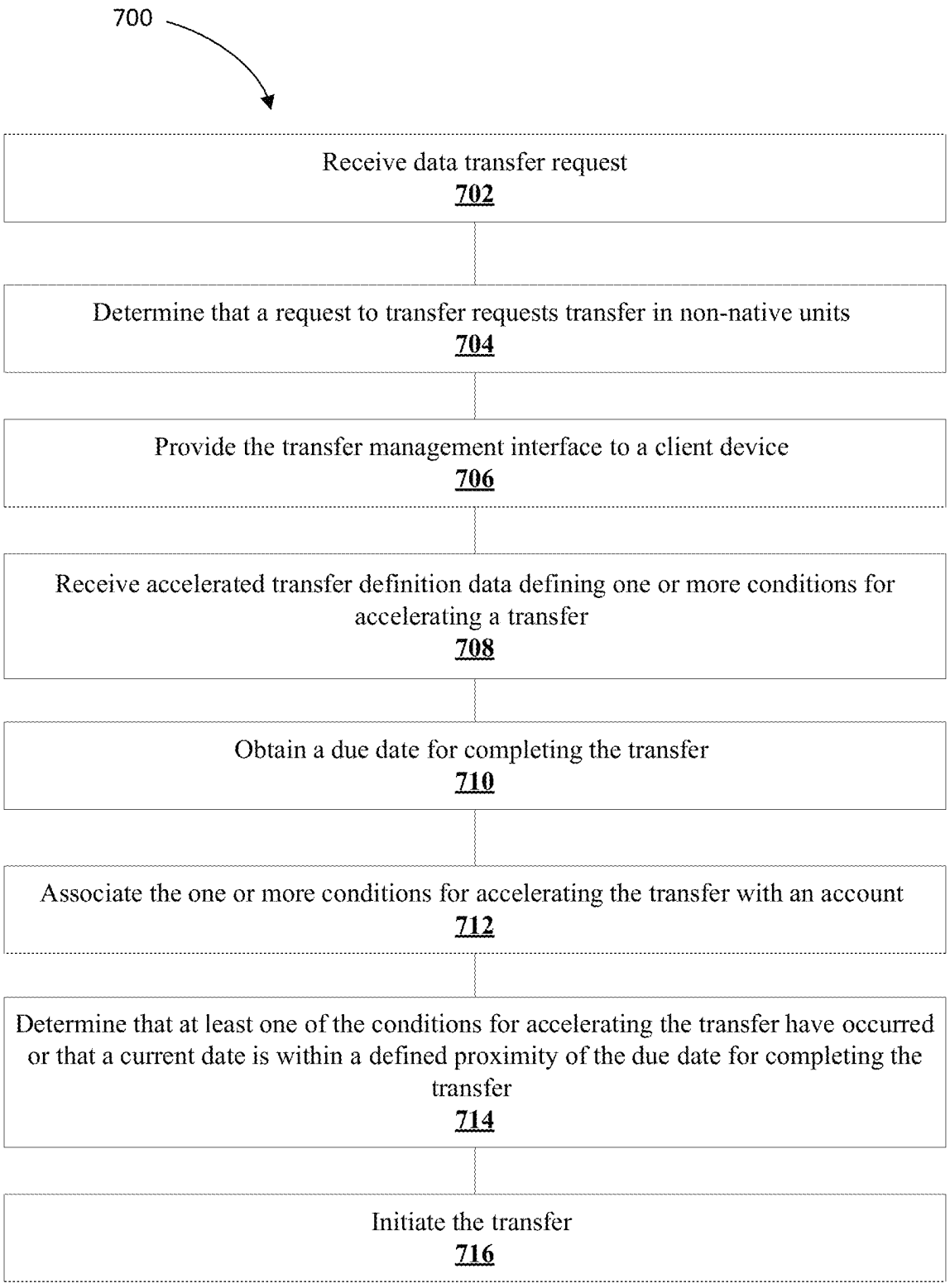

700
Receive data transfer request
702
Determine that a request to transfer requests transfer in non-native units
704
Provide the transfer management interface to a client device
706
Receive accelerated transfer definition data defining one or more conditions for accelerating a transfer
708
Obtain a due date for completing the transfer
710
Associate the one or more conditions for accelerating the transfer with an account
712
Determine that at least one of the conditions for accelerating the transfer have occurred or that a current date is within a defined proximity of the due date for completing the transfer
714
Initiate the transfer
716

