CLAIMS

What is claimed is:

1. A computer-implemented method, comprising:

receiving a request for a data transmission between a sender and a receiver, the request including an amount of data associated with the data transmission;

determining a direct confidence level between the receiver and the sender, the direct confidence level quantizing a relation between the receiver and the sender according to data transmission records between the receiver and the sender only;

selecting a data transmission protection mechanism based on the direct confidence level between the receiver and the sender; and

performing the data transmission based on the selected data transmission protection mechanism.

2. The computer-implemented method of claim 1, wherein the data transmission records comprise a number of prior data transmissions between the sender and the receiver that occurred during a time period and data amounts of the prior data transmissions between the sender and the receiver.

3. The computer-implemented method of claim 2, further comprising determining an indirect confidence level, wherein the indirect confidence level is determined by:

determining that a third party that had prior data transmissions with both the sender and the receiver during a time period; and

determining the indirect confidence level based on a number of prior data transmissions between the sender and the third party that occurred during the time period, amounts of data associated with the prior data transmissions between the sender and the third party, a number of prior data transmissions between the receiver and the third party that occurred during the time period, and amounts of data associated with the prior data transmissions between the receiver and the third party.

4. The computer-implemented method of claim 3, further comprising the step of selecting a data transmission protection mechanism based on an overall confidence level, wherein the overall confidence level is determined based on the direct confidence level and the indirect confidence level.

5. The computer-implemented method of claim 4, wherein performing the data transmission based on the selected data transmission protection mechanism includes:

performing the data transmission without authenticating the sender and the receiver if the amount of data is equal to or lower than the direct confidence level or the overall confidence level; and

authenticating at least one of the sender or the receiver before the data transmission if the amount of data is higher than the direct confidence level or the overall confidence level.

6. The computer-implemented method of claim 4 or 5, wherein performing the data transmission based on the selected data transmission protection mechanism includes sending a warning message to the sender if the amount of data is higher than the direct confidence level or the overall confidence level.

7. The computer-implemented method of any one of the preceding claims, wherein the data transmission is associated with a fund transfer, the amount of data is a fund amount associated with the fund transfer, the sender is a payer, and the receiver is a payee.

8. A non-transitory, computer-readable medium storing one or more instructions executable by a computer system to perform the steps of the method of any one of claims 1 to 7.

9. A computer-implemented system, comprising:

one or more computers; and

one or more computer memory devices interoperably coupled with the one or more computers and having tangible, non-transitory, machine-readable media storing instructions that, when executed by the one or more computers, perform the steps of the method of any one of claims 1 to 7.