

Standard (PCI DSS). Compliance with the PCI DSS and other similar standards can be difficult for on-line merchants, as it may require extensive investment in computing equipment and other costs. Accordingly, some on-line merchants outsource payment functions, and therefore PCI DSS compliance, to third party payment processors, who are therefore responsible for compliance with industry standards. However, outsourcing these functions to third parties may have drawbacks, as the appearance and behavior of a third party form accepting payment information may not be consistent with the appearance and behavior of the on-line merchant's website.

[0005] Thus, there is a need for an improved system and method for complying with security standards for accepting sensitive data.

SUMMARY

[0005a] According to a first aspect of the present invention, there is provided a system associated with a first party for securely receiving user information, including: non-transitory memory storing instructions; and one or more hardware processors coupled to the non-transitory memory and configured to read the instructions from the non-transitory memory to cause the system perform operations including: providing, by the system, first programming code to be included as part of a webpage hosted by a second party, the code being executable by a user device when accessing the webpage; receiving, by the system, an identification token from a user device executing at least a portion of the code in response to accessing the webpage; receiving, by the system, one or more Application Programming Interface (API) requests from the user device based upon the user device executing at least the portion of the code in response to accessing the webpage, the one or more API requests including a style configuration; in response to receiving the one or more API requests and the identification token, sending, by the system, second programming code to the user device that will generate a plurality of inline frames hosted by the system and rendered within the webpage hosted by the second party when the second programming code is executed by the user device; responsive to receiving an indication of execution of the second programming code by the user device, hosting, by the system, the plurality of inline frames, each of the plurality of inline frames providing a data entry field that gathers input and is configured to communicate the input directly with the system, each data entry field stylized based on the style configuration specified in the one or more API requests, each of the plurality of inline frames displayed within the webpage accessed by the user; and receiving, by the system and responsive to a user action on the webpage, user information entered within the data entry fields, wherein the first party and the second party are separate entities.

[0005b] According to a second aspect of the present invention, there is provided a computer implemented method, including: providing, by a system associated with a first party, first

programming code to be included as part of a webpage hosted by a second party, the code being executable by a user device when accessing the webpage; receiving, by the system, an identification token from a user device executing indicating execution of at least a portion of the code in response to accessing the webpage; receiving, by the system, one or more Application Programming Interface (API) requests from the user device indicating the execution of at least the portion of the code in response to accessing the webpage, the one or more API requests including a style configuration; in response to receiving the one or more API requests and the identification token, sending, by the system, second programming code to the user device that will- enables the user device to generate a plurality of inline frames hosted by the system and rendered within the webpage hosted by the second party when the second programming code is executed by the user device; responsive to receiving an indication of execution of the second programming code by the user device, hosting, by the system, the plurality of inline frames, each of the plurality of inline frames providing a data entry field that gathers input and is configured to communicate the input directly with the system, each data entry field stylized based on the style configuration specified in the one or more API requests, each of the plurality of inline frames displayed within the webpage accessed by the user; and receiving, by the system and responsive to a user action on the webpage, user information entered within the data entry fields, wherein the first party and the second party are separate entities.

[0005c] According to a third aspect of the present invention, there is provided a non-transitory machine-readable medium having stored thereon machine-readable instructions executable to cause a machine to perform operations including: providing, by a system associated with a first party, first programming code to be included as part of a webpage hosted by a second party, the code being executable by a user device when accessing the webpage; receiving, by the system, an identification token from a user device executing at least a portion of the code in response to accessing the webpage; receiving, by the system, one or more Application Programming Interface (API) requests from the user device based upon the user device executing at least the portion of the code in response to accessing the webpage, the one or more API requests including a style configuration; in response to receiving the one or more API requests and the identification token, sending, by the system, second programming code to the user device that will generate a plurality of inline frames hosted by the system and rendered within the webpage hosted by the second party when the second programming code is executed by the user device; responsive to receiving an indication of execution of the second programming code by the user device, hosting, by the system, the plurality of inline frames, each of the plurality of inline frames providing a data entry field that gathers input and is configured to communicate the input directly with the system, each data entry field stylized based on the style configuration specified in the one or

more API requests, each of the plurality of inline frames displayed within the webpage accessed by the user; and receiving, by the system and responsive to a user action on the webpage, user information entered within the data entry fields, wherein the first party and the second party are separate entities.