FIG. 7

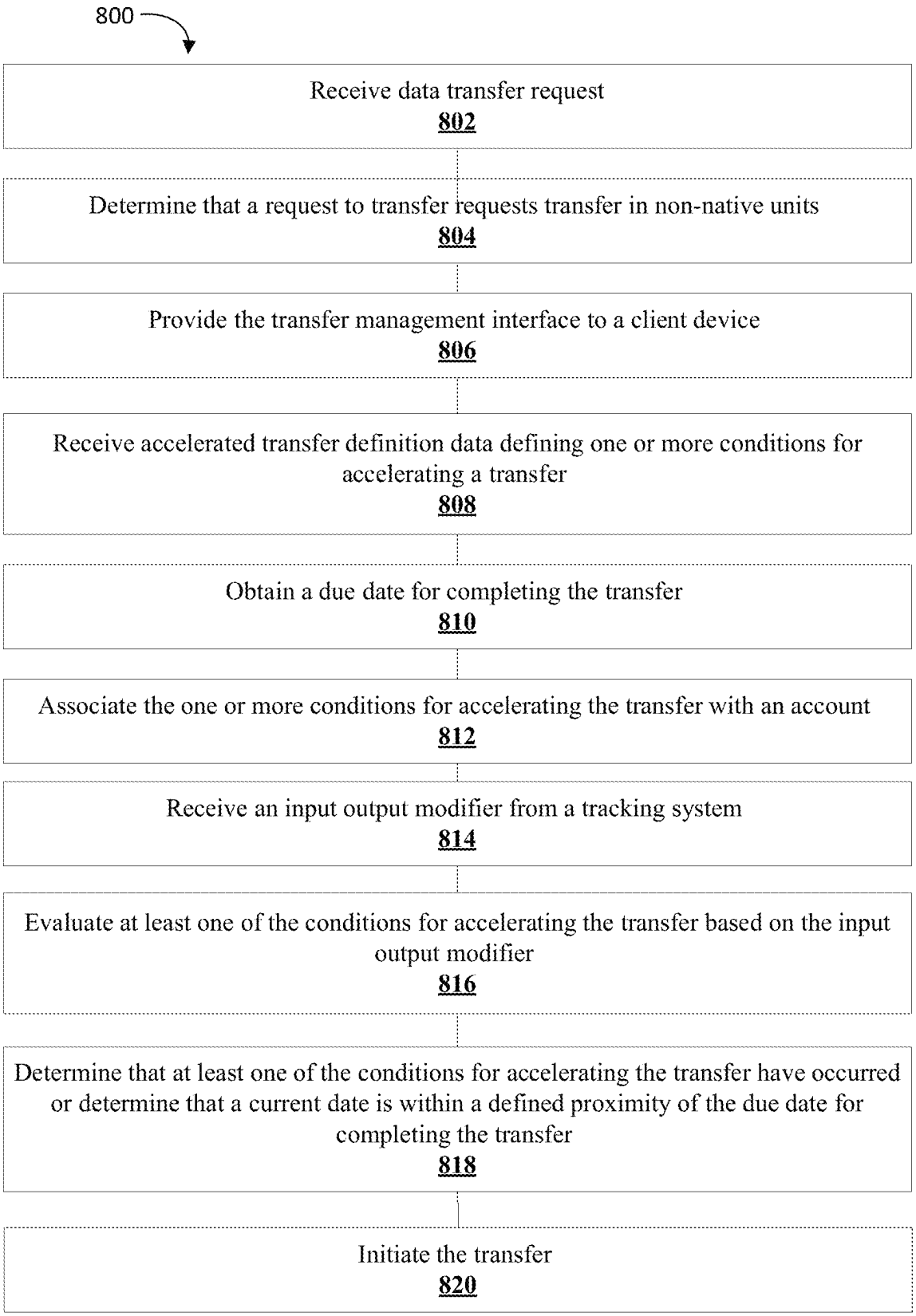

800
Receive data transfer request
802
Determine that a request to transfer requests transfer in non-native units
804
Provide the transfer management interface to a client device
806
Receive accelerated transfer definition data defining one or more conditions for accelerating a transfer
808
Obtain a due date for completing the transfer
810
Associate the one or more conditions for accelerating the transfer with an account
812
Receive an input output modifier from a tracking system
814
Evaluate at least one of the conditions for accelerating the transfer based on the input output modifier
816
Determine that at least one of the conditions for accelerating the transfer have occurred or determine that a current date is within a defined proximity of the due date for completing the transfer
818
Initiate the transfer
820

FIG. 8

SYSTEM FOR AUTOMATIC DATA TRANSFER ACCELERATION

CROSS-REFERENCE TO RELATED APPLICATION

The present application is a continuation of U.S. patent application Ser. No. 17/875,728, filed Jul. 28, 2022, the contents of which are incorporated herein by reference.

TECHNICAL FIELD

The present application relates to data transfers and, more particularly, to systems and methods for automatically accelerating data transfers.

BACKGROUND

It is sometimes necessary or desirable to conduct transfers, such as data transfers, between database records. For example, transfers are sometimes made from a first record to a second record. The transfers may sometimes occur within the same database and sometimes the transfers may occur between different databases. In some instances, the databases may reside on different systems which may connect to one another through a network.

In some systems, a transfer may be made at a time defined by a transferor. For example, a transferor may define a due date at which the transfer is to occur and the transfer may be made on the due date. Such scheduled transfers may, in some instances, be made at inopportune times. For example, it may be that a transfer is made at a time when a resource, such as a processing resource, is in high demand. By way of example, it may be that a transfer is scheduled to occur on a date at which a system has little bandwidth available.

BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments are described in detail below, with reference to the following drawings:

FIG. **1** is a schematic operation diagram illustrating an operating environment of an example embodiment;

FIG. **2** is a simplified schematic diagram showing components of a computing device;

FIG. **3** is a high-level schematic diagram of an example computer device;

FIG. **4** shows a simplified organization of software components stored in a memory of the example computer device of FIG. **3**;

FIG. **5** is a flowchart showing operations performed by a server in initiating a transfer;

FIG. **6** is an example interface in accordance with an example embodiment;

FIG. **7** is a flowchart showing operations performed by a server in initiating a transfer; and

FIG. **8** is a flowchart showing operations performed by a server in initiating a transfer.

Like reference numerals are used in the drawings to denote like elements and features.

DETAILED DESCRIPTION OF VARIOUS EMBODIMENTS

In one aspect of the present disclosure there is provided a computer system. The computer system may include a processor and a communications module coupled to the processor. The computer system may also include a memory

coupled to the processor. The memory may store instructions that, when executed, configure the processor to: receive accelerated transfer definition data defining one or more conditions for accelerating a transfer; obtain a due date for completing the transfer; initiate the transfer in response to the earlier of: determining that at least one of the conditions for accelerating the transfer have occurred; and determining that a current date is within a defined proximity of the due date for completing the transfer.

In some implementations, the accelerated transfer definition data may be received via a transfer management interface. The computing system may be further configured to, prior to receiving the accelerated transfer definition data, provide the transfer management interface to a client device.

In some implementations, the transfer management interface may be provided in response to determining that a request to transfer requests transfer in non-native units.

In some implementations, the one or more conditions for accelerating the transfer define one or more of a low threshold and a high threshold.

In some implementations, the low threshold and the high threshold represent an input output multiplier.

In some implementations, obtaining a due date for completing the transfer includes automatically extracting the due date from an electronic representation of a transfer request electronic message.

In some implementations, the transfer request electronic message is a structured electronic message.

In some implementations, the transfer request electronic message is an unstructured electronic message. Obtaining the due date may include automatically scanning the transfer request electronic message to identify one or more dates in the transfer request electronic message and selecting one of those dates as the due date.

In some implementations, the instructions further configure the processor to: receive an input output modifier from a tracking system; and evaluate at least one of the conditions for accelerating the transfer based on the input output modifier.

In some implementations, the input output modifier is received via an application programming interface associated with the tracking system.

In some implementations, the instructions further configure the processor to: associate the one or more conditions for accelerating the transfer with an account, and wherein initiating the transfer includes providing, to an electronic device associated with the account, a notification, the notification including a selectable option to proceed with the transfer.

In another aspect, a method includes: receiving accelerated transfer definition data defining one or more conditions for accelerating a transfer; obtaining a due date for completing the transfer; initiating the transfer in response to the earlier of: determining that at least one of the conditions for accelerating the transfer have occurred; and determining that a current date is within a defined proximity of the due date for completing the transfer.

In some implementations of the method, the accelerated transfer definition data is received via a transfer management interface. The method may further include, prior to receiving the accelerated transfer definition data, providing the transfer management interface to a client device.

In some implementations of the method, the transfer management interface may be provided in response to determining that a request to transfer requests transfer in non-native units.

In some implementations of the method, the one or more conditions for accelerating the transfer may define one or more of a low threshold and a high threshold.

In some implementations of the method, the low threshold and the high threshold represent an input output multiplier.

In some implementations of the method, obtaining a due date for completing the transfer includes automatically extracting the due date from an electronic representation of a transfer request electronic message.

In some implementations of the method, the transfer request electronic message is a structured electronic message.

In some implementations of the method, the transfer request electronic message is an unstructured electronic message. Obtaining the due date may include automatically scanning the transfer request electronic message to identify one or more dates in the transfer request electronic message and selecting one of those dates as the due date.

In some implementations of the method, the method may further include: receiving an input output modifier from a tracking system; and evaluating at least one of the conditions for accelerating the transfer based on the input output modifier.

In some implementations of the method, the input output modifier is received via an application programming interface associated with the tracking system.

In some implementations of the method, the method may further include: associating the one or more conditions for accelerating the transfer with an account, and wherein initiating the transfer includes providing, to an electronic device associated with the account, a notification, the notification including a selectable option to proceed with the transfer.

In another aspect, there is provided a computer-readable storage medium comprising computer-executable instructions which, when executed, configure a processor to perform a method defined herein. The computer-readable storage medium may be a non-transitory computer readable storage medium.

In the present application, the term "and/or" is intended to cover all possible combinations and sub-combinations of the listed elements, including any one of the listed elements alone, any sub-combination, or all of the elements, and without necessarily excluding additional elements.

