

tokenized image to a transaction processing system, wherein the transaction processing system is configured to conduct a transaction based on the tokenized image.

[0013] Clause 2: The computer-implemented method of clause 1, further comprising: extracting, with at least one processor, the at least one token from the tokenized image; and conducting, with at least one processor, a transaction based on the at least one token.

[0014] Clause 3: The computer-implemented method of clauses 1 or 2, wherein encoding the at least one token comprises encoding the at least one token into RGB values of the at least one image.

[0015] Clause 4: The computer-implemented method of any of clauses 1-3, wherein encoding the at least one token comprises: encrypting the at least one token to produce encrypted data; and encoding the encrypted data into the at least one image.

[0016] Clause 5: The computer-implemented method of any of clauses 1-4, further comprising: generating at least one false token; and encoding the at least one false token into the at least one image.

[0017] Clause 6: The computer-implemented method of any of clauses 1-5, further comprising: detecting a transaction request using a false token; and automatically deactivating the at least one token in response to detecting the transaction request using the false token.

[0018] Clause 7: The computer-implemented method of any of clauses 1-6, further comprising: capturing an image with a camera of a client device; and generating the at least one image based on the image.

[0019] Clause 8: The computer-implemented method of any of clauses 1-7, wherein the at least one image is a screenshot or an image downloaded from a webpage.

[0020] Clause 9: The computer-implemented method of any of clauses 1-8, wherein the at least one image comprises embedded merchant data or product data.

[0021] Clause 10: The computer-implemented method of any of clauses 1-9, further comprising communicating, with at least one processor of a first client device, the at least one tokenized image to a second client device including at least one processor, wherein the at least one processor of the second client device communicates the at least one tokenized image to the transaction processing system.

with a remote system that provides the image encoding engine 210 as Software-as-a-Service (SaaS). It will be appreciated that various other arrangements are possible and that the components of the user device 105 shown in FIG. 2 are for example purposes only. The user device 105 may also include data storage (memory) 204, a display device (not shown), an input device (not shown), transponder (not shown), and/or other components.

[0066] With continued reference to FIG. 2, the camera unit 208 of the user device 105 is used to capture an image 209 which is inputted into the image encoding engine 210. A token 207 stored on memory 204 is also inputted into the image encoding engine 210. The token 207 may also be stored elsewhere, generated upon request, or the like. The image encoding engine 210 then generates a tokenized image 211 based on the image 209 and the token 207 and communicates the tokenized image 211 to a remote system via the network interface 205. For example, the tokenized image 211 may be communicated to a merchant system, payment gateway, transaction processing system, issuer system, another user device, and/or the like. In some non-limiting embodiments, the tokenized image 211 may be stored on the data storage device 204 for later usage by the user device 105 and communicated to a local POS system via a transponder (not shown in FIG. 2) or by some other means to request a transaction.

[0067] In non-limiting embodiments, multiple tokenized images may be used for each item of multiple items purchased from a merchant. For example, non-limiting embodiments may be used in a merchant retail location by taking images of items as they are placed in a shopping cart or basket. In some examples, a user device may be used to take the images and, in other examples, one or more merchant devices arranged in the retail location and/or in the cart or basket may be used. In some non-limiting embodiments, tokenized images may be generated for each item as they are retrieved or as the user exits the retail location. By generating separate tokenized images for each item, the merchant and other entities involved in the transaction can more easily process a return or payment reversal, reduce fraud, and increase the ability to track transaction activity. Moreover, separate tokenized images allows for the transaction processing system to attribute payments for multiple items in a shopping cart to individual line items corresponding to individual items, thereby providing the transaction processing system with enhanced, line item data that it may not ordinarily have access to. The tokenized images may be utilized to conduct a

6. The computer-implemented method of claim 5, further comprising:

detecting a transaction request using a false token; and
automatically deactivating the at least one token in response to detecting the transaction request using the false token.

7. The computer-implemented method of claim 1, further comprising:

capturing an image with a camera of a client device; and
generating the at least one image based on the image.

8. The computer-implemented method of claim 1, wherein the at least one image is a screenshot or an image downloaded from a webpage.

9. The computer-implemented method of claim 1, wherein the at least one image comprises embedded merchant data or product data.

10. The computer-implemented method of claim 1, further comprising communicating, with at least one processor of a first client device, the at least one tokenized image to a second client device including at least one processor, wherein the at least one processor of the second client device communicates the at least one tokenized image to the transaction processing system.

11. A system for encoding account tokens in image files, comprising at least one processor programmed or configured to:

receive, from a user associated with an account identifier, an identification of at least one image;

generate at least one token based on the account identifier of the user;

embed the at least one token in the at least one image, resulting in at least one tokenized image; and

communicate the at least one tokenized image to a transaction processing system, wherein the transaction processing system is configured to conduct a transaction based on the tokenized image.