CLAIMS

What is claimed is:

1. An e-bill mail processing method, comprising:

determining to-be-processed identification information used to identify an organization corresponding to a target bill mail;

matching the to-be-processed identification information with identification information corresponding to each organization comprised in a pre-established bill mail template library;

obtaining a bill link comprised in the target bill mail based on a matching result, wherein if the matching result is that the matching fails, identifying a hyperlink comprised in the target bill mail, performing a download operation based on the hyperlink, and determining that the successfully downloaded hyperlink is the bill link, and after the determining that the successfully downloaded hyperlink is the bill link, determining positioning information corresponding to the bill link in the target bill mail based on location information of the successfully downloaded hyperlink in the target bill mail, and correspondingly adding the positioning information corresponding to the bill link in the target bill mail and the to-be-processed identification information to the bill mail template library, to update the bill mail template library; and

obtaining an e-bill corresponding to the target bill mail based on the bill link.

2. The method according to claim 1, wherein the obtaining a bill link comprised in the target bill mail based on a matching result comprises:

if the matching result is that the matching succeeds, determining positioning information corresponding to the bill link in the target bill mail based on the matched identification information, and obtaining the bill link based on the positioning information, wherein the bill mail template library further comprises positioning information of a bill link in a bill mail corresponding to each organization; and

if the matching result is that the matching fails, identifying a hyperlink comprised in the target bill mail, and obtaining the bill link based on an identification result.

3. The method according to claim 2, wherein the determining positioning information corresponding to the bill link in the target bill mail based on the matched identification information comprises:

determining a target organization corresponding to the target bill mail based on the matched identification information;

determining location information of the bill link in the target bill mail based on the positioning information corresponding to the target organization; and

obtaining the bill link from the target bill mail based on the location information.

4. The method according to claim 3, wherein the positioning information comprises a keyword used to point to the bill link; and

the determining location information of the bill link in the target bill mail based on the positioning information corresponding to the target organization comprises:

searching the target bill mail for the keyword; and

determining a link that the identified keyword points to as the bill link.

5. The method according to claim 2, wherein the identifying a hyperlink comprised in the target bill mail, and obtaining the bill link based on an identification result comprises:

obtaining a hyperlink comprised in a specified mail location of the target bill mail, wherein the specified mail location comprises a mail attachment and/or a mail body;

determining a to-be-processed keyword pointing to the hyperlink, and matching the to-be-processed keyword with a predetermined keyword set to obtain a second matching result, wherein the keyword set comprises at least one keyword used to point to the bill link; and

determining the bill link from the hyperlink based on the second matching result.

6. The method according to claim 5, wherein the determining the bill link from the hyperlink based on the second matching result comprises:

if the second matching result is that the matching succeeds, determining that the hyperlink is the bill link; or

if the second matching result is that the matching fails, performing a download operation based on the hyperlink, and determining that the successfully downloaded hyperlink is the bill link.

7. The method according to claim 6, after the performing a download operation based on the hyperlink, further comprising:

obtaining a keyword corresponding to the successfully downloaded hyperlink; and

adding the obtained keyword to the keyword set to update the keyword set.

8. The method according to claim 6, after the determining that the successfully downloaded hyperlink is the bill link, further comprising:

determining the positioning information corresponding to the bill link in the target bill mail based on location information of the successfully downloaded hyperlink in the target bill mail; and

correspondingly adding the positioning information corresponding to the bill link in the target bill mail and the to-be-processed identification information to the bill mail template library, to update the bill mail template library.

9. The method according to claim 1, wherein the obtaining an e-bill corresponding to the target bill mail based on the bill link comprises:

requesting the bill link to obtain a response body corresponding to the request;

determining a file type of the response body if a response state of the response body is normal; and

obtaining the e-bill corresponding to the target bill based on the file type of the response body.

10. The method according to claim 9, wherein the obtaining the e-bill corresponding to the target bill based on the file type of the response body comprises:

if the file type is a downloadable first file type, performing a download operation based on the response body to obtain the e-bill; or

if the file type is a non-downloadable second file type, determining a parsing method corresponding to the bill link based on the file type, parsing the bill link based on the determined parsing method, and obtaining the e-bill based on a parsing result.