In the present application, the phrase "at least one of . . . or . . . " is intended to cover any one or more of the listed elements, including any one of the listed elements alone, any sub-combination, or all of the elements, without necessarily excluding any additional elements, and without necessarily requiring all of the elements.

FIG. **1** is a block diagram illustrating an operating environment of an example embodiment. Various components cooperate to provide a system **100** which may be used, for example, to perform an operation. As shown, the system **100** includes a client device **110**, a first server **130** and a second server **140** coupled to one another through a network **150**, which may include a public network such as the Internet and/or a private network. The client device **110** is a computing device that may be associated with an entity, such as a user or client, having a record in a database associated with and/or provided by the first server **130**. The record may be or represent account data. The client device **110** may also be referred to as an electronic device. The record may include data of various types and the nature of the data will depend on the nature of the first server **130**.

By way of example, in some implementations, the first server **130** may maintain user accounts and a record in the database may be or represent an account. The record may include, for example, documents and/or other data stored by or on behalf of a user. By way of example, in an implementation, a user account may include documents or data uploaded by the user. Such documents and/or data may include, for example, any one or more of: images such as photographs, text-based documents, documents prepared according to a standardized file format, such as portable document format (PDF) documents, user preferences, digital identity data such as stored identity information or documentation, or other types of documents and/or data. For example, in an implementation, the first server may track, manage, maintain, and/or provide resources to the entity. The resources may, for example, be computing resources, such as memory or processor cycles. By way of further example, the resources may include stored value, such as fiat currency, which may be represented in a database. For example, the first server **130** may be coupled to a database **180**, which may be provided in secure storage. The secure storage may be provided internally within the first server **130** or externally. The secure storage may, for example, be provided remotely from the first server **130**. For example, the secure storage may include one or more data centers. The data centers may, for example, store data with bank-grade security.

The database **180** may include records associated with a plurality of entities. For example, the records may be for a plurality of accounts and at least some of the records may define or store resources. For example, the records may define a quantity of resources. For example, the entity that is associated with the client device **110** may be associated with an account having one or more records in the database. The records may reflect a quantity of stored resources that are associated with the entity. Such resources may include owned resources and, in at least some embodiments, borrowed resources. The resources that are associated with an entity may be grouped into various buckets. Some such buckets may, for example, represent individual bank accounts. For example, an entity may be associated with one or more bank accounts. At least some of the resources may be borrowed resources. The borrowed resources may, for example, represent an amount of credit that is available to the entity. The entity that is associated with the client device **110** and the account may be a customer of a financial institution which operates or manages the first server **130**.

The database **180** may, in at least some implementations, store accelerated transfer definition data. The accelerated transfer definition data may be stored in association with a particular record. Put differently, particular accelerated transfer definition data may be associated with a particular entity and may be stored in association with that entity. In at least some implementations, the accelerated transfer definition data is stored in association with a particular transfer. For example, transfer definition data may be stored and it may indicate such data as a due date for completing the transfer and/or a scheduled date for completing a transfer, the resources that are to be transferred, and a recipient associated with the transfer, and this transfer definition data may also include or be associated with the accelerated transfer definition data that defines one or more conditions that cause the transfer to be accelerated.

The first server **130** and the second server **140** may be operated by different entities. That is, the first server **130** may be associated with a first system operator and the second server **140** may be associated with a second system operator who is different than the first system operator. The second server **140** may be, for example, associated with a

financial institution server that is associated with a different financial institution than a first server **130** and may maintain customer financial accounts. That is, the second server **140** may maintain a database that includes various data records. A data record may, for example, reflect an amount of value stored in a particular account associated with a user.

While not illustrated in FIG. **1**, the second server **140** may include or be connected with a database that operates similar to the database **180** that provided by or associated with the first server **130**.

The first server **130** and second server **140** may store other data instead of or in addition to financial account data. By way of example, as noted above, in some implementations, the first server **130** and the second server **140** may manage computing resources such as memory and/or processor cycles which may be used by the client device **110**. The records may, for example, associate a particular entity with particular computer resources. For example, the records may entitle a particular entity to exclusive or shared use of a computing resource. The servers **130**, **140** may communicate with one another in order to transfer a token that allows use of a computing resource from a record maintained by the first server **130** to a record maintained by the second server **140**.

In another example, the servers **130** may act as cloud-based storage and may store files, such as documents for various entities. A first server **130** may, in accordance with instructions received from an entity associated with a document, transfer that document to another entity having a record at the second server **140**. By way of example, the document may be a media file, such as an electronic book, video file or audio file, having digital rights management (DRM) which only permits the document to be transferred if exclusive use of the document is transferred (i.e., if the transfer is performed such that the transferor is no longer able to use the document after the transfer). The servers **130**, **140** may communicate with one another in order to transfer the document in accordance with instructions received from the client device **110**.

The client device **110** may take a variety of forms such as a smartphone, a tablet computer, a wearable computer such as a head-mounted display or smartwatch, a laptop or desktop computer, or a computing device of another type. The first server **130** and/or the second server **140** may be referred to as first and second computing devices respectively and the client device **110** may be referred to as a third computing device. In certain embodiments, the client device **110** may be adapted to present a graphical user interface that allows for communication with the first server **130**. For example, the second server **140** may be adapted to send a signal representing a data transfer request to the first server **130**. The first server **130** may be adapted to send, to the client device **110**, a notification of the data transfer request and an interface for defining accelerated transfer definition data defining one or more conditions for accelerating a transfer. The client device **110** may be adapted to send, to the first server **130**, accelerated transfer definition data defined through the interface.

The data transfer request may be an electronic message such as a structured electronic message. The data transfer request may include particulars of the transfer that is being requested. For example, the data transfer request may include an amount, a date such as a due date, and an identifier such as a recipient identifier. Such data may be organized in a structured format. For example, the message may include delimited data such as comma or semicolon delimited data. A delimiter may separate one field from another. The structured format may be different in other implementations. For example, the message may be formatted using a markup language such as the Extensible Markup Language (XML). In some implementations, the data transfer request may be an ISO20022 compliant message.

The network **150** is a computer network. In some embodiments, the network **150** may be an internetwork such as may be formed of one or more interconnected computer networks. For example, the network **150** may be or may include an Ethernet network, an asynchronous transfer mode (ATM) network, a wireless network, a telecommunications network, or the like.

The first server **130** may be configured to communicate with other servers, such as the second server **140** using one or more communication protocols, which may also be referred to as transfer protocols or transfer rails. The speed of the transfer protocols supported by the servers may vary. For example, at least one transfer protocol that is supported by the first server **130** may be a real time transfer protocol and at least one transfer protocol that is supported by the first server **130** may be a non-real time transfer protocol. The non-real time transfer protocol may, in at least some implementations, take more than one hour to complete a transfer. In some implementations, the non-real time transfer protocol may take twenty-four (24) hours or more to complete the transfer.

Some servers may not support some transfer protocols. For example, a third server (not shown) may not support the real time transfer protocol while the second server **140** may support the real time transfer protocol. In another implementation, the second server **140** may not support the real time transfer protocol but the third server may support the real time transfer protocol.

The real time transfer protocol may allow a transfer to be completed in real time or near real time. For example, a transfer may be completed in twenty seconds or less in at least some implementations. In some implementations, a transfer may be completed in five (5) seconds or less.