BRIEF DESCRIPTION OF THE FIGURES

[0006] Fig. 1 is a flow chart illustrating an embodiment of a method for providing, by a third party, input form fields for sensitive data on a web page provided by an organization.

[0007] Fig. 2 is a front view illustrating an embodiment of a payer device displaying a checkout web page with input form fields for sensitive data.

[0008] Fig. 3 is a schematic view illustrating an embodiment of a networked system.

[0009] Fig. 4 is a schematic view illustrating an embodiment of a computer system.

[0010] Fig. 5 is a schematic view illustrating an embodiment of a system provider device.

[0011] Embodiments of the present invention and their advantages are best understood by referring to the detailed description that follows. It should be appreciated that like reference numerals are used to identify like elements illustrated in one or more of the figures, wherein showings therein are for purposes of illustrating embodiments of the present disclosure and not for purposes of limiting the same.

DETAILED DESCRIPTION

[0012] The present disclosure provides systems and methods for providing, by a third party, input form fields for sensitive data on a web page provided by an organization. In one embodiment, the organization may generate a web page for a user to submit sensitive data. For example, the organization may be a merchant generating a checkout page for a user to purchase goods, which may require the user to enter in personal financial data like credit card information. Within the web page, the organization may designate one or more containers for each form field of sensitive data for the user to enter. The organization may also include a reference to a third party script file within the generated web page, and one or more

CLAIMS

1. A system associated with a first party for securely receiving user information, comprising:
 - non-transitory memory storing instructions; and
 - one or more hardware processors coupled to the non-transitory memory and configured to read the instructions from the non-transitory memory to cause the system perform operations comprising:
 - providing, by the system, first programming code to be included as part of a webpage hosted by a second party, the code being executable by a user device when accessing the webpage;
 - receiving, by the system, an identification token from a user device executing at least a portion of the code in response to accessing the webpage;
 - receiving, by the system, one or more Application Programming Interface (API) requests from the user device based upon the user device executing at least the portion of the code in response to accessing the webpage, the one or more API requests including a style configuration;
 - in response to receiving the one or more API requests and the identification token, sending, by the system, second programming code to the user device that will generate a plurality of inline frames hosted by the system and rendered within the webpage hosted by the second party when the second programming code is executed by the user device;
 - responsive to receiving an indication of execution of the second programming code by the user device, hosting, by the system, the plurality of inline frames, each of the plurality of inline frames providing a data entry field that gathers input and is configured to communicate the input directly with the system, each data entry field stylized based on the style configuration specified in the one or more API requests, each of the plurality of inline frames displayed within the webpage accessed by the user; and
 - receiving, by the system and responsive to a user action on the webpage, user information entered within the data entry fields,
 - wherein the first party and the second party are separate entities.
2. The system of claim 1, wherein the style configuration comprises a color of the data entry field.

3. The system of claim 1, wherein the operations further comprise responding to the user device in response to receiving the identification token, wherein responding to the user device in response to receiving the identification token comprises responding to the user device with a client instance for interactions with an API.
4. The system of claim 1, wherein the operations further comprise: receiving payment card information from the user device through the data entry field;
receiving a payment token from the user device;
receiving a payment request and the payment token from an operator of the webpage;
and
facilitating a payment for the payment request using the payment card information in response to the payment token received from the operator matching the payment token from the user device.
5. The system of claim 1, wherein the operations further comprise:
receiving payment card information from the user device through the data entry field;
providing a payment token to the user device;
receiving a payment request and the payment token from an operator of the webpage;
and
facilitating a payment for the payment request using the payment card information in response to the payment token received from the operator matching the payment token from the user device.
6. The system of claim 1, wherein the identification token is also an authorization token.
7. A computer implemented method, comprising:
providing, by a system associated with a first party, first programming code to be included as part of a webpage hosted by a second party, the code being executable by a user device when accessing the webpage;
receiving, by the system, an identification token from a user device executing indicating execution of at least a portion of the code in response to accessing the webpage;
receiving, by the system, one or more Application Programming Interface (API) requests from the user device indicating the execution of at least the portion of the code in response to accessing the webpage, the one or more API requests including a style configuration;