11. The method according to claim 10, wherein the first file type comprises at least one of the following: a convenient document format and a file stream; and

the second file type comprises at least one of the following: a text and a hypertext markup language.

12. An e-bill mail processing apparatus, comprising:

a determining module, configured to determine to-be-processed identification information used to identify an organization corresponding to a target bill mail;

a matching module, configured to match the to-be-processed identification information with identification information corresponding to each organization comprised in a pre-established bill mail template library;

a first acquisition module, configured to obtain a bill link comprised in the target bill mail based on a matching result, wherein if the matching result is that the matching fails, identifying a hyperlink comprised in the target bill mail, performing a download operation based on the hyperlink, and determining that the successfully downloaded hyperlink is the bill link, and after the determining that the successfully downloaded hyperlink is the bill link, determining positioning information corresponding to the bill link in the target bill mail based on location information of the successfully downloaded hyperlink in the target bill mail, and correspondingly adding the positioning information corresponding to the bill link in the target bill mail and the to-be-processed identification information to the bill mail template library, to update the bill mail template library; and

a second acquisition module, configured to obtain an e-bill corresponding to the target bill mail based on the bill link.

13. The apparatus according to claim 12, wherein the first acquisition module comprises:

a first acquisition unit, configured to: if the matching result is that the matching succeeds, determine positioning information corresponding to the bill link in the target bill mail based on the matched identification information, and obtain the bill link based on the positioning information,

wherein the bill mail template library further comprises positioning information of a bill link in a bill mail corresponding to each organization; and

a second acquisition unit, configured to: if the matching result is that the matching fails, identify a hyperlink comprised in the target bill mail, and obtain the bill link based on an identification result.

14. The apparatus according to claim 13, wherein the first acquisition unit determines a target organization corresponding to the target bill mail based on the matched identification information; determines location information of the bill link in the target bill mail based on the positioning information corresponding to the target organization; and obtains the bill link from the target bill mail based on the location information.

15. The apparatus according to claim 12, wherein the second acquisition unit obtains a hyperlink comprised in a specified mail location of the target bill mail, wherein the specified mail location comprises a mail attachment and/or a mail body; determines a to-be-processed keyword pointing to the hyperlink, and matches the to-be-processed keyword with a predetermined keyword set to obtain a second matching result, wherein the keyword set comprises at least one keyword used to point to the bill link; and determines the bill link from the hyperlink based on the second matching result.

16. An e-bill mail processing device, comprising a processor and a memory electrically connected to the processor, wherein the memory stores a computer program, and the processor is configured to invoke the computer program from the memory and execute the computer program to:

determine to-be-processed identification information used to identify an organization corresponding to a target bill mail;

match the to-be-processed identification information with identification information corresponding to each organization comprised in a pre-established bill mail template library;

obtain a bill link comprised in the target bill mail based on a matching result, wherein if the matching result is that the matching fails, identifying a hyperlink comprised in the target bill mail, performing a download operation based on the hyperlink, and determining that the successfully downloaded hyperlink is the bill link, and after the determining that the successfully downloaded hyperlink is the bill link, determining positioning information corresponding to the bill link in the target bill mail based on location information of the successfully downloaded hyperlink in the target bill mail, and correspondingly adding the positioning information corresponding to the bill link in the target bill mail and the to-be-processed identification information to the bill mail template library, to update the bill mail template library; and

obtain an e-bill corresponding to the target bill mail based on the bill link.

17. A storage medium, configured to store a computer program, wherein the computer program can be executed by a processor to implement the following procedure:

determining to-be-processed identification information used to identify an organization

corresponding to a target bill mail;

matching the to-be-processed identification information with identification information corresponding to each organization comprised in a pre-established bill mail template library;

obtaining a bill link comprised in the target bill mail based on a matching result, wherein if the matching result is that the matching fails, identifying a hyperlink comprised in the target bill mail, performing a download operation based on the hyperlink, and determining that the successfully downloaded hyperlink is the bill link, and after the determining that the successfully downloaded hyperlink is the bill link, determining positioning information corresponding to the bill link in the target bill mail based on location information of the successfully downloaded hyperlink in the target bill mail, and correspondingly adding the positioning information corresponding to the bill link in the target bill mail and the to-be-processed identification information to the bill mail template library, to update the bill mail template library; and

obtaining an e-bill corresponding to the target bill mail based on the bill link.