One or more of the transfer protocols supported by the first server **130** may, in at least some implementations, operate through a third-party server **160**.

In at least some embodiments, a third-party server **160** may be a transfer rail server configured to facilitate a transfer from a first data record to a second data record according to a first transfer protocol. The first data record may be a data record maintained by the first server **130** and the second data record may be a data record maintained by a server associated with a different system operator than the first server **130** (e.g., such as the second server **140**). The transfer rail server may be a real-time transfer rail server and may be configured to process the transfer in real-time or near real-time. The transfer rail server may operate as an intermediary between the first server **130** and the second server **140**.

While not depicted in FIG. **1**, in at least some implementations, the system **100** includes a further third-party server which acts as a further transfer rail server. The further third-party server may facilitate transfers between the first server **130** and the second server **140** according to a second transfer protocol. The second transfer protocol may be a non-real time transfer protocol.

One or more of the transfer protocols may not require the use of a third-party server. For example, one or more of the transfer protocols may operate through the exchange of messages directly between the first server **130** and the second server **140**. Such messages may be exchanged through the network **150**.

As noted previously, in one implementation, the second server **140** may be adapted to send a signal representing a data transfer request to the first server **130**. In other implementations, a data transfer request may be received in another way. For example, in one implementation, a data transfer request may be sent from a client device **110** to the first server **130**. For example, the data transfer request may be sent from a client device **110** as a document, such as a PDF or other document. In at least some implementations, the client device **110** may upload the document and the first server may perform optical character recognition or another recognition technique to identify the contents of the document.

The data transfer request may define a due date for completing a transfer. The due date may be, for example, a last date at which the transfer may be initiated or it may be a last date at which the transfer may be completed. The due date may also be referred to as a transfer deadline.

The data transfer request may define a transfer subject. The transfer subject defines particular data that is requested to be transferred. The data may be or represent a resource. The resource may be a copy-protected resource. For example, the resource may be any resource that for which a computer that manages that resource is configured to prevent the duplication of the resource. That is, the computer prevents the resource from being copied but it permits the resource to be transferred such that the transferor loses access to the resource following the transfer. In some implementations, the computer may be configured with digital rights management (DRM) which enforces a copying restriction on the resource. The copying restriction may allow a transfer of the resource but may prevent a duplication of the resource. For example, the computer may permit a transfer of a resource or a part thereof from a source to a destination as long as the resource or part being transferred is removed from the source so that no duplication occurs.

The resource may be of a variety of types. By way of example, in some implementations, the resources may be or include content, such as video content, audio content, an electronic book, etc. In some implementations, the resource may represent a store of value, such as money, cryptocurrency, etc.

The resource or other data that is defined in the transfer request may be a resource or other data that is defined in the database **180**. For example, the resource may be stored in association with an account in the database **180**. Such an account may be referred to as a transferor account.

The first server **130** may be in communication with a data feed **170**. The data feed **170** may be or include one or more computer systems which provide data to other systems. The data feed **170** may provide structured data to other systems. The data may be current or up-to-date information. The data feed **170** may provide, for example, resource demand data. The resource demand data may be or represent a present level of demand for a particular resource. The resource demand data may also be referred to as load data. In some implementations, the resource demand data may be referred to as load data. The resource demand data may be represented in a variety of forms. For example, in one implementation, the resource demand data may be a numerical indicator. By way of example, the numerical indicator may be an input output modifier. An input output modifier is a modifier that is applied to an input, such as an input of resources, to obtain an output, such as an output of resources. By way of example, the modifier may be a multiplier. During times of higher demand for a resource, the multiplier may be adjusted to account for the demand. The numerical indicator may be expressed as a number, for example. The number may be a multiplier that may be applied to a native unit to convert the native unit to a non-native unit. A native unit is a unit that that may associated with a transferor's account while the non-native unit may be a unit that is not associated with the transferor's account. By way of example, the multiplier may be an exchange rate, in some implementations. By way of example, it may be that the resource represents a copy-protected resource such as a DRM-protected resource. The resource that is requested to be transferred may be, for example, a particular media such as a particular song or video. The entity that is to make the transfer may not have that media but they may have access to other songs or videos that may be exchanged for the requested media at an exchange. The exchange may not be done at a one to one ratio. Rather, the exchange may be done at some exchange rate such as two lower media items may be exchanged for one high demand media item and the input output modifier may indicate how many units of the resources associated with a source account are required to yield a unit of the requested resource. It will be appreciated that other resources may be exchanged in a similar manner. For example, the source account may have access to processing resources but the transfer request may request a transfer of memory resources and an exchange may be used to transfer processing resource access to memory resource access so that the transfer may be completed. Similar techniques could be applied for transfers between different cryptocurrency accounts and different fiat currency accounts. For example, the transfer may request a transfer of US dollars but the source account may only have Canadian dollars available. The input output modifier may, in such implementations, indicate the exchange rate between such currencies.

The data feed **170** may be a push-based data feed which pushes fresh data to the first server **130**. In some implementations, the data feed may be pull-based. For example, the data feed may be or include an application programming interface (API) and the first server **130** may use the API to obtain data as needed.

The data feed **170** may be or include a tracking system. A tracking system is a computer system such as a server that tracks the data that is provided in the data feed and that serves the data to other computer systems.

The client device **110**, the first server **130**, the second server **140** and the third-party server **160** may be in geographically disparate locations. Put differently, the client device **110**, the first server **130**, the second server **140**, and the third-party server **160** may be remote from one another.

The first server **130** may also be referred to as a first system or a first database management system. The second server **140** may also be referred to as a second system or a second database management system.

FIG. **1** illustrates an example representation of components of the system **100**. The system **100** can, however, be implemented differently than the example of FIG. **1**. For example, various components that are illustrated as separate systems in FIG. **1** may be implemented on a common system. By way of further example, the functions of a single component may be divided into multiple components.

FIG. **2** is a simplified schematic diagram showing components of an exemplary computing device **200**. The client device **110** may be of the same type as computing device **200**. The computing device **200** may include modules including, as illustrated, for example, one or more displays **210** and a computer device **240**.

The one or more displays **210** are a display module. The one or more displays **210** are used to display screens of a graphical user interface that may be used, for example, to communicate with the first server **130** (FIG. **1**). The one or more displays **210** may be internal displays of the computing device **200** (e.g., disposed within a body of the computing device).

The computer device **240** is in communication with the one or more displays **210**. The computer device **240** may be or may include a processor which is coupled to the one or more displays **210**.

Referring now to FIG. **3**, a high-level operation diagram of an example computer device **300** is shown. In some embodiments, the computer device **300** may be exemplary of the computer device **240** (FIG. **2**), the first server **130**, the client device **110**, the second server **140** and/or the third-party server **160**.

The example computer device **300** includes a variety of modules. For example, as illustrated, the example computer device **300** may include a processor **310**, a memory **320**, a communications module **330**, and/or a storage module **340**. As illustrated, the foregoing example modules of the example computer device **300** are in communication over a bus **350**.

The processor **310** is a hardware processor. The processor **310** may, for example, be one or more ARM, Intel x86, PowerPC processors or the like.