in response to receiving the one or more API requests and the identification token, sending, by the system, second programming code to the user device that will- enables the user device to generate a plurality of inline frames hosted by the system and rendered within the webpage hosted by the second party when the second programming code is executed by the user device;

responsive to receiving an indication of execution of the second programming code by the user device, hosting, by the system, the plurality of inline frames, each of the plurality of inline frames providing a data entry field that gathers input and is configured to communicate the input directly with the system, each data entry field stylized based on the style configuration specified in the one or more API requests, each of the plurality of inline frames displayed within the webpage accessed by the user; and

receiving, by the system and responsive to a user action on the webpage, user information entered within the data entry fields,

wherein the first party and the second party are separate entities.

8. The method of claim 7, wherein the style configuration comprises a color of the data entry field.
9. The method of claim 7, wherein the style configuration comprises a color.
10. The method of claim 7, wherein at least one of the data entry fields is prepopulated.
11. The method of claim 7, further comprising causing the user device to display an indication of error through at least one of the plurality of inline frames in response to receiving invalid information.
12. The method of claim 11, wherein the indication of error is changing a color of the data entry field.
13. The method of claim 7, wherein the style configuration comprises a maximum width of each inline frame.
14. A non-transitory machine-readable medium having stored thereon machine-readable instructions executable to cause a machine to perform operations comprising:

providing, by a system associated with a first party, first programming code to be included as part of a webpage hosted by a second party, the code being executable by a user device when accessing the webpage;

receiving, by the system, an identification token from a user device executing at least a portion of the code in response to accessing the webpage;

receiving, by the system, one or more Application Programming Interface (API) requests from the user device based upon the user device executing at least the portion of the code in response to accessing the webpage, the one or more API requests including a style configuration;

in response to receiving the one or more API requests and the identification token, sending, by the system, second programming code to the user device that will generate a plurality of inline frames hosted by the system and rendered within the webpage hosted by the second party when the second programming code is executed by the user device;

responsive to receiving an indication of execution of the second programming code by the user device, hosting, by the system, the plurality of inline frames, each of the plurality of inline frames providing a data entry field that gathers input and is configured to communicate the input directly with the system, each data entry field stylized based on the style configuration specified in the one or more API requests, each of the plurality of inline frames displayed within the webpage accessed by the user; and

receiving, by the system and responsive to a user action on the webpage, user information entered within the data entry fields,

wherein the first party and the second party are separate entities.

15. The non-transitory machine-readable medium of claim 14, wherein at least one of the data entry fields provides an indication that data entered in the at least one data entry field is valid.

16. The non-transitory machine-readable medium of claim 15, wherein the indication is a change of a color of the at least one data entry field.

17. The non-transitory machine-readable medium of claim 14, wherein the operations further comprise receiving payment information from the user device through the plurality of inline frames displayed as part of the webpage and facilitating a payment using the payment

information for a transaction with a merchant hosting the webpage without the merchant receiving the payment information.

18. The system of claim 1, wherein the user information entered within the data entry fields is encrypted prior to the receiving, and wherein the operations further comprise decrypting the encrypted information received by the system corresponding to the user information entered within the data entry fields.

19. The method of claim 7, wherein the user information entered within the data entry fields is encrypted prior to the receiving, and further comprising decrypting the encrypted information received by the system corresponding to the user information entered within the data entry fields.

20. The non-transitory machine-readable medium of claim 14, wherein the user information entered within the data entry fields is encrypted prior to the receiving, and wherein the operations further comprise decrypting the encrypted information received by the system corresponding to the user information entered within the data entry fields.