CLAIMS

1. A method for establishing mapping relationships between account information of different account systems, wherein the method comprises:

extracting first address information from multiple items of first account information provided by a first service provider;

extracting second address information from multiple items of second account information provided by a second service provider;

for each item of extracted first address information, searching the multiple items of extracted second address information for second address information that matches the first address information; and

after the second address information that matches the first address information is identified, establishing a mapping relationship between first account information that comprises the first address information and second account information that comprises the identified second address information.

2. The method according to claim 1, wherein after extracting first address information from each of multiple items of first account information provided by a first service provider, and extracting second address information from each of multiple items of second account information provided by a second service provider, the method further comprises:

extracting address feature information from each of the multiple items of extracted first address information and each of the multiple items of extracted second address information; wherein

for each item of extracted first address information, searching the multiple items of extracted second address information for second address information that matches the first address information comprises:

determining, according to address feature information corresponding to the first address information and address feature information corresponding to each of the multiple items of second address information, a candidate set of second address information that matches the first address information, wherein each item of second address information in the candidate set of

second address information and the first address information satisfy a predetermined address feature matching condition; and

selecting, from the determined candidate set of second address information, second address information that matches the first address information.

3. The method according to claim 2, wherein:

the address feature information comprises one or more of latitude and longitude information, POI information, or numeric substring information; and

the predetermined address feature matching condition that the first address information and any second address information in the candidate set of second address information satisfies comprises one or more of the following conditions:

a distance between latitude and longitude of the second address information and those of the first address information is less than a predetermined distance threshold;

POI information corresponding to the second address information and POI information corresponding to the first address information are the same; and

a maximum quantity of same consecutive numeric substrings between the second address information and the first address information is greater than a predetermined quantity threshold, wherein each numeric substring corresponds to a location range of an address, and different numeric substrings of a same address correspond to different location ranges of the address.

4. The method according to claim 3, further comprising determining that the POI information corresponding to the second address information and the POI information corresponding to the first address information are the same, comprising:

after it is determined that both the second address information and the first address information comprise POI information, mapping each item of the POI information in the second address information and the POI information in the first address information to standardized POI information in a door address library; and

when the standardized POI information in the door address library to which the POI information in the second address information is mapped is the same as the standardized POI information in the door address library to which the POI information in the first address

information is mapped, determining that the POI information corresponding to the second address information is the same as the POI information corresponding to the first address information.

5. The method according to any one of claims 2 to 4, wherein the extraction of address feature information from each of the multiple items of extracted first address information and each of the multiple items of extracted second address information comprises:

extracting latitude and longitude information, POI information, and numeric substring information from each of the multiple items of extracted first address information and each of the multiple items of extracted second address information; and

wherein determining, according to address feature information corresponding to the first address information and address feature information corresponding to each of the multiple items of second address information, a candidate set of second address information that matches the first address information comprises:

for each item of second address information, determining whether POI information corresponding to the second address information is the same as the POI information corresponding to the first address information;

after it is determined that the POI information corresponding to the second address information is the same as the POI information corresponding to the first address information, determining, based on latitude and longitude information in the second address information and latitude and longitude information in the first address information, a distance between latitude and longitude corresponding to the second address information and latitude and longitude corresponding to the first address information;

determining, based on numeric substring information in the second address information and numeric substring information in the first address information, a maximum quantity of same consecutive numeric substrings between the second address information and the first address information; and

when the distance between the latitude and longitude corresponding to the second address information and the latitude and longitude corresponding to the first address information is less than a predetermined distance threshold, and the maximum quantity of same consecutive numeric substrings between the second address information and the first address information is

greater than a predetermined quantity threshold, grouping the second address information into the candidate set of second address information that matches the first address information.

6. The method according to claim 5, wherein selecting, from the determined candidate set of second address information, second address information that matches the first address information comprises:

for any second address information in the determined candidate set of second address information, determining a matching value between the second address information and the first address information based on a latitude and longitude matching value and latitude and longitude matching significance between the second address information and the first address information, and a numeric substring matching value and a numeric substring matching significance between the second address information and the first address information; and

selecting second address information that has a highest matching value as the second address information that matches the first address information.

7. The method according to claim 6, wherein the latitude and longitude matching value S1 between the second address information and the first address information is determined using the following equation:

$$S1 = ke^{-d(c1,\ c2)},$$

wherein d(c1, c2) represents a distance between latitude and longitude, c1 corresponds to the second address information and the latitude and longitude, c2 corresponds to the first address information, and k represents a constant.

8. The method according to claim 6, wherein the numeric substring matching value S2 between the second address information and the first address information is determined based on the following equation:

$$S2 = pN,$$

wherein N represents a maximum quantity of same consecutive numeric substrings between the second address information and the first address information, and p represents a constant.

9. The method according to claim 1, wherein for each item of extracted first address information, searching the multiple items of extracted second address information for second address information that matches the first address information comprises:

searching, using a k-d tree, the multiple items of extracted second address information for the second address information that matches the first address information.

10. The method according to claim 1, wherein after extracting first address information and second address information, and before the searching for second address information that matches the first address information, the method further comprises:

pre-processing formats of the extracted first address information and second address information according to a predetermined pre-processing type.

11. The method according to claim 1, further comprising locating an account of a user at the second service provider based on the established mapping relationship and account information registered by the user with the first service provider.

12. An address information–based account mapping apparatus, wherein the apparatus comprises multiple modules configured to perform the method according to any one of claims 1 to 11.