The memory **320** allows data to be stored and retrieved. The memory **320** may include, for example, random access memory, read-only memory, and persistent storage. Persistent storage may be, for example, flash memory, a solid-state drive or the like. Read-only memory and persistent storage are a non-transitory computer-readable storage medium. A computer-readable medium may be organized using a file system such as may be administered by an operating system governing overall operation of the example computer device **300**.

The communications module **330** allows the example computer device **300** to communicate with other computer or computing devices and/or various communications networks. For example, the communications module **330** may allow the example computer device **300** to send or receive communications signals. Communications signals may be sent or received according to one or more protocols or according to one or more standards. For example, the communications module **330** may allow the example computer device **300** to communicate via a cellular data network, such as for example, according to one or more standards such as, for example, Global System for Mobile Communications (GSM), Code Division Multiple Access (CDMA), Evolution Data Optimized (EVDO), Long-term Evolution (LTE) or the like. Additionally or alternatively, the communications module **330** may allow the example computer device **300** to communicate using near-field communication (NFC), via Wi-Fi™, using Bluetooth™ or via some combination of one or more networks or protocols. In some embodiments, all or a portion of the communications module **330** may be integrated into a component of the example computer device **300**. For example, the communications module may be integrated into a communications chipset. In some embodiments, the communications module **330** may be omitted such as, for example, if sending and receiving communications is not required in a particular application.

The storage module **340** allows the example computer device **300** to store and retrieve data. In some embodiments, the storage module **340** may be formed as a part of the memory **320** and/or may be used to access all or a portion of the memory **320**. Additionally or alternatively, the storage module **340** may be used to store and retrieve data from persisted storage other than the persisted storage (if any) accessible via the memory **320**. In some embodiments, the storage module **340** may be used to store and retrieve data in a database. A database may be stored in persisted storage. Additionally or alternatively, the storage module **340** may access data stored remotely such as, for example, as may be accessed using a local area network (LAN), wide area network (WAN), personal area network (PAN), and/or a storage area network (SAN). In some embodiments, the storage module **340** may access data stored remotely using the communications module **330**. In some embodiments, the storage module **340** may be omitted and its function may be performed by the memory **320** and/or by the processor **310** in concert with the communications module **330** such as, for example, if data is stored remotely. The storage module may also be referred to as a data store.

Where the example computer device **300** functions as the first server **130** of FIG. **1**, the storage module **340** may allow the example computing device **300** to access the secure data in the database **180**.

Software comprising instructions is executed by the processor **310** from a computer-readable medium. For example, software may be loaded into random-access memory from persistent storage of the memory **320**. Additionally or alternatively, instructions may be executed by the processor **310** directly from read-only memory of the memory **320**.

FIG. **4** depicts a simplified organization of software components stored in the memory **320** of the example computer device **300** (FIG. **3**). As illustrated, these software components include an operating system **400** and an application **410**.

The operating system **400** is software. The operating system **400** allows the application **410** to access the processor **310** (FIG. **3**), the memory **320**, and the communications module **330** of the example computer device **300** (FIG. **3**). The operating system **400** may be, for example, Google™ Android™, Apple™ iOS™, UNIX™, Linux™, Microsoft™ Windows™, Apple OSX™ or the like.

The application **410** adapts the example computer device **300**, in combination with the operating system **400**, to operate as a device performing a particular function. For example, the application **410** may cooperate with the operating system **400** to adapt a suitable embodiment of the example computer device **300** to operate as the computer device **240** (FIG. **2**), the first server **130**, the client device **110**, the third-party server **160** and/or the second server **140**.

While a single application **410** is illustrated in FIG. **3**, in operation the memory **320** may include more than one application **410** and different applications **410** may perform different operations. For example, in at least some embodiments in which the computer device **300** is functioning as the client device **110**, the applications **410** may include a transfer management application. The transfer management application may be configured for secure communications with the first server **130** and may provide various functions such as, for example, the ability to display data in a record in the database **180**. In some implementations, the transfer initiation application may be a banking application which may, for example, be configured to display a quantum of value in one or more data records (e.g. display balances), configure or request that operations such as transfers of value (e.g. bill payments, email money transfers and other transfers) be performed, and perform other account management functions.

By way of further example, in at least some embodiments in which the computer device **300** functions as the client device **110**, the applications **410** may include a web browser, which may also be referred to as an Internet browser. In at least some such embodiments, the first server **130** may be or include a web server that may serve one or more of the interfaces described herein. The web server may cooperate with the web browser and may serve as an interface when the interface is requested through the web browser. For example, the web browser may serve as a mobile banking interface. The mobile banking interface may provide various banking functions such as, for example, the ability to display a quantum of value in one or more data records (e.g. display balances), configure or request that operations such as transfers of value (e.g. bill payments and other transfers) be performed, and other account management functions.

The first server **130** is configured to receive and complete data transfer requests. A transfer may be a transfer of resources such as, for example, documents, tokens, computing resources and other stores of value. In some examples, a transfer may be a transfer of value or other resources from a first account to a second account. The first server **130** is configured to complete received data transfer requests according to one or more transfer methods (which may also be referred to herein as transfer protocols). For example, a first transfer method may utilize a real-time transfer rail server configured to process the transfer in a first transfer time which may be real-time or near real-time. A second transfer method may utilize a transfer rail server configured to process the transfer in a second transfer time that is longer than the first transfer time. Additional transfer methods may also be used.

The first server **130** may be configured to automatically accelerate a transfer so that the transfer occurs before a scheduled date or due date in response to certain trigger conditions. By way of example, it may be that the transfer may be accelerated when it is determined that a demand for a resource has dropped. In this way, the first server **130** may better manage resource demand.

Reference will now be made to FIG. **5**, which illustrates a flowchart of an example method **500**. FIG. **5** shows operations performed by a computing system, such as the first server **130**. For example, in at least some implementations, computer-executable instructions stored in memory associated with the computing system may configure the computing system to perform the operations of the method **500** or a portion thereof. By way of example, the computer-executable instructions may cause a processor associated with the computing system to perform the method **500** or a portion of the method **500**.

The computing system performing the method **500** may cooperate with other computing systems using a communications module. The communications module may be or include a hardware communications module. By way of example, the first server **130** may communicate with one or more of a second server **140**, a client device **110**, and a tracking system in order to perform the method **500** or a variation thereof.

At an operation **502**, the method **500** includes receiving a data transfer request. The data transfer request may also be referred to as a request to transfer. A request to transfer may be a specially formatted message that is sent from a second server **140** to a first server **130**. The request to transfer may be sent from the second server to the first server over a transfer rail that is used for facilitating transfers between databases associated with different systems. For example, the second server may be associated with a second database and the first server may be associated with a first database. The databases may store account data. That is, the databases may store data that is associated with various accounts. In at least some implementations, each record in the database may be associated with a particular one of these accounts.

A request to transfer is a message that is sent on behalf of a recipient to initiate a transfer from a sender to the recipient. That is, the request to transfer is sent, on behalf of the recipient, from a system associated with the recipient, such as the second server, to a system associated with the sender, such as the first server. The request to transfer may request a transfer from a record in the database that is associated with the sender to a record in the database that is associated with the recipient. The request to transfer includes one or more identifiers that identify the record associated with the sender and/or the record associated with the recipient. The identifier(s) may be or include an account number. The request to transfer may also include one or more identifiers that identify the second server. Such identifiers may be or include one or more of: a MAC address, an IP address, a Uniform Resource Locator (URL), a transit number and an institution number.

The request to transfer is a transfer initiation message. That is, the request to transfer is an initial message that may be used to cause a transfer to occur. Since the request to transfer is initiated by a recipient rather than a sender, the request to transfer may be considered to a pull-style transfer, which may be contrasted with typical push-style transfers. In at least some implementations, the request to transfer may be formatted as an ISO20022 message.

The request to transfer message is specially formatted to include parameters of a transfer that is requested to be made from a sender. The parameters may be included as metadata in the transfer message. Where the request to transfer is an ISO20022 message, the parameters may be included in an ISO20022 format. The parameters may include resource definition data. The resource definition data defines what is requested to be transferred (i.e., a transfer subject) and/or what is requested to be received by way of the transfer. By way of example, the resource definition data may define a resource that is stored in or otherwise associated with a record associated with the sender. The resource may be, for example, a computing resource. In another implementation, the resource may be data. In some implementations, the resource may represent an amount of value, such as a quantity of a currency.

In at least some implementations, the resource definition data may define a resource that is non-native to a source/sender account. The resource may be a resource that is not currently stored in or represented by the eventual sender's account. The resource may be a resource that may be accessed by using native resources (i.e. resources that are stored in or represented by that sender's account). For example, the native resources may be converted to non-native resources. Such conversion may involve performing an exchange of the native resources with an account or system that has access to the requested non-native resources.

The parameters that are included in the request to transfer may include data of another type. For example, in some implementations, the parameters may be or include transfer scheduling data. The transfer scheduling data may represent a time when the requested transfer is to be made. This time may be, for example, a due date or deadline. The due date or deadline represents a latest time at which the transfer is to be made.

The request to transfer message may, in some implementations, be or represent a request for payment. Such a

message may be referred to as a request for payment (RFP) message or a request to pay (RTP) message. In such implementations, the transfer rail may be a payment rail such as a real time payment rail and the servers may be a financial institution systems. In at least some such implementations, the records may represent bank accounts and a transfer may be a request to transfer value from a sender bank account to the recipient bank account. The request to transfer message may be sent from a second financial institution system, which is associated with a second financial institution, to a first financial institution system, which is associated with a first financial institution. It will be understood that the request to transfer message may request non-financial resources. For example, as noted above, the request may request media or it may request computing resources.

The request to transfer message may be a special transfer message which is not formatted as an email or short message service (SMS) message. Rather, it may be a computer-to-computer message that is formatted to be specially processed by the system that receives it. For example, the system that receives the request to transfer message may be configured to execute a process for obtaining authorization to complete a transfer in response to receiving the request to transfer. More particularly, the systems may be configured to only permit authorized transfers. For example, in one implementation, the database stores account data for a plurality of accounts and a first server will only allow a transfer out of an account if the transfer is authorized by an authorization entity for that account, such as an accountholder. Authorization may, for example, require authenticated approval using a credential such as one or more of a username, password, biometric authentication data or other credential.

In one implementation, in response to receiving the transfer message, a first server **130** may identify an affected account using an identifier defined by the transfer message. Then, the first server **130** may send an electronic notification to a client device **110** associated with the identified account. This notification may be provided as an in-application notification or operating system level notification. The notification may include a selectable option to authorize the transfer.

The notification may allow the transfer to be made without requiring input of one or more parameters that are typically required when a transfer is initiated by the sender rather than the recipient. By way of example, one or more parameters that are included in the request to transfer may be used to pre-stage or pre-populate parameters of the transfer so that the sender does not have to input such parameters. In some implementations, the resource definition data included in the request to transfer may be used to allow the transfer to be made without having the sender define what is to be transferred. For example, where the transfer is a transfer of a computing resource or data, the sender may perform the transfer without having to input any information defining the computing resource or data involved. Or, where the transfer is a transfer of an amount of value, the amount of value defined in the request for transfer message may be used so that the sender does not have to define the amount of value.

In some implementations, transfer scheduling data included in the request to transfer message may be used to schedule the transfer without requiring the sender to define such a schedule. For example, where the transfer scheduling data is a due date or deadline, the first server **130** may automatically define a time for a transfer based on the transfer scheduling data without requiring the sender to input such a time.

In this way, the sender may cause the first server **130** to perform the transfer without having to input at least some parameters for the transfer. The time and/or amount of the transfer may be extracted directly from the request to transfer message. The sender may only need to input an indication of consent to initiate the transfer when the sender has authenticated to the system and the transfer may then be performed. The sender may also input one or more conditions for accelerating the transfer as will be described below.

The data transfer request may take other forms. For example, in one implementation, a data transfer request may be sent from a client device **110** to the first server **130**. For example, the data transfer request may be sent from a client device **110** as a document, such as a PDF or other document. In at least some implementations, the client device **110** may upload the document and the first server may perform optical character recognition or another recognition technique to identify the contents of the document and, more particularly, to identify the parameters of the requested transfer.

In some implementations, after or in response to receiving the data transfer request at the operation **502**, the first server **130** may provide a transfer management interface to a client device **110** associated with the sender of the requested transfer. Referring briefly to FIG. **6**, an example transfer management interface **600** is illustrated. The transfer management interface **600** includes one or more interface elements **602**, **604** for inputting accelerated transfer definition data. The accelerated transfer definition data defines a trigger condition for causing a transfer to be accelerated. That is, the accelerated transfer definition data defines one or more conditions which, when detected, may cause the transfer to be made sooner than a due date for that transfer. In at least some implementations, when the defined condition(s) are determined to have occurred, the transfer may be made immediately.

The condition(s) may take various forms. In at least some implementations, the conditions may be or include one or more thresholds. The thresholds may include one or both of a high (e.g., upper) and low (e.g., lower) threshold. The thresholds may be or represent input output modifiers such as input output multipliers. An input output modifier is an operation that may be performed on a first value (i.e., an input value) to obtain a second value (i.e., an output value). An input output multiplier is an input output modifier which utilizes a multiplication operation to obtain an output from an input. Input output modifiers may represent one or more of an exchange rate such as a foreign exchange rate or a fee. For example, as noted previously, computing resource access of one type may be exchanged for computing resource access of another type or media of one type may be exchanged for media of another type. In another example, a currency of one type may be exchanged for a currency of another type.

The condition(s) may be or represent a resource demand parameter. A resource demand parameter may be a value or other indicator which indicates a demand on a particular resource. The resource may be a resource of a variety of types including, for example, a computing resource such as memory or processor cycles. In this way, the resource demand parameter may represent load on a resource. In some implementations, the resource may be a particular currency such as a particular fiat currency. In some implementations, the resource may be a cryptocurrency. By way of example, in one implementation, the condition may be that an exchange rate is less than a particular defined exchange rate. In another example, the condition may be that

a demand for a requested processing resource has reduced or a demand for a requested memory resource has reduced.

Referring again to FIG. **5**, at an operation **504**, the method **500** may include receiving accelerated transfer definition data. The accelerated transfer definition data may be as described above. For example, the accelerated transfer definition data may define one or more conditions for accelerating a transfer.

The first server **130** may also, at an operation **506**, obtain a due date for completing the transfer. The due date may be obtained in a variety of ways. For example, the due date may be obtained from the data transfer request received at the operation **502**. In some implementations, the due date for completing the transfer may be obtained by automatically extracting the due date from an electronic representation of a transfer request electronic message. The transfer request electronic message may be the data transfer request received at the operation **502**. As noted above, the data transfer request may be a structured electronic message. In such instances, the due date may be identified by identifying an appropriate field or region of the message based on data about the structure of the electronic message. In some implementations, the message may be formatted as an ISO20022 message. In some implementations, the data transfer request may include field or region identifiers which may allow the due date to be determined. For example, the request may include markup language identifiers which may be used to identify the portion of the message that includes the due date.

In some implementations, the transfer request electronic message, such as the data transfer request received at the operation **502**, may be an unstructured electronic message such as, for example, an email message or a text message. In at least some such implementations, the first server **130** may obtain the due date by automatically scanning the transfer request electronic message to identify one due dates in the transfer request electronic message. Then, the first server **130** may automatically select one of those dates as the due dates. The selection may be performed by identifying a due date text indicator such as "Due by" preceding the selected date. In some implementations, the latest identified date in the message may be considered the due date. For example, if the message includes two dates, the later of those two dates may be considered to be the due date.

The due date may, in some implementations, be a user-defined date. That is, the client device associated with the sender account may define the due date. In some implementations, the due date may be a scheduled date. That is, the due date may be the date when the transfer is scheduled to occur. The sender may, in this way, define the date when the transfer is to take place if it is not accelerated before that date.

The due date may include a date and/or a time. For example, the techniques described herein could also be used to manage intraday transfers.

Next, at an operation **508**, the method **500** includes, associating the one or more conditions for accelerating the transfer with an account. For example, the accelerated transfer definition data may be associated with a particular account. In at least some implementations, the accelerated transfer definition data may be stored in the particular account. For example, it may be stored in a record associated with that account. The record and/or account may be associated with the transferor/sender. That is, the record and/or account may be an account/record from which the transfer is to be initiated. The first server **130** may also store the due date in association with that account/record.

The first server **130** may now monitor for occurrence of a triggering event that will cause the transfer to be automatically made. For example, the first server **130** may initiate the transfer at an operation **512** in response to the earlier of: determining (at an operation **510**) that at least one of the conditions for accelerating the transfer have occurred and determining (at an operation **510**) that a current date is within a defined proximity of the due date for completing the transfer. When the first of these conditions is determined to have occurred, the transfer is automatically initiated. For example, if the first server **130** determines that the condition (s) for accelerating the transfer have occurred before the current date is within the defined proximity of the due date, then it will cause the transfer to be initiated. If, instead, the first server **130** determines that the current date is within the defined proximity of the due date for completing the transfer and that the condition(s) for accelerating the transfer have not yet occurred, then the first server **130** causes the transfer to be initiated. For example, in implementations in which the condition is associated with a load or demand for a resource, the transfer may be accelerated (i.e., initiated before the current date is within the defined proximity of the due date) if the load or demand for the resource satisfies certain conditions. For example, if a metric indicating the load or demand changes to a level that is the same or better that a defined level, then the load or demand for the resource may be determined to have satisfied the conditions for accelerating the transfer.

As noted above, if the condition(s) for accelerating the transfer do not occur within the defined proximity of the due date, the transfer may be nevertheless initiated to ensure that the transfer is made and/or received by the due date. The defined proximity of the due date may depend on latency associated with a transfer. For example, where the transfer is a real-time transfer that may be completed immediately, the defined proximity of the due date may be zero days such that the transfer will be initiated on the due date if it was not already initiated through detection of a condition associated with acceleration. If, however, the transfer is a transfer that may be expected to take one day to complete, then the predetermined proximity may be one day. In some examples, the due date may represent a scheduled date that already accounts for the latency. The due date may, in some implementations, be a default scheduled date.

Initiating a transfer may include, for example, completing the transfer. The transfer may, in some implementations, be completed by sending data from one account to another. In at least some implementations, initiating or completing a transfer may include updating a ledger to reflect the transfer. In at least some implementations, initiating the transfer may include providing, to an electronic device associated with the account from which the resources are to be transferred, such as the client device **110**, a notification. The notification may include a selectable option to proceed with the transfer. When the selectable option is selected, the transfer may then be performed.

Reference will now be made to FIG. **7**, which illustrates a flowchart of an example method **700**. FIG. **7** shows operations performed by a computing system, such as the first server **130**. For example, in at least some implementations, computer-executable instructions stored in memory associated with the computing system may configure the computing system to perform the operations of the method **700** or a portion thereof. By way of example, the computer-executable instructions may cause a processor associated with the computing system to perform the method **700** or a portion of the method **700**.

The computing system performing the method **700** may cooperate with other computing systems using a communications module. The communications module may be or include a hardware communications module. By way of example, the first server **130** may communicate with one or more of a second server, a client device, and a tracking system in order to perform the method **700** or a variation thereof.

The method **700** is a variation of the method **500** of FIG. **5** and it may include many operations in common with the method **500** of FIG. **5** and, for the sake of brevity and readability, the description of such operations will not be repeated at length.

At an operation **702**, the first server **130** may receive a data transfer request. The operation **702** may be the same or a variation of the operation **502** as described above.

Next, at an operation **704**, the first server **130** may determine that the request to transfer requests a transfer in non-native units. Non-native units may be resource units that are not standard units for an account from which the transfer is to be made. Non-native units may also be referred to as non-standard or foreign units. The non-native units may be or represent a foreign metric. For example, it may be that the first server and the second server maintain resources associated with accounts in different units, metrics or currencies and the data transfer request requests a transfer in units that are not the standard units used by the first server. Such units may be said to be non-native units for the first server **130**.

As noted above, the request to transfer may request a transfer of a resource that is not associated with the sender. For example, the resource may be a resource that the sender's account does not hold.

Next, at an operation **706**, the first server **130** may provide a transfer management interface to a client device associated with the sender (i.e., associated with the account from which the resource is to be transferred if the request is fulfilled). The transfer management interface may be of the type described above with reference to FIG. **6** or a variation thereof. The transfer management interface may, for example, allow for the input of accelerated transfer definition data. Additionally or alternatively, the transfer management interface may allow for the input of a due date for completing the transfer. The transfer management interface may be provided in response to the operation **706**; that is, in response to determining that a request to transfer requests transfer in non-native units and/or non-owned resources.

At an operation **708**, the first server **130** may receive accelerated transfer definition data. The operation **708** may be performed in the same or a similar way to the operation **504** of the method **500** of FIG. **5**. The accelerated transfer definition data may be of the type describe above. Accordingly, the accelerated transfer definition data may be received via a transfer management interface.

The method may then perform the operations **710**, **712**, **714** and **716** which are the same or similar to the operations **506**, **508**, **510** and **512** respectively of the method **500** of FIG. **5**.

Reference will now be made to FIG. **8**, which illustrates a flowchart of an example method **800**. FIG. **8** shows operations performed by a computing system, such as the first server **130**. For example, in at least some implementations, computer-executable instructions stored in memory associated with the computing system may configure the computing system to perform the operations of the method **800** or a portion thereof. By way of example, the computer-executable instructions may cause a processor associated with the computing system to perform the method **800** or a portion of the method **800**.

The computing system performing the method **800** may cooperate with other computing systems using a communications module. The communications module may be or include a hardware communications module. By way of example, the first server **130** may communicate with one or more of a second server, a client device, and a tracking system in order to perform the method **800** or a variation thereof.

The method **800** is a variation of the method **500** of FIG. **5** and the method **700** of FIG. **7** and it may include many operations in common with the method **500** of FIG. **5** and the method **700** of FIG. **5** and, for the sake of brevity and readability, the description of such operations will not be repeated at length.

The operations **802**, **804**, **806**, **808**, **810** and **812** may be the same or similar to the operations **702**, **704**, **706**, **708**, **710** and **712** of the method **700** of FIG. **7** respectively. Following the operation **812**, the one or more conditions for accelerating the transfer have been defined and associated with an account.

The first server **130** then monitors to determine whether the condition has been satisfied. The condition may be a condition that is associated with an input output modifier, as described above. In such an implementation, the first server **130** may receive an input output modifier from a tracking system at an operation **814**. The tracking system may track what present input output modifier is in effect. More particularly, the input output modifier may vary over time. In some implementations, the variations may be based on a demand for a particular type of resource. In this way, the input output modifier reflects the demand of a resource. The input output modifier may also be referred to as a load indicator or a demand indicator.

The input output modifier may be received from the tracking system in various ways. For example, the input output modifier may be received via an application programming interface (API) associated with the tracking system.

Next, at an operation **816**, the first server **130** may evaluate at least one of the conditions for accelerating the transfer based on the input output modifier. For example, the evaluation may determine whether current demand for a particular type of resource is low. For example, the evaluation may determine whether demand for non-native resources that are requested is presently low. In at least some implementations, when the demand is determined to be low, the condition may be determined to have occurred. The condition may, however, take other forms.

Then at the operations **818**, the first server **130** determines that at least one of the conditions for accelerating the transfer have occurred or determines that a current date is within a defined proximity of the due date for completing the transfer. The operation **818** may be the same or similar to the operation **714** of the method of FIG. **7**. Then, at the operation **820**, the transfer is initiated. The operation **820** may be the same or similar to the operation **716** of the method of FIG. **7**.

Accordingly, if the current input output modifier obtained from the tracking system satisfies the defined condition before transfer is otherwise completed due to the due date being sufficiently near, then the transfer will be accelerated to take advantage of the opportune time to conduct the transfer.

Example embodiments of the present application are not limited to any particular operating system, system architec-

ture, mobile device architecture, server architecture, or computer programming language.

It will be understood that the applications, modules, routines, processes, threads, or other software components implementing the described method/process may be realized using standard computer programming techniques and languages. The present application is not limited to particular processors, computer languages, computer programming conventions, data structures, or other such implementation details. Those skilled in the art will recognize that the described processes may be implemented as a part of computer-executable code stored in volatile or non-volatile memory, as part of an application-specific integrated chip (ASIC), etc.

As noted, certain adaptations and modifications of the described embodiments can be made. Therefore, the above discussed embodiments are considered to be illustrative and not restrictive.

What is claimed is:

1. A computer system comprising:

a processor;

a communications module coupled to the processor; and

a memory coupled to the processor, the memory storing instructions that, when executed, configure the processor to:

receive accelerated transfer definition data defining a condition for accelerating a transfer;

obtain a time parameter for the transfer;

while the transfer remains pending, determine that the condition for accelerating the transfer has occurred; and

in response to determining that the condition for accelerating the transfer has occurred while the transfer remains pending, initiate the transfer to cause the transfer to be performed prior to a time when it would otherwise be performed based on the time parameter.

2. The computing system of claim **1**, wherein the accelerated transfer definition data is received via a transfer management interface, and wherein the computing system is further configured to, prior to receiving the accelerated transfer definition data, provide the transfer management interface to a client device.

3. The computing system of claim **2**, wherein the transfer management interface is provided in response to determining that a request to transfer requests transfer in non-native units.

4. The computing system of claim **1**, wherein the condition for accelerating the transfer defines one or more of a low threshold and a high threshold.

5. The computing system of claim **4**, wherein the low threshold and the high threshold represent an input output multiplier.

6. The computing system of claim **1**, wherein obtaining a time parameter for the transfer includes automatically extracting the time parameter from an electronic representation of a transfer request electronic message.

7. The computing system of claim **6**, wherein the transfer request electronic message is a structured electronic message.

8. The computing system of claim **6**, wherein the transfer request electronic message is an unstructured electronic message and wherein obtaining the time parameter includes automatically scanning the transfer request electronic message to identify one or more dates in the transfer request electronic message and selecting one of those dates for use in the time parameter.

9. The computing system of claim **1**, wherein the instructions further configure the processor to:

receive an input output modifier from a tracking system; and

evaluate the condition for accelerating the transfer based on the input output modifier.

10. The computing system of claim **9**, wherein the input output modifier is received via an application programming interface associated with the tracking system.

11. The computing system of claim **1**, wherein the instructions further configure the processor to:

associate the condition for accelerating the transfer with an account, and wherein initiating the transfer includes providing, to an electronic device associated with the account, a notification, the notification including a selectable option to proceed with the transfer.

12. A method comprising:

receiving accelerated transfer definition data defining a condition for accelerating a transfer;

obtaining a time parameter for the transfer;

while the transfer remains pending, determining that the condition for accelerating the transfer has occurred; and

in response to determining that the condition for accelerating the transfer has occurred while the transfer remains pending, initiating the transfer to cause the transfer to be performed prior to a time when it would otherwise be performed based on the time parameter.

13. The method of claim **12**, wherein the accelerated transfer definition data is received via a transfer management interface, and wherein the method further comprises: prior to receiving the accelerated transfer definition data, providing the transfer management interface to a client device.

14. The method of claim **13**, wherein the transfer management interface is provided in response to determining that a request to transfer requests transfer in non-native units.

15. The method of claim **12**, wherein the condition for accelerating the transfer defines one or more of a low threshold and a high threshold.

16. The method of claim **15**, wherein the low threshold and the high threshold represent an input output multiplier.

17. The method of claim **12**, wherein obtaining a time parameter for the transfer includes automatically extracting the time parameter from an electronic representation of a transfer request electronic message.

18. The method of claim **17**, wherein the transfer request electronic message is a structured electronic message.

19. The method of claim **18**, wherein the transfer request electronic message is an unstructured electronic message and wherein obtaining the time parameter includes automatically scanning the transfer request electronic message to identify one or more dates in the transfer request electronic message and selecting one of those dates for use in the time parameter.

20. The method of claim **12**, further comprising:

receiving an input output modifier from a tracking system; and

evaluating the condition for accelerating the transfer based on the input output modifier.

21. The method of claim **20**, wherein the input output modifier is received via an application programming interface associated with the tracking system.

22. The method of claim **21**, further comprising:

associating the condition for accelerating the transfer with an account, and wherein initiating the transfer includes providing, to an electronic device associated with the

account, a notification, the notification including a selectable option to proceed with the transfer.

23. A non-transitory computer-readable storage medium comprising computer-executable instructions which, when executed, configure a processor to:

receive accelerated transfer definition data defining a condition for accelerating a transfer;

obtain a time parameter for the transfer;

while the transfer remains pending, determine that the condition for accelerating the transfer has occurred; and

in response to determining that the condition for accelerating the transfer has occurred while the transfer remains pending, initiate the transfer to cause the transfer to be performed prior to a time when it would otherwise be performed based on the time parameter.